RESEARCH ARTICLE

Does Hopelessness of Turkish Women Affect their Behavior Regarding Cervical Cancer Prevention and Early Diagnosis?

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Abstract

Background: The purpose of this descriptive study was to investigate attitudes women of towards cervical cancer prevention applications and early diagnosis, and whether or not their hopelessness levels had any influence. Materials and Methods: The present study was carried out in Isparta with a descriptive design. A sample of 251 individuals was recruited from January 2011 through May 2011 in the largest tea garden (restaurant- cafe). The data collection tool consisted of two parts: a "Questionnaire Form" identifying women; and the "Beck Hopelessness Scale". Data were analyzed using the Statistical Package for the Social Sciences (SPSS version 16.0 for Windows for the numerical and percentage distribution, average, standard deviation with the ANOVA and Mann-Whitney tests. Results: Some 70.2 % of the woman indicated that they had not taken the Pap test. There was a significant relationship between the hopelessness level and women believing that they could protect themselves from getting cervical cancer (F=10.11 p=0.00). There was a significant relationship between hopelessness levels and believing whether or not early diagnosis tests are deterministic (F=8.781 p=0.00). Conclusion: Our study concluded that the hopelessness level of women had an effect on their thoughts about cervical cancer prevention and early diagnosis.

Keywords: Hopelessness - early diagnosis - cancer prevention - cervical cancer - Turkish women

Introduction

Cancer of the cervix is the common cancer in women worldwide, with about 500.000 new cases and 250.000 deaths each year (WHO/ICO, 2010). Using crude incidence rates, cervical cancer ranks as the 3rd most frequent cancer in women in the World (Gynecologic Cancer Foundation, 2010). Cervical cancer ranks as the 9th most frequent cancer among women in Turkey, and the 7th most frequent cancer among women between 15-44 years of age (WHO/ICO, 2010).

Cervical cancer has high cure rate if identified and treated early (Cohen et al., 1999; Denny-Smith and Bairan, 2006). Knowledge, beliefs about cancer is important in cancer prevention behaviors (Cohen et al., 1999). Pap (cervical) smear testing is an effective method of detecting, preventing (Denny-Smith and Bairan, 2006). Community-based cervical cancer-screening program has not been applied in Turkey (Uysal and Birsel, 2009).

According to certain studies conducted in our country, the rate of attending pap smear test among women changes between 9.8% and 51.1% (Carrasquillo et al., 2006). It can be seen that the proportion of pap smear testing carried out in Turkey is very low.

Positive emotional states may promote healthy perceptions, beliefs, and physical well-being itself (Salovey et al., 2000). Studies are also available that prove hope has important effects on health (Everson et al., 1997; Nies and Mceven, 2001; Snyder, 2002).

Besides, existent models of affect and health posit that affective disturbance, such as hopelessness, influences health through behavioral pathways (e.g., health behavior) (Broccoli and Sanchez-Rutgers, 2001). Feelings of hopelessness may also influence life priorities and affect motivation to seek health promotion such as cervix cancer prevention attitudes and behavior (Jamner and Stockols, 2000; Gallo and Matthews, 2003). Besides our study, which involved gaining an understanding of what factors influence a women's pap smear screening use decision, is a critical first step in increasing screening usage.

There are no studies available in national literature that investigates the relationship between the level of hopelessness and cancer prevention. The number of subject-related studies available in international literature is limited. It is thought that the level of hopelessness women have regarding life and the future has an effect on their cancer prevention behaviors. The purpose of this study, designed as a descriptive study, was to investigate the attitudes women had towards cervical cancer prevention applications and early diagnosis, and whether

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or not their hopelessness levels had an effect on cervical cancer prevention and early diagnosis.

Materials and Methods

Sample and setting

The present study was carried out in Isparta. Isparta is a small city located in the south of Turkey. Isparta's population is approximately 220.000. An Oncology Hospital was built in 2002 in order to serve the people since the rate of cancer is too high in the region. Study was planned as descriptive. A convenience sample of n=251 individuals was recruited from January 2011 through May 2011 in the largest tea garden (restaurant- cafe). Tea garden was chosen, because individuals visit them from every socioeconomic level.

The sample group was chosen among women from the age of 18-60 who have accepted the research and who are relaxed in communication. Criteria for inclusion in the study are as follows: married, not having had cancer, able to understand and meet the conversations, and must agree to participate in the study. The women who did not have these criteria were not accepted. Verbal consent was obtained from all participants stating that they were willing to participate in the study was explained to them. Participation in this study was voluntary. The survey conductors visited the tea garden on specified dates and applied to the women' non-probability sampling method in the sample selection method.

Instruments and data collection

Data collection tool consist of two parts that are a "Questionnaire Form" identifying women and "Beck Hopelessness Scale". Questionnaire Form was created by the researcher for the purpose and method of the research, with appropriate literature and sociodemographic information, and contains risk factors for cancer and cancer-related questions (29 questions) (Behbakht et al., 2004; Carrasquillo and Pati, 2004; Denny-Smith and Bairan, 2006). Validity of the questionnaire form was evaluated and confirmed by experts in gynecology and obstetrics nursing department. After the questionnaire form was prepared, it was shown to five members of the teaching staff for expert opinions regarding its validity. The majority of the questionnaire was found to have reasonable validity based on the expert reviews. Then the questionnaire was tested for comprehensibility by giving it to 15 women who were not included in the study, and changes were made based on their recommendations.

Hopelessness was measured with the "Beck Hopelessness Scale", a 20-item, true-false inventory designed to measure lack of hope about the future by assessing pessimistic cognitions concerning oneself and one's future life (Page et al., 2009). This tool was developed by Beck et al. (1974) and the Turkish adaptation was done by Seber in 1991 (Savasır and Sahin, 1997). The Cronbach alpha coefficient obtained from this scale in Çam and Gümüş (2009) study was found to be 0.78. In the current sample, we found acceptable internal consistency reliability with an alpha reliability coefficient (Cronbach's alpha) on the scale of 0.75. The instrument was applied

by face-to-face interview technique. The instrument took about 15-20 minutes to complete.

Ethical considerations

Also for conducting the study, a verbal consent has been taken from the tea garden. Verbal consent was obtained from all participants stating that they were willing to participate in the study.

Data analysis

Data were analyzed using the Statistical Package for the Social Sciences (SPSS version 16.00 for Windows). The obtained data were analyzed for the numerical and percentage distribution, average, standard deviation, and ANOVA test, Mann-Whitney test.

Results

Demographic characteristics

Average age of the women (n=251) was 33.98±9.98 years old. The average age of first sexual experience for women was 21.1±3.69, and the average age of marriage was 21.2±3.81. The 71.3% of women were unemployed (Table 1). The 35.9% of the women think that the information about preventing from cancer is not enough (Table 1), and 40.6% of them think that it is partly possible to prevent from cancer. One relative of 34.3% women was diagnosed with cancer.

Cervical cancer prevention behaviors and early diagnosis

The 41% of the women have indicated that they have never heard about the Pap test before. The 70.2% of the woman indicated that they had not taken the Pap test (Table 2). While 42.6% of women believe they could

Table 1. Individuals of Knowledge and Attitudes related to Cancer- Socio-demographic Characteristics

Variables		No.	%
Education	Not literate	12	4.7
	Literate-primary school education	90	35.9
	Secondary-school graduates	75	29.9
	High School-university graduates	74	29.5
Work[a]	Yes	72	28.7
	No	179	71.3
Work type	Workers	7	2.8
	Officers	65	97.2
Level of information about the protection against cancer			
	Yes	74	35.9
	No	90	34.7
	Partially	87	35.9
Knowledge sources[b]	Not answer	13	5.2
	Mass-media	159	63.3
	Health workers	54	21.5
	Books-magazines	18	7.2
	Newspaper	7	2.8
Smoke cigarette	Yes	38	15.1
	No	213	84.9
The knowledge that smoking can cause cancer			
	Yes	218	86.9
	No	33	13.1
TOTAL		251	100

[a]Percentage of employees were taken, [b]Marked more than one option

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Table 2. Attitudes of Individuals Related to Early Diagnosis of Cancer

Variables		No.	%
Behaviors related to early diagnosis			
Heard about the Pap test	Yes	148	59
	No	103	41
To take the Pap test	Yes	100	39.8
	No	151	70.2
Do you know what a pap test is for?	Yes	124	49.4
	No	105	41.8
	Partially	22	8.8
Is a pap test effective in early diagnosis?			
	Yes	154	61.4
	No	97	38.6
Do you believe regular visits to the gynaecologist are effective in early diagnosis?			
	Yes	163	64.9
	No	48	19.2
	Partially	40	15.9
Do you consult a doctor if you experience irregular bleeding?			
	Yes	194	80.9
	No	57	19.1
TOTAL		251	100

Table 3. Behaviors, Belief and Attitudes of Women about Cancer Prevention

Variables	Yes No.	%	No No.	%	Partially No.	%
Thinking of cervical cancer caught	78	31.1	66	26.3	107	42.6
Fear of cervical cancer being	187	74.5	24	9.6	40	15.9
Knowing that cervical cancer can affect people of early ages	181	72.1	70	27.9		
Be aware of possible health problems in people with cervical cancer	59	23.5	142	56.6	50	19.9
If being cervical cancer, thinking of die	121	48.2	67	26.7	63	25.1
Behaviors are thought to be effective in the prevention of cervical cancer a						
I pay attention only to my sexual partner.	148	59.0	--	--	--	--
I do things to strengthen my immune system	104	41.4	--	--	--	--
If I smoke, I leave it.	117	46.6	--	--	--	--
I pay attention my nutrition	148	59.0	--	--	--	--
When I see, infections in genital system go to a doctor immediately	178	70.9	--	--	--	--
I will pray	132	52.6	--	--	--	--
To believe that take some precaution to protect from cervical cancer	183	72.9	26	10.4	42	16.7
Status of the importance of early detection of cervical cancer	231	92.0	13	5.8	7	2.8
To believe that the tests is deterministic to diagnose of cervical cancer early	154	61.4	97	38.6	42	16.7
Effectiveness of early diagnosis of a regular gynecological examination	188	74.9	21	8.4	42	16.7
It is or not a sin in the Islam religion to be examined /test	40	16.0	211	84.0		

	Yes No.	%	No No.	%	Don't Know No.	%
Would you take the examinations and tests for cancer if the information for early diagnoses were tuned in the media?	146	58.2	45	18.0	60	23.9

ªPercentage of employees were taken

Table 4. Relation of Certain Variables with the Level of Hopelessness

Variables	Hopelessness point mean (N=251)		
	F	p	sig
The thought of preventing cervical cancer	7.213	0.01	P<0.050
The thought of getting cervical cancer	0.380	0.84	P>0.050
To afraid of cervical cancer	2.101	0.06	P<0.050
Knowing which health problems cervical cancer can cause	3.761	0.01	P<0.050
Believing that you can protect yourself from cervical cancer if you take certain precautions,	10.110	0	P<0.001
Whether or not early diagnosis is important for cervical cancer	2.998	0.03	P<0.050
Believing that early diagnosis is deterministic	8.781	0	P<0.001
Believing that regular gynaecology examinations are effective?	7.699	0	P<0.001
Would you take notice and apply them if the media warned you about early diagnosis and cancer prevention?	5.371	0	P<0.001
Do you believe that God is responsible for cancer?	1.929	0.12	P>0.001

ªPercentage of employees were taken

have cancer, 74.5% are afraid of getting cancer. The 92% of women believe that early diagnosis is important for cervical cancer, and 61.4% know that a pap test is effective in the early diagnosis of cervical cancer (Table 3).

Hopelessness and cancer prevention

In this study, there was a significant relationship between the hopelessness level and women believing that they could protect themselves from getting cervical cancer (F=10.11 p=0.00). The significant difference was due to those that did not believe taking precautions stopped from getting cervical cancer; the level of hopelessness for them that did not was higher. There was a significant relationship between hopelessness levels and believing whether or not early diagnosis tests are deterministic (F=8.78 p=0.00). The significant difference was due to those believing the tests were deterministic; the hopelessness level of women that said yes was lower. There was a significant relationship between hopelessness levels and believing whether or not regular gynaecology examinations were effective (F=7.69 p=0.00). The

significant difference is due to those that believe tests are effective; the hopelessness level of women that said yes were lower (Table 4). There was no significant relationship between hopelessness levels and having the pap test (Z=-0.981 p=0.32).

Discussion

For this study, nearly three fifths (59.0%) of the women had heard of a pap test, a half of them (49.4%) knew what it was for, three fifths (61.4%) believed that a pap test was effective in early diagnosis, and two fifths (39.8%) had had a pap test. Our study concluded that the hopelessness level of women had an effect on their thoughts about cervical cancer prevention and early diagnosis. This study had several limitations. The sample size and data collection dates are limited by the people coming to the garden tea. In addition, the study included only women in one Turkish region.

WHO guidelines for cervical cancer recommend the conventional Papanicolaou test as a routine screening test in the female population (WHO, 2007). Screening coverage of 80% or more of the female population is considered to be successful rate of screening (Markman, 2007). While the rate of women having pap testing is equal to or above 80% in developed countries (Wellensiek et al., 2002; Carrasquillo and Pati, 2004; Coughlin et al., 2006), this rate varies between 2.6-68 % in developing countries (Behbakht et al., 2004; Imam et al., 2008). In this study, the rate of women having papsmear testing is at medium levels of developing countries. The studies conducted in our country regarding pap smear testing show variations in the rate of pap smear tests women attend. For example, in the community-based study conducted by Sirin et al. (2006)'in Izmir, the rate of women having pap-smear testing was determined to be 14.6 %. This rate could be considered quite a medium value when compared to the findings of other research conducted in our country. These findings tend to verify that coverage of screening programs in Turkey is still incomplete, due to poor health care access and unorganized health care systems (Markman, 2007). However pap smear has an important role in detecting cervical cancer at an early stage, it is necessary that access to having pap smears is made known publicly and for the test to be performed regularly and without exception.

Our study concluded that nearly a third of women (31.1%) believed that they could get cervical cancer, three quarters (74.5%) were afraid of getting cervical cancer, and nearly a half (48.2%) believed that they would die if they got cervical cancer. In the examination of the literature, it has been reported that women's cervical cancer screening behaviors are affected by various demographic and sociocultural factors (Kaku et al., 2008; Jun et al., 2009; Uysal and Birsel, 2009).

In addition to cognitive factors and psychological factors also have an effect on women's cervical cancer screening behaviors. Three studies performed multivariate analysis of a number of cognitive and attitudinal variables, including perceived risk, and cervical cancer screening. After controlling for other variables, one study (Orbell et al., 1996) found a positive association with cervical

screening, and two studies (Lerman et al., 1990; Murray and McMillan, 1993) found no association (Lerman et al., 1990; Orbell et al., 1996) examined the effects of perceived susceptibility and a number of other social, cognitive, and attitudinal variables on cervical cancer screening. In path analysis, perceived susceptibility was directly and indirectly associated with screening status. Among women who were up to date on screening, perceived susceptibility was not directly or indirectly associated with future expectations about having a Pap test.

In our study, the hopelessness level of women that believed they could prevent cervical cancer by taking precautions (F=10.11 p=0.00), a pap test was deterministic in early diagnosis (F=8.781 p=0.00), and regular gynaecology examinations were effective in early diagnosis (F=7.699 p=0.00) was low. Hope was another significant predictor of cancer screening status. Hope is a dynamic power that gives strength to an individual to adapt to the future, that ensures they show interest in their future lives, and that supports positive development Moreover, the desire for leading a healthy life, and expectations and hopes for the future may affect one's health-promoting lifestyle behaviors such as participating in cancer screening programs (Everson et al., 1996; Jamner and Stockols, 2000; Broccoli and Sanchez-Rutgers, 2001; Cutcliffe et al., 2002).

Hopelessness, however, is negative expectations and evaluations of the future. One could speculate that women with hopelessness might have less energy and fewer cognitive resources to plan for and pursue preventive healthcare services, such as cancer screening. Our study concluded that there was no significant relationship between have a pap test and women' hopelessness level (Z=-0.981 p=0.32). However, two studies in literature, conducted on Hispanic women, concluded that there was a significant relationship between having a pap test and women' hopelessness level (Bakemeier et al., 1995; Morgan et al., 1995). Çam and Gümüş (2009) discovered that there was a significant relationship between breast cancer screening and hopelessness levels.

In conclusion, our study concluded that the hopelessness level of women affected their thoughts about preventing cervical cancer and early diagnosis; however, it had no direct effect on participating in a pap test. As a result of the findings obtained from this study it is suggested that organizing educational programs directed at increasing women's level of knowledge about cervical cancer and methods of early diagnosis would beneficial. The results of this study can be used to develop cervical cancer screening programs that take into consideration cultural characteristics as well as psychological factors, such as hopelessness.

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