

# **EFFECT OF BREAST SELF-EXAMINATION (KKMM) TRAINING ON BUILDING ACCURATE INFORMATION AND BEHAVIOUR OF FEMALE EMPLOYEES OF THE TOKAT CIGARETTE FACTORY**

**Dr. Çetin DAĞHAN**  
**Senior Specialist Nurse Ümran ÇEVİK**

Provincial Directorate of Health, Tokat

## **ABSTRACT:**

**Aim:** This study was conducted with the aim of assessing the effect of training regarding Breast Cancer and Breast Self-Examination (KKMM) on being well-informed and changing of behaviour of female employees of the Tokat Cigarette Factory.

**Method:** The subjects of this study were 60 voluntary female employees of the Cigarette Factory. The subjects were informed about breast cancer and KKMM by the researcher conducting the study. Before the meeting was held, a 50 item questionnaire about breast cancer and KKMM was administered to the subjects. The researcher evaluated whether the subjects conducted the self-examination correctly according to criteria such as timing and frequency of the examination, examination technique and positioning of the examination. After this, the researcher conducted a 1 hour-long training session on breast cancer and the importance of practicing KKMM and showed the techniques with use of pictures. The information presented to the subjects required 6 months to be transformed into behaviour; therefore, the researcher contacted the subjects once again after a 6 month period and was able to reach 57 of the 60 subjects that had received the training. The 50 item questionnaire was re-administered to the subjects and the KKMM practices of the subjects were re-evaluated by the researcher.

**Findings:** Assessment of the subjects before the information and KKMM technique training showed that 24 (42%) of subjects were practicing KKMM and that only 7 (12%) of the subjects were conducting

the KKMM correctly. After the training had taken place, it was found that 44 (77%) subjects stated that they practiced KKMM; however, only 25 (44%) were doing the examination correctly.

It was found that 21% of subjects practiced the KKMM once a month and 19% were conducting it 2-3 days after the period of menstruation. Results showed that, after the training had taken place, 49% of subjects practiced the KKMM once a month and 61% of subjects were practicing the KKMM 2-3 days after the period of menstruation.

**Keywords:** Breast Cancer, Breast Self-Examination, Training

## **INTRODUCTION:**

Breast cancer is the most frequently occurring cancer in women. One out of every 10 women have breast cancer in their lifetime and 1 out of 3 have a risk of dying from breast cancer. The early diagnosis of breast cancer increases the rate of survival. Many tumours can be detected by the women herself by breast self-examination (KKMM). In fact, 90% of masses in breasts are detected by the women themselves and 25% of have been found to have been malignant. It is for reasons such as this that women must be informed and their awareness raised about the risks of breast cancer, its symptoms and about KKMM (Şen et al., 2002; Parlar et al., 2004; Koçoğlu, 2005; Kılıç et al., 2006).

Public health training ensures a basic, inexpensive, non-invasive, safe tool for early diagnosis of breast cancer and KKMM which does not require any equipment. Furthermore, it is helpful in ensuring that persons take responsibility for their own health (National Family Planning Services Guide, 2000; Şen et al., 2002; Nahcivan & Seçginli 2003; Parlar et al., 2004).

Early diagnosis and treatment is vitally important for high risk groups in preventing and reducing the number of cancer-related deaths. Breast self-examination (KKMM), mammography and clinical breast examination are the primary early diagnosis techniques for the early diagnosis of breast cancer. These are known as early diagnosis or screening techniques (Nahcivan & Seçginli, 2003; Çadır et al., 2004).

Women working in the Cigarette Factory in the province of Tokat were targeted for this study due to their cancer risk factor. For this reason, it was aimed to investigate the effect of training on the importance of performing KKMM as an important method of early diagnosis of breast cancer on their behaviour due to acquirement of correct information.

## **METHOD:**

This study is experimental research based on the pre-test – post-test model. The population of the study consists of 175 female employees

working on the same shift. Of this population, 60 female employees volunteered to be subjects in the study. The subjects received information and training about breast cancer and KKMM. Before the training took place, a 50 item questionnaire about breast cancer and KKMM was administered to the subjects. The information requested by the questionnaire contained such information as demographical details, their knowledge of symptoms of breast cancer, risk factors and most frequently occurring cancers, importance of KKMM for early diagnosis, whether they had had a clinical breast examination and/or mammography, whether they practiced KKMM and if so how often and when, if not, why they did not. Those subjects who had mentioned that they practiced KKMM on the questionnaire were asked to show how they examined their breasts. The researcher evaluated whether the subjects performed the self-examination correctly according to criteria such as timing and frequency of the examination, examination technique and positioning of the examination. (National Family Planning Services Guide, 2000). After this, the researcher conducted a 1 hour-long training session on breast cancer and the importance of practicing KKMM and showed the techniques with use of pictures. Pamphlets containing information about KKMM was distributed. After the training, each of the subjects performed the breast self-examination in turn and were all in agreement that the self-examination should be performed one a month. The information presented to the subjects required at least 6 months to be transformed into behaviour; therefore, the researcher contacted the subjects once again after a 6 month period and was able to reach 57 of the 60 subjects that had received the training. The 50 item questionnaire was re-administered to the subjects and the KKMM practices of the subjects were re-evaluated by the researcher. The data obtained from the study was coded and analysed using the software SPSS for Windows 10.0. Percentages of the results were taken and the data was analysed using the Chi Squared and Paired Samples T Test methods of analysis.

#### **FINDINGS:**

The average age group of the female subjects participating in the study was  $37.14 \pm 2.5$  (median 37 years). It was found that the 77% of the subjects were high school graduates, 97% were married and of these 70% had been married for over 11 years and 63% had 1-2 children (Table 1). 21% of the subjects had previously had a mammography and 26% had a clinical breast examination at least once before.

When the status of subjects practicing KKMM was compared according to pre-training and post-training, it was found that there was a

significant increase in the rate of practicing of KKMM after the training ( $p < 0.05$ ) (Table 2).

**Table 1: Demographical characteristics of the female employees**

Demographic Characteristics		Number	%
Age	32-35 age group	21	36.8
	36-39 age group	24	42.1
	40 years and over	12	21.1
Graduation	Middle School	11	19.3
	High School	44	77.2
	Tertiary Education	2	3.5
Marital Status	Married	55	96.5
	Single	2	3.5
Years Married	1-5 years	1	1.8
	6-10 years	14	24.6
	11 years and over	40	70.2
Number of Children	0	4	7.0
	1-2 children	36	63.2
	3 or more	17	29.8

**Table 2: Status of female employees' own statements about**

	Correctly practicing KKMM		Incorrectly practicing KKMM		Not practicing KKMM		Analysis
	No.	%	No.	%	No.	%	
Before training	7	12.3	17	29.8	33	57.9	$t = -6.220$ $p = 0.000$
After training	25	43.9	19	33.3	13	22.8	

**practicing KKMM**

**Table 3: Results of the assessment of KKMM practice technique**

	Practicing KKMM		Not Practicing KKMM		Statistical Analysis
	No.	%	No.	%	
Before training	24	42.1	33	57.9	$t = 5.121$
After training	44	77.2	13	22.8	$p = 0.000$

In observation of the KKMM techniques performed by 24 (42%) subjects who reported to be performing the KKMM, it was found that only 7 (12%) were performing it correctly. Results showed that 44% of the subjects (25 women) performed the self-examination correctly after the training was provided. This result was statistically significant when compared with the pre-training findings (Table 3).

21% of the subjects reported that they performed KKMM once per month and of these, 19% of subjects practiced the KKMM 2-3 days after their menstruation before they received the training. These figures were increased after they received the training to 49% of subjects practicing the KKMM once a month and 61% of these subjects conducting it 2-3 days after their menstruation. There was a significant statistical difference ( $p < 0.05$ ) between the results regarding frequency of KKMM and knowledge of correct timing when pre-training and post-training were compared.

39% of subjects had reported “KKMM must be practiced regularly for the early diagnosis of breast cancer” before the training. However, results showed that this figure increased to 60% after the training. Comparison of results for pre-training and post-training knowledge of the importance of KKMM in the early diagnosis of breast cancer showed a significant statistical difference after the training was given to the subjects ( $p < 0.05$ ).

Evaluation of knowledge scores of subjects of the study show that the most significant differences ( $p < 0.05$ ) between pre-training and post-training were for scores for awareness of the cancer, knowledge about KKMM and knowledge of symptoms of cancer.

## **DISCUSSION:**

Breast cancer is the cancer most commonly seen in women worldwide (Topuz et al., 2003; Nahçıvan & Seçginli 2003; Dişçıgil et al., 2007). All women in the high risk group, especially those that are genetically susceptible, cigarette smokers and passive smokers, must be aware of the early diagnosis methods (Öztürk et al., 2000; Şen et al., 2002; Topuz et al., 2003). All health care professionals and especially those that are working in the primary health care services have an important responsibility in this matter.

KKMM is a simple early diagnosis method which free of charge and requires no special tools or equipment and can be performed by women on their own. If it is taken into consideration that all cases of breast cancer were diagnosed as a result of the women detecting a mass in their breast by self-examination, it can be stated that KKMM is an effective method of early diagnosis of breast cancer. It has been found that breast

cancer can be detected at an earlier stage by women practicing KKMM compared to those that do not (Akyolcu, 1987; Kılıç et al., 2006).

The KKMM method as a tool for early diagnosis of breast cancer is still not a method regularly conducted by Turkish women. This study found that 24 women (42%) in the sample reported to practicing KKMM before receiving the training while Çaldır and others found in their study that although 45.1% of women stated that they practiced the KKMM, only 37.1% actually performed it regularly on a once-a-month basis.

Studies conducted in other countries regarding KKMM knowledge and practices gave result which were higher than this study or the other studies conducted in Turkey. For example, research conducted on Saudi Arabian women found that 82% of women were informed about KKMM and 41% of women regularly practiced the KKMM (Alam, 2006).

This study ensured that the awareness of the women (who are in a high risk category) working at the cigarette factory were raised. Not only were they informed about breast cancer, they were also informed about KKMM and trained on how it is done. This was important because, it does not help to be informed on early diagnosis in breast cancer if it is now regularly performed (Öztürk et al., 2000; Parlar et al., 2004).

The results of this study are not confined to raising awareness by dissemination of the correct knowledge; there was also an increase in the percentage of regular and correct practice of KKMM. Before the training, the number of women reporting that they practiced KKMM was 24 (42%) but it was observed that only 7 (12%) were performing it correctly. After the training was provided, the percentage of women who were informed and also practicing the KKMM correctly increased to 44% (25 women). This increase in percentage is supported by a statistically significant relationship in the pre-training – post-training analysis.

In a study conducted by Aydemir (et al., 1994), it was concluded that 54% of women were aware of KKMM but only 39% were regularly practicing KKMM. In a different study, it was found that 37.5% of women reported to be practicing the KKMM and that only 13.2% were doing it correctly but the percentage of women regularly practicing the KKMM correctly reached 74% after they received training (Parlar et al., 2004).

In this study, it is found that, of the women who participated in the study, 21% of had a mammography at least once and 26% had clinical breast examinations (KMM). Çadır (et al., 2004) found in their study that the percentage of women who had mammography was 10.5% and the 19.4% had (KMM).

Fear of or interest in the disease is higher in women who have a history of breast cancer in their family. In this study, no statistical differences in regards to having mammograms or requesting a KMM

were found; however, the rate of having these done was found to be low. Research findings of Achat (et al., 2005) and Maraş (et al., 2002) were supportive of the findings of this study. In their study, Dişçigil (et al., 2007) found that women with a history of breast cancer in their family were more cautious in terms of breast health.

Before receiving the training, 21% of the women reported to practice KKMM one a month and 19% stated that they practiced the KKMM 2-3 days after menstruation. After receiving the training, 49% reported that they practiced KKMM once a month and 61% of the women stated that they performed it 2-3 days after menstruation. Similar results were found by a study conducted by Parlar (et al., 2004).

39% of women had reported “KKMM must be practiced regularly for the early diagnosis of breast cancer” before the training. However, this figure increased to 60% after they received the training. The results of the study conducted by Parlar (et al., 2004) were supportive of the results of this study.

Evaluation of the women’s knowledge frequency scores in the study showed that there were significant differences between pre-training and post-training for scores for awareness that breast cancer is the most commonly seen cancer in women, knowledge about the timing, frequency and method of KKMM and knowledge of symptoms of the cancer. Support for findings of this study that knowledge scores increase after receiving training can be found in similar studies (Aydemir et al., 1994; Öztürk et al., 2000; Parlar et al., 2004).

#### **CONCLUSION:**

In this study, it is found that the participating women did not possess a sufficient level of knowledge or the correct behaviour concerning breast cancer and KKMM practice methods before they received training. It was observed that these women acquired the correct knowledge and developed the correct behaviours after they received the training. However, for this training to be more effective and permanent, it is recommended that their KKMM practice methods are followed up periodically and that this should be practiced in smaller groups or perhaps one-to-one if the opportunity is available.

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