RESEARCH ARTICLE

Breast and Cervical Cancer Related Practices of Female Doctors and Nurses Working at a University Hospital in Turkey

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Abstract

Background: Breast and cervical cancers are among the most frequent and most fatal cancers in women. Life span of patients may be increased and quality of life improved through early diagnosis and treatment. This investigation was performed in order to determine knowledge and practices of female health personnel working at a university hospital regarding breast and cervical cancers. Materials and Methods: This descriptive investigation was performed in Erciyes University Hospitals in 2014. A total of 524 female health personnel were included in the study. Data were collected through a questionnaire of 36 questions prepared by the researchers. The Chi square test and logistic regression were used for statistical analyses. Results: The mean age of the study group was 32.8±6.9 years, 18.3% being doctors and 81.7% nurses. Of the study group, 60.5% stated that they performed self breast-examination, 4.4% underwent HPV testing, 26.3% thought about taking an HPV test, 34.7% of those who are 40 years and over had mammography regularly and 19.5% of those who were married had a Pap smear conducted regularly. Most important causes of not performing the methods for early diagnosis of breast and cervical cancers are "forget and neglect". Conclusions: It was concluded that female doctors and nurses do not pay sufficient attention to screening programs for breast and cervical cancers. The importance of early diagnosis and treatment should be emphasized during the undergraduate education and in-service training programs. Health condition of personnel and their utilization of preventive health care should be followed by occupational physicians.

Keywords: Breast cancer - cervical cancer - health personnel - breast self-examination - early diagnosis

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Introduction

Cancers are a group of diseases characterized by uncontrolled cell proliferation. According to the projections of World Health Organization (WHO), there were 12.4 million new cancer cases and 7.6 million cancer deaths worldwide in 2008, and more than half of cancer cases and 60% of deaths occur in the less-developed countries.

Early diagnosis and treatment is essential to reduce cancer deaths and to prolong survival. Early diagnosis has advantages like short duration of treatment, less psychological and economic burden on patients and their relatives, being cheaper for country's economy (Ozmen et al., 2009).

Breast cancer is the most frequent cancer among women with an estimated 1.67 million new cases diagnosed in 2012. It is the most common cancer in women both in developed and developing countries. Breast cancer doesn't produce typical symptoms during the early stage and it can be successfully cured in this stage. Therefore, it is very important for women to follow recommended screening guidelines for detecting breast cancer at an early stage (American Cancer Society, 2013)

Breast self examination (BSE) is an effective diagnostic method in terms of implementation easily at home, protection of privacy, and the recognition of changes in their own breast tissue by women. Women shoud be informed about the importance of early diagnosis and encouraged to make BSE and application of the other diagnostic methods.

Cervical cancer is one of the most important health problems for adult women in developing countries (Sankaranarayanan et al., 2001). Cervical cancer is the fourth most common cancer and an important cause of mortality in women worldwide with an estimated 528,000 new cases and 266,000 deaths in 2012. Almost 87% of cervical cancer deaths occur in less developed coutries (GLOBOCAN, 2012).

Cervical cancer screening with Pap smear test is a cost-effective diagnostic method. Diagnose and treatment of cervical lesions in premalignant stage can reduce incidence and mortality rates of cervical cancer. American Cancer Society (2013) recommends that cervical cancer screening should begin approximately three years after a woman begins vaginal intercourse, but no later than 21 years of age. Screening should be done every year with conventional Pap tests or every two years using liquid-based Pap tests.

There are national screening programmes for breast

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and cervical cancers in Turkey. According to the Turkish National Cancer Screening Program, Pap smear test is recommended once in every five years between 30 and 65 years of age and mammography is recommended once every two years for the women aged 40 and 69 (Gultekin M, 2014).

Especially the female doctors and nurses are expected to be knowledgeable and sensitive about the preventive and diagnostic methods for breast and cervical cancers.

This investigation was performed in order to determine knowledge, attitude and practices on breast and cervical cancers of female health personnel working at a university hospital.

Materials and Methods

This descriptive investigation was performed in Erciyes University Hospitals in May-June 2014. Ethical approval was obtained from the ethical committee of the Erciyes University Faculty of Medicine and administrative permission was obtained from the directorate of the university hospital.

Data was collected through a questionnaire which consists of 36 questions prepared by the researchers. The questionnaire included sociodemographic characteristics of participants and their knowledge, attitude and practices about breast and cervical cancers.

We aimed to reach all of the female doctors and nurses working at the hospitals of Erciyes University. No sampling was done. Researchers visited the personnel at their departments. Of the 1093 personnel, 868 were interviewed. They were informed about the purpose of study and were told that participation was totally voluntary. A total of 576 people who accepted to participate in the study were given the questionnaires and they were collected the next day. Fifty two questionnaires were excluded because of incomplete answers. A total of 524 paticipants were included in the study..

The data were analyzed by SPSS 15.0 software on the computer. Chi square test and logistic regression method were used for statistical analyses. The $p<0.05$ values were considered signipicant.

Results

The age distribution of the the study group is between 20-63 and the mean age was found to be 32.8 ± 6.9 years. Of the participants 18.3% are doctors and 81.7% are nurses, 66.6% of them are married, and 57.1% have at least one birth. It was determined that 0.8% of participants had a diagnosis of cancer themselves and 33.8% had at least one person diagnosed with cancer in their family members.

Of the study group, 88.2% knows that breast cancer is the most common cancer in women, 37.0% knows that the most frequent cause of cancer deaths in women is breast cancer, 87.4% thinks that the first method for early diagnosis of breast cancer is BSE, 60.5% thinks that BSE should start at 20 years of age, 78.4% thinks that BSE should be done once a month, 53.6% thinks that BSE should be performed at the end of menstrual period, 46.2% thinks that regular pap smear test should be started within three years after the onset of vaginal intercourse and 2.9% thinks that Pap smear test should be performed once every five years.

It was determined that 60.5% of participants performed BSE regularly (Table 1). There was no significant relationship between performing BSE and age, marital status, occupational status, and family history of cancer. Likewise, 63.6% of women who have breast cancer in their family were performing BSE. When we asked about the reasons of not performing BSE, the most common answer was "forget and neglect" (86.5%).

The percentage of women who performed mammography regularly was found 6.9% (Table 2). This proportion was 34.7% for women aged 40 years and over. The probability of performing mammography was found 250 times higher among the women 40 years of age and over than the women under 40. The percentage of regular mammography performance among the married women and among the women who had family history of cancer was found statistically higher in the univariable analyses. But the impacts of marital status and family history on the probability of performing mammography were not found significant in logistics analysis. On the other hand, there was found no significant difference between doctors and nurses in terms of regular mammography performance.

When we asked the women who are 40 years of age and over and don't perform mammography for the reason of not performing mammography, the most common answer was "forget and neglect" (69.7%). Other reasons awee "thinking as unnecessary" (21.3%), and "fear of bad results" (9.1%).

As shown in Table 2, the percentage of regular Pap smear testing was found 13.9%. This percentage was 30.7% in women aged 40 years and over, and 19.5% in married women. The percentage of regular Pap

Table 1. Associations between Some Independent Variables and Performing BSE

Independent Variables	Groups	n	Performing BSE		Chi Square Test		Logistic Analysis
			number	%	X^2	p	OR (%95 GA)
Age groups	Under 40	423	253	59.8	0.43	0.511	1.00
	40 and over	101	64	63.4			1.16 (0.73–1.85)
Marital status	Unmarried	175	105	60.0	0.03	0.869	1.00
	Married	349	212	60.7			0.97 (0.66–1.43)
Profession	Doctor	95	51	53.7	2.25	0.133	1.00
	Nurse	429	266	62.0			1.40 (0.89–2.20)
Cancer in the family	No	347	211	60.8	0.04	0.829	1.00
	Yes	177	106	59.9			0.95 (0.65–1.38)
Total		524	317	60.5			

Table 2. The Impacts of Some Independent Variables on Mammography Screening, Pap smear Testing and HPV Vaccination Status

Independent Variables	Groups	n	Performing Mammography		Chi Square Test		Logistic Analysis
			number	%	X^2	p	OR (%95 GA)
Age groups	Under 40	423	1	0.2	150.95	<0.001	1.00
	40 and over	101	35	34.7			250.68 (31.61-1987.85)
Marital status	Unmarried	175	6	3.4	4.86	0.027	1.00
	Married	349	30	8.6			0.63 (0.19-2.06)
Profession	Doctor	95	6	6.3	0.06	0.813	1.00
	Nurse	429	30	7.0			0.66 (0.20-2.01)
Cancer in the family	No	347	15	4.3	10.42	0.001	1.00
	Yes	177	21	11.9			1.70 (0.75-3.86)
Total		524	36	6.9			
			Having Pap Smear				
Age groups	Under of 40	423	42	9.9	29.32	<0.001	1.00
	40 and over	101	31	30.7			3.13 (1.79-5.47)
Marital status	Unmarried	175	5	2.9	26.87	<0.001	1.00
	Married	349	68	19.5			6.26 (2.44-16.05)
Profession	Doctor	95	4	4.2	9.14	0.002	1.00
	Nurse	429	69	16.1			3.73 (1.29-10.74)
Cancer in the family	No	347	48	13.8	0.01	0.927	1.00
	Yes	177	25	14.1			0.77 (0.44-1.35)
Total		524	73	13.9			
			HPV Vaccinated				
Age groups	Under 40	423	15	3.5	3.71	0.054	1.00
	40 and over	101	8	7.9			2.40 (0.93-6.18)
Marital status	Unmarried	175	8	4.6	0.02	0.885	1.00
	Married	349	15	4.3			0.71 (0.28-1.78)
Profession	Doctor	95	2	2.1	1.44	0.230	1.00
	Nurse	429	21	4.9			2.35 (0.54-10.33)
Cancer in the family	No	347	14	4.0	0.31	0.579	1.00
	Yes	177	9	5.1			1.14 (0.47-2.75)
Total		524	23	4.4			

smear testing varied significantly with age, marital status and occupational status. Probability of Pap smear testing among the women 40 years of age and over was approximately 3 times higher than those under 40. It was about six times higher in married women than unmarried ones, and it was about four times higher in nurses than doctors. There was no significant relationship between Pap smear testing and family history of cancer.

It was determined that 88.1% of the participants aged 40 years and over was married. The percentage of regular Pap smear testing in the married women who are 40 years of age and over was found 32.6%.

Among the married women, the most frequent reason of not having Pap smear test is forget/neglect (60.7%). Other reasons are thinking it as unnecessary (16%) and fear of bad results (2.6%).

Only 4.4% of participants reported that they had HPV vaccine (Table 2). There was no significant relationship between HPV vaccination status and age, marital status and occupational status. On the other hand, %26.3 of participants thinks to have HPV vaccine. There was no significant relationship between thinking of HPV vaccination and age, marital status and occupational status (p>0.05). But, the proportion of the women who think of HPV vaccination was 71.4% in the women who had family history of cervical cancer and it was found significantly higher than the women who had no family history (p<0.001).

Discussion

The knowledge, attitude and practices of the women about female cancers are very important. Knowledge level and positive attitudes and practices of the female health professionals are expected to be higher than other women in the community.

It was determined that 0.8% of participants had a diagnosis of cancer themselves and 33.8% had at least one person diagnosed with cancer in their close relatives. Oran (2008) reported that 13.1% of academician women had cancer in family and most of the family members were first-degree relatives. But we did not ask for the degree of kinship.

In our study, it was found that 60.5% of female health workers are regularly practicing BSE . There was no significant difference between nurses and doctors in terms of practicing BSE. In a study conducted among nurses in Saudi Arabia, it was reported that 62.8% of the nurses practiced BSE (Shadia et al.,2012). In two studies conducted in Nigeria and India, the percentage ot health care workers performing regular BSE were found 54% (Oche et al., 2012; Fotedar et al.,2013). These results are similar to our study.

Randomized-controlled trials shows that

mammography reduce mortality rates of breast cancer among women 40 to 74 years of age (Humphrey et al., 2002). There are various studies about the benefits of screening after the age of 40 or 50 years. According to a research by Nelson et al (2009), mammography screening reduces breast cancer mortality by 15% for women aged 39 to 49 years. In our study, it was found that 6,9 % of the participants have regular mammography. However, the average age of the participants in our study is 32.8±6.9 and most of them are under 40 years of age. Therefore, mammography practices of the participants over 40 years of age were evaluated separately and percentage of regular mammography was found 34% in this group. It was reported that 14% of the Saudi nurses had a mammography (Shadia et al.,2012). In another study conducted in Turkey, it was reported that 23.4% of the academicians had mammography within the last two years (Oran et al., 2008). In a study conducted among African-American women in the United States, 43% of the women aged 40 years and over reported that they had a mammography in the last year (Sadler et al.,2007). In another study among Chinese women, percentage of mammography screening was found 18.2%. (Kim et al., 2011). This difference may be explained by different environmental factors, social beliefs and tradition among communities.

Cervical cancer is a preventable disease thanks to HPV vaccination and can be diagnosed in an early stage because of long lasting preinvasion period. According to the report of Turkish Ministry of Health, Pap smear test is recommended once every five years in women aged 30-65 (Turkish Ministry of Health, 2009). Özdemir and Bilgili (2010) reported that percentage of regular Pap smear testing among the nurses in Ankara was 23.7%. In a Turkish study performed by Sait (2011), 28.5% of the physicians have Pap smear test. In a study conducted among female university students in Malaysia, the prevalence of ever having a Pap smear test was reported 6% (Al-Naggar et al.,2010). Shekhar et all. (2013) reported that 17% of the Indian nurses had been screened at least once by Pap smear test. A study conducted by Amarin et all (2008) on Jordanian women reported that 14.3% of the women had a Pap smear test and more than half of these women (52.2%) had the test within the previous 3 years. But, only 5.6% reported having regular test.

In our study, approximately 70.2% of the paticipants was evermarried and these women were expected to have Pap smear test regularly. However, only %19.5 of evermarried women had regular Pap smear. It was determined that major reasons of not performing Pap smear test were forget/neglect (60.7%). There was significant relationship between having regular Pap smear test and age, marital status and occupation. Women aged 40 years and over had a percentage of Pap smear testing higher than the women under 40 and the difference between the groups was found statistically significant. Percentage of Pap smear testing is expected to be higher in married and older women. But, percentage of Pap smear testing of the married women aged 40 years and over was found only 32.6%. This data shows that female health workers neglect their own health. In our study, female doctors were worse than nurses in terms of having regular Pap smear testing. These results may be due to the fact that doctors work harder than nurses.

In our study, 4.4 % of the participants had HPV vaccine and %26.3 thinks to have. There was no significant relationship between HPV vaccination and age, marital status and occupational status. The percentages of HPV vaccination were very low in all groups.

This study has two major limitations. Firstly; the study was conducted on the female heath personel working in a single hospital. Therefore, the obtained results may not represent all doctors and nurses in Turkey. Secondly; data related to the practices of the participants is based on their self-report. This data may not reflect the actual situation.

In conclusion, it was concluded that female doctors and nurses don't pay attention for screening programs for breast and cervical cancers. They have inadequate knowledge and practices related breast and cervical cancers. The importance of early diagnosis and treatment and positive health behaviours should be emphasized during the undergraduate education. These behaviours should be reinforced in-service training programs..

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