RESEARCH ARTICLE

Knowledge Levels of Turkish Nurses Related to Prevention and Early Diagnosis of Cancer

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Abstract

Background: The aim of this study was to examine knowledge about cancer and early diagnosis of cancer among nurses. Materials and Method: This descriptive study was carried out at a University Faculty of Medicine Hospital in Turkey. Study between April and June, 2011, with 325 volunteer nurses. The collection tool consisted of two survey forms. The first was designed for sociodemographic information and the second consisted of 16 questions, prepared in accordance with the literature as open and close-ended, for interviews conducted by researchers. Results: Out of the individuals (n=325), included in the study, 90.8% were female, 63.1% high school-university graduates and 55.1% married, with an average years of service of 6.34±5.33 and an average age of 28.1±5.10. The mean cancer knowledge point was 70.1±19.5. Some 79.1% of nurses had not received cancer related continuing education by specialists. A signified relation was found between the nurse knowledge on cancer and educational level (p<0.05). Conclusions: The nurse, a member of the health staff, is in constant contact with individuals at hospitals, schools, polyclinics, workplaces, and homes. When educating society about cancer, nurses need to have a high level of knowledge regarding early diagnosis and cancer prevention.

Keywords: Cancer - cancer prevention - early diagnosis - knowledge - nurses - Turkey

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Introduction

The world's interest in cancer, which is one of the most important health issues at present, has increased rapidly in the following years since the second world war. Different rates of different cancer types are seen, and cause death, in various countries (Contanza et al., 1990). Cancer is a leading cause of death worldwide and accounted for 7.6 million deaths (around 13% of all deaths) in 2008 (WHO, 2011). Cancer is the second most common illness, after cardiovascular diseases, in developed countries. A near 6.5 million people are diagnosed with cancer every year, worldwide (Sherman et al., 1992; Birol et al., 1997). By some estimates of cancer are environmental in origin and are potentially avoidable. Protection from cancer must be early diagnosis addition to avoiding the carcinogenic, because in many types of cancer the earlier the cancer is diagnosed (Carey and Charlton, 1995; Birol, 1997).

Cancer is one of the most important health problems of our age, is increasing gradually in our country (Özkahraman et al., 2006). In our country, cancer took its place on the list of "notifiable diseases," in 1981. However, the number of cases notified was still below the number expected. Even in the event that we take into consideration that the lack of notification is due to the lack registration in Turkey, the majority of people that are ill cannot be reached. These patients that cannot be reached may even die before they are diagnosed (Fadılıoğlu, 1996; Kutluk and Kars, 1996). According to Willet, early detection can also play an important role in reducing cancer mortality. Primary strategies include the Pap test for cervical cancer, mammography, and colorectal cancer screening by occult blood testing, sigmoidoscopy, and colonoscopy. Screening for cervical and colon cancer can include other prevention efforts as well, because this often leads to the removal of precancerous tissue before the progression to cancer (Willett, 2003).

Nowadays, the roles of nurses have changed; not only do they provide healthy and ill individuals with health education, but they also play an important role in early diagnosis cancer types (Platin, 1996; Bond and Jordell, 1997). This means that by understanding the level of knowledge nurses need to have about preventing cancer and early diagnosis, and identifying the education nurses require regarding cancer contributes to the health education nurses will provide to society. This research was planned to examine knowledge about cancer and early diagnosis of cancer among nurses.

Materials and Methods

Setting, sample and ethic considerations

The universe of the study is formed nurse working at the University Hospital (n=355). A convenience sample

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of (n=325) nurses was recruited between April and June, 2011 in a University Faculty of Medicine Hospital in. Verbal consent was obtained from the participants after the purpose of the study was explained to them. Participation in this study was voluntary. The sample group was chosen voluntary nurses. Researches applied the survey to the nurses who accepted the survey. For conducting the study, permission was taken from the clinical research ethics committee. Verbal consent was obtained from all participants stating that they were willing to participate in the study. The instrument was applied by face-to-face interview technique. The instrument took about 20 minutes to complete.

Instruments and data collection

This study was a descriptive type. By means of which collection tool a survey consisted of two forms. First form was designed for sociodemographic information consisted of 10 questions. The second form was consisted of risk groups and early diagnosis of cancer related 16 questions. The questions were prepared in accordance with the literature as close-ended (Nural and Akdemir, 2000; Gunes et al., 2007; Kolutek and Karataş, 2007; Bilge and Çam, 2008; Özdemir and Bilgili, 2010; Sullivan et al., 2010; Uncu and Bilgin, 2011)

After the questionnaire was prepared, then the questionnaire was tested for comprehensibility by giving it to 15 nurse people who were not included in the study, and changes were made based on their recommendations.

Data analysis

Data were analyzed using the Statistical Package for the Social Sciences (SPSS version 16.00 for Windows). Derived from data were analyzed for the numerical and percentage distribution, average, standard deviation, t test and ANOVA tests.

Results

Demographic characteristics of nurses

Out of the individuals (n=325), included in the study, 90.8% were female, 63.1% high school-university graduates, 55.1% married, the average year of services was 6.34±5.33 and the average age was 28.11±5.10 years old. It was determined that 79.1% of the nurses had the longest residing location in a city and that 86.8 % had middle income. Sociodemographic characteristics are listed in Table 1.

Cancer knowledge of nurses

The mean cancer knowledge point of nurses was 70.07±19.45. In Table 2, the results of the answers given by the nurses related with cancer. The 79.1% of nurses did not take the cancer related continuing education by the specialist. The 16.9% of nurses participated in a congress on cancer. When family risks in terms of cancer were analyzed, it was seen that 56.3% of nurses had a history of cancer in their families.

It was determined that educational level, task type of nurses, clinic work type and nurses had a history of cancer in their families of the nurses were all factors affecting in the means of cancer knowledge ($p<0.05$). A signified relation was found between the nurses's knowledge on level of cancer and educational level analyze ($F=1.952$, $p=0.014$). A significant difference was found between in the means of cancer knowledge and task type of nurses

Table 1. Sociodemographic Characteristics of Nurses

Sociodemographic Characteristics		Number	%
Gender:	Female	295	90.8
	Male	30	9, 2
Education:	Halth vocational school	59	18.2
	Associate Degree	61	18.8
	High School-university graduates	205	63.1
Marital Status:	Married	179	55.1
	Single	134	41.2
	Widow/Divorced	12	3.7
Income Status:	Low	29	8.9
	Medium	282	86.8
	High	14	4.3
Longest Residing Location			
	City	257	79.1
	County	40	12.3
	Town	14	4.3
	Village	14	4.3
Task Type:	Service responsible for the nurse	29	8.9
	Nurse service	187	57.5
	Operating room nurse	16	4.9
	Intensive care nurse	89	27.4
	Supervisor	4	1.2
Satisfaction State of the Profession			
	I'm satisfied	172	52.9
	I'm partially satisfied	146	44.9
	I'm not satisfied	7	2.2
Clinic work:	Internal units	181	55.7
	Surgical units	144	44.3

Table 2. Distribution of The Answers Given by The Nurses Related with Cancer

Answers given related with cancer		Number	%
Have You Received any Cancer-Related Continuing Education?			
	Yes	68	20.9
	No	257	79.1
Have You Participated In a Congress on Cancer?			
	Yes	55	16.9
	No	270	83.1
Sources of information about the protection against cancer			
	Mass-media	178	54.8
	Health-related publications	72	22.2
	Books-magazines	68	20.9
	Not answer	7	2.2
Smoke cigarette:	Yes	89	27.4
	No	236	72.6
Drink alcohol:	Yes	26	8
	No	299	92
Do you have a family history of individuals with cancer?			
	Yes	183	56.3
	No	142	43.7
Cancer Type:	Breast	44	24
	Lung	38	20.8
	Colon	32	17.5
	Liver	23	12.6
	Uterus	19	10.4
	Prostate	15	8.2
	Leukemia	12	6.6

(F=1.702, p=0.041). A significant difference was found between in the means of cancer knowledge and clinic work type (t=3.672, p=0.000). A significant difference was found between in the means of cancer knowledge and nurses had a history of cancer in their families (t=2.297, p=0.0022). A significant difference was found between in the means of cancer knowledge and status of early diagnosis in cancer and cancer prevention related continuing education (t=1.074, p=0.284)

In this study, it was found that the income status (F=1.560, p=0.073), status of satisfaction state of the profession (F=0.682, p=0.820), smoke cigarette (t=1.015, p=0.311), drink alcohol (t=0.138, p=0.890), and nurses had a history of cancer type in their families (F=1.330, p=0.0172) did not affect nurses's the means of cancer knowledge.

Discussion

The aim of this study was to examine knowledge about cancer and early diagnosis of cancer among nurses. In this study, it is important for nurses to knowledge level towards cancer. In this study, it was determined that nurses's the means of cancer knowledge was not to be affected by income status, satisfaction state of the profession, status of cancer related continuing education, smoke cigarette, drink alcohol and nurses had a history of cancer type in their families, which is consistent with past studies (Pinotti et al., 1995; Şimşek, 2003; Uncu and Bilgin, 2011).

When we look at the most common types of cancer in society, the most common type of cancer in women is breast cancer, and the most common type of cancer in men is lung cancer; for both genders, both are the leading causes of death (Yavuz, 1995; Willett, 2003; Fidaner, 2011; Uncu and Bilgin, 2011). In our study, the most common cancer type suffered by the families of nurses was breast and lung cancer. The findings of similiar our studies made about this subjects are also supportive of our study.

The 27.4% of nurses had smoke cigarette. Other studies found that the majority of health workers's had smoke cigarette. (Tezcan and Yardım, 2003; Erbaycu et al., 2004; Mevsim et al., 2005). It is a well-known fact that smoking is one of the most important causes of preventive illnesses and early deaths. Health personnel, nurses in particular, play a huge role in fighting against smoking. This is why we believe that nurses should touch upon the harm smoking causes when providing ill or healthy individuals training courses about cancer.

The mean score nurses from cancer questions was 70.07±19,45. The general score changes between 0-100. The more the score nurses get, the better cancer knowledge is. A signified relation was found between the nurses's knowledge on level of cancer and educational level analyze (F=1.952 p=0.014). The more training nurses receive the higher their level of knowledge becomes regarding cancer. Other studies conducted report that the level of knowledge about cancer decreases as the level of training increases (Sarı, 1997; Chong et al., 2002; Şimşek, 2003). We believe that knowledge scores of nurses will increase and they will be able to provide healthy and ill individuals with correct and effective training regarding cancer if the cancer training they receive is more comprehensive.

Numerous programmes that emphasise the importance of early diagnosis and prevention of cancer in the media affect the majority of society. Other studies conducted report that that news media play an important role in disseminating health information (Kwon et al., 2006; Lemal and Van den Bulck, 2010). In this study conducted on nurses, we discovered that more than half of the nurses included in the study obtained their knowledge regarding cancer prevention from the media.

The relationship between the knowledge scores of nurses, included in this study, regarding early diagnosis in cancer and cancer prevention and the situation of continuing education they had received about cancer was investigated. There was a significant difference between the knowledge scores of nurses that had received cancer training and those that had not received cancer training. The reason behind the difference was that the knowledge score of trained nurses was higher than the knowledge score of untrained nurses. Results of another study support the results of our study; the knowledge score of nurses trained on cancer was higher in comparison to the knowledge score of untrained nurses (Pinotti et al., 1995; Şimşek, 2003; Özdemir and Bilgili, 2010; Uncu and Bilgin, 2011).

In conclusion, in recent years, cancer has become very common in both our country and the world. The nurse, a member of the health staff, is in constant contact with individuals at hospitals, schools, polyclinics, workplaces, and homes. When educating society about cancer, nurses need to have a high level of knowledge regarding early diagnosis in cancer and cancer prevention. Therefore, we recommend that future studies should be conducted to investigate factors that affect the knowledge level of nurses, and that regular ongoing training programmes should be organized to increase the level of knowledge nurses have regarding early diagnosis in cancer and cancer prevention.

This study had several limitations. This study was not about a specific cancer. This study was conducted with a limited sample group to determine nurses's condition of level of regarding early diagnosis in cancer and cancer prevention cervical cancer. Further work would be needed to investigate other regions and larger sample groups of the Turkish society.

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