

Determination of women awareness about early diagnosis of cervical cancer*

Kadınların serviks kanseri erken tanısına yönelik farkındalık durumlarının belirlenmesi

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ABSTRACT

Introduction: Cervical cancer is one of the preventable health conditions and the most common genital system cancer following endometrial adenocarcinoma. **Objective:** The study aims to determine the knowledge, attitudes and behaviour of women towards early diagnosis of cervical cancer. **Material and Method:** This study was descriptive in nature conducted on women who presented to primary health care institutions in between January- March 2017. The study was conducted with 300 participants. **Results:** The mean age of the respondents was 35.25 ± 9.04 , 42.0% of women have taken Pap smear test and 32.0% have taken the regular gynaecological examination. There was a significant association between the educational groups in terms of pap smear seriousness, barriers and benefits points ($p < 0.05$). It was found that, the status of knowledge about Human Papilloma Virus which is one of the factors causing cervical cancer, symptoms of cervical cancer, and protection methods against cervical cancer affected behaviour for having pap smear test, and the difference was statistically significant ($p < 0.05$). **Conclusion:** The knowledge and applications of women towards early diagnosis of cervical cancer were insufficient. Women should, therefore, be trained about early diagnosis of cervical cancer by public health nurses, gained healthcare behaviour about early diagnosis applications, these applications should become widespread, and the continuity should be provided

ÖZ

Giriş: Serviks kanseri önlenabilir sağlık durumlarından birisidir ve endometriyal adenokarsinomdan sonra en sık görülen genital sistem kanseridir. **Amaç:** Araştırma, kadınların serviks kanserinin erken teşhisine yönelik bilgi, tutum ve davranışlarını belirlemeyi amaçlamaktadır. **Yöntem:** Tanımlayıcı araştırma ilkelerine uygun olarak planlanan bu çalışma Ocak-Mart 2017 tarihleri arasında birinci basamak sağlık kuruluşlarına başvuran kadınlar üzerinde yapılmıştır. Araştırma 300 katılımcı ile yürütülmüştür. **Bulgular:** Katılımcıların yaş ortalamasının 35.2 ± 9.04 olduğu, %42.0'sinin Pap smear testi yaptırdığı, %32.0'sinin düzenli jinekolojik muayene yaptırdığı belirlenmiştir. Eğitim grupları arasında pap smear ciddiyet, engel ve yarar puanları açısından anlamlı bir farklılık görülmektedir ($p < 0.05$). Serviks kanserine neden olan faktörlerden birisi olan Human Papilloma Virüsü hakkında bilgi, serviks kanseri belirtileri ve serviks kanserinden korunma yöntemlerini bilme durumunun da pap smear testi yaptırma davranışını etkilediği belirlenmiştir ve fark istatistiki olarak önemli bulunmuştur ($p < 0.05$). **Sonuç:** Kadınların serviks kanserine yönelik erken tanı bilgi ve uygulamalarının yetersizdir. Bu nedenle, halk sağlığı hemşireleri tarafından kadınlara serviks kanserinde erken tanıya yönelik eğitimlerin verilmesi, erken tanı uygulamaları ile ilgili sağlık davranışı kazandırılması, yaygınlaştırılması ve sürekliliğinin sağlanması önerilmektedir.

Key Words:
Cervical cancer, early screening, gynaecological examination, education.

Anahtar Kelimeler:
Servikal kanser, erken tarama, jinekolojik muayene, eğitim.

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INTRODUCTION

Cancer is one of the most important health problems due to high mortality and morbidity, and cost, duration, and treatment side effects (1). Cancer is the second most common cause of death following cardiovascular disease in the ranking of deaths from known causes in Turkey (2). Cancer is the second most common cause of death following cardiovascular disease in the ranking of deaths from known reasons in Turkey (3). Cervical

cancer is the second most common in women after breast cancer, causing one of them to die every two minutes in the World (4). According to 2018 data of the GLOBOCAN type of cancer uterine cervix cancer the fourth most common gynecological condition in the world. Cervical cancer is one of the preventable health problems, and is the most common genital system cancer following endometrial adenocarcinoma (1). It is estimated that Human Papilloma Virus (HPV) related

cancer affects women more commonly, and women have HPV related cancers five times more than men in Turkey (5). Pap smear test is the most effective method for the diagnosis of cervical cancer. Studies have shown that Pap smear test is effective in early diagnosis of cervical cancer. The Pap smear test is easy to perform, low cost, does not cause harm, is sensitive, and reduces treatment burden, morbidity and mortality. (4,6). In Turkey, such as Pap smear test and HPV DNA screening methods is been used in cervical cancer screening programs and studied to spread the screening utility to the whole population (4). It is known that various demographic and sociocultural factors influence women's behaviours in early diagnosis of cervical cancer. According to previous studies; age, race, marital status, educational level, income level, health insurance, costs, inability to access to diagnosis and treatment facilities, problems in communication with healthcare professionals, reproductive habits, sexual applications, cultural beliefs and fatalism are the leading predisposing factors (7,8).

Determination of the factors affecting the behaviour of women in early diagnosis, planning of nursing interventions, supported by conceptual models for this factors, and putting these plans into practice will contribute to developing behaviour of women in early diagnosis of cervical cancer (9).

Nurses play a key role in women' gaining protective health behaviour, and increasing their awareness of screening programmes. In 2008, the International Council of Nurses (ICN) specified that nurses should lead the basic health services and emphasize their role in primary protection (10). Determination of cervical cancer risk factors, and about cervix cancer concerning in education and counseling for individuals nurses have an important role (11). Therefore, health care professionals should encourage women of reproductive age to screen for cervical cancer for early detection and treatment, which will make its screening programmes functional and effective. Besides, nurses can play a significant role in the control of cervix cancer such as providing community education on cancer risk, cancer prevention, and early detection, and in the development of policy in support of cancer control activities in practice (11,12).

In this regard, the objective of this study was to determine knowledge, attitudes and behaviour of women towards early diagnosis of cervical cancer.

MATERIAL AND METHOD

This study is a descriptive type. It was conducted on women who presented to primary health care institutions In the center of a province located in the

north of Turkey between January 2017 and March 2017. A sample of the study was determined to be 246 persons as a result of the power analysis performed with 5% error margin, 95% confidence interval and 20% prevalence (13). In other to increase sample power, 54 women were enrolled in the study as improbable samples. A total of 300 married, widowed or divorced women who were accepted to participate in the study, who were able to communicate, had no visual and hearing impairment constituted study group of the research. Information Collecting Form and The Scale of Attitudes towards Early Detection of Cervical Cancer (SAEDCC) were used for data collection. The information collecting form was developed by using relevant literature and The form consists of 21 questions including women' sociodemographics (age, marital status, monthly income etc.), status of knowledge about cervical cancer screening, and using screening services (14, 15,17).

The Scale of Attitudes towards Early Detection of Cervical Cancer (SAEDCC) was developed by Özmen and Özsoy in 2009. The items in the scale were structured to investigate the four sub-dimensions of the Health Belief Model (HBM). The scale consists of 30 items. The four sub-dimensions include susceptibility, seriousness, barriers, and benefits. The maximum and minimum SAEDCC scores were 150 and 30, respectively. Of the 30 items in the scale, 22 items have positive statements and eight negative statements (questions 3, 6, 8, 15, 17, 24 and 25). Pointing of the negative statements is made in reverse order. The rating was made on a 5 Likert scale with the statements of 1: strongly disagree, 2: disagree, 3: undecided, 4: partly agree, 5: totally agree. Cronbach's alpha coefficient for entire the scale and the subdimensions is between 0.89-0.70. (16). Cronbach's alpha value of this study was 0.88.

Data Collection

Data was collected using the face-to-face interview method in a separate room, after giving explanatory information about the study to the respondents who presented to primary healthcare center and met the inclusion criteria. Filling of each form took about 15 to 20 minutes. For statistical significance, $p < .05$ was used.

Data Analysis

Data obtained from the study were analyzed using SPSS 20.0 statistical software. Analyses of the data were carried out using number, percentage distribution, arithmetic mean, Chi-square, Fisher's exact test, t-test and one-way analysis of variance (ANOVA).

Ethical Considerations

The study protocol was approved by the Clinical Research Ethics Committee of the 19 Mayıs

University Medical Faculty, (December 23, 2016, No. B.30.2.ODM.0.20.08-629). Participants were informed about the scope of the study and verbal and written informed consent was obtained.

RESULTS

The mean age of respondents was 35.25 ± 9.04 (min = 21 and max = 67), 37.0% of women had postgraduate education, 97.3% were married, 94.0% were living with their spouse or children and the majority (97.3%) were living in the county center. Of the women, 86.0% had a regular monthly income, 54.7% had a moderate level of income, 87.7% had a health insurance.

When knowledge and applications of the participants women about gynecological examination and cervical cancer screening were examined; 68.0% had no regular gynecological examinations, 57.3% had knowledge about Pap smear testing, 62.0% knew the reason for having Pap smear test, 58.0% had no Pap test, 60.3% did not know how to start having Pap test, and 60.7% did not know how often Pap test should be done.

It was found that 41.3% of the women did not know the HPV is a factor in cervical cancer, 55.0% did not know the symptoms of cervical cancer, and 56.3% had no knowledge about vaccination or other protection methods against cervical cancer.

When the status of women to have Pap smear test was analyzed according to such as characteristics age group, marital status, the status of living with a person, regular monthly income, perceived income status, health assurance their some characteristics; there was a statistically significant correlation between the age group of women and their behaviour for having Pap smear test ($p < .05$). 43.2% of the married women, 43.6% of the women who were living with their spouses or children, and 45.0 of the women who had a regular monthly income had Pap smear test, and the correlation was statistically significant ($p < .05$). Women who evaluated their level of income as middle (65.9%) and who had no health insurance (91.9%) were found to have no Pap smear test, and the difference between the groups was statistically significant ($p < .05$). (Table 1).

When the effect of the women' status of knowledge about Pap smear test and cervical cancer on having Pap smear testing was examined; having knowledge about the test, knowing the reason for having the test, knowing when to start having Pap smear test, and knowing the frequency of having Pap smear tests were found to effect on the behaviour for having Pap smear test, and between relation was statistically significant ($p < .05$).

It was found that knowledge about HPV, which is one of the factors causing cervical cancer, symptoms of cervical

cancer, and protection methods against cervical cancer affected the behaviour for having Pap smear test, and the difference was statistically significant ($p < .05$) (Table 2).

When the SAEDCC sub-dimension scores of the respondents were examined; the average scores of the susceptibility, seriousness, obstacle and benefit sub-dimensions were 23.09 ± 4.22 , 17.29 ± 5.23 , 19.60 ± 2.94 and 14.30 ± 4.15 , respectively.

There was a significant difference between the educational groups in terms of Pap smear seriousness, barriers and benefits points ($p < .05$). Seriousness, barriers and benefits points were significantly higher in the postgraduate women compared to the illiterate and primary school graduated women (Table 3).

When distribution of the mean total scale score of the women related to the HPV information questions was examined; total attitudes points obtained from the SAEDCC scale were seen to increase in women who have knowledge routine screening test, disease risk factors, HPV, cervical cancer symptoms and protection methods against cervical cancer ($p < .05$). (Table 4).

It was found that there was a statistically significant difference between the mean SAEDCC score of the women and status of having Pap smear test ($p < .05$). The SAEDCC score was higher in the women who had Pap smear test (Table 5).

DISCUSSION

Cervical cancer is a type of cancer, which can be treated by 95% if early diagnosed, and has a mortality rate up to 50% in the case of delay. With to the use of screening methods, dysplasia can be recognized and easily treated in early ages, when it yet does not progress to cancer (17). Thus, in this study is evaluated the knowledge, attitudes and behaviour of women who attend the primary healthcare center for services about cervical cancer.

It was found that 68.0% of the respondents had no regular gynaecological examination, in agreement with. Durmaz et al. (2021) where 53.5% of women had never done a gynecological examination (18). Studies conducted in Turkey have reported a low rate of gynaecological examination without experiencing any problem (19). Similarly, in this study it was found that 68.0% of women avoided gynaecological examination for screening. In this study, 57.3% of women reported that they have knowledge about Pap smear test, and 62.0% stated that they knew the reason for having Pap smear test. In a study by Sönmez (2011), 89% of women were reported to have knowledge about early diagnosis method for cervical cancer, and 65.0% of the women knew that this method is Pap smear test. 58.7% of women

Table 1. Distribution of Pap Smear Test Status According to Some Characteristics of Women (n: 300)

Features	Status of Have Pap Smear Test				Analysis**
	Yes		No		
	Number	%	Number	(%)	
Age group					
20-30	33	31.1	73	68.9	
31-40	51	46.4	59	53.6	12.8
41-50	36	56.2	28	43.8	0.012*
51 and over	6	27.8	14	72.2	
Marital status					
Married	126	43.2	166	56.8	5.9
Widowed or divorced	08	100	0.015*
The status of living with a person					
Alone	7	100	6.3
With their spouses or children	123	43.6	159	56.4	0.042*
Parents	3	27.3	8	72.7	
Regular monthly income					
Yes	116	45.0	142	55.0	6.6
No	10	23.8	32	76.2	0.010*
Perceived Income Status					
Good	49	51.0	47	49.0	9.1
Middle	56	34.1	108	65.9	0.010*
Bad	21	52.5	19	47.5	
Health Assurance					
Yes	123	46.8	140	53.2	19.9
No	3	8.1	34	91.9	0.000*

*Significant at 5%, ** x2 test, **Fisher's exact test.

Table 2. The effect of the women's status of knowledge about pap smear test and cervical cancer on having pap smear testing (n:300)

Knowledge Features	Status of Have Pap Smear Test				Analysis**
	Yes		No		
	Number	(%)	Number	(%)	%
Knowledge about Pap Test					
Yes	100	58.1	72	41.9	43.1
No	26	20.3	102	79.7	0.000*
The Reason for Pap Test					
Yes	112	60.2	74	39.8	66.6
No	14	12.3	100	87.7	0.000*
When to Start Having Pap Test					
Yes	84	70.6	35	29.4	66.1
No	42	23.2	139	76.8	0.000*
How Often Pap Test Should be Done					
No idea	46	25.3	136	74.7	56.5
Once in every six months	37	61.7	23	38.3	
Once a year	25	71.4	10	28.6	0.000*
Two years and over	18	78.2	5	21.8	
Knowledge about HPV					
Yes	85	47.0	96	53.0	4.6
No	41	34.5	78	65.5	0.032*
Symptoms of Cervical Cancer					
Yes	72	53.3	63	46.7	12.9
No	54	32.7	111	67.3	0.000*
Protection Against Cancer					
Yes	64	48.9	67	51.1	04.4
No	62	36.7	107	63.3	0.034*

Table 3. Comparison of SAEDCC and Educational Status of Women

Scale Sub-dimensions	Educational Status of Women					t/F**	p*
	Literate Mean±Sd	Primary school Mean±Sd	Middle school Mean±Sd	High school Mean±Sd	University Mean±Sd		
Pap Smear Susceptibility	22.90±4.39	23.20±4.30	23.10±4.02	22.39±4.47	23.50±4.09	0.771	0.545
Pap Smear Seriousness	15.86±6.54	17.45±4.45	17.05±4.37	15.99±5.12	18.40±5.52	2.823	0.025*
Pap Smear Barriers	17.95±2.31	19.76±2.55	18.79±2.86	18.86±2.73	20.60±3.07	7.427	0.001*
Pap Smear Benefits	15.05±3.44	14.18±4.36	15.74±4.42	14.73±4.21	13.41±3.88	2.965	0.020*

*Significant at 5%, **T test/ One Way Analysis of Variance (ANOVA).

Table 4. Comparison of SAEDCC and Knowledge Levels of Women

Features		n	Total Scale Score			t/ F**	p*
			Mean	Std. Deviation			
Knowing Routine Screening Test	Knows	172	72.13	09.54	4.371	< 0.001*	
	Does not know	128	77.19	10.34			
Knowing When to Start Having Pap Test	Knows	119	72.87	09.93	1.934	0.054	
	Does not know	181	75.20	10.29			
	Does not know	182	74.91	10.46			
Knowing How Often Pap Test Should be Done	Once in 6 months momonths	60	73.88	10.96	1.366	0.253	
	Once a year	35	71.11	07.49			
	2 years and over	23	74.09	09.74			
Knowing Risk Factor of the Disease	Knows	182	73.04	09.49	2.627	< 0.009*	
	Does not know	118	76.18	10.93			
Knowing the HPV	Knows	176	72.17	09.28	4.419	< 0.001*	
	Does not know	124	77.30	10.68			
Knowing the Cancer Symptoms	Knows	135	71.87	09.03	3.914	< 0.001*	
	Does not know	165	76.34	10.65			
Knowing protection methods against cervical cancer	Knows	132	71.52	09.58	4.259	< 0.001*	
	Does not know	168	76,43	10.14			

*Significant at 5%, **T test/ One Way Analysis of Variance (ANOVA).

Table 5. Comparison of SAEDCC and Women Status of Having Gynecological Examination and Pap Smear Testing

Features		n	Total Scale Score			t/ F	p*
			Mean	Std. Deviation			
Regular Gynecological Examination	Yes	96	73.11	98.00	1.364	0.174	
	No	204	74.83	102.00			
Frequency of Having Gynecological Examination	Once in 6 months	32	70.88	93.00	1.440	0.242	
	Once a year	45	73.69	98.00			
	2 years and over	22	75.50	96.00			
Having Pap Smear	Yes	126	72.69	9.74	2.345	0.020*	
	No	174	75.44	10.36			
Frequency of Having Pap Smear	Once	84	74.05	97.00	1.817	0.166	
	Twice	32	70.56	85.00			
	3 or more	10	71.40	98.00			

*Significant at 5%, **T test/ One Way Analysis of Variance (ANOVA).

in the study by Demir (2017), and 52.9% of women in the study by Gökgöz and Aktaş (2016) reported to know the reason for having Pap testing, and these results were consistent with this study (19,20,21).

In the present study more than half (57.3%) of the women knew the Pap test, although only 42% had this test. Similar studies conducted in Turkey have shown that the rate of women having Pap test varies between 16.2% to 51.6% (17,19,22,23). It was seen when studies in different countries and ethnic groups were examined that the rate of having Pap smear test ranged between 65.9% and 85.1%. The rate of having Pap smear test at regular intervals was reported as 68.0% by Do et al. (2007) in Vietnamese women, and 54.0% by İslam et al. (2006) in South Asian women (24,25). Comparing with the results of these studies conducted outside Turkey, the rate of having Pap smear test is reportedly low among Turkish women, suggesting inadequate knowledge about its relevance and importance to preventing cervical cancer.

In this study is found that 60.3% of the women did not know when to start having Pap test, and 60.7% did not know how often Pap test should be done. The results of previous studies show similarity with this study (14,15). In the present study, 41.3% of the women reported that they did not know HPV, 55.0% had no knowledge about cervical cancer, and 56.3% reported that they had no knowledge about vaccination or other protection methods against cervical cancer. In a study performed by Ozan et al. (2011), 66.4% did not know HPV, 56.4% did not know HPV vaccination, 52.4% had insufficient knowledge level about cervical cancer (26). This data show that the general population of women have no sufficient knowledge level about HPV, outcomes of HPV infections and HPV vaccination. It is possible to reduce the incidence of HPV related diseases and especially of cervical cancer by increasing awareness of HPV infection.

There was a statistically significant difference between age groups of women in terms of behaviours for having Pap testing ($p<.05$). (Table 1) Açıköz reached results in parallel with this study, and found that women in 40-49 age range more commonly have Pap smear test (27).

In this study, it is found that women' status of having Pap test differed according to their marital status, and the rate of having test was significantly higher in married women than in single ones ($p<.05$). (Table 1) This result may be explained by that married women have a more active life and are more prone to gynaecological problems due to processes such as pregnancy and childbirth. Supporting this study, the rates of having Pap test were higher in married women than in single women in the studies performed by Büyükkayacı Duman et al. (2015) (14).

It was seen that, having regular monthly income and health insurance have also effects on the behaviour for having Pap test ($p<.05$). (Table 1) In their study, Gökgöz and Aktaş (2015) found that income status was a factor determining participation in a screening program. In a study by Büyükkayacı Duman et al. (2015), the rate of having Pap test was found to be higher in women who had social insurance than the women had no social insurance (14,19). According to these findings, it can be said that social insurance is effective as the other factors in access to healthcare services for cancer screenings.

The results of this study indicate that the relationship between knowing why is Pap test done and symptoms of cervical cancer were statistically significant ($p<.05$) (Table 2). The results of Gökgöz and Aktaş (2015) support this study (19). These results show that the lack of knowledge in women affects early diagnosis applications.

CONCLUSION AND RECOMMENDATIONS

It was found that knowledge and applications of women towards early diagnosis of cervical cancer were insufficient. More than half of the women were found to not have a gynaecological examination. Although it was found that the women had knowledge about cervical cancer and Pap test, the rate of having this test was low.

In this context, we recommend that women should be trained about early diagnosis of cervical cancer by public health nurses, gained healthcare behaviours about early diagnosis, these behaviours should become widespread, and the continuity should be provided.

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