

## RESEARCH COMMUNICATION

# Analysis of Breast Self-Examination Training Efficiency in Women between 20-60 Years of Age in Turkt

Gözde Özaras<sup>1\*</sup>, Ender Durualp<sup>2</sup>, Fethiye Eda Civelek<sup>3</sup>, Berna Gül<sup>3</sup>, Münevver Ünsal<sup>3</sup>

### Abstract

This research was aimed at defining the application of breast self-examination (BSE) and its effectiveness. The subjects were 220 women aged 20-60 living at the centre of Cankiri and who consented to participate. Data were gathered through a BSE information form (IF). BSE Training Programme which is prepared by the researchers is applied after the pre-test. One month after the training, a post-test was conducted one more time with the IF. For analyses, chi square and Wilcoxon were used. Of the subjects, 6.4% had medical treatment for breast cancer, 72.3% did not have a relative with breast cancer, 91.8% had heard about BSE, 88.2% of them are capable of applying BSE if taught. The subjects, scored 84.2±26.7 before the training, and 94.0±16.4 afterwards, the difference being significant ( $z=-7.75$ ,  $p<0.001$ ) The training given to the women had a very important effect on increasing information of women about BSE.

**Keywords:** Breast cancer - breast self examination - training - Turkey

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### Introduction

Cancer of the breast in women is a major health burden worldwide. It is the most common cause of cancer among women in both high-resource and low-resource settings (Tuncer, 2010). The breast cancer in the world is at the first row among the cancer types at the women but at the second row after lung cancer among the deaths due to cancer (Parkin and et al., 2005). It is at the first row among the cancer types at the women in our country and composes nearly ¼ of cancer types that are seen at women (Hamzaoglu and Özcan, 2006). Breast cancer occurs predominantly in women and is rare among men; 0.5% of all breast cancers occur in men (0.7% of all male cancers). Breast cancer is also rare among women younger than age 20. The incidence increases with age, doubling every 10 years until menopause, when the rate of increase slows. The risk of disease is 1 in 39 before age 50, 1 in 29 before age 60 and 1 in 12 by age 80 (Hanna and et al., 2008).

No any method has been found to prevent breast cancer but the single known method is early diagnosis. BSE (Breast Self-Examination) has an important place to diagnosis breast cancer early and it is informed that most of breast cancer is aware by individual herself (Şimşek and Tuğ, 2002). BSE is an examination method that can be applied easily by each woman at her home, may lead early diagnosis in a short time, no need any cost, privacy is kept, a non-invasive process and only takes five minutes of women (Uzun and et al., 2004). The American Cancer Society (1990), recommends that

all women over the age of 20 should carry out monthly breast self-examination. It is informed that the treatment will begin early and so the life period and illness of the patient will be effected positively through early breast diagnosis with BSE (Mikhail and Petro-Nustas, 2001). Hugulely et al., (1988), in a large study of 2093 women diagnosed as having breast cancer, argue that women who perform breast self-examination present with earlier stages of the disease than those women who do not self-examine. 76.7% of self-examining women survived for 5 years in comparison with 60.9% of non-self-examining women.

Consequently, telling the importance and methods of applying BSE to the women, providing application to a health foundation for the women at the case of any change that they aware without losing time carries big importance. In line with those data, regarding to provide early breast cancer diagnosis, the efficiency of BSE training, determining the knowledge of women about breast cancer and BSE and application about BSE has been purposed at the study.

### Materials and Methods

#### *Subjects of the Study*

Women between 20-60 ages who live in Cankiri Province Center compose the universe of the study. 220 women who are selected through simple accidental sampling method among those women and who accepted to participate to the study have been included into sampling.

<sup>1</sup>Cankiri Karatekin University School of Health, <sup>2</sup>Cankiri Karatekin University School of Health, <sup>3</sup>Ankara University Çankiri Health Higher Education school, Cankiri, Turkey. \* For correspondence : favour1984@hotmail.com

After getting required permissions at the study, the socio-economic-demographic features and thoughts about breast cancer and BSE of the women who are included into study have been gathered through “BSE Introducing Form”. “BSE Data Form” that includes 20 questions which interrogate the application time, method of BSE by the women who are included into Sampling. BSE training program that is given to the women composes CD and posters that are prepared by researchers and includes data about anatomy of breast, epidemiology of breast cancer, risk factors at the breast cancer, indications of breast cancer, early diagnosis at the breast cancer, early diagnosis methods, application method and time of BSE method.

#### Data Gathering Method

After determining the women who will participate to the research, required explanations about objective of the study and prepared forms have been given to the women and their filing the forms was provided. Through evaluating the forms, the pre-test points of women about BSE have been determined. Then, the groups have been composed through gathering the women. The training has been given to the each group separately and training program took averagely 30-40 minutes. Prepared training program has been presented to the women through using question-answer, telling, and demonstration and application techniques. One month after applied training

**Table 1. The Socio-Demographic Features of the Women Who Participated to the Research (n=220)**

Features	n	%	
Age	20-28	163	74.1
	29-36	16	7.3
	37-44	19	8.6
	45-52	11	5.0
	53-60	11	5.0
Marital Status	Married	50	22.7
	Unmarried	159	72.3
	Widower	9	4.1
	Separate Lives	2	0.9
Education Situation	Not Literate	2	0.9
	Literate	3	1.4
	Primary school	20	9.1
	Secondary school	12	5.5
	High School	17	7.7
	University (still university student)	151	68.6
Working Situation	House-wife	40	18.2
	Blue Collar	1	0.4
	White-collar	16	7.3
	Student	159	72.3
	Self Employment	-	-
Number of having children	Retired	4	1.8
	None	161	73.2
	1	7	3.2
	2	24	10.9
	3 and over	28	12.7
TOTAL	220	100	

“BSE Data Form” has been applied again to evaluate the efficiency of training and final-test scores about BSE was determined.

#### Data evaluation and analysis

Through evaluating the availed findings from the research, they have become ready for analysis. While analyzing the data percentage importance test and Wilcoxon mark test were used.

## Results

It has been determined that 74.1% of women who participated to the study were 20-28 ages, 72.3% of women were unmarried, 68.6% of women have still getting university education, 90.5% of women don't work, 73.2% of women have no child. The dispersion of BSE knowledge of women who participated to the research has been included in Table 1.

It has been determined that 15% of women who participated to the study had breast cancer.

Regarding the phenomenon at her relatives, 84.8% of

**Table 2. The Dispersion of the BSE Knowledge of the Women Who Participated to the Research (n=220)**

Features	n	%
Having breast cancer phenomenon at her relatives	33	15.0
Yes, there is	159	72.3
No, there isn't	28	12.7
I don't know		
BSE Application case of people having breast cancer phenomenon at her relatives	28	84.8
Yes, I applied	5	15.2
No, I didn't applied		
Availing data situation about BSE		
Yes, I got	202	91.8
No, I didn't	9	4.1
I don't remember	1	0.5
I heard but I don't know what it is.	8	3.6
Data Resources *		
Friends and relatives	34	8.5
Health personnel	60	15.0
Radio and TV programs	67	16.7
Magazine and gazettes	19	4.7
Brochures	40	1.0
Internet	20	5.0
I thought myself	3	0.7
I had breast cancer diagnosis At the training period	4	1.0
	155	38.4
Knowledge situation about application of BSE	172	78.2
Yes, I know	24	10.9
No, I don't know	24	10.9
I know partially		
BSE application situation		
If it is taught, I can apply	194	88.2
No, I don't apply	26	11.8

\* More than one option has been marked at this question.

**Table 3. The Comparison of the BSE Knowledge Before and After Training of the Women Who Participated to the Research**

QUESTIONS	BEFORE TRAINING (PRE-TEST)				AFTER TRAINING (POST-TEST)				STATISTI CAL INSPECT ION
	CORRECT ANSWERS		FALSE ANSWERS		CORRECT ANSWERS		FALSE ANSWERS		
	n	%	n	%	n	%	n	%	
1.No applicance to doctor when a change is found	185	84.1	35	15.9	203	92.3	17	7.7	(p<0.05)
2. It should be checked the symmetry of the breasts.	214	97.2	6	2.8	218	99.1	2	0.9	(p>0.05)
3. BSE should be applied every day by the women.	193	87.8	27	12.2	216	98.2	4	1.8	(p<0.05)
4. Every women should apply BSE, after the age of 20.	208	94.5	12	5.5	218	99.1	2	0.9	(p<0.05)
5. BSE should be applied before the period of menstrual.	155	70.5	65	29.5	195	88.6	25	11.4	(p<0.05)
6. BSE should be applied with circular movements and using three fingers.	207	94.0	13	6.0	217	98.6	3	1.4	(p<0.05)
7. BSE should be applied in the shower and while soap.	184	83.6	36	16.4	214	97.2	6	2.8	(p<0.05)
8. The women who is not menstruate can apply BSE.	154	70.0	66	30.0	209	95.0	11	5.0	(p<0.05)
9. It is easy to apply BSE opposite of the mirror.	203	92.3	17	7.7	217	98.6	3	1.4	(p<0.05)
10. Armpit should also be examined in BSE.	208	94.5	12	5.5	217	98.6	3	1.4	(p<0.05)
11. Physical exercise should be made as before BSE.	168	76.4	52	23.6	198	90.0	22	10.0	(p<0.05)
12. Menstruasyon end of the period is suitable for BSE.	147	66.8	73	33.2	192	87.3	28	12.7	(p<0.05)
13. It is not necessarily to examine of the armpit during the BSE.	186	84.5	34	15.5	211	95.9	9	4.1	(p<0.05)
14. It should be started clinical breast examination beginning from age of 20.	139	63.2	81	36.8	167	75.9	53	24.1	(p<0.05)
15. It should be observed the differences of nipple in BSE.	216	98.2	4	1.8	215	97.7	5	2.3	(p>0.05)
16. Embedded within the breast and gushing out nipple is normal in BSE.	146	66.4	74	33.6	188	85.5	32	14.5	(p<0.05)
17. Every woman over 50 years of age should take mammogram every year.	206	93.6	14	6.4	214	97.2	6	2.8	(p>0.05)
18. Women should be desirous to apply BSE.	192	87.3	28	12.7	204	92.7	16	7.3	(p>0.05)
19. It should be investigated whether there is or not pus on the breast.	187	85.0	33	15.0	207	94.0	13	6.0	(p<0.05)
20. It is enough that to make BSE in a life time at once.	208	94.5	12	5.5	216	98.2	4	1.8	(p<0.05)

having breast cancer phenomenon at her relatives do. As it is seen at the Table 1, it has been determined that 91.8% of women who participated into research had knowledge about BSE before this study, they availed this knowledge at the training-teaching period, radio and TV programs, health personnel, brochures, friends and relatives, internet, magazines and news papers. 78.2% of the participants stated that they had knowledge about application of KMMM, 88.2% of the participants stated that they can apply BSE if they have been taught.

When compared of the BSE knowledge before and after training of the women who participated to the research (Table 5), “no applicance to doctor when a change is found, BSE should be applied every day by the women, every women should apply BSE, after the age of 20, BSE should be applied before the period of menstrual, BSE should be applied with circular movements and using three fingers, BSE should be applied in the shower and

while soap, the women who is not menstruate can apply BSE, it is easy to apply BSE opposite of the mirror, armpit should also be examined in BSE, physical exercise should be made as before BSE, menstruasyon end of the period is suitable for BSE, it is not necessarily to examine of the armpit during the BSE, it should be started clinical breast examination beginning from age of 20, embedded within the breast and gushing out nipple is normal in BSE, it should be investigated whether there is or not pus on the breast, it is enough that to make BSE in a life time at once.”

Informations and applications were determined that the correct answers which was given after training was significantly higher than before training and being aware of BSE applications was increased.

The analysis results belong to availed score average before and after training of the women who participated to the research about BSE and all these data have been given in Table 4.

**Table 4. The Analysis Results belong to Aailed Score Average Before and After Training of the Women Who Participated to the Research**

	n	Mean	Median	Minimum	Maximum	Ss	Wilcoxon Mark Test
Score average before training	220	84.2	100.0	0.0	100.0	26.7	z p
Score average after training	220	94.0	100.0	0.0	100.0	16.4	-7.75 0.0001

## Discussion

As it is seen at the Table 1, it has been determined that 91.8% of women who participated into research had knowledge about BSE before this study, they availed this knowledge at the training-teaching period, radio and TV programs, health personnel, brochures, friends and relatives, internet, magazines and news papers. Öztürk and et al., (1999) were determined that women had knowledge about BSE from TV programs, media and health personnel in Turkey. At the study that was done by Chie and et al. (2002) it was determined that mass media as press, media has important affection on BSE applications. Our study results are similar to our study results.

78.2% of the participants stated that they had knowledge about application of KMMM, 88.2% of the participants stated that they can apply BSE if they have been taught. Leight et al., (2000) stated at their research that the BSE is monthly applied only by a small women group regularly and the number of women who apply this application according to the procedures is very less. When emphasizing the importance of training, it is thought that the number of women who will apply BSE would increase. It has been determined that breast cancer was seen among the relatives of the 15% of women, 84.8% women whose relatives were seen breast cancer apply BSE.

90.9% of the participants be in agreement the proposition of "The BSE which is examined orderly provides early diagnosis of breast cancer". It has been determined that in the 1004 breast cancer patients which had new diagnosis, was an important practice to fix the mass in early time in BSE (Foster and Costanza, 1984).

When the Table 4 is examined, it is seen that the score average before training of women who participated to the research was 84.2±26.7, their score average after training was 94±16.4 the difference between pre-test and final test score average was in the meaningful level ( $Z=-7.75$ ,  $p<0.001$ ). It was determined that the BSE knowledge that was given to the women causes increasing the knowledge of the women. Koç and Sağlam (2009), determined at their researches that they compared the knowledge level of women at the clinical breast examination of women before and after training, about mammography and BSE, they determined that the women's were insufficient at the knowledge and application before training but after training change have been occurred in statically meaningful level.

In conclusion, At the end of research, it has been seen 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 ( $Z=-7.75$ ,  $p<0.001$ ). It has been seen that the training that was given to the women had important effect

to increase BSE knowledge of the women. In the direction of availed data;

Planning the trainings about early diagnosing of breast cancer, developing self examination breast action, determined incidences and findings of breast cancer, importance of BSE, how to apply BSE and repeating those training in determined periods.

Arranging special training programs and taking active roles of nurses in this program can be suggested for teaching of BSE.

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