Original Article

J Breast Health 2016; 12: 56-62
DOI: 10.5152/tjbh.2016.2753

The Treatment Approach and Social Support Needs for Patients with Breast Cancer

Pınar Soylar, Metin F. Genç
Department of Public Health, İnönü University School of Medicine, Malatya, Turkey

ABSTRACT

Objective: Breast cancer is the most common type of cancer in women both in developed and developing countries. It has a higher mortality rate in low and middle income countries due to the late-stage diagnosis. The principal aim of this study was to investigate what patients with breast cancer did before presenting to Turgut Özal Medical Center and its relationship with late stage diagnosis. The study also aimed to identify the level of patients' perceived social support.

Materials and Methods: The study included 200 patients with breast cancer who were treated at the chemotherapy unit during 2013 and 2014.

Results: The mean age of the patients was 51.16±1.10 years and 60% of the women were graduates of elemantary school. The majority of patients (69.5%) noticed breast mass as the first symptom and 56.5% were diagnosed at later stages. Thirty-four percent of the patients delayed their visit to a health care centers after realizing the first symptom. No statistically significant relationship was determined between women's education level, residential area, age, the first symptom noticed, stages of tumor, and patients and system-related delay ($p>0.05$). In terms of family history of breast cancer, there was a significant difference between patient-related and system-related delays ($p<0.05$). The family support score (24.8±4.6) was higher than those of friends and husbands (23.8±5.5, 21.3±6.4, respectively). The husband support score was statistically different in terms of intimacy between women and their husbands after disease ($p<0.001$).

Conclusion: It can be concluded that overcoming barriers related to patients and the system will lead to early-stage diagnosis, which in turn will result in higher survival rates of patients with breast cancer. As awareness and knowledge level of women about cancer increases, they will visit health care centers earlier where they can receive more comprehensive treatment.

Keywords: Breast cancer, treatment, early diagnosis of cancer, patient preference, social support

Introduction

Breast cancer is the second most common cancer type in the world and the most common cancer type in women. The number of newly diagnosed breast cancers in 2012 was 1.67 million, and breast cancer makes up 25% of all types of cancer in women (1). According to the data of the World Health Organization (WHO), the number of women who died of breast cancer worldwide in 2011 was 508 000. Breast cancer incidence increases as life expectancy increases, and urbanization and western lifestyles are adopted more and more in today's ever-developing world. It frequently occurs in both developed and less developed countries (2).

As breast cancer incidence increases in most parts of the world, there are major disparities between poor and rich countries in this regard (3). Patients in undeveloped and less developed countries are diagnosed later compared with patients in developed countries. Diagnosis at a late stage decreases treatment options and increases mortality (4).

Diagnosis in an advanced stage could occur because of patient-related as well as healthcare system-related reasons. Reasons such as lack of knowledge on symptoms, risk factors, and screening methods of breast cancer, cultural taboos regarding cancer treatment centers, and fear of hospitals are amongst reasons for patient-related latency. Although there is less information regarding healthcare system-related reasons, physicians' lack of knowledge on diagnosis and treatment and obstacles patients experience in reaching a physician or a hospital are considered amongst these reasons (5, 6).

The negative effects of breast cancer on women's health are multidimensional. Problems that arise based on cancer treatment, problems about family and occupational life, and uncertainties toward life in the future influence the individual's physical and psychologic health negatively. Therefore, making emotional and social support attempts during the duration of the disease is of vital importance (7).

Address for Correspondence :
Pınar Soylar, e-mail: psoylar@gmail.com

Received: 11.11.2015
Accepted: 01.12.2015

Social support is usually considered as the help provided for the individual who is under stress or in a difficult situation by people around the individual. The person receives support from their family or significant people in their life when they feel their abilities are inadequate or worn out. It has been reported that social support affects physical and emotional health positively by meeting fundamental social needs such as love, compassion, and belonging to a group, and is a significant help for the person in coping with difficulties in life (8-12).

We aimed to investigate how patients with breast cancer who were treated in our Outpatient Chemotherapy Unit looked for treatment options and the level of perceived social support.

Material and Methods

The population of this study comprised patients with breast cancer in Turgut Özal Medical Center, the only center with extensive cancer treatment in the city center of Malatya.

The study sample was calculated as 195 using $n = t^2. p. q / d^2$, the formula that is used when the population is unknown. We planned to include 15% more patients in the questionnaire and reached 225 patients in total. However, 17 patients who did not want to participate in the survey and 8 patients who participated but had no patient folder from which information about stage of diagnosis could be obtained were excluded; a total of 200 patients were included in the study.

Questionnaire Form: The questionnaire form consisted of three sections. The first section included questions regarding the patients' socio-demographic characteristics, the second section had questions regarding patients' ways of seeking treatment, and in the third section there was a Multidimensional Scale of Perceived Social Support (MSPSS), which was used to analyze the patients' level of social support.

Treatment-related Information Form: The patients were asked to write down some dates about their diagnostic process in certain questions included in the second section of the questionnaire form. Similar studies in the literature were taken into consideration, and the time elapsed between these dates was limited to 3 months for patient-related latency and 2 weeks for system-related latency (13-17). In the event that the time elapsed between the date when the first symptom of disease was recognized and the date of first applying to a healthcare organization was more than three months, this was evaluated as 'Patient was late.' When the elapsed time was less than three months, the evaluation was 'Patient was not late.' Furthermore, if the time was longer than two weeks between the date of applying to a healthcare organization for the first time and the date of the definitive diagnosis, 'System was late' was recorded in the evaluation. Similarly, if it was less than two weeks, 'System was not late' was put in the evaluation.

Multidimensional Scale of Perceived Social Support (MSPSS): The scale measures the adequacy of social support from 3 sources in 3 subscales: family, friends, and a significant other, and consists of a total of 12 items. There are three subscales with 4 items for each subscale regarding the source of support. Each question was analyzed using a 7-point Likert-type scale. The validity and reliability study of multidimensional scale of perceived social support in Turkey was conducted by Eker et al. (18) in 1995.

The subscale score in the multidimensional scale of perceived social support was obtained by calculating the total of the scores for the four items in each subscale, and the total scale score was obtained by calculation the total of all subscale scores. A high score indicated a high perception of social support. The mean scores were used in the statistical evaluation because there was no breakpoint in the scale.

Statistical analysis

The data of this study were analyzed in a computer environment using the Statistical Package for the Social Sciences (SPSS) for Windows software Version 22.0 (IBM Corp., Armonk, New York, USA). Quantitative data are presented with mean±standard deviation and the qualitative data in the question forms are presented as numbers (n) and percentages (%). The data were analyzed using Pearson's Chi-square test. The one-sample Kolmogorov-Smirnov test was used to determine whether the data had normal distribution. Independent samples t-test, one-way analysis of variance and multiple comparison test were used for normally distributed data. The results were in a 95% confidence interval and $p<0.05$ was considered as the level of significance.

Ethics approval was obtained from İnonu University Malatya Clinical Research Ethics Committee (Research Protocol No: 2012/183). Face-to-face meetings were held with the patient. After the aim of this questionnaire was explained to the patients, verbal consent was obtained and the questionnaire was conducted. Information in the questionnaire form regarding diagnostic stage was filled in one by one from the patients' patient folders in the Medical Oncology Outpatient Clinic Archive Room after the questionnaire forms were completed.

Result

The mean age of 200 women included in the study was 51.16±1.10 years (median: 50, range, 28-76 years) with most aged 45 years or more.

As shown in Table 1, the educational background of 60% of the women was of elementary school level, 78.5% were housewives and 80.5% were married. Eighty-seven percent of the women had children and

Table 1. The distribution of the socio-demographic characteristics of the women included in the study

Variable	n	%	Variable	n	%
Age			**Children**		
<45	64	32.0	Yes	174	87.0
45+	136	68.0	No	26	13.0**
Educational background			**Marital Status**		
NL+L*	31	15.5	Married	161	80.5
Elementary School	120	60.0	Single	14	7.0
High School	30	15.0	Widow	17	8.5
University+postgraduae	19	9.5	Divorced	8	4.0
Occupation			**Place of residence**		
Housewife	157	78.5	City Center	155	77.5
Civil servant	21	10.5	District	45	22.5
Other	22	11.0			

*NL+L= Not literate or those who learned how to read and write without having graduated from any school.

**6% were married without children and 7% were single and had no children.

Table 2. The distribution of the findings regarding diagnosis-treatment process of breast cancer

Variable	n	%	Variable	n	%
Are there any breast cancer patients within family?*			Tumor Stage		
Yes	25	12.5	Stage I	24	12.0
No	175	87.5	Stage II	63	31.5
What was the first symptom?			Stage III	86	43.0
Mass in breast/axilla	139	69.5	Stage IV	27	13.5
Breast deformity and discharge	21	10.5	Did she go to a second hospital?		
Pain in breast	26	13.0	Yes	172	86.0
Did she use to do BSE?**			No	28	14.0
Yes	75	37.5	Was she referred onwards?		
No	125	62.5	Yes	100	50.0
How was the disease recognized?			No, she decided that by herself	72	36.0
By a health officer	26	13.0	What was the second hospital?		
Herself by accident	145	72.5	Private Hospital	41	20.5
Herself during monthly exam	12	6.0	Public Hospital	53	26.5
Other	17	8.5	University Hospital	106	53.0
Where was the first visit?			Was the system late?[2]		
Family physician	6	3.0	Yes	89	44.5
Private Hospital	64	32.0	No	111	55.5
Public Hospital	101	50.5	Visited Hospitals		
University	29	14.5	Private+University	39	19.5
Was the patient late?[1]			Public+University	85	42.5
Yes	68	34.0	Private+Public+University	19	9.5
No	132	66.0	Public+Private+University	20	10.0
			University	24	12.0
			Other	13	6.5

*Immediate relatives were indicated.

BSE: Breast Self-Exam; [1]: Those who waited longer than 3 months were marked as 'Patient was late,' those who waited for 3 months or less were marked as 'Patient was not late'; [2]: Diagnosis that took longer than two weeks was marked as 'System was late,' diagnosis in two weeks or less was evaluated as 'System was not late'

13% did not. When they were asked about where they lived, 77.5% answered 'city center.' As shown in Table 2, 12.5% of the women stated that was a history of breast cancer among their first-degree relatives. The first symptom they noticed in themselves was a mass in breast/axilla (69.5%) for most, followed by pain in breast (13%). The question 'Did you use to perform breast self-exam (BSE) before the disease?' was answered with 'no' by 62.5%. While 72.5% of the women stated that they noticed the first symptom coincidentally, almost half (50.5%) remarked they went to a public hospital first. The tumor stage of 12% of the women was Stage I, 31.5% was Stage II, 43% was Stage III, and 13.5% was Stage IV. Sixty-six percent of the women were evaluated as 'Patient was not late' because it had been 3 months or less from the first symptom till the first time of visiting a healthcare organization, and 34% were evaluated as 'Patient was late'. Eighty-six percent of the women had attended a second hospital after their first visit to a healthcare organization; 50% of which were referred to another hospital and 36% made their own decisions. Of the second healthcare organizations, 53% were university hospitals. The time between the date of consulting a healthcare organization for the first time and the date of the definitive diagnosis was two weeks or less for 55% of the women; therefore, these were evaluated as 'System was not late'. The healthcare organizations where a definitive diagnosis was made were mostly (53%) university hospitals. Some 42.5% of the women first chose to go to a public hospital and then a university hospital during their diagnosis and treatment process. Regarding the treatments they received during this study, 60% were both surgical operation and chemotherapy.

There was no statistically significant difference between whether patients were late due to patient- or system-related reasons and variables such as age, place of residence, education, tumor stage, and the first noticed symptom ($p>0.05$) (Table 3). However, the differences of delay because of patient- or system-related reasons in patients with a

Table 3. Findings regarding patient- and system-related delays by variables of the women included in the study

Variable	Patient delay[1]				System delay[2]			
	≤3 months		>3 months		≤2 weeks		>2 weeks	
	No	%	No	%	No	%	No	%
Age (years)								
<45	48	75.0	16	25.0	34	53.1	30	46.9
45+	84	61.8	52	38.2	77	56.6	59	43.4
	p=0.065				p=0.643			
Place of residence								
City	102	65.8	53	34.2	83	53.5	72	46.5
Town, district	30	66.7	15	33.3	28	62.2	17	37.8
	p=0.915				p=0.303			
Education Level								
<High School	100	66.2	51	33.8	83	55.0	68	45.0
High School+	32	65.3	17	34.7	28	57.1	21	42.9
	p=0.906				p=0.790			
Tumor stage								
Early (Stage 1 and 2)	61	70.1	26	29.9	52	59.8	35	40.2
Advanced (Stage 3 and 4)	71	62.8	42	37.2	59	52.2	54	47.8
	p=0.281				p=0.286			
Family history of cancer*								
Yes	11	44.0	14	56.0	9	36.0	16	64.0
No	121	69.1	54	30.9	102	58.3	73	41.7
	p=0.013				p=0.036			
First noticed symptom								
Mass in breast	100	71.9	39	28.1	73	52.5	66	47.5
Other symptoms**	27	57.4	20	42.6	28	59.6	19	40.4
	p=0.065				p=0.401			

[1]: Those who waited longer than 3 months were marked as 'Patient was late' and those who waited for 3 months or less were marked as 'Patient was not late';
[2]: Diagnosis that took longer than two weeks was marked as 'System was late' and diagnosis in two weeks or less was evaluated as 'System was not late'.

*Breast cancer in immediate relatives.

**Pain, swelling and breast discharge.

breast cancer history within first-degree relatives were statistically significant (p<0.05).

As shown in Table 4 that the women gave the highest score to the family support group among three subscale groups in multidimensional scale of perceived social support, followed by significant other support.

As shown in Table 5, the support scores of the women who selected 'made us closer' for their relationship with their husbands during the disease process were higher than those of women who selected 'did not make a difference' and 'made us more distant.'

The difference between the groups was significant when the 'significant other' support scores of the answers "made us closer," "did not make a difference," and "made us more distant" to the question regarding the effect of the disease on the relationship with husbands were compared (F= 13.27; p=0.0001). As a result of the least significant difference (LSD) test performed with multiple comparisons to determine the group that caused the difference, we found a difference between the paired comparisons amongst all groups. The highest score was of the "made us closer" group, followed by the "did not make a difference" group.

Discussion and Conclusion

Studies that investigated the effects of socio-demographic characteristics of women with breast cancer on incidence and survival reported that socio-demographic characteristics affected an individual's knowledge of cancer symptoms and participation in screening programs. Breast cancer history in an immediate relative within family was assessed as a risk factor for breast cancer. The risk of developing breast cancer was twice as high in a woman with a mother or sister with breast cancer (19). Of the women who participated in our study, 12.5% had

Table 4. The distribution of mean scores the women had in the subscale groups of multidimensional scale of perceived social support

Subdimensions	Min-max scores of the scale	n	X±SD
Family support	4-28	200	24.8±4.6
Husband support	4-28	161*	23.8±5.5
Friend support	4-28	200	21.3±6.4

Min: minimum; max: maximum; SD: standard deviation

*39 women were not included in this group because they were divorced, widowed or single.

Table 5. Comparison of the intimacy levels between the couples during the women's disease and the husband support scores

Intimacy with significant other	n	X±SD
Made us closer	99	25.2±3.7
Did not make a difference	47	22.5±6.1
Made us more distant	15	18.4±8.8
Total	161*	23.8±5.5

SD: standard deviation

*39 women were not included in this group because they were divorced, widowed or single.

F= 13.27; p=0.0001

a first-degree relative with a breast cancer history. Avcı reported that 14.3% of the women in their study had a first-degree relative with a breast cancer history (20), which was similar to the results in our study.

Of the patients who participated in our study, 69.5% stated that the first symptom they noticed was a mass in the breast/axilla; 13% had pain in the breast and 10.5% reported breast deformity and discharge as their first symptom (Table 2). Özgün et al. (21) reported 77.8% of the patients in their study had a breast mass, 14.2% had mass and pain in the breast, 3.1% had pain, and 3.8% had breast deformity and discharge as their first symptom.

Although not an effective screening program, the Breast Self-Exam (BSE) method is a recommended practice that is significant in terms of creating awareness. The women in our study were asked whether they had done BSE before diagnosis and 37.5% expressed that they had (Table 2). Dündar et al. (22) reported that 40.9% of the women in their study had practiced BSE. In a study by Champion, 48.1% of the women had performed BSE. However, the rate of patients who practice BSE regularly ranges between 18-36% (23). Rızalar et al. (24) reported the rate of those who performed BSE regularly was between 10-24% in their study. In a study by Surdyka et al. (25), the rate of those who performed BSE was 65.6% but the rate of performing it regularly was 14.2%. The low number of those who practice BSE regularly indicates that there are many factors that affect women's attitude and behaviors towards early diagnosis. Among the reasons reported in the literature are the individual's cultural beliefs, perception of health and disease, social support factors, knowledge of the disease, and risk perception, and belief toward the importance of early diagnosis (24).

The women's answers to questions regarding how they first recognized their disease provided insight to women's participation in screening programs. Seventy-two percent of the women who participated in our study stated that they noticed the first symptom by chance and 13% said that the symptom was recognized by a healthcare professional. On the other hand, 8.5% reported their mass recognition by selecting "consulting a hospital for a different symptom, participation in a screening program". In a study by Özdemir et al. (26), 80% of the benign or malignant lesions were noticed by the women. Although only 37.5% of the women in our study claimed to have performed BSE, 72.5% stated they noticed the mass accidentally by themselves (Table 2). This is explained by the fact that even when most of the women did not examine their breast tissue, they were aware of the breast tissues and noticed the mass whilst showering or dressing. However, masses found by chance were mostly large masses; therefore, regular screening methods would make it possible to detect smaller masses and symptoms that may indicate breast cancer (24).

When analyzing the hospitals the patients chose to consult during the treatment process, the rate of patients who chose university hospitals as the second organization was 62% (19.5% chose a university hospital after a private hospital and 42.5% consulted a university hospital after a public hospital). Patients follow different paths to obtain a second or a third physician's opinion or to be examined by a well-known physician during the diagnostic process. The economic, geographic, and socio-cultural structure of the region where the study was conducted affected the patients' ways of seeking treatment. In a study by Shieh et al. (27), 64.3% of the patients consulted one hospital and 28.1% consulted two hospitals before diagnosis. The authors found that those who consulted three hospitals were diagnosed 10 times later than those who only went to one hospital. The number of consulted hospitals is one of the factors that causes delay in diagnosis. It was also reported that in cases when the first healthcare organization had an extensive diagnosis and treatment center, the delay in diagnosis was much shorter (27).

Delay in diagnosis and treatment causes low survival rates in most cancer cases. A metaanalysis regarding this subject demonstrated that there was a strong and precise relationship between the delays and low survival rates (28).

Regarding the time elapsed between the first symptoms noticed by the women and their visit to a healthcare organization, 34% of the patients were evaluated as 'patient was late' in our study (Table 2). Harirchi et al. (29) reported that 42% of the cases had 'patient was late' in their study. Özgün et al. (21) reported that 29% of the patients were marked with 'patient was late'. Reasons for patient-related delay include cultural taboos regarding cancer centers, fear of hospitals, not trusting physicians or healthcare organizations, and lack of knowledge in breast cancer symptoms and risk factors (14). The higher rate of delayed patients in our study compared with the western regions can be explained by the fact that our study was conducted in Malatya, which is located in the east of Turkey, and the educational background, level of awareness, and cultural taboo levels of the women in this city are different compared with other parts of Turkey.

There was no significant difference found when the delay status of the patients and variables such as age, place of residence, education, tumor stage, and first symptom were compared (Table 3). In their multinational study, Jassem et al. (30) reported that the delay was shorter in women with an intermediate education level, in women who work, and in women who live in big towns or cities. Shimaa et al. (14) found no relationship between the delay statuses of the patients and age, place of residence, and educational level in their study. However, there was a significant relationship between tumor stage and delay in patients (14). Innos et al. (31) aimed to define factors that caused delay in patients with breast cancer and found a relationship between factors that affect delay such as age, education, and first symptom. Rauscher et al. (32) mentioned behavioral and pre-assessment-based delays. Behavioral delays and delays based on pre-assessment are defined as when the patient becomes aware of the disease after noticing the first symptom and consults a hospital for medical service. As a result, the socio-demographic variables (age, educational background, living in a city center, economic condition) in this study were reported to cause delay by affecting the patient's interpretation of the first symptom and decision to apply for medical service (32).

One of the important reasons why there was no significant difference when we compared delay in the women and their educational background, place of residence, age, economic condition, first symptom, and tumor stage in our study was that the patients could not clearly remember the time between they first noticed the symptom and when they visited a healthcare organization, i.e. the memory factor. The fact that the patients were asked about the dates of retrospective periods in the chemotherapy unit where the questionnaire was conducted while they were being treated might have been a factor as to why they could not remember.

After their first to a healthcare organization, 44.5% of the women waited more than two weeks till they had a definitive diagnosis. There was no significant difference between the variables such as age, place of residence, education, tumor stage, first noticed symptom of the women with 'system was late' evaluation in this group (Table 3). In the study by Jassem et al., system-related delays were shorter for women with at least intermediate levels of education and women aged more than 60 years (30). There was a significant relationship found between younger women who noticed a mass by themselves and system-related delays. Ruddy et al. found no statistical difference between tumor stage and system delays in their study (33).

There was a statistically significant difference between the women with a family history of breast cancer and their system-related delays (Table 3). Some studies in the literature reported that system-related delays were shorter for women with a family history of breast cancer (30, 32). Studies support that women with a history of breast cancer in their immediate relatives are more informed about breast cancer and therefore visit a healthcare organization earlier (32). Performing population-based screening programs, which are known to decrease breast cancer mortality with proven efficiency, are important for early-stage diagnosis of cancer. Poor attendance in screening programs can be considered one of the factors in system-related delays. Despite the free-of-charge national screening programs in Turkey, the attendance remains low (34).

Individuals who provide care for patients with cancer other than healthcare personnel create the social support network of the cancer patient (35, 36). Although the mean family support score was the highest compared with other groups, there was no statistical difference in the subscale scores of social support in our study (Table 4). In a study by Dedeli et al. (35) on patients with cancer regarding sources of social support, it was discovered that a large part of social support comprised family support. A reason for why this group had the highest support score might be because family members of women (e.g. mother, sister) help more with the hospital procedures, household chores, and looking after children required during the disease or treatment process. Another reason is that women's fears and anxieties regarding relationship breakdowns and emotional distance in their marriage related to body image problems caused by mastectomy and chemotherapy, sexual dysfunction due to treatment, and changes in communication and social roles influence their communication negatively. Husbands' fear of losing their significant other may affect this support negatively (36). In a similar study with patients with gynecologic cancers by Ayaz et al. (8), family took first place as the subgroup of social support sources. Bertero et al. (37) determined that family had the highest rate compared with significant other and friend support within social support sources in their study. The findings in our study share similarities with the literature.

Clinical experience and studies demonstrated that some couples faced with cancer expressed that their relationships had improved since the beginning of the disease. Forty-two percent of patients stated the disease made them closer. These patients had higher scores in significant other support (38, 39). Similar results were obtained in our study, and there was a significant relationship between the women who answered with 'made us closer' and their scores of significant other support. Those who stated their relationships improved since the disease had higher scores of significant other support (Table 5). In a study by Özbaş (40), it was reported that strong marriages before the disease were stronger with the disease and that marriages that had been fundamentally weak before the disease were negatively affected in a short time.

Our study can have an indicative effect in terms of conducting studies in different parts of Turkey; therefore, comparisons between regions can be made and areas that should be focused on can be determined. Effective solutions can be produced with regard to time and cost for policymakers and managers.

Ethics Committee Approval: Ethics committee approval was received for this study from İnonu University Malatya Clinical Research Ethics Committee (Research Protocol No: 2012/183).

Informed Consent: Written informed consent was obtained from patients who participated in this study.

Peer-review: Externally peer-reviewed.

Author Contributions: Concept P.S., M.F.G.; Design - P.S., M.F.G.; Supervision - P.S., M.F.G.; Funding - P.S.; Materials - P.S.; Data Collection and/or Processing - P.S.; Analysis and/or Interpretation - P.S., M.F.G.; Literature Review - P.S.; Writing - P.S.; Critical Review - P.S., M.F.G.

Acknowledgement: We thank all participants who agreed to participate in the study.

Conflict of Interest: No conflict of interest was declared by the authors.

Financial Disclosure: The authors declared that this study has received no financial support.

References

1. International Agency for Research on Cancer, Globocan 2012: Estimated Cancer Incidence, Mortality and Prevelance Worldwide in 2012.

2. World Health Organization: Breast Cancer Prevention and Control.
3. International Agency for Research Cancer, (2013). Latest World Cancer Statistics Global Cancer Burden Rises to 14.1 Million New Cases in 2012: Marked İncrease in Breast Cancers Must Be Addressed.
4. Anderson BO, Yip CH, Smith RA, Shyyan R, Sener SF, Eniu A, Carlson RW, Azavedo E, Harford J. Guideline Implementation for Breast Healthcare in Low-income and Middle-Income Countries. Cancer 2008; 113:2221-2243. (PMID: 18816619) [CrossRef]
5. Stapleton J, Mullan P, Hablas A, Gaafar R, Seifeldin İA, Banerjee M, Soliman AS. Patient-Mediated Factors Predicting Early and Late-Stage Presentation of Breast Cancer in Egypt. Psycho-oncology 2011; 20:532-537. (PMID: 21456061) [CrossRef]
6. Shah NM, Soliman AS, Benerjee M, Merajver SD, İsmail K, Seifeldin İ, Hablas A, Zarzour A, Abdel-Aziz A, Ben Ayed F, Chamberlain RM, Knowledge Gained After A Brief CME Module on Breast Cancer Diagnosis. J Cancer Educ 2006; 21:169-174. (PMID: 17371184) [CrossRef]
7. Tan M, Karabulutlu E. Social Support and Hopelessness in Turkish Patients With Cancer. Cancer Nurs 2005; 28:236-240. (PMID: 15915069) [CrossRef]
8. Ayaz S, Efe Ş, Korukluoğlu S. Jinekolojik Kanserli Hastaların Algıladıkları Sosyal Destek Düzeyleri ve Etkileyen Faktörler. Türkiye Klinikleri J Med Sci 2008; 28:880-885.
9. Baider L, Peretz T, Hadani PE, Koch U. Psychological Intervention in Cancer Patient: A Randomized Study. Gen Hosp Psychisatry 2001; 23:272-277. (PMID: 11600169) [CrossRef]
10. Ardahan M, Yeşilbalkan Ö. Perceived Family Support of Women With Breast Cancer and Affecting Factors in Turkey. Asia Pac J Cancer Prev 2010; 11:1425-1429. (PMID: 21198305)
11. Dagan M, Sanderman R, Schokker M. Spousal Support and Changes in Distress Over Time in Couples Coping With Cancer: The Role of Personal Control. J Fam Psychol 2011; 25:310-318. (PMID: 21480710) [CrossRef]
12. Akdeniz BE. Meme Kanseri Olan Evli Kadın Hastaların Eşler Arası Uyum ve Baş Etme Biçimleri Arasındaki İlişkinin İncelenmesi. J Psy Nurs 2012; 3:53-60.
13. Thongsuksai P, Chongsuvivatwong V, Sriplung H. Delay in breast cancer care: A study in Thai women. Medical Care 2000; 38:108-114. [CrossRef]
14. Shimaa M, Mousa A, Ibrahim A, Seifeldin B, Ahmed H, Eman S, Elbana B, Amr SS. Patterns of Seeking Medical Care Among Egyptian Breast Cancer Patients: Relationship to Late-Stage Presentation. Breast 2011; 20: 555-561. (PMID: 21807518) [CrossRef]
15. Arndt V, Stürmer T, Stegmaier C, Ziegler H, Dhom G, Brenner H. Patient Delay and Stage of Diagnosis Among Breast Cancer Patients in Germany- A Population Based Study. Br J Cancer 2011; 86: 1034-1040. (PMID: 11953844) [CrossRef]
16. Bish A, Ramirez A, Burgess C, Hunter M. Understanding why women delay in seeking help for breast cancer symptoms. J Psychosom Res 2005; 58:321-326. (PMID: 15992567) [CrossRef]
17. Richards MA, Smith P, Ramirez AJ, Fentiman IS, Rubens RD. The influence on survival of delay in the presentation and treatment of symptomatic breast cancer. Br J Cancer 1999; 79:858-864. (PMID: 10070881) [CrossRef]
18. Eker D, Arkar H, Yaldız H. Çok Boyutlu Algılanan Sosyal Destek Ölçeği'nin Gözden Geçirilmiş Formunun Faktör Yapısı, Geçerlik ve Güvenirliği. Türk Psikiyatri Dergisi 2001; 12:17-25.
19. Haydaroğlu A, Dubova S, Özsaran Z, Bölükbaşı Y, Yılmaz R, Kapkaç M. Özdedeli E. Ege Üniversitesinde Meme Kanserleri, 3897 Olgunun Değerlendirilmesi. J Breast Health 2005; 1: 6-11.
20. Avcı İ. Factors Associated With Breast Self-Examination Practices and Beliefs in Female Workers at a Muslim Community. Eur J Oncol Nurs 2008; 12:127-133. (PMID: 18242140) [CrossRef]
21. Özgün H, Soyder A, Tunçyürek P. Meme Kanserinde Geç Başvuruyu Etkileyen Faktörler. J Breast Health 2009; 5:87-91.
22. Dündar P, Özmen D, Öztürk B, Haspolat G, Akyıldız F, Çoban S. The Knowledge and Attitudes Of Breast Self-Examination and Mammography in a Group of Women in a Rural Area in Western Turkey. BMC Cancer 2006; 6:43. (PMID: 16504119) [CrossRef]
23. Champion VL. Use of the Health Belief Model in Determining Frequency of Breast Self-Examination, Res Nurs & Health 1985; 8:373-379. (PMID: 3853250) [CrossRef]
24. Rızalar S, Altay B. Meme Kanseri Olan Kadınların Erken Tanı Uygulamaları. Fırat Sağlık Hizmetleri Dergisi 2010; 5:73-87.
25. Surdyka JA, Surydka D, Stanislawek A, Straoslawska E, Patyra KI. Selected Breast Cancer Risk Factors and Early Detection of the Neoplasm in Women From Lublin Region Attending Screening Program in St. John's Cancer Center, Years 2005-2006. Ann Agric Environ Med 2014; 21:792-798. (PMID: 25528922) [CrossRef]
26. Özdemir O, Çalışkan D. Meme Kanserinin Erken Tanısında Kullanılan Yöntemler. Sağlık ve Toplum 2002; 12:10-4.
27. Shieh S, Hsieh V, Liu S, Chien C, Lin C, Wu T. Delayed Time From First Medical Visit To Diagnosis for Breast Cancer Patients in Taiwan. J Formos Med Assoc 2014; 113:696-703. (PMID: 25240303) [CrossRef]
28. Richards MA, Westcombe AM, Love SB, Littlejohns P, and Ramirez AJ. Influence of Delay on Survival in Patients with Breast Cancer: A Systematic Review. Lancet 1999; 353:1119-1126. (PMID: 10209974) [CrossRef]
29. Harirchi I, Ghaemmaghami F, Karbakhsh M, Moghimi R, Mazaherie H. Patient Delay in Women Presenting with Advanced Breast Cancer: An İranian Study. Public Health 2005; 119: 885-891. (PMID: 15913679) [CrossRef]
30. Jassem J, Özmen V, Bacanu F, Drobniene M, Eglitis J, Lakshmaiah KC, Kahan Z, Mardiak J, Pienkowski T, Semiglazova T, Stamatovic L, Timcheva C, Vasovic S, Vrbanec D, Zaborek P. Delays in Diagnosis and Treatment of Breast Cancer: A Multinational Analysis. Eur J Pulic Health 2013; 24:761-67. (PMID: 24029456) [CrossRef]
31. Innos K, Padrik P, Valvere V, Eelma E, Kütner R, Lehtsaar J, Tekkel M. İdentifying Women at Risk for Delayed Presentation of Breast Cancer: A Cross- Sectional Study in Estonia. BMC Pulic Health 2013; 13:947. (PMID: 24107190) [CrossRef]
32. Rauscher GH, Ferrans CE, Kaiser K, Campbell R, Calhoun E, Warnecke RB. Misconceptions About Breast Lumps and Delayed Medical Presentation in Urban Breast Cancer Patients. Cancer Epidemiol Biomarkers Prev 2010; 19:640-647. (PMID: 20200436) [CrossRef]
33. Ruddy JK, Gelber S, Tamimi RM, Schapira L, Come SE, Meyer ME, Winer EP, Partridge AH. Breast Cancer Presentation and Diagnostic Delay in Young Women. Cancer 2013; 120:20-25. (PMID: 24347383) [CrossRef]
34. Kolutek R, Avcı İA. Eğitim ve Evde İzlemin, Evli Kadınların Meme ve Serviks Kanseri İle İlgili Bilgi Düzeylerine ve Uygulamalarına Etkisi. J Breast Health 2015; 11: 155-162. [CrossRef]
35. Dedeli Ö, Fadıloğlu Ç, Uslu R. Kanserli Bireylerin Fonksiyonel Durumları ve Algıladıkları Sosyal Desteğin İncelenmesi. Türk Onkoloji Dergisi 2008; 23: 132-9. Coates AS. Breast Cancer: Delays, Dilemmas and Delusions. The Lancet 1999; 353:1112-3. (PMID: 10209969).
36. Cohen M, Mabjish AA, Zidan J. Comparison of Arab breast cancer survivors and ealthy controls for spousal relationship, body image, and emotional distress. Qual Life Res 2011; 20:191-198 (PMID: 20859767). [CrossRef]
37. Bertero CM. Types and Source of Social Support for People Afflicted with Cancer. Nursing and Helth Science 2000; 2:93-101. [CrossRef]
38. Northouse LL, Mood DW, Montie JE. Living with Prostate Cancer: Patients' and Spouses' Psychological Status and Quality of Life. J Clin Oncol 2007; 25:4171-4177. (PMID: 17635953) [CrossRef]
39. Dorval M, Guay S, Mondor M, Masse B, Falardeau M, Robidoux A, Deschenes L,Maunsell E. Couples Who Get Closer After Breast Cancer: Frequency and Predictors in a Prospective Investigation. J Clin Onco 2005; 23:3588-3596. (PMID: 15908669) [CrossRef]
40. Özbaş A. Meme Kanserli Ailelerde Sorunlar ve Çözümler. J Breast Health 2006; 2: 115- 7.