## Research Article

# Türk Fen ve Sağlık Dergisi Turkish Journal of Science and Health

Volume 6 Number 3 Year 2025 Pages 172-180

e-ISSN: 2717-7173

https://dergipark.org.tr/tr/pub/tfsd

Received: 18.08.2025 Accepted: 29.08.2025 <a href="https://doi.org/10.51972/tfsd.1767549">https://doi.org/10.51972/tfsd.1767549</a>

## Coping Attitudes of Women with Fibrocystic Breast Changes Towards Anxiety of Getting Cancer and Depression

Ünzile Yıldırım 1\* D, Gülbahtiyar Demirel D

<sup>1</sup>Espiye State Hospital, Delivery Room, Espiye, Giresun, Türkiye <sup>2</sup>Sivas Cumhuriyet University, Faculty of Health Sciences, Department of Midwifery, Sivas, Türkiye

#### ABSTRACT:

**Purpose:** The present study was conducted to examine coping attitudes of women with fibrocystic breast changes toward anxiety about getting cancer and depression.

Material and Methods: 360 women (control group: 180 people, case group: 180 people) who referred to the Cancer Early Diagnosis Screening and Training Center (CEDSTC) were included in this prospective cohort study with comparative analysis. Data were collected using "Personal Information Form", "Trait Anxiety Inventory (TAI)", "Beck Depression Inventory (BDI)", and "Coping Strategies with Stress (COPE)". The two independent samples t-test, Pearson correlation test, variance analysis for repeated measurements, Bonferroni test, and Chi-square test were used in the evaluation of the data.

Results: According to the research findings, the level of anxiety and depression higher after the first interview and the first and third month interviews in the case group consisting of women with fibrocystic breast changes than in the control group (p<0.05). The women in the groups had a moderate coping attitude during the interviews conducted in the first and third months. Breastfeeding women had lower anxiety levels than those who did not breastfeed, and their coping attitude was higher (p<0.05). The level of anxiety in women with a breast cancer history in their family was higher than in women without, and the depression level was higher in women with fibrocystic breast changes than in women without (p<0.05).

**Conclusion:** It was determined that the presence of fibrocystic breast disease increased the anxiety and depression levels in women, and their coping attitude remained moderate.

Keywords: Anxiety; cancer; depression; fibrocystic breast; women

\*Corresponding author: Ünzile Yıldırım, email: <a href="mailto:yldrm">yldrm</a> unzile@hotmail.com

### **INTRODUCTION**

Breast cancer is the most common cancer in women worldwide and the second leading cause of cancer death (Ferlay et al., 2015). Having a benign breast disease (cysts, adenosis, fibrosis, epithelial hyperplasia, etc.) is considered a risk factor in the formation of breast cancer (Smeltzer and Bare, 2010; Cakir et al., 2016; Kolak et al., 2017; Aldemir et al., 2019). The most common benign lesions of the breast are fibrocystic changes. Fibrocystic breast changes increase the risk of breast cancer, and the cancer risk increases exponentially in some special

types (epithelial hyperplasia, atypical proliferative diseases, atypical ductal hyperplasia, and non-atypical diseases) (Parsak et al., 2010; Global Burden of Disease Cancer Collaboration, 2017; Kolak et al., 2017; Aldemir at al., 2018; Haydar and Ozguven, 2022). A study showed that 20-25% of the newly diagnosed breast cancer patients were women with a history of benign breast disease (Keyzer-Dekkera et al., 2012).

The anxiety about the evolution of fibrocystic breast disease into breast cancer in women diagnosed with this disease may cause a complex physical, mental,

and social situation in which both life and femininity are perceived as being under threat (Bayraktar, 2015; Lou et al., 2015; Kolak et al., 2017; Aldemir at al., 2018; Haydar and Ozguven, 2022). The physical problems experienced by women diagnosed with fibrocystic breast disease who are worried about developing breast cancer include pain, infection, tissue perfusion disorders and lymphedema. Psychosocial problems include deterioration in body image, decreased self-esteem, thought of losing femininity, sexual dysfunction, anxiety, depression, hopelessness, guilt and shame, fear of relapse, isolation and fear of death (Bayraktar, 2015; Lou et al., 2015; Ozer, 2015; Aldemir et al., 2018). Studies show that women with fibrocystic breast disease have high levels of anxiety (Eskelinen et al., 2011; Lou et al., 2015; Aldemir et al., 2018), depression (Lou et al., 2015; Aldemir et al., 2018), and stress when compared to those without fibrocystic breast disease (Aldemir et al., 2018).

Protection from psychosocial problems and treatment is of utmost importance in terms of individual and public health. Problems such as depression and anxiety, directly affect the coping attitude of the person, and increase the severity of these existing psychosocial problems (Cetinkaya et al., 2013). When the concerns of women who have anxiety about cancer are resolved, their complaints decrease or disappear (Aldemir et al., 2018). Therefore, doctors, midwives, and nurses, who take part in primary care services and are in constant contact with people, play a key role in solving psychosocial problems and meeting the needs of patients. Midwives and nurses, especially, have important responsibilities in the protection of women's physical and mental health, in providing women with health habits, in developing positive attitudes and behaviors regarding women's health, and in changing the negative ones (Demirel and Golbasi, 2015; Aldemir et al., 2018). Unfortunately, the mental dimension is not adequately addressed by midwives and nurses, in common problems such as fibrocystic breast change (Aldemir et al., 2018). Although it is a critical problem, there are not enough studies examining how women with fibrocystic breast changes cope with their anxiety about getting cancer and with depression.

## MATERIAL and METHODS Purpose and Type of the Study

This study was conducted to examine the coping attitudes of women with fibrocystic breast changes towards anxiety about getting cancer and depression. The population of this prospective cohort study with comparative analysis consisted of women who were referred to CEDSTCs in Sivas (Suşehri Community Health Center CEDSTC-503 people and Ibn-i Sina Community Health Center CEDSTC-548 people) in 2016 due to breast problems.

## **Sampling and Participant**

The 360 women meeting the research inclusion criteria (aged 15-60; volunteering to participate in the study; not having another breast disease other than fibrocystic breast changes; not having a psychiatric disease; and not being in pregnancy, birth, and puerperium periods) and exclusion criteria (having a breast disease other than fibrocystic breast changes, unable to reach in 1st-3rd months, being pregnant) were included in the sample. The power analysis (Gpower 3.1.9.7) was used to determine the sample size of the study. Based on the item scores of the scale related to easy decision making (2.39±0.74, 2.62±0.84) in the reference study (Eskelinen and Ollonen, 2011), at the  $\alpha$ =0.05 type I error level,  $\beta$ =0.20 type II error level, 0.80 test power, the number required to be included in each group for the Cohen (d) effect size = 0.30 calculated for the independent samples t test (two groups) was calculated as n=176. Taking into account possible data losses, a total of 360 individuals, 180 for each group were included in the study. Of the 360 women, 172 were included from the Susehri Community Health Center CEDSTC, and 188 from the Ibn-i Sina Community Health Center CEDSTC, by weighing according to the ratios representing the population.

## **Data Collection Tools**

Data were collected using "Personal Information Form", "Trait Anxiety Inventory (TAI)", "Beck Depression Inventory (BDI)" and "Coping Strategies with Stress (COPE)".

Personal Information Form: The form created by the researchers in line with the literature includes 30 questions regarding age, profession, marital status,

breastfeeding status, number of children, breast complaints, and interventions to be done in fibrocystic breast changes (Eskelinen and Ollonen, 2011; Keyzer-Dekkera et al., 2012; Ozer, 2015; Lou et al., 2015; Cakir et al., 2016; Aldemir et al., 2018; Aldemir et al., 2019).

Trait Anxiety Inventory (TAI): The scale was developed by Spielberger et al. (1970) and was adapted into Turkish by Öner and Le Compte (1985). The alpha reliability coefficient of the TAI was between 0.83 and 0.87, and was found to be 0.90 in our study. TAI is a 20-item inventory. There are two types of statements in the scale: these are direct and reversed coded statements. Direct statements express negative feelings, and reversed statements express positive feelings. While this second type of statement is scored, those with a weight value of 1 are changed to 4, and those with a weight value of 4 1. The number of reversed are changed to statements on the scale is 7. These are the items 1, 6, 7, 10, 13, 16, 19. The total score for direct and reversed statements is calculated. The total score for the reversed statements is subtracted from the total obtained for direct statements. predetermined constant value is added to this number. This value is 35 for the TAI. The last value obtained is the anxiety score of the individual.

Beck Depression Inventory (BDI): BDI is a 21-item scale measuring vegetative, emotional, cognitive and motivational symptoms of depression. Each item is scored on a scale ranging from 0 to 3. The depression score is obtained by adding these scores. 0-9 indicates minimal depression, 10-16 mild depression, 17-29 moderate depression, and 30-63 severe depression. It can be applied to adolescents and adults over the age of 15. Validity and reliability studies of the inventory were done by Hisli (1988), Tegin (1987), Aydin and Demir (1989) in Turkey. The Cronbach alpha value of BDI was found to be 0.90, in the study of Arkar and Safak (2004), and 0.88 in our study.

Coping Strategies with Stress (COPE): This self-report questionnaire consists of 60 items and 15 subscales. The sum of the first five scores of these subscales (1, 2, 3, 4, 5, 14, 16, 17, 25, 28, 29, 30, 31, 38, 43, 45, 46, 47, 58, 59) indicates the problem-focused coping score, the second five (6, 7, 8, 9, 10, 18, 20, 22, 24,

27, 36, 37, 40, 41, 48, 49, 50, 51, 57, 60) indicates the emotion-focused coping score, and the sum of the last five subscale scores (11, 12, 13, 15, 19, 21, 23, 26, 32, 33, 34, 35, 39, 42, 44, 52, 53, 54, 55, 56) indicates the non-functional coping score. The Cronbach's alpha value of the questionnaire is 0.79 in the study of Agargun et al. (2005) and 0.76 in our study.

## **Application of Data Collection Tools**

The women giving written consent to participate in the study were taken to a separate room, and the forms were administered by the researcher using the face-to-face interview technique. The results of the examinations were given to women who were referred with a breast complaint within 4 weeks at the latest. Later, women can be called for examination, (clinical breast examination, mammography, etc.) again. Forms (Personal Information Form, TAI, BDI, COPE) were administered to all women (671 people) who came to the CEDSTC unit for the first time due to breast problems and volunteered to participate in the study. Although the 180th person were reached in the case group, women continued to be included in the sample until the 180th person were reached in the control group. 311 women were excluded from the follow-up process in line with the exclusion criteria. The same forms (TAI, BDI, COPE) were reapplied to women in the first and third month after the examination result was announced. The first group (control group: 180 people) were those not diagnosed with any breast disease, and the second group (case group: 180 people) were those diagnosed with fibrocystic breast changes.

## **Statistical Analysis**

In the evaluation of the data, mean and standard deviation values were used for the data obtained by measurement, as it provided a normal distribution. The suitability of the data obtained from the measurement for normal distribution was examined with the Kolmogorov-Smirnov test, and a two independent samples t test was used for comparison. Pearson correlation test was used for the relationship between variables, variance analysis and Bonferroni test were used for repeated

measurements for the difference between variables, and the Chi-square test was used to examine the data obtained by counting. Statistical significance was examined at the 0.05 significance level in the evaluation of the data, and version 23 of SPSS was used.

## **Ethical Approval**

Before starting the study, written permission was obtained from Sivas Public Health Directorate (number 19448395-771) and Cumhuriyet University Non-Interventional Clinical Research Ethics Committee (ethical decision no: 2016-10/08). Women who met the research criteria were informed about the purpose and content of the study, and their written consent was obtained for their participation.

### **RESULTS**

Most of the women in the study had primary education and above, were married, lived in a nuclear family structure, and did not work. The mean age of menarche for women in the control and case groups was 13.20±1.35 and 13.17±1.19; the mean age of first birth was 19.47±2.23 and 19.55±1.55; the mean body mass index (BMI\*) was 25.92±4.74 and 24.39±3.30, respectively. Most of the women gave birth to 3 or more children and breastfed their babies for about 1-2 years. Women may usually have a chronic disease such as diabetes or thyroid disease, and they may consume beverages containing caffeine daily, have not experienced an upsetting situation recently, and do not use hormonal family planning methods.

The mean duration of breast complaints in women was 9.13±8.76 and 8.87±4.89 months in the control and case groups, respectively, and the most common complaint was pain. The proportion of women with a relative or family history of fibrocystic breast changes and breast cancer was low. Women emphasized the importance of interventions such as breastfeeding and regular breast checks in the fight against fibrocystic breast changes. After the diagnosis of fibrocystic breast change, professional help was generally not sought. Instead, patients preferred to seek help from the doctor (p>0.05) (Table 1).

In the first interview, the trait anxiety scores of the women were higher in the control group. However, by the first month after the test results were learned, the anxiety scores were close to each other, with a slight increase noted. While the anxiety levels of the women in the control group decreased slightly in the interview held in the third month (47.13±2.30), the anxiety levels of the women in the case group increased (56.26±2.56) (p<0.05). While depression was mild in the groups in the first interview, minimal depression was seen in the control group in the first and third months (6.22±2.54, 5.60±2.15), and depression was moderate in the case group (17.73±2.97, 24.00±2.89). In terms of cognitive and somatic-affective dimensions of BDI, there was minimal depression in the first interview among the groups. While minimal depression persisted in the control group in terms of cognitive and somaticaffective dimensions during the first and third months, the case group had mild depression (p<0.05)

The women in the groups had a moderate coping attitude at the first interview, conducted in the first month, and in the third month. It was observed that women in the case group used slightly more coping strategies than those in the control group during the first and third months (p<0.05). It was determined that women also had a moderate attitude in the dimensions of COPE (problem-focused, emotionfocused, non-functional). The problem-focused coping attitude in the case group, while the emotionfocused coping attitude in the control group, were slightly higher after the interviews (p<0.05) (Table 3). Although the anxiety level in the case group, which started to increase after the first interview, was 48.37±3.46 in the first month, it reached its highest level, with 56.26±2.56 in the third month. While the trait anxiety scores of the women in the control group were 45.96±3.52 in the first interview, these scores reached the level of 48.05±5.43 with a slight increase in the first month. There was a difference between the measurements, in terms of trait anxiety scores in both groups (p<0.05). There was a difference between the first interview, first month, and third month measurements in terms of depression (overall scale, cognitive and somaticaffective dimensions).

Table 1. Distribution of Women's Characteristics Regarding Breast Complaints (n= 360)

Characteristics Regarding Breast Complaints	Control Group (n:180) x± SD	Case Group (n:180) x± SD	t/p
Breast complaint duration (months)	9.13±8.76	8.87±4.89	2.560/ 0.251
	n (%)	n (%)	<b>X</b> <sup>2</sup> / <b>p</b>
Most common breast complaints	• •		
Breast pain	125(69.4)	131(72.8)	F 100/
Breast tenderness	43(23.9)	45(25.0)	5.109/
Breast lump	12(6.7)	4(2.2)	0.276
Family history of fibrocystic breast change			
Yes	20(11.1)	17(9.4)	0.271/
No	160(88.9)	163(90.6)	0.603
Family history of breast cancer	, ,	, ,	
Yes	39(21.7)	42(23.3)	0.143/
No	141(78.3)	138(76.7)	0.705
Interventions to fight with fibrocystic breast changes			
Breastfeeding	19(10.6)	26(14.4)	
Regular breast check	64(35.6)	54(30.0)	
Chronic disease treatment	4(2.2)	3(1.7)	51.485/
Avoiding beverages containing caffeine	3(1.7)	10(5.6)	0.091
Low fat diet	5(2.8)	0(0.0)	
Hormone-free family planning method	12(6.7)	10(5.6)	
Having painkiller and wearing fitting size bras	2(1.1)	2(1.1)	
All	71(39.4)	75(41.6)	
Getting professional help after diagnosis	. ,	, ,	
Yes	24(13.3)	25(13.9)	0.024/
No	156(86.7)	155(86.1)	0.878
The person giving professional help after diagnosis	, ,	, ,	
Doctor	12(50.0)	14(56.0)	0.505/
Nurse	3(12.5)	4(16.0)	0.527/
Midwife	9(37.5)	7(28.0)	0.769

Two independent sample t tests; Chi-square Test;  $\alpha \hbox{:}~0.05$ 

Table 2. Anxiety and Depression Mean Scores of Women with Fibrocystic Breast Changes (n= 360)

Scales	Group		
	Control Group (n:180) x± SD	Case Group (n:180) x ± SD	t/p
1TAI (first interview)	45.96±3.52	43.05±5.68	6.553/0.001*
TAI (first month)	48.05±5.43	48.37±3.46	.541/0.131
TAI (third month)	47.13±2.30	56.26±2.56	35.582/0.003*
2BDI (first interview)	14.11±4.75	13.46±3.16	1.541/0.124
BDI (first month)	6.22±2.54	17.73±2.97	44.336/0.001*
BDI (third month)	5.60±2.15	24.00±2.89	62.047/0.004*
BDI Cognitive Dimension (first interview)	6.34±3.00	5.77±2.45	1.999/0.046*
BDI Cognitive Dimension (first month)	2.72±1.59	10.19±2.15	29.404/0.001*
BDI Cognitive Dimension (third month)	3.22±1.67	13.35±2.12	53.739/0.001*
BDI Somatic-Affective Dimension (first interview)	7.77±3.04	7.69±2.00	.287/0.774
BDI Somatic-Affective Dimension (first month)	3.51±2.13	10.54±1.97	33.856/0.001*
BDI Somatic-Affective Dimension (third month)	2.38±1.44	10.65±2.02	32.659/0.001*

 $1 TAI: Trait\ Anxiety\ Inventory;\ 2 BDI:\ Beck\ Depression\ Inventory;\ Two\ independent\ sample\ t\ tests;\ \alpha:0.05;\ *Significant\ difference$ 

However, there was a mild to moderate depression in the case group and a mild to minimal depression in the control group according to the overall scale. In the cognitive and somatic-affective dimensions of the BDI, minimal to mild depression in the case group and minimally decreasing depression in the control

group were found, where the difference within the group was significant in the measurements (p<0.05). The coping attitude, which was initially reported as 158.76±5.49 at the first interview in the case group, increased to 160.29±4.88 in the first month and to 160.74±5.04 in the third month. In the control group,

there was no statistically significant difference between the within-group measurements in terms of COPE and its dimensions (problem-focused, emotion-focused, non-functional) (p>0.05). Considering the measurements within the group, there was a difference between the first interview

and the third month interview in the problem-focused coping attitude, and between the first month interview and the third month interview in the emotion-focused coping attitude, in the case group (p<0.05) (Table 4).

Table 3. Coping Strategies Mean Scores of Women with Fibrocystic Breast Changes (n= 360)

	Group		
Scales	Control Group (n:180)	Case Group (n:180)	t/p
	х± SD	х± SD	
1COPE (first interview)	160.86±15.00	158.76±5.49	1.769/0.078
COPE (first month)	158.86±4.71	160.29±4.88	2.838/0.005*
COPE (third month)	159.63±4.66	160.74±5.04	2.172/0.003*
COPE Problem-Focused Coping (first interview)	55.90±3.30	57.89±7.31	3.329/0.001*
COPE Problem-Focused Coping (first month)	55.66±2.67	56.47±2.62	2.910/0.004*
COPE Problem-Focused Coping (third month)	55.29±2.71	55.87±2.61	2.079/0.038*
COPE Emotion-Focused Coping (first interview)	53.17±2.82	52.59±5.04	1.356/0.176
COPE Emotion-Focused Coping (first month)	54.27±2.73	51.53±2.68	9.612/0.001*
COPE Emotion-Focused Coping (third month)	54.09±2.91	53.00±2.68	3.710/0.001*
COPE Non-Functional Coping (first interview)	49.68±3.07	50.38±6.27	1.346/0.179
COPE Non-Functional Coping (first month)	50.37±2.47	50.86±2.81	1.774/0.077
COPE Non-Functional Coping (third month)	51.36±2.67	50.76±3.16	1.946/0.062

1COPE: Coping Strategies with Stress; Two independent sample t tests;  $\alpha$ :0.05; \*Significant difference

**Table 4.** Differences Between Measurements of Anxiety, Depression and Coping Attitude of Women with Fibrocystic Breast Changes (n= 360)

Group		Measurements		
	First interview x± SD	First month x± SD	Third month x± SD	F/p
		(1TAI)		
Case Group	43.05±5.68b,c	48.37±3.46a,c	56.26±2.56a,b	742.011/0.001*
Control Group	45.96±3.52b,c	48.05±5.43a,c	47.13±2.30a,b	19.511/0.001*
		(2BDI)		
Case Group	13.46±3.16b,c	17.73±2.97a,c	24.00±2.89a,b	526.025/0.001*
Control Group	14.11±4.75b,c	6.22±2.54a,c	5.60±2.15a,b	369.942/0.001*
		<b>BDI Cognitive Dimensio</b>	n	
Case Group	5.77±2.45b,c	10.19±2.15a,c	13.35±2.12a,b	482.372/0.001*
Control Group	6.34±3.00b,c	2.72±1.59a,c	3.22±1.67a,b	145.650/0.001*
-	В	DI Somatic-Affective Dime	nsion	
Case Group	7.69±2.00b,c	10.54±1.97a	10.65±2.02a	99.214/0.001*
Control Group	7.77±3.04b,c	3.51±2.13a,c	2.38±1.44b,a	283.448/0.001*
		3 <b>COPE</b>		
Case Group	158.76±5.49b,c	160.29±4.88a	160.74±5.04a	7.369/0.001*
Control Group	160.86±15.00	158.86±4.71	159.63±4.66	2.136/0.136
	COPE	Problem-Focused Coping I	Dimension	
Case Group	57.89±7.31c	56.47±2.62	55.87±2.61a	2.326/0.003*
Control Group	55.90±3.30	55.66±2.67	55.29±2.71	1.021/0.578
	COPE	Problem-Focused Coping I	Dimension	
Case Group	52.59±5.04	51.53±2.68c	53.00±2.68b	2.512/0.002*
Control Group	53.17±2.82	54.27±2.73	54.09±2.91	1.817/0.549
	COPE	Non-Functional Coping D	imension	
Case Group	50.38±6.27	50.86±2.81	50.76±3.16	1.534/0.183
Control Group	49.68±3.07	50.37±2.47	51.36±2.67	2.732/0.094

1TAI: Trait Anxiety Inventory; 2BDI: Beck Depression Inventory; 3COPE: Coping Strategies With Stress; Analysis of Variance for Repeated Measurements; a:0.05; \*significant difference; Bonferroni test; asignificant difference with the first measurement; bsignificant difference with the second measurement; csignificant difference with the third measurement

The difference between the groups in terms of anxiety, depression and coping mean scores was not found statistically significant after the interviews according to breastfeeding status of women with fibrocystic breast changes, family history of fibrocystic breast changes, family history of breast cancer, presence of a chronic disease such as diabetes and thyroid, daily consumption of caffeine containing beverages, using hormonal family planning methods, having breast complaint and duration of breast complaint (*p*>0.05).

#### **DISCUSSION**

In the study, homogeneity was achieved in the groups in terms of socio-demographic, obstetric, health-related, and breast complaints characteristics (p>0.05). The homogeneity between these variables in the groups is important to ensure that there is no difference between women's anxiety about getting cancer, depression, and their attitudes to cope with these conditions.

Psychosocial problems are mostly experienced in women with fibrocystic breast disease due to the risk of cancer (Aldemir et al., 2018). In the study, the trait anxiety scores of the women in the first interview were found to be higher in the control group compared to those in the experimental group. However, the anxiety levels of the women in the control group decreased slightly (47.13±2.30) and their anxiety levels in the case group increased (56.26±2.56) after the women learned about the examination results (p<0.05). Studies have reported that women with benign breast disease have higher anxiety levels than those without (Eskelinen and Ollonen, 2011; Balci et al., 2013; Yilmaz et al., 2015). The study findings show that the presence of benign breast disease increases the level of anxiety in women which is similar to other studies conducted on this subject.

Psychological problems such as depression, which is one of the most common problems in societies and has a lifetime prevalence of 14-21% in women (WHO, 2017), are frequently seen in women diagnosed with fibrocystic breast disease due to anxiety about developing cancer (Bayraktar, 2015; Ozer, 2015; Aldemir et al., 2018). Studies have shown that women with fibrocystic breast disease have higher

levels of depression than women without breast disease (Lou et al., 2015; Aldemir et al., 2018). In the study, there was a mild depression in the groups at the first interview. The women in the control group had minimal depression in the first and third months; meanwhile, women in the case group had moderate depression. There was minimal depression in the control group in terms of cognitive and somaticaffective dimensions, and mild depression in the case group in the first and third months after the test results were learned (p<0.05). The study findings are similar to findings from other studies, and the presence of benign breast disease increases the level of depression in women. However, Fairbanks et al. (2017) found that there was no significant difference between depression levels of healthy women without breast disease and women with benign breast disease.

The process of dealing with life-threatening diseases such as breast cancer and its risks is critical (Ollonen et al., 2005). All of the cognitive, emotional and behavioral responses of the individual to resist the events or factors that create stress and to withstand these situations are defined as coping (Cetinkaya et al., 2013). In some studies that the coping attitudes in patients with breast cancer risk or diagnosed with breast cancer were not at the desired level (Ollonen et al., 2005; Aydogan et al., 2012). Women in the groups had a moderate coping strategy, and it was observed that the women in the case group employed slightly more coping strategies than the control group in the first and third months (p<0.05). Coping attitudes of women with breast cancer risk, similar to other studies, are not at the desired level in our study.

Coping has two main functions: problem-focused coping and emotion-focused coping (Ozarslan, 2013). Women make an effort to resolve or change the situation that causes distress by exhibiting problem-focused behaviors about whether they have cancer or not. If women exhibit emotion-focused behaviors, they exhibit thoughts or behaviors that do not change the situation that causes distress, but make them feel good (Agargun et al., 2005). It was found in the studies that taking a walk, chatting, thinking and interpreting the situation from different angles, , praying, and

seeking refuge in God were important factors in feeling the power and support in the process of coping with cancer and the risk of cancer (Cetinkaya et al., 2013; Hicdurmaz and Oz, 2013; Albayrak and Kurt, 2016). The study determined that women had moderate scores in the subscales of COPE (problem-focused, emotion-focused, non-functional), and that problem-focused coping scores in the case group were slightly higher, and emotion-focused coping scores in the control group after the interviews (p<0.05). The findings of the study show that women with benign breast disease who are worried about having breast cancer, use problem-focused and emotion-focused coping attitudes to manage their concerns, although it is not at the desired level.

Not breastfeeding, family history of benign proliferative disease, and history of breast cancer in the family/relatives increase the risk of breast cancer in women (Cakir et al., 2016; Acikgöz and Yildiz, 2017; Aldemir et al., 2019; Haydar and Ozguven, 2022). While a study revealed that not breastfeeding increases the risk of breast cancer (Lee, 2003), studies conducted with women with fibrocystic breast disease or breast cancer have shown that the psychosocial well-being of women having a history of fibrocystic breast changes (Cakir et al., 2016) and breast cancer in their family/relatives, was negatively affected by anxiety about developing breast cancer (April-Sanders et al., 2018; Haydar and Ozguven, 2022). Contrary to other studies, the difference between the groups in terms of these risk factors was found to be statistically insignificant (p>0.05) after the interviews, including the first and third month interviews, in our study. In contrast, it was found to be significant within the group (p<0.05). The lack of difference between the control group and the case group in our study in terms of these risk factors could be attributed to the diagnosis of fibrocystic breast disease only in the case group.

## **CONCLUSION**

In conclusion, the study determined that fibrocystic breast disease increases anxiety and depression in women due to fear of developing breast cancer, and the attitude towards coping with these issues was not at the desired level (moderate). Healthcare professionals are recommended to conduct

screening and regular controls for fibrocystic breast disease, to inform women about individual risk perception and accurate assessment, and to provide emotional support.

## **Acknowledgments**

The authors would like to thank to women for their involvement in this research.

## **Conflict of Interest**

The authors declare that there are no conflict of interests.

#### **REFERENCES**

- Acikgoz, A., Yildiz, E. A. (2017). Etiology and risk factors of breast cancer. Journal of Occupational Therapy and Rehabilitation, 5(1), 45-56.
- Agargun, M. Y., Besiroglu, L., Kiran, U. K., et al. (2005). The psychometric properties of the COPE inventory in Turkish sample: a preliminary research. Anatolian Journal of Psychiatry, 6, 221-226.
- Albayrak, A., Kurt, E. (2016). Relationship between depression levels due to pain and loss of limb (mastectomy) and quality of life and religiosity in patients with breast cancer. DEUİFD Psychology of Religion Special Edition, p. 41-81.
- Aldemir, K., Gurkan, A., Taskin Yilmaz, F., et al. (2019). Participation of first-degree relatives of women with breast cancer in screening programs. Preventive Care in Nursing & Midwifery Journal, 9(2), 48-57.
- Aldemir, K., Gurkan, A., Yilmaz, F.T., et al. (2018). Psychosocial health level and quality of sexual life in women with fibrocystic breast disease. International Journal of Women's Health and Wellness, 4(1), 69.
- April-Sanders, A., Oskar, S., Rachel, C., et al. (2018). Predictors of breast cancer worry in a Hispanic and predominantly immigrant mammography screening population. Women's Health Issues, 27(2), 237–244.
- Arkar, H., Safak, C. (2004). Exploring dimensions of the Beck Depression Inventory in a clinical sample. Turkish Journal of Psychology, 19, 117-123.
- Aydogan, U., Doganer, Y. C., Borazan, E., et al. (2012). Relationship between depression and anxiety levels and attitudes of coping with disease in cancer patients. Turkish Journal of Family Practice, 16(2), 55-60.
- Balci, N., Kantekin, V., Sunay, D., et al. (2013). Mastalgia, anxiety and related factors: case-control study. Turkish Journal of Family Practice, 17(1), 8-12.
- Bayraktar, N. (2015). Surgical treatment and care in breast cancer. Türkiye Klinikleri Surg Nurs-Special Topics, 1, 7-12
- Cakir, S., Kafadar, M. T., Arslan, S. N., et al. (2016). Review of risk factors in women diagnosed with breast cancer in the light of current data. Florence Nightingale Journal of Medicine, 2(3), 186-194.
- Cetinkaya, S., Vural Ozec, A., Ozdemir, D., et al. (2013).

- Coping strategies with depression and anxiety in glaucoma patients. CumhuriyetMedical Journal, 35, 39-50.
- Demirel, G., Golbasi, Z. (2015). Current status in screening of women's health. Gümüşhane University Journal of Health Sciences, 4(4), 638-659.
- Eskelinen, M., Ollonen, P. (2011). Assessment of general anxiety in patients with breast disease and breast cancer using the Spielberger STAI Self Evaluation Test: a prospective case—control study in Finland. Anticancer Research, 31(5), 1801-1806.
- Fairbanks, F., Andres, M. P., Caldeira, P., et al. (2017). Sexual function, anxiety and depression in women with benign breast disease: a case- control study. Rev Assoc Med Bras, 63(10), 876-882.
- Ferlay, J., Soerjomataram, I., Dikshit, R., et al. (2015). Cancer incidence and mortality worldwide: sources, methods and major patterns in GLOBOCAN 2012. Int. J. Cancer, 136(5), E359-E386
- Global Burden of Disease Cancer Collaboration. (2017). Global, regional, and national cancer incidence, mortality, years of life lost, years lived with disability, and disabilityadjusted life-years for 32 cancer groups, 1990 to 2015: a systematic analysis for the global burden of disease study. JAMA Oncol., 3(4), 524-548. https://dx.doi.org/10.1001/jamaoncol.2016.5688
- Haydar, F. G., Ozguven, R. (2022). The relationship between fibrocystic change of the breast and breast cancer. Maltepe Medical Journal, 14(2), 32-36. https://dx.doi.org/10.35514/mtd.2022.67
- Hicdurmaz, D., Oz, F. (2013). Spirituality as a dimension of coping. Journal of Anatolia Nursing and Health Sciences, 16(1), 1-19.
- Keyzer-Dekkera, C. M. G., Vries, J. D., Esch, L., et al. (2012). Anxiety after an abnormal screening mammogram is aserious problem. The Breast, 21, 83-88.
- Kolak, A., Kamińska, M., Sygit, K., et al. (2017). Primary and secondary prevention of breast cancer. Ann Agric Environ Med., 24(4), 549–553.

## https://dx.doi.org/10.26444/aaem/75943

- Lee, S. Y., Kim, M. T., Kim, S. W., et al. (2003). Effect of lifetime lactation on breast cancer risk: a Korean women's cohort study. International Journal of Cancer, 105(3), 390-393.
- Lou, Z., Li, Y., Yang, Y., et al. (2015). Affects of anxiety and depression on health-related quality of life among patients with benign breast lumps diagnosed via ultrasonography in China. Int. J. Environ. Res. Public Health., 12, 10587-10601.

## https://dx.doi.org/10.3390/ijerph120910587

- Ollonen, P., Lehtonen, J., Eskelinen, M. (2005). Coping and defending as risk factors for breast cancer in patients with breast disease: a prospective case-control study in Kuopio, Finland. Anticancer Research, 25, 4623-4630.
- Oner, N., Le Compte, V. A. (1985). State-trait Anxiety Inventory handbook. Bogazici University, Istanbul, Turkey.
- Ozarslan, Z., Fistikci, N., Keyvan, A., et al. (2013). Stress

- coping strategies of depressive patients. Marmara Medical Journal, 26, 130-135.
- Ozer, N. (2015). Psychosocial needs of women with breast cancer. Türkiye Klinikleri Surg Nurs-Special Topics, 1, 16-22.
- Parsak, C. K., Sakman, G., Akçam, T., et al. (2010). Histopathology of fibroadenoma and fibrocytic disease of the breast. The Journal of Medical Sciences, 2(4), 1-4.
- Smeltzer, S. C., Bare, B. G. (2010). Brunner and suddarth. Medical Surgical Nursing, 10th Edition, Philadelphia: Lippincott Williams and Wilkins, p.1445-1484.
- World Health Organization. (2017). Global health observatory data, Geneva, Web Address: https://www.who.int/gho/en/
- Yilmaz, E. M., Celik, S., Arslan, H., et al. (2015). Relation between mastalgia and anxiety in a region with high frequency of posttraumatic stress disorder. J Breast Health, 11, 72-75.