RESEARCH COMMUNICATION

Reasons for Clinical Breast Examination in Women Applying at a Cancer Screening Center in Erzurum

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Abstract

    <u>Aim</u>: **This study was conducted to investigate the reasons for application of women for Clinical Breast Examination (CBE).** <u>Methods</u>: **This descriptive study involved 155 women who applied to Cancer Screening and Education Center of Numune Hospital, Erzurum, Turkey between December 1, 2008 and January 30, 2009. The data collection was performed by evaluation of demographic characteristics of the participants using a descriptive information form to identify the application reasons.** <u>Results</u>: **The age range of the participants was 37-68 years (mean: 48.7 years). Of the participants, 43.9% applied for breast screening; 31.0%, for pathological changes in the breast; 17.4%, for breast check-up, and 7.7%, for concerns over familial risk.** <u>Conclusions</u>: **Most of the women (69.0%) applied to the center without any pathological changes in their breasts.**

Key words: Women - clinical breast examination - application reasons

Introduction

Cancer, which occupied the fourth rank among causes of death in Turkey during 1970s, has risen to the second rank following cardiac disease in most of the regions today. In 1991 the first active cancer surveillance registry was established in Izmir and later became the first population based registry of the country. Eser et al. pooled the databases for the year 2006 of the eight registries of Turkey. A total of 24, 428 cancer cases (14,581 male and 9,847 female) were reported by the eight registries combined. For females, breast cancer was the most frequent in all registries with the AAIRs (Age-adjusted Incidence Rates) ranging from 21.4 in Edirne to 45.6 in Izmir, per 100 000. In women breast cancer range is 30.7 at Erzurum and it takes the sixth line in the eight region (Eser et al. 2010). Although breast cancer is an important health problem, early diagnosis through regular examinations and screening may aid in increasing the survival rates and even in achieving complete recovery. According to recommendations by American Cancer Association for early diagnosis of cancer, women over 20 years of age are defined within the risk group and as diagnostic methods, self-examination of breasts (SBE), clinical breast examination (CBE), and mammography have been recommended. The frequency of these procedures have been stated as self-examination, once every month after 20 years of age; once every 3 years, between the ages of 20 and 39; clinical breast examination, once every year, and mammography every year after 40 years of age (İnanç 1998; Kaymakçı 2001). Although mammography is a widely used method of screening, the breast tissue in young women is dense, and thus, it may be difficult to image abnormal densities on mammography, which may yield false results (Benjamin et al. 2003; Saslow et al. 2004). Self- examination of the breasts is conducted visually and using hands by the woman herself (Benjamin et al. 2003; Saslow et al.2004). In women under 40 years of age and in young women at risk for breast cancer, CBE is an important component of breast cancer screening and diagnosis. CBE is common in the USA and recommended by many of the leading health organizations (Barton et al., 2001; Weiss, 2003; Thistlethwaite & Stewart, 2007). Although CBE is an important procedure for early detection of breast cancer, it is currently not widely available as a screening method in Turkey and is recommended only for women at increased risk of breast cancer.

The reasons of women in applying for CBE vary. Brain et al. (2000) have reported that women primarily seek information on the risks for breast cancer in applying for CBE. When CBE accompanies mammography evaluation, it enables the early diagnosis of breast cancer in asymptomatic women and affects the treatment process positively. Determination of the reasons of women in applying to CBE may aid in evaluation of awareness levels of women at risk for

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breast cancer. Thus, proper planning for early diagnosis and breast health may be achieved. The aim of the study was to determine the reasons for application of women for clinical breast examination at Cancer Early Diagnosis, Screening and Education Center of Numune Hospital .

Materials and Methods

This descriptive study involved 155 women who applied to Cancer Early Diagnosis Screening and Education Center of Numune Hospital, Erzurum, Turkey between November 1, 2008 and January 30, 2009. In a year, on average 1200 women applied for clinical breast examination to Cancer Screening and Education Center. In those days of collecting data 205 women applied to the center. 65 of the women didn't accept the offer of study so research was done on 155 women. 15 of these women said that they were tired; 24 of them said they had no time and 26 said they didn't want to answer the questionnaire . Data has been acquired with a form that including the questions of women's demographic characteristics and their application reasons for their clinical breast examination.

The form has consisted of five questions about demographic characteristics and four questions including the topics about examination. All of participants had social security. Each woman was contacted by researchers and provided with detailed explanation on the aim and conduct of the study. The women were provided with questionnaires before CBE to be filled out by themselves in the out patient clinic. If the woman was unable to complete the questionnaire on her own, the researcher read the questionnaire items to the woman and recorded the answers. The questionnaires took approximately 15 minutes for participants to complete.

Age, educational level, place of residence, marital status, and employment status were used as independent variables, and prevention, pathological changes in the breasts, breast examination status, and familial risk for breast cancer were used as dependent variables. The dependent variables in this study were evaluated according to following information:

Prevention: Applying for CBE despite having no pathological problems with their breasts but with recommendations of others or self-desire to identify individual risks has been considered 'prevention'.
Pathological Changes in the Breast: Leak in the nipple and visible changes in the breast tissue have been considered 'pathological changes in the breast'.

Breast Examination: Involves those who had previously applied for any reason and reapplied for CBE for a check-up.

Familial Risk: Presence of breast cancer among close relatives has been defined as 'familial risk'

The study was approved by Erzurum City Health Directorate. The study was based on voluntary participation. The women applying for CBE were informed on the objectives of the study and their written informed consents were obtained. The data were evaluated by using descriptive statistics , Chi-square significance test and advanced statistics.

Results

The socio-demographic characteristics of the women applying for CBE have been summarized in Table 1. The age range of the participants of the study was 37-68 years (mean: 48.7 years), and 32.9% were illiterate; 63.9% resided in the city center; 92.3% were married, and 88.4% were unemployed housewives.

The distribution of the women according to application reasons was prevention in 43.9 %; pathological changes in breast in 31.0 %; breast examination in 17.4 %, and familial risk in 7.7% (Table 2).

The reasons for application among the women with various educational levels statistically significantly differed ($x2=5.917$, $p=0.015$) (Table 3). The distribution of the reasons for application among the women with various educational levels showed that 33.4% of the illiterate women applied for prevention, and 31.4 % for pathological changes, 17.6% for breast examination, and 17.6 for concerns over familial risk. In literate women, 42.8% applied for pathological changes and 2.9% for concerns over familial risk. Of primary school graduates, 53.7% applied for prevention, and 2.4% plied for familial risk. Of high school graduates, 53.6%

Table 1. The Distribution of The Socio-demographic Characteristics of Women

Socio-demographic characteristics		Number (n)	Percent (%)
Age (Range: 37-68 years)	(mean age: 48.7 ±7.05 years)		
	Under 50 age	95	61.3
	Over 50 age	60	38.7
Educational level	Illiterate	51	32.9
	Literate	35	22.6
	Primary school	41	26.5
	High school	28	18.1
Place of residence	Village	21	13.5
	Town	35	22.6
	City	99	63.9
Marital status	Married	143	92.3
	Single	12	7.7
Employment status	Employed	18	11.6
	Unemployed	137	88.4

Table 2. The Distribution of the Reasons of Women in Applying for CBE   (N= 155)

Reasons for application	Number (n)	Percentage (%)
Prevention	68	43.9
Presence of pathological changes*	48	31.0
Breast examination	27	17.4
Concern over familial risk	12	7.7
TOTAL	155	100.0

*in the breast (leak in the nipple, pain in the breast, etc...)

Table 3. The Distribution of the Reasons Of Women in Applying for CBE According to Their Descriptive Characteristics

Characteristic		Prevention		Pathology		Examination		Familial risk		Total*		χ^2 p
Age	Under 50	44	46.4	31	32.6	14	14.7	6	6.3	95	100.0	X^2 =2.212
	Over 50	24	40.0	17	28.3	13	21.7	6	10.0	60	100.0	P=0.53
Educational level	Illiterate	17	33.4	16	31.4	9	17.6	9	17.6	51	100.0	X^2 =5.917
	Literate	14	40.0	15	42.8	5	14.3	1	2.9	35	100.0	P =0.015
	Primary school	22	53.7	11	26.8	7	17.1	1	2.4	41	100.0	
	High school	15	53.6	6	21.4	6	21.4	1	3.6	28	100.0	
Place of residence	Village	12	57.1	5	23.9	2	9.5	2	9.5	21	100.0	X^2=1.614
	Town	14	40.0	12	34.3	4	11.4	5	14.3	35	100.0	P =0.204
	City	42	42.4	31	31.3	21	21.2	5	5.1	99	100.0	
Marital status	Married	60	42.0	45	31.5	26	18.1	12	8.4	143	100.0	X^2 =3.314
	Single	86	6.7	3	25.0	1	8.3	-	-	12	100.0	P =0.346
Recommendations	Yes	37	55.2	17	25.4	7	10.4	6	9.0	67	100.0	X^2 =8.177
	No	31	35.2	31	35.2	20	22.7	6	6.9	88	100.0	P =0.042

*Raw percentage

applied for prevention, and 3.6, for concerns over familial risk. It was determined that the difference was resulted from illiterate group at the result of being done advanced statistics.

The distribution of the reasons for application among the women as place of residence showed that 57.1% of the women at village applied for prevention, and 23.9 % for pathological changes, 9.5% for breast examination, and 9.5% for concerns over familial risk. The results showed that 40.00 % of the women at town applied for prevention, and 34.3 % for pathological changes, 11.4 % for breast examination, and 14.3% for concerns over familial risk.

The distribution of the reasons for application among the women as a function of age showed that 46.4 % of the under 50 age women applied for prevention, and 32.6 % for pathological changes, 14.7 % for breast examination, and 6.3 % for concerns over familial risk.

The distribution of the reasons for application among the women as age showed that 40.0% of over 50 age women applied for prevention, and 28.3 % for pathological changes, 21.7% for breast examination, and 10.0% for concerns over familial risk.

The distribution of the reasons for application among as women's marital status showed that 42.0% of married women applied for prevention, and 31.5 % for pathological changes, 18.1% for breast examination, and 8.4 % for concerns over familial risk.

The distribution of the reasons for application among as women's marital status showed that 66.7 % of single women applied for prevention, and 25.0 % for pathological changes, 8.3 % for breast examination. . In study, 43.2% of the women applied for CBE upon recommendations by others. 52.2 % of the women took advice from health care workers, 32.8 % by the media and 15.0 % from their relatives and friends and consulted CBE.

The application reasons of women with respect to the recommendations by others for CBE significantly differed (x2=8.177, p=0.042) (Table 3).

Discussion

Although breast cancer is an important health problem, early diagnosis through regular screening and examinations may prolong the survival time and even pave the way to complete recovery. For the health of the breasts, CBE screening method has been recommended as a screening method. This study was conducted to determine the reasons for application of women for clinical breast examination.

It was found that 46.4 % under 50 age women for prevention, 6.3 % for familial risk applied for CBE. Like that, 40.0 % over 50 age women for prevention, 10.0 % for familial risk applied for CBE.

At the result of study of Dişcigil et al. the most being informed reason of making CBE was to released mass. Only 17.1% of women who made CBE on didn't have any complaint and 4.4% of women were making CBE with regular periods. At over 40 age women, the rate of women who had not complaints and made CBE was higher than women who had complaints and made CBE. In our study, application of women in every two age groups for prevention can be resulted from their sensibility in this issue. In the study, it was determined that the reasons of women in applying for CBE were, in order of importance, prevention, pathological changes in the breast tissues, breast examination, and concerns over familial risk. The majority of the participants had applied for prevention. In the study of Fındık and Turan, it was found that 23.4% of asymptomatic women applied for CBE (Fındık & Turan, 2004). Dişcigil et al. (2007) have reported presence of a mass in the breast tissue as the most common reason in applying for CBE, and determined that only 17.1% of women applied for CBE without any complaints. However, in our study population, the level of awareness was higher. Brain et al. found that majority of women (29%) primarily applied for CBE to obtain information on their individual risks (Brain et al., 2000). In our study, applying for prevention was the most common reason, which is compatible with the results of the study by

Brain et al (2000). In our study, the majority of women (69%) applied for CBE without any pathological changes. The age range of the women participating in our study was defined as a risk factor for breast cancer; thus, this may account for the sensitivity of the participants about breast cancer risks. Also, the results of our study generally agree with Brain's results.

Considering the distribution of the characteristics of the women according to reasons in applying for CBE, the reasons among the women of different educational levels statistically significantly differed. In the literature, there hasn't been a study which searches the distribution of the reasons for application of women for clinical breast examination according to their educational levels but Dişçigil et al. (2002) and Mc Greevy et al. (2007) searched the educational levels of the women, who applied for CBE, without taking the distribution of the reasons for application into consideration. Dişcigil et al. (2007) evaluated the relationship between applying for CBE and educational level and found that the rate of women applying for CBE for a regular control was significantly higher among women of higher educational level. Similarly, in the study by Mc Greevy et al., lower rates of application for CBE were determined among women of lower educational level (McGreevy et al., 2002). In the same study, a significant difference was determined between the rates of application for CBE among women of various educational levels, and it was concluded that the higher the educational level of women was, the higher the rate of application for CBE was. In the light of these results, it can be said that the awareness of women with low educational level should be increased by education on breast health.

Evaluation of the distribution of women applying for CBE according to their place of residence showed that the majority of the women applying for CBE were from the towns or city center. In a study by Dündar et al. conducted in rural area, the rate of application for CBE was 3.3% (Dündar et al., 2006). Dişcigil et al. (2007) reported higher rates of application for CBE among women from urban areas than among women from semi-urban areas. Likewise, Hsairi et al. (2003) reported that women of high educational level residing in urban areas applied for CBE at higher rates. In our study, the majority of the women (63.9%) applying for CBE lived in urban area. This finding is compatible with the findings of earlier studies. Accordingly, practices of and approaches to screening methods in women from urban or semi-urban areas should be improved. In our study, considering the finding that residential area does not affect the reasons in applying for CBE, increasing the awareness of women regardless of their area of residence is an important issue.

Evaluation of the distribution of the reasons of women in applying for CBE according to their marital status showed that the majority of women applying for CBE were married. In the study of Orhan and Çetinkaya, a higher rate of application for CBE was determined

among married women (Orhan & Çetinkaya., 2003). İn our study, marital status did not affect the reasons in applying for CBE. The reasons in applying for CBE significantly differed among women who were or were not recommended by others to apply for screening. In our study, 43.2% of the women applied for CBE upon recommendations by others. In study, 43.2% of the women applied for CBE upon recommendations by others. 52.2 % of the women took advice from health care workers, 32.8 % by the media and 15.0 % from their relatives and friends and consulted CBE.

Similarly, in the study by Brain et al. (2000) 73% of the women applied for CBE upon recommendations by health care professionals, and 7%, by family members .In various studies, the primary information source that encouraged application for CBE has been reported to be the mass media and health care workers (Pöhls et al., 2005; Dündar et al., 2006; Dişcigil et al., 2007). The findings of our study on the effects of the media and health care workers in encouraging application are compatible with the findings of earlier studies.

The high rate of application for CBE upon recommendations of health care professionals and information provided by the media shows the importance of increased awareness of women in applying for prevention and breast examination. Thus, health care workers and media should put greater emphasis on the breast cancer awareness.

In conclusion, the reasons of women in applying for CBE were, in order of importance, prevention, pathological changes in the breast tissues, breast examination, and concerns over familial risk. Although the majority of the women in our study had applied without any pathological changes in the breast tissues, awareness of all women breast cancer can be increased by planned educational programs.

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