# RESEARCH ARTICLE

# **Breast Self-examination Practices and the Effect of a Planned Training Program in Western Turkey**

Yelda Candan Donmez<sup>1\*</sup>, Eda Dolgun<sup>1</sup>, Meryem Yavuz<sup>2</sup>

#### **Abstract**

This cross-sectional and descriptive study was aimed to evaluate women breast self-examination (BSE) practice and effects of a planned educational programme for breast cancer and BSE. The samples of the study consisted 266 women. The study data were collected by a questionnaire in six months periods as two times in a month in which the periods were defined and announced to all women. After that all the women were informed about BSE. The statue of performing BSE of women (n=146) was evaluated. They were interviewed on phone after 6 months. The collected data were analyzed by using statistical SPSS program. The average age of women was 35.68±7.54. It is also determined that (61.3%) had no knowledge about BSE, (87.6%) had examined clinical breast examination (CBE) in a year and half of them (50.8%) never practiced BSE, (29.0%) had BSE regularly every month. Concerning the status of BSE practice before the education and after the education significant difference is found statistically (p<0.00). The significance of this study is that it is to give education about breast cancer and BSE for raising awareness among women.

**Keywords:** Woman - breast cancer - breast self-examination - training

Asian Pacific J Cancer Prev, 13 (12), 6159-6161

#### Introduction

Cancer is one of the most important diseases which threatens human health nowadays. In the world, breast cancer is the most commonly seen type of cancer in woman (Beydag and Yurugen, 2010; Ozkan et al., 2010; Sambanje and Mafuvadze, 2012).

In developed and developing countries, breast cancer is shown as a major health problem (Bassey et al., 2011; Zavare et al., 2011). Breast cancer is the leading malign tumour and it consists 30% of cancers among women (Salaudeen et al., 2009). Breast cancer is the second leading cause of cancer deaths among Turkish women (Kara and Acikel, 2008; Karayurt et al., 2008).

Screening methods such as mammography, clinical breast examination, and breast self-examination (BSE) are described as health improvement activities and play important roles in the early diagnosis of breast cancer. While mammography is the sole effective diagnostic method for reduction of mortality in breast cancer, it is not regarded as a suitable modality for poor countries due to its costly nature and requirement of technical specialty along with man power. BSE is recommended to be performed routinely on a monthly basis in all the women aged above 20 years and the importance of raising awareness on breast cancer via BSE is noted. BSE, is an easy-to-apply, economical, safe, non-invasive procedure with no special material/tool requirements; and it is an effective diagnostic method for breast cancer which only takes five minutes to apply (Beydag and Yurugen, 2010; Ozaras et al., 2010; Ozkan et al., 2010, Yılmaz et al., 2011).

### **Materials and Methods**

This cross-sectional descriptive study aimed to evaluate BSE practices of women and the effect of planned training programme to BSE. The data was collected from Odemis, a county located in the western region of Turkey. The study carried out between September 2009 and February 2010 in Odemis, Izmir, Turkey. The sample of the study was 266 volunteered women who are between 15-70 years old from Family Health Center of Odemis Province Health Directorate. Data were collected with questionnaire based on literature data and face to face interview method used by researchers. Question form contained 5 questions examining descriptive knowledge of women and 18 questions examining status of performing BSE.

Training Program: the date and place of training programme were announced to women by Odemis Province Health Directorate. The education was given at İzmir Odemis Ministry of Education and primary schools. These training programmes were applied in 6 different districts of Odemis as two group and 12 times in six months. Trainings carried out groups with 15-25 person and the trainings took 55-60 minutes. Trainers are member of Meme Kanseri Savasım Dernegi (Breast Cancer Prevention Society) and have PhD degree in

<sup>1</sup>Nursing, Odemis School of Health, <sup>2</sup>Department of Surgical Nursing, Nursing Faculty, Ege University, Izmir, Turkey \*For correspondence: candanyelda@hotmail.com

Surgical Nursing Department. The education was given by power point visual presentation and practising BSE. After six months the BSE status of women (participated in training programme and reached ones by calling) (n=146) were evaluated again.

Data analyzed by SPSS (Statistical Programme for Social Sciences) version 16.0 and number, percentage, chi square was used analyze.

Prior to the study, research ethics written approval was received from Odemis Province Health Directorate and the women participated in the study.

#### Results

Study consist 266 women. The mean age of women attended the study was 35.68±7.54. The socio-demographic characteristics of women are shown in Table 1.

Of the women's 61.3% had not had information about breast examination, 87.6% them had not CBE in the last 12 month period and 50.8% of them never performed BSE (Table 2).

In Table 3, it is shown that the women have self-breast examination in irregular period 29.0% and 26.7% of them perform it in five minutes.

When compared the BSE practices of the women who participated in the study and reached before and after the training programme we realized that the difference was

Table 1. Demographic Characteristics of the Participants (n=266)

Characteristics		N	%
Age Group (year)	15-24	7	2.6
	25-34	121	45.5
	35-44	111	41.7
	45-54	22	8.3
	55-64	2	0.8
	≥65	3	1.1
Marital Status	Married	258	97
	Single	8	3
<b>Educational Status</b>	Illiterate	9	3.4
	Literacy	4	1.5
	Primary School	187	70.3
	Secondary School-High School	38	14.3
	Faculty/College	28	10.5
Total		266	100

Table 2. Women's Knowledge and Practice of BSE

		N	%
Getting information Informed		103	38.7
	Uninformed	163	61.3
Having Clinical Breast Examination (last 12 month)			
	Yes	33	12.4
	No	233	87.6
Frequency of BSE	Every month more than once	21	7.9
	Once a month	41	15.4
	Once in 2 months	11	4.1
	Once in 3-4 months	21	7.9
	Once in 5-6 months	12	4.5
	Once in a year	21	7.9
	Whenever they remember	4	1.5
	Never practised BSE	135	50.8
Total		266	100

Table 3. Time Defining of Self-breast Examination and Practicing

		N	%
Defining of BSE time	Irregular time periods	38	29.0
	Regularly every month	39	29.8
	Every time of having a bath	10	7.6
	Incorrect time	30	22.9
	Unanswered	14	10.7
Period of performing BSE	performing BSE 1 minute		22.9
	2 minutes	25	19.1
	5 minutes	35	26.7
	10-15 minutes	13	9.9
	30 minutes	4	3.1
	Unknown	5	3.8
	Unanswered	19	14.5
Total		131*100	

<sup>\*</sup>n the women who performed BSE

Table 4. Comparison of the Self-Breast Examination Practices of Women before and After the Training Programme

	Practice		Non-practice To			tal
	S	%	S	%	S	%
The BSE practice after training programme	77	52.7	69	47.3	146*	100
Performing BSE after training programme	97	66.4	49	33.6	146*	100

<sup>\*</sup>The women who were reached after the training,  $x^2=14.488$ , Sd=1, p=0.000

statistically important (p<0.00) (Table 4).

#### **Discussion**

This study carried out to evaluate the women's BSE behaviours and the effect of the planned training programme. According to the women's responses more them half of them (61.3%) had no knowledge about BSE, a large majority of them (87.6%) had not had CBE in last twelve month and half of them (50.8%) never practiced BSE. Women in practiced group more than quarter of them (29.0%) stated they had examined themselves irregular time periods and 26.7% of them stated that BSE practiced lasted five minute.

In the study of Dundar et al. (2006) consisted 244 women and 75.0% of them never had CBE in rural area of western Turkey. Although 72.1% of the participants reported having knowledge of BSE, only 40.9% of the women in the practised group ever indicated having practised BSE in the previous 12 months. In this BSE practice group, while 29.5% stated they had examined themselves irregularly, only 10.2% stated that they performed BSE on a regular monthly basis (Dundar et al., 2006).

Another study in Turkey, Kara and Acikel (2008) carried out with nursing students and mothers; the majority of the students (88.8%) and their mothers (71.4%) had performed BSE. However, only 90 nursing students (45.9%) and 63 of their mothers (32.1%) stated that they performed BSE on a regular monthly basis. 53.1% of the students learned about the BSE practice from printed materials, 33.2% from television, radio and the internet and 17.9% from their families and friends. Family

members and friends (51.5%), television, radio and the internet (33.7%) and printed materials (12.4%) were also mentioned as sources of information by the mothers (Kara and Acikel, 2008).

Another study in 2008 found that more than half of the students (62.1%) reported that they had not heard about BSE. Thirty percent (n=216) of the participants received information about breast cancer and BSE. Media were identified as the main source of information on breast cancer by 48.6% of the participants. Health professionals were mentioned as a source of information by 44.4% of the sample (Karayurt et al., 2008).

In the study of Yoo et al. (2012) the majority of women who knew about BSE (87.0%) mentioned that they had heard about BSE on TV, on the radio, and in the newspapers. Only 17.2% of the women who were aware of BSE received the information through physicians or nurses (Yoo et al., 2012). These results support our study findings.

In the studies on BSE practice of women, although most of the women have heard about BSE in spite that very few of them practice regularly. The cause of this they stated reasons such as dislike to examine self breast, do not know what she feel because of very lumpy structure of breast and to fear to find a cancer mass. Contrary to known general, it is indicated that women who are high risk group in breast cancer are reluctant to BSE practice. In this issue the function of nurses for early diagnosis of breast cancer to inform women and explain the importance about BSE (Kaymakci, 2011).

When compared BSE practice situations of the women attended this study and reached after the planned training programme, the difference was statically important (p<0.00).

Another study in 2010 found that the score average of the women before research is 84.2±26.7, the score average after training is 94±16.4; it has been determined that there was difference in meaningful level between pre test and final test score averages (p<0.001) (Ozaras et al., 2010).

In conclusion, in this study most of the women had not have knowledge about breast cancer and BSE practice, had not CBE in the last twelve month and had a mammography. It is seen that half of the women have never practiced BSE. It is important to increase the information about breast cancer, early diagnosis and BSE practice given by health care stuff and especially to use media effectively (such as television, magazine, newspaper) can be provide information and raise awareness about breast cancer and BSE practice.

#### Acknowledgements

This study was funded by Ege University, Scientific Research Project Department (Project Number: 2009/ OSYO/005). Also thanks to women for their participation.

## References

Bassey RB, Irurhe NK, Olowoyeye MA, Adeyomoye AA, Onajole AT (2011). Knowledge, attitude and practice of breast self-examination among nursing students in Lagos university teaching hospital, Nigeria. Educational Res, 2,

- Beydag KD, Yurugen B (2010). The effect of breast selfexamination (BSE) education given to midwifery students on their knowledge and attitudes. Asian Pac J Cancer Prev,
- Dundar PE, Ozmen D, Ozturk B, et al (2006). The knowledge and attitudes of breast self-examination and mammography in a group of women in a rural area in western Turkey. BMC Cancer, 6, 1-9.
- Kara B, Acikel CH (2008). Health beliefs and breast selfexamination in a sample of Turkish nursing students and their mothers. J Clinical Nur, 18, 1412-21.
- Karayurt O, Ozmen D, Cakmakcı AC (2008). Awareness of breast cancer risk factors and practice of breast selfexamination among high school students in Turkey. BMC Public Hlth, 8, 1-8.
- Kaymakci S (2011). Meme Hastalıkları, Dahili ve Cerrahi Hastalıklarda Bakım (Breast Diseases, Medical and Surgical Disorders Care), Ed: Karadakovan A, Eti A. F., Nobel Kitabevi (Nobel Printing House), 977-1002.
- Ozaras G, Durualp E, Civelek FE, Gül B, Ünsal M (2010). Analysis of breast self-examination training efficiency in women between 20-60 years of age in Turkey. Asian Pacific J Cancer Prev, 11, 799-802.
- Ozkan A, Malak AT, Gürkan A, Turgay SA (2010). Do Turkish nursing and midwifery students teach breast self-examination to their relatives? Asian Pac J Cancer Prev, 11, 111-5.
- Salaudeen AG, Akande TM, Musa OI (2009). Knowledge and attitudes to breast cancer and breast self-examination among female undergraduates in a state in Nigeria. Eur J Social Sci, 7, 157-65.
- Sambanje MN, Mafuvadze B (2012). Breast cancer knowledge and awareness among university students in Angola. Pan *African Med J*, **11**, 1-10.
- Yılmaz M, Guler G, Bekar M, Guler N (2011). Risk of breast cancer, health beliefs and screening behaviour among Turkish academic women and housewives. Asian Pacific J Cancer Prev, 12, 817-22.
- Yoo B, Choi KS, Jung KW, Jun JK (2012). Awareness and practice of breast self-examination among Korean women: results from a nationwide survey. Asian Pac J Cancer Prev, **13**, 123-5.
- Zavare MA, Juni MH, Manaf RA, Ismail I Z, Said SM (2011). Knowledge on breast cancer and practice of breast self examination among selected female university students in Malaysia. Med Hlth Sci J, 7, 49-56.