



Evaluation of Attitudes and Behavioral Changes in Relatives of Patients with Breast Cancer

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Öz

Yakınlarında Meme Kanseri Bulunan Kişilerde Tutum ve Davranış Değişikliklerinin Değerlendirilmesi

Amaç: Bu çalışmanın amacı yakınlarında meme kanseri bulunan kişilerin bilgi ve destek ihtiyaçlarının ne ölçüde karşılandığını belirlemektir.

Yöntem: Bu kesitsel tanımlayıcı çalışma, Mayıs-Eylül 2019 tarihleri arasında Onkoloji Bilim Dalı'nda yakınları meme kanseri tanısı ile izlenen 177 katılımcı ile gerçekleştirilmiştir. Katılımcılara anket ve sosyodemografik özellikler ile "Bilgi ve Destek İhtiyaçları Ölçeği" uygulanmıştır.

Bulgular: Katılımcıların ortalama yaşı 39,70 ± 14,10 idi. 66'sı (% 37,30) ilköğretim mezunu, 106'sı (% 59,90) ev hanımı ve 124'ü (% 70,10) evliydi. Kadınlarda en yaygın meme kanseri tarama yöntemleri % 68,40 (121) ile kendi kendine muayene ve % 54,20 (96) ile mamografi idi. Meme kanseri taraması yaptıran katılımcı sayısı 78 (% 44,30) idi. Bilgi gereksinimleri ortalama puanı 3,50 ± 0,09 ve destek gereksinimleri ortalama puanı 3,30 ± 0,18 idi. İstatistiksel analizler SPSS 21.0 programı ile yapıldı.

Sonuç: Yakın çevresinde meme kanseri olan kadınların meme kanserinin nedenleri, tarama yöntemleri, tedavi yöntemleri ve önlenmesi konusunda sağlık profesyonelleri tarafından bilgi durumlarının, tutumlarının ve ihtiyaçlarının belirlenmesi gerekmektedir. Bu sayede meme kanseri taramasının yaygınlaşması sağlanarak erken tanı konulan hasta sayısı artacak ve tedavide daha yüksek başarı sağlanacaktır.

Anahtar Kelimeler: Meme Kanseri, Kendi Kendine Muayene, Bilgi, Destek

Abstract

Evaluation of Attitudes and Behavioral Changes in Relatives of Patients with Breast Cancer

Objective: The aim of this study was to determine the information and support needs of breast cancer patients' relatives and to what extent they were met.

Methods: This cross-sectional descriptive study was conducted with 177 participants whose relatives were followed up with breast-cancer diagnosis in the Oncology Department between May and September 2019. The questionnaire and sociodemographic characteristics and "Information and Support Needs Scale" were applied to the participants.

Results: The mean age of the participants was 39.70±14.10. 66 (37.30%) were primary school graduates, 106 (59.90%) were housewives and 124 (70.10%) were married. The most common breast cancer screening methods for women were 68.40% (121) self-examination and 54.20% (96) mammography. The number of participants who had breast cancer screening was 78 (44.30%). The mean score of information requirements was 3.50±0.09 and the mean score of support requirements was 3.30±0.18. with Statistical analysis were performed with SPSS 21.0 program.

Conclusion: It is necessary to determine the knowledge status, attitudes and needs of women who have breast cancer in their neighborhood by the health professionals about the causes, screening methods, treatment methods and prevention of breast cancer. In this way, it will increase the spread of breast cancer screening, the number of patients diagnosed early and the success of treatment.

Keywords: Breast Cancer, Self-Examination, Information, Support

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INTRODUCTION

Breast cancer is the most common cancer in women and is among the leading causes of cancer-related deaths worldwide (1, 2). It is the most common cause of cancer-related death in women in the United States (US) (3). According to GLOBOCAN 2018 data published by the World Health Organization and the International Cancer Agency (IARC-International Agency for Research on Cancer), there were 2.100.000 new breast cancer cases and 627.000 cancer-related deaths. It has been observed that 25% of cancers in women and 15% of cancer-related women deaths are because of the breast cancer. In 2018, there were 522.513 new cancer cases in Europe and 234.087 in the US. In Turkey 22.345 new cases of breast cancer were detected as 24.30% of all cancer cases. Breast cancer is the first in cancer-related deaths and constitutes 13% of this group with 5452 cases (4). Breast cancer is the second most common cancer diagnosed worldwide, including low and middle income countries (5). Incidence rates are highest in North America, Australia and New Zealand, lowest in Western and Northern Europe, and Asia and Sub-Saharan Africa (2). These international differences are probably associated with social changes as a result of industrialization (for example, changes in fat intake, body weight, age of menarche, breastfeeding, less pregnancy and first birth age). Studies on immigration models to the US are consistent with the importance of cultural and / or environmental changes (3). In the US, breast cancer accounts for more than 260.000 cases each year and is responsible for more than 40.000 deaths (3).

Although the etiology of breast cancer is not fully known, hormonal, environmental and genetic factors are defined as risk factors (6). Female gender, advanced age, having a history of breast cancer in the first-degree relatives, BRCA-1 and BRCA-2 gene mutations are defined as the greater risk factors. In addition, early menarche (<12 years old), late menopause (> 55 years old), age of first birth over 30 years of age, alcohol, smoking, fatty eating and high Body Mass Index (BMI) are also identified as risk factors (7).

Although it increases the success rate of early diagnosis of breast cancer, it prolongs the life span. For this purpose, breast examination and breast examination mammography are recommended by the physician within the scope of screening programs (1). Awareness for breast cancer in women is possible by providing training and consultancy on the importance of early diagnosis and breast cancer screening methods.

A population-based screening, which starts at the age of 40 and ends at age 69, is recommended for the breast cancer target population and screening frequency in women throughout our country. The ideal method is screening with mammography (MG) every two years and clinical breast ex-

amination should be performed in every woman who participates in cancer screening in order to increase the effectiveness of mammography. In addition, after the age of 20, every woman should be given counseling to perform breast self-examination (BSE) (8). Additionally women who have a family history of breast cancer in their first-degree relatives and who do not have a genetic syndrome are at a moderate risk of breast cancer. In other words, there is an approximately 15-20 percent chance of having breast cancer in their lifetime. Therefore, it is important that first-degree relatives are informed about this issue and that they are included in the screening.

This study was carried out to determine the information and support needs of breast cancer patients' relatives and to what extent these needs were met.

MATERIALS AND METHODS

This cross-sectional descriptive study was carried out in May 2019-September 2019 with relatives of patients diagnosed with breast cancer who were followed and treated at the Hacettepe University Medical Faculty, Oncology Department. A post-consent questionnaire was administered to 177 patients with breast cancer over 18 years old who agreed to participate.

In the survey, sociodemographic characteristics and a number of personal attitudes were questioned and the "Information and Support Requirements Scale" developed in 2001 by Chalmers and colleagues was applied in order to determine the information and support needs of women with first-degree breast cancer (9). The scale has two sub-dimensions. The Importance of Requirements Scale consists of 29 items, 18 items are for information needs and 11 items are for support needs. In this scale, the order of necessity is determined. Requirements Meeting Scale is also used in the Importance of Requirements Scale, but this section determines to what extent the requirements are met. The scales are Likert type and on the Importance of Requirements Scale, "1 = not important", "2 = less important", "3 = somewhat important", "4 = very important"; It is evaluated as "1 = never met", "2 = less met", "3 = slightly met", "4 = fully met" in the Requirements Meeting Scale. In addition, since each item is not applicable for all participants, there is also the option "0 = not applicable". Firstly, women chose the importance of information and support needs and to what extent they were met. The total score is not obtained from the scales, the average score for each item is determined. So "importance of requirements" and "meeting the requirements" are prioritized due to scores.

Statistical analysis

The data obtained were evaluated with SPSS 21.0 program. The relationship between categorical variables was evaluated

by Chi-Square and Fisher's exact test, the relationship between continuous variables was evaluated by Mann-Whitney U test and Kruskal Wallis Students' t test. The relationship between continuous variables was evaluated with the Spearman correlation test. $p < 0.05$ was considered significant.

Table 1. Sociodemographic Characteristics of the Participants (n: 177).

Features	Mean \pm SD
Age	39.75 \pm 14.10
Size	163.75 \pm 6.13
Weight	67.31 \pm 12.27
BMI	25.17 \pm 4.84
Age of menarche	12.81 \pm 1.24
Age of Menopause	48.09 \pm 3.57
Age of first birth	21.9 \pm 4.53
The age of relatives when diagnosed with breast cancer	48.81 \pm 11.47

RESULTS

One hundred and seventy-seven female patients' relatives participated in the study. The ages of the women included in the sample group ranged between 18 and 79. Sociodemographic characteristics of the participants were given in Table 1.

Sixty six (37.30%) of women were primary school graduates, 106 (59.90%) were housewives, 124 (70.10%) were married and 122 (68.90%) had children. The other features about education, profession, income status and marital status were stated in Table 2.

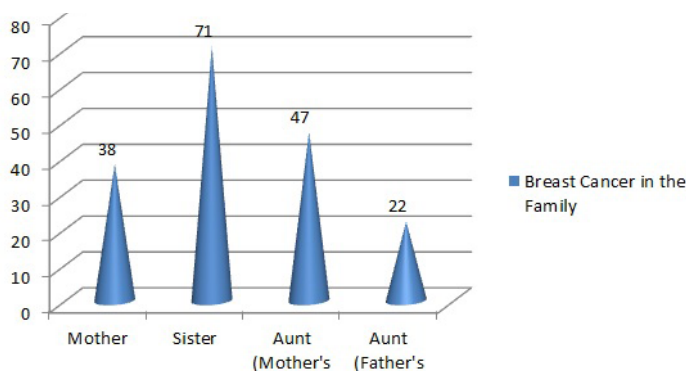


Figure 1. Breast Cancer Distribution in the Family of the Participants

When we look at the status of breast cancer in the family of the participants, most of the siblings who had breast cancer from their siblings were present (Figure 1). One hundred and twenty one (68.40%) of women knew breast cancer screening methods, 46 (26%) knew breast ultrasonography (USG) and 96 (54.20%) knew MG. The number of participants

who had breast cancer screening was 78 (44.10%).

Of those undergoing breast cancer screening, 57 (32.20%) had BSE, 22 (12.40%) had breast USG and 43 (24.30%) had MG (Figure 2).

Reasons for not being screened were given in Table 3.

Breast Cancer Screening

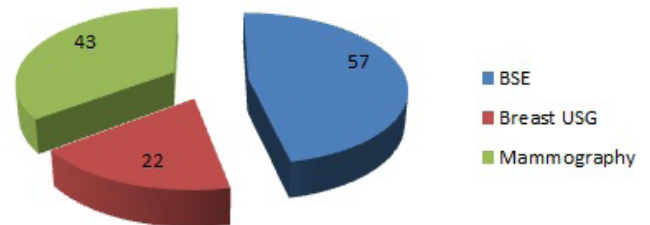


Figure 2. Distribution of the Methods Applied in Breast Cancer Screeners

Table 2. Distribution of Introductory Information of Women (n: 177).

Features	Number (%)
Education Status	
literate	19 (10.7%)
Illiterate	9 (5.1%)
Primary education	66 (37.3%)
High school	39 (22%)
University	44 (24.9%)
Profession	
Retired	6 (3.4%)
Housewife	106 (59.9%)
Self-employment	5 (2.8%)
Officer	12 (6.8%)
Health employee	8 (4.5%)
Other	40 (22.6%)
Income status	
Income less than expenses	114 (64.4%)
Income and expense are equal	50 (28.2%)
Income more than expenses	13 (7.3%)
Marital status	
The married	124 (70.1%)
Single	50 (28.2%)
Other	3 (1.7%)

Table 3. Reasons for not Screening

Reason	Number/Ratio
Ignorance	47 (26.6%)
Do not be afraid of the result	19 (10.7%)
Discomfort of the application	15 (8.5%)
Not seeing yourself at risk	35 (19.8%)
Lack of time	11 (6.2%)
Accessibility to health services	10 (5.6%)
Not relying on screening tests	2 (1.1%)
Monetary deficiency	4 (2.3%)

In the last year, 38 (21.50%) of those who applied to the doctor for information were found. 34 of them (19.20%) followed the advice given by the physician. The participants' information needs importance mean averages 3.50 ± 0.09 and support needs importance averages 3.30 ± 0.18 were found. Participants' overall level of information needs meeting were found to be average scores of 2.18 ± 0.15 and support needs meeting were found to be average scores of 1.92 ± 0.20 .

Information requirement items specified by the participants as very important; "Information about the causes of breast cancer" in the first place (3.66 ± 0.64), "Information about the risk of my own breast cancer" in the second place (3.60 ± 0.79), "Information about the changes I can make in my health habits to reduce my risk of having breast cancer" (3.60 ± 0.69) and "information about what I can do to reduce the pain suffered by my relatives with breast cancer" (3.60 ± 0.65) (Table 4). The first two items, which are crucially important for women among the support need items, are "having someone I can discuss my concerns about my relatives with breast cancer" (3.46 ± 0.84) and "supporting me to reduce my concerns about breast cancer" (3.46 ± 0.88) (Table 4).

The items that the participants stated that they were a bit met among the information requirements items were "giving information about breast examination and showing how it was done" (2.43 ± 1.12) and "what women who have recently been diagnosed with breast cancer can feel (eg fear, anger etc.) information" (2.33 ± 1.01). The information requirements item they stated were never met, "information about genetic counseling for myself and my children" and "information about my daughter's risk of getting breast cancer" (Table 5). Among the support requirements items, the items that are stated to be a bit met are "having someone I can talk about with my concerns about breast cancer" (2.20 ± 1.06), "supporting me to reduce my concerns about breast cancer" (2.09 ± 1.16) and "supporting me to cope with my concerns about my family's disease" (2.08 ± 1.08). The support requirement items that they stated that they were never met were "I do not join a group that will support me", "remind me of mammography appointments" and "remind me of BSE" (Table 5).

DISCUSSION

This study is an important study to determine the information and support needs of the relatives of breast cancer patients and to what extent they are met. Mortality and morbidity of the disease can be reduced with early diagnosis of breast cancer screening programs (1).

When we look at the literature, there are studies on this subject. When we look at the study of Gencturk that the relatives of women with breast cancer examine their intimacy, it is found that there are breast cancer at equal rates of 43.80% (6). In a study by Chalmers et al. 64% of women were found to have breast cancer (10).

Through literature search it was found that BSE rates were similar. In the study conducted by Uzun et al. about the information of nursing students about BSE, it was determined that 31% of the participants performed BSE regularly (11). In the study conducted by Karayurt et al. with 100 participants, BSE rate was found to be 32% (12). In another study conducted with university students the rate of BSE was found to be 47.70% (13).

In previous studies the reasons for not having breast cancer screening were asked and participants stated that they did not get it due to lack of information with the highest rate (1,11,14). This was in line with our findings We think that the lack of information about screening is high due to the low level of education of the participants in this study.

In the research of Guzel et al. about determining the knowledge of women about the early diagnosis methods of breast cancer, women gave the answer that they knew the breast examination the most (15). These findings are in line with our research results.

In the study of Chalmers et al. using the same scale in Canada, the top three information requirement importance items that women stated as very important; It was found as "giving information about breast examination and showing how it is done", "regularly examining my breasts by a health-care professional who is knowledgeable about the subject" and "information about MG screening" (10). In the study of determining the information, support and needs of women with first degree relatives of breast cancer by Andic, the information requirement items that are stated as very important by women are "information about the treatment of breast cancer", and the three items in the second place are; "Information about the causes of breast cancer", "Information about the conditions that cause the risk of developing breast cancer", "Giving information about breast examination and showing how it is done" (15). Tunin et al. performed with the same scale in 2010, the first three information requirement importance items, which were stated as very important by

women; “Information about MG screening”, “Information about my own risk of breast cancer”, “Information about the causes of breast cancer” (16). In this study, the first three items about information needs are “information about the causes of breast cancer”. It was found as “information about the risk of myself becoming breast cancer” and “information about the changes I can make to my health habits to reduce my risk of having breast cancer.”

In Chalmers et al.’s study, the importance of support requirement items that women stated as “very important, regularly examine my breasts by a healthcare professional who is knowledgeable about the subject”, “while learning to perform a BSE, a healthcare professional knowledgeable about the subject is watching me and checking if I am doing it correctly and “supporting me to regularly perform a BSE” (10). In Andic’s study the item, which is mentioned as very important among the support requirement items, is that “a healthcare

Table 4. Item Scores Averages of the Importance of Information and Support Requirements Scale

Item	The Importance of Requirements	Mean \pm SD
2	Information about the causes of breast cancer	3.66 \pm 0.64
7	Information about my own risk of getting breast cancer	3.60 \pm 0.79
11	Information about the changes I can make to my health habits to reduce my risk of having breast cancer	3.60 \pm 0.69
12	Information about what I can do to reduce the pain (sadness) experienced by my relatives with breast cancer	3.60 \pm 0.65
14	Information about conditions that create the risk of developing breast cancer (eg high-fat diet. hormone supportive therapy. etc.)	3.57 \pm 0.75
3	Information about the treatment of breast cancer (eg surgery. radiotherapy. chemotherapy. hormone therapy. side effects etc.)	3.55 \pm 0.81
1	Information on how to talk to my relatives with breast cancer about their lives	3.55 \pm 0.75
4	Information about how women who have been diagnosed with breast cancer can feel (eg fear. anger etc.)	3.51 \pm 0.78
5	Information about how women treated for breast cancer can feel (eg fear. anger. etc.) and physical symptoms of the disease	3.51 \pm 0.75
13	Information on how I can support my relatives with breast cancer	3.47 \pm 0.80
9	Information about my daughter’s risk of getting breast cancer	3.46 \pm 1.05
15	Giving information about breast examination and showing how it is done	3.46 \pm 0.96
17	Information about how I should change my behavior to be healthier	3.44 \pm 0.89
8	Information on how to talk to my family about my risk of having breast cancer	3.44 \pm 0.83
10	Information on how to talk to my children about their risk of getting breast cancer	3.42 \pm 1.03
16	Information about mammography screening (breast film) (eg: how often should I do)	3.41 \pm 0.96
6	Information on how to talk to my family (spouse. children. siblings. etc.) about my relatives with breast cancer.	3.38 \pm 0.91
18	Information on genetic counseling for myself and my children	3.31 \pm 1.01
29	* Supporting me to reduce my concerns about breast cancer	3.46 \pm 0.88
25	* I have someone to talk about my concerns about my breast cancer	3.46 \pm 0.84
23	* Supporting me to deal with my concerns about my relative’s disease	3.45 \pm 0.95
28	* Helping me to make a plan that I can apply if I get breast cancer one day in the future	3.42 \pm 0.95
22	* Supporting me to do breast self-examination on a regular basis	3.41 \pm 0.98
27	* Supporting me to cope with my feelings about my risk of getting breast cancer	3.34 \pm 0.96
21	* Regular examination of my breasts by a healthcare professional with knowledge of the subject (eg doctor. nurse etc.)	3.26 \pm 1.13
24	* While learning to perform a breast self-examination. a knowledgeable healthcare professional will monitor me and check if I am doing it correctly.	3.26 \pm 1.13
19	* Reminding me of my mammography (breast film) appointments (wire etc.)	3.2 \pm 1.1
20	* Reminding me to do my breast self-examination (wire etc.)	3.16 \pm 1.12
26	* I do not join a group that can support me	2.84 \pm 1.36

* Support requirement items

personnel knowledgeable about the subject should monitor me and check whether I have done it correctly while learning to perform a breast examination”, “if I become breast cancer one day, assisted” and “supporting me to regularly perform a BSE” (15). Similarly, Tunin stated that the first three items of support need importance, which are considered as very

important by women; “Regular examination of my breasts by a healthcare professional who is knowledgeable about the subject”, “while learning to perform a BSE, a health care professional knowledgeable about the subject should follow me and check if I am doing it correctly” and “I have someone to discuss my concerns about my relatives with breast

Table 5. Information and Support Requirements Meeting Ranking

Item	Requirement Level	Mean ± SD
15	Giving information about breast examination and showing how it is done	2.43 ± 1.12
4	Information about how women who have been diagnosed with breast cancer can feel (eg fear. anger etc.)	2.33 ± 1.01
13	Information on how I can support my relatives with breast cancer	2.32 ± 0.99
12	12- Information on what I can do to reduce the pain (sadness) experienced by my relatives with breast cancer.	2.32 ± 0.94
5	Information about how women treated for breast cancer can feel (eg fear. anger. etc.) and physical symptoms of the disease	2.30 ± 1.03
1	Information on how to talk to my relatives with breast cancer about their lives	2.26 ± 1.07
17	Information about how I should change my behavior to be healthier	2.26 ± 1.02
7	Information about my own risk of getting breast cancer	2.24 ± 1.15
16	Information about mammography screening (breast film) (eg: how often should I do)	2.21 ± 1.15
11	Information about the changes I can make to my health habits to reduce my risk of having breast cancer	2.19 ± 1.11
3	Information about the treatment of breast cancer (eg surgery. radiotherapy. chemotherapy. hormone therapy. side effects etc.)	2.19 ± 1.00
6	Information on how to talk to my family (spouse. children. siblings. etc.) about my relatives with breast cancer.	2.16 ± 1.14
14	Information about conditions that create the risk of developing breast cancer (eg high-fat diet. hormone supportive therapy. etc.)	2.15 ± 1.16
8	Information on how to talk to my family about my risk of having breast cancer	2.08 ± 1.14
2	Information about the causes of breast cancer	2.09 ± 1.00
10	Information on how to talk to my children about their risk of getting breast cancer	2.00 ± 1.15
9	Information about my daughter's risk of getting breast cancer	1.99 ± 1.18
18	Information on genetic counseling for myself and my children	1.79 ± 1.14
25	* I have someone to talk about my concerns about my breast cancer	2.20 ± 1.06
29	* Supporting me to reduce my concerns about breast cancer	2.09 ± 1.16
23	* Supporting me to deal with my concerns about my relative's disease	2.08 ± 1.08
22	* Supporting me to do breast self-examination on a regular basis	2.05 ± 1.14
27	* Supporting me to cope with my feelings about my risk of getting breast cancer	2.03 ± 1.08
28	* Helping me to make a plan that I can apply if I get breast cancer one day in the future	1.95 ± 1.14
21	* Regular examination of my breasts by a healthcare professional with knowledge of the subject (eg doctor. nurse etc.)	1.93 ± 1.14
24	* While learning to perform a breast self-examination. a knowledgeable healthcare professional will monitor me and check if I am doing it correctly.	1.83 ± 1.14
19	* Reminding me of my mammography (breast film) appointments (by mail or phone)	1.75 ± 1.18
20	* Reminding me to do my breast self-examination (by mail or phone)	1.72 ± 1.08
26	* I do not join a group that can support me	1.50 ± 1.10
* Support requirement items		

cancer” (16). In this study, “supporting me to reduce my concerns about breast cancer” was found to be very important as the support requirement items for the participants, since we made it to patients with breast cancer in their family.

In the study conducted by Chalmers et al., the first three information requirement items that women reported to be fully satisfied were “Giving information about BSE and showing how it is done”, “information about mammography screening” and “information about how I should change my behavior to be healthier” (10). In Andic’s study, the first three items that they stated that the information requirements were met were completely met; It has been found that there is “information about the treatment of breast cancer”, “information about MG screening” and “information about the risk of myself becoming breast cancer” (15). Tunin et al. stated that the first three information requirements that the women reported to be fully satisfied were met: “Information about MG screening”, “information about my own risk of breast cancer” and “information about the causes of breast cancer” (16).

The first three support requirement items which were reported as fully met by women were stated in Chalmer’s, Andic’s and Tunin’s study.

In Chalmer’s study the first three support requirement items that women reported to be fully met were; “Regular examination of my breasts by a healthcare professional who is knowledgeable about the subject”, “Supporting me to do the BSE regularly” and “A health care professional knowledgeable about the subject while monitoring my BSE and checking if I am doing it correctly” (10). In Andic’s study the first three support requirement items that women reported to be fully met were; “Supporting me to reduce my concerns about breast cancer”, “supporting me to cope with my feelings about my risk of getting breast cancer” and “supporting me to have regular BSE ” (15). In Tunin’s study the support requirement items were; “Regular examination of my breasts by a healthcare professional who is knowledgeable about the subject”, “reminding me of my MG appointments” and “checking the self-examination of a knowledgeable healthcare staff while learning to perform a self-examination” and checking if I am doing it correctly (16). In this study the first three support requirement items are; information about the causes of breast cancer, information about my own risk of getting breast cancer and information about the changes I can make to my health habits to reduce my risk of having breast cancer. The findings show that the participants in this study had less knowledge about breast cancer. They needed to know reasons and risks. Unlike studies in the literature the desire to learn BSE was not stated as priority.

This study has several limitations. The study was conducted as cross-sectional study in one city’s university hospital and

this creates limitation of the generalization of our findings to Turkey. Second quantitative method and a scale was used for assessing the attitudes of patients’ relatives. Besides adding qualitative method could be provide more information about beliefs and attitudes.

CONCLUSION

In conclusion, the issues that women stated as very important in terms of their information needs; The causes of breast cancer have been identified as information about the risk of breast cancer itself and the changes it can make in health habits in order to reduce the risk of breast cancer. The support need issues that women stated as very important are; He has been found to be concerned about breast cancer and about himself and his relative. It was found that the information requirements regarding the reminder of women joining the group to support them and performing BSE were not met at all. Health professionals are advised to provide information to women with breast cancer near the causes of breast cancer, screening methods, treatment methods, and prevention from breast cancer. It is recommended to perform self-examination or remind mammography appointments when necessary. Also it is needed to organize trainings to meet the information and support needs of women with breast cancer.

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Conflict of Interest

The authors declare that they have no conflict of interests regarding content of this article..

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Ethical Declaration

Ethical approval was obtained from Mustafa Kemal University Clinical Research Ethical Committee with date 02/05/2019 and number 05, and Helsinki Declaration rules were followed to conduct this study.

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