

Do Women Have Sufficient Awareness of Cervical Cancer and the Pap Smear Test?

Kadınlarının Serviks Kanseri ve Pap smear Testi ile İlgili Farkındalıkları Yeterli mi?

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ÖZ

Amaç: Tüm dünyada kadınlarda yaygın olarak görülen ve uzun bir preinvaziv sürece sahip olan serviks kanserinin Pap smear tarama testiyle erken teşhisi ve tedavisi mümkündür. Bu çalışma kadınların serviks kanseri risk faktörleri ve Pap smear testi ile ilgili bilgi ve farkındalıklarını değerlendirmek amacıyla yapılmıştır.

Araçlar ve Yöntem: Çalışma Gaziantep ilinde bulunan farklı bölgelerdeki beş aile sağlığı merkezine başvuran, çalışmaya katılmayı kabul eden, 30-65 yaş arası evli veya dul 350 kadın üzerinde kesitsel olarak yapılmıştır. Veriler sosyo-demografik özellikler, serviks kanseri belirtileri, risk faktörleri, Pap smear testi ile bilgileri ile ilgili 24 sorudan oluşan anket formu ile yüz yüze görüşme tekniği uygulanarak toplanmıştır.

Bulgular: Kadınların %79.1'i Pap smear testini daha önce duymuş olmasına rağmen, yaklaşık yarısı (%54.3) Pap smear testini yaptırmıştır. Kadınların %62.9'u Pap smear testinin kanser tarama amacıyla yapıldığını bilmektedir. Pap smear yaptırmama nedenleri içinde kanser riski taşımama %29.4 ve test hakkında yeterli bilgi sahibi olmama %24.9 olarak en önemli nedenler olarak belirlenmiştir. Bu çalışmada Pap smear yaptırma oranının yaş, evlilik süresi ve doğum sayısı ile anlamlı olarak arttığı bulunmuştur.

Sonuç: Çalışmaya katılanların yaklaşık yarısının Pap smear testini yaptırmadığı, serviks kanseri ve Pap smear testi ile ilgili bilgilerinin yetersiz olduğu saptanmıştır. Pap smear yaptırmama nedenleri içinde kanser riski taşımama ve yeterli bilgiye sahip olmama en önemli nedenler olarak gösterilmiştir. Kadınlar sağlık hizmetlerinde öncelikle hedeflenmeli ve kanser konusunda farkındalığı artırmak için eğitim programları geliştirilmelidir.

Anahtar Kelimeler: Serviks kanseri, Risk faktörleri, Pap-smear testi, Bilgi, Farkındalık

ABSTRACT

Purpose: Early diagnosis and treatment of cervical cancer, which is commonly seen in women globally and has a long preinvasive period, is possible with pap smear screening. The objective of this study is to evaluate women's knowledge and awareness of cervical cancer risk factors and the Pap smear test.

Materials and Methods: This cross-sectional study was conducted on 350 married or widowed women aged between 30-65 years who presented to five family health centers in different regions of Gaziantep. Data was collected by a face-to-face interviewing technique using a questionnaire form consisting of 24 questions.

Results: Although 79.1% of the women had heard about the Pap smear test before, only 54.3% of them had taken the test. It was found that %62.9 of the women knew why a Pap smear test is conducted. The most important reasons why these women did not have a Pap smear test were determined to be that 29.4% of the women considered that they had no risk of cancer while 24.9% had insufficient knowledge about the test.

Conclusion: It was found that nearly half of the participants in this study not performed Pap smear test and their knowledge about the test was insufficient. The most important reasons for not performed a Pap smear test were not believing that they had a risk of cancer and not having sufficient knowledge. The women should be primarily targeted in healthcare services and training programs should be developed in order to raise awareness of cancer.

Key Words: Cervical cancer, Risk factors, Pap-smear test, Knowledge, Awareness

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INTRODUCTION

Cervical cancer is the fourth most common cancer type seen in women globally and it constitutes an important public health concern for all populations. It is estimated that globally 528,000 patients were diagnosed with cervical cancer and there were 266,000 mortalities due to cervical cancer in 2012. Nearly 87% of these deaths took place in less developed countries.¹ According to data from the Ministry of Health, cervical cancer is the 9th most common cancer in women in Turkey with a distribution of 2.4% among all gynecological cancers.²

The etiology of cervical cancer includes primarily the Human Papilloma Virus (HPV) infection as well as early intercourse, multiple sexual partners, a history of a sexually transmitted disease such as Chlamydia trachomatis and genital herpes, giving birth at an age below 20, giving birth more than 3 times, long-term use of oral contraceptives, smoking, race, diet, low socioeconomic status and immunosuppression.³ Papanicolaou (pap) test is a reliable test that enables the early diagnosis of cervical cancer, wherein it carries vital importance in preventing and reducing cancer-related deaths by enabling the diagnosis of localized or pre-metastatic cervical cancer.⁴ It is indicated that the incidence and mortality of cervical cancer in some developed countries has dropped by 80-90% in the last fifty years due to the use of Pap smear test in population-based screenings.^{5,6}

Cancer screening programs vary between countries and it is recommended to conduct a pap smear or HPV test on women aged between 30-65 every five years within the scope of the cervical cancer screening program at community level in Turkey.⁷ The participation of women in cervical cancer screening programs is insufficient, although there are screening programs in many countries. It is important to raise awareness of cancer risk factors, signs and the importance of early diagnosis and screening and to bring about changes in behavior, hence increasing the effectiveness of screening tests.

The objective of this study is to evaluate the knowledge and awareness of cervical cancer risk factors and the Pap smear test in women who presented to family health centers in our area and to determine the effect of sociodemographic factors on that knowledge and awareness.

MATERIALS AND METHODS

This cross-sectional study was conducted on married or widowed women aged between 30-65 who presented to five family health centers in different regions of Gaziantep between March 2018 and June 2018. These family centers were determined by random stratified sampling method. The approval of the Ethics Committee of Gaziantep University (Decision no:2018/6 dated 18.01.2018) and the Gaziantep Provincial Directorate of Health was obtained before the study. The study sample consisted of 350 women who agreed to participate in the study within the specified dates. Women who had had a total hysterectomy were excluded from the study. Data was collected by the researcher with a face-to-face interviewing technique using a questionnaire form consisting of 24 questions that were prepared after a review of literature relating to the obtaining of informed consent. The questionnaire form contained questions concerning the women's sociodemographic characteristics, knowledge of Pap smears and cervical cancer, their own Pap smear test history and the factors that affect this. Collected data was evaluated using percentage, frequency and chi-square tests with the SPSS statistics software package and $p < 0.05$ was accepted as statistically significant.

RESULTS

Among 350 women who participated in the study, 53.7% were between the ages of 30-39, 31.5% were elementary school graduates, 74% were housewives and that 58.6% had middle income. 88.3% of the women were married and 43.2% of the women had been married for between 11 and 20 years. The sociodemographic characteristics of the women who participated in the study are provided in Table 1.

Although 79.1% of the women had heard about the Pap smear test before, only 54.3% of them had had the test. It was found that 62.9% of the women knew why a Pap smear test is conducted, and 51.4% of the women knew the necessary conditions to have a Pap smear test (no vaginal bleeding etc.). 46.6% of the women did not know how frequently they should have the Pap smear test. The most important reasons why these women did not have a Pap smear test were determined to be that 29.4% of the women considered that they had no risk of cancer while 24.9% had insufficient knowledge about the test. In addition, 18%, 9.7% and 8% of the women, respectively, did not want to have the test because it was embarrassing-disturbing, because they were afraid of the test results and because they did not find it appropriate to have the test in the family health center.

Women’s knowledge about the Pap smear test, their status regarding having the test and the reasons of not having the test are provided in Table 2.

Table1. Sociodemographic Characteristics of Women and Relationship Between Pap Test

Sociodemographic Characteristics	n	%	p	
Age	30-39	188	53.7	<0.05
	40-49	109	31.2	
	50-65	53	15.1	
Educational Status	Illiterate	18	5.1	<0.05
	Elementary School	110	31.5	
	Secondary School	39	11.1	
	High School	85	24.3	
Level of Income	University	98	28	>0.05
	Minimum wage and less (Income<expenditure)	61	17.4	
	Moderate (Income=expenditure)	205	58.6	
	Good (Income>expenditure)	84	24	
Employment Status	Employed	91	26	>0.05
	Housewife	259	74	
Marital Status	Married	309	88.3	<0.05
	Widowed or divorced	41	11.7	
Duration of marriage	1-10 years	91	26	<0.05
	11-20 years	151	43.2	
	21-30 years	74	21.1	
	More than 30 years	34	9.7	
Number of deliveries	No delivery	25	7.1	<0.05
	1-3 deliveries	245	70	
	4 and more deliveries	80	22.9	
Reason of gynecological examination	Under high discomfort	96	27.4	<0.05
	When I have a complaint	223	63.7	
	For control purposes	31	8.9	
History of cancer in immediate family	Yes	58	16.6	>0.05
	No	292	83.4	

It was found in this study that the rate of Pap smear tests increased significantly with age, duration of marriage and number of deliveries. (Table 1)

Table 2. Women’s knowledge of Pap smear and their status regarding having the test

Heard of Pap smear	n	%
Yes	277	79.1
No	73	20.9
Performed Pap smear		
Yes	190	54.3
No	160	45.7
How many times Pap smear was performed		
Never had Pap smear	160	45.7
Once	123	35.1
2 times	35	10
3 and more	32	9.2
The purpose of performing a Pap smear		
I don’t know	95	27.1
Infection associated with the cervix	35	10
Cancer associated with the cervix	220	62.9
Having knowledge of the conditions for having a Pap smear test		
Yes	180	51.4
No	170	48.6
How frequently should a Pap smear be performed		
I don’t know	163	46.6
Once a year	104	29.7
Once every 2 years	36	10.3
Once every 5 years	47	13.4
Reasons for not having a Pap smear		
Not having sufficient knowledge about the test	87	24.9
The test is disturbing and embarrassing	63	18
Not possessing a cancer risk (because there are no complaints)	103	29.4
Being afraid of the test result	34	9.7
Finding it inappropriate to have the test in the family health center	28	8
Other reasons	35	10

Attendance for gynecological examination was investigated among women who participated in the study and the relationship between the collected findings and having a Pap smear test was analyzed. 27.4% of the women had had a gynecological examination when they were experiencing extreme discomfort, 63.7% when they had had a complaint and 8.9% for control purposes. A significant relationship was found between the frequency of having a gynecological examination and a Pap smear, wherein women who had an examination for control purposes had the highest rate of Pap smear tests (p<0.001).

The rate of cancer in immediate relatives of the women who participated in the study was 16.5%. In our study, there was no significant difference in terms of a Pap smear and the level of

Table 3. Opinions of the participants regarding cervical cancer risk factors and signs

Cervical cancer risk factors and signs	Yes(%)	No(%)	I don't know(%)
HPV infection	24.8	4.6	70.6
Long-term use of oral contraceptives	18.6	17.1	64.3
Having multiple births	16	29.7	54.3
Marriage at an early age	31.4	14	54.6
Multiple sexual partners	51.1	6.3	42.6
Smoking	55.7	10.9	33.4
Abnormal bleeding, vaginal discharge, pain during intercourse	38.3	3.4	58.3

knowledge among those who had and did not have a history of cancer among their immediate relatives.

In this study, the number of women who had previously heard about the HPV vaccine was 106 (30.2%). It was found that knowing about the HPV vaccine significantly increased with the level of income, educational status and employment status. ($p < 0.05$)

In the last part of our study, the participants were asked questions in order to assess their knowledge regarding the factors that increase the risk of cervical cancer (HPV, long-term use of oral contraceptives, having multiple births, marriage at an early age, smoking, multiple sexual partners) and the signs of cervical cancer. They were told to answer the questions as true, false or I don't know. 24.8%, 18.6%, 16%, 31.4%, 55.7% and 51.1% of the women, respectively, correctly knew that HPV infection, the long-term use of oral contraceptives, having multiple births, marriage at an early age, smoking, and having multiple sexual partners increased the risk of cervical cancer whereas 28.5% of the women correctly knew that the use of condoms reduced the incidence. 38.3% of the women answered 'true' to abnormal vaginal discharge, bleeding, and pain during intercourse as the signs of cervical cancer. The opinions of the participants regarding cervical cancer risk factors and signs are summarized in Table 3.

DISCUSSION

Cervical cancer is an important public health concern globally and it is one of the three cancers for which the World Health Organization wants to screen. It causes mortalities especially in developing countries where effective screening programs have not been implemented. Conducted studies show that the majority of women do not know the risk factors that cause cervical cancer, ways to prevent cervical cancer, the importance of early diagnosis, availability of Pap smear tests and what kind of a procedure it is.⁸

Studies have also shown that having a Pap smear test is affected by women's opinion regarding gynecological examination, sociodemographic characteristics, their knowledge about Pap smears and their perception of risk of cervical cancer.⁹⁻¹¹ Among the 350 women who participated in this study, 27.4% of the women had a gynecological examination when they were experiencing extreme discomfort, 63.7% when they had a complaint and only 8.9% for control purposes. According to our study, there was a significant relationship between the frequency of gynecological examination and having a Pap smear, wherein women who had an examination for control purposes had the highest rate of Pap smear tests ($p < 0.001$). Similarly, Akyüz et al¹² found in their study that there was a significant relationship between having a gynecological exam and a Pap smear test. In a study by Behbakht et al¹¹ it was reported that the rate of Pap smear tests was lower in women who find it very hard to go to the doctor in comparison to those who find it easy to go to the doctor.

According to the results of our study, although 79.1% of the women had heard about the Pap smear test before, nearly 54.2% of them had had the test. The rate of having a Pap smear test at least once varies between 16.2%-51.3% according to the studies conducted in different regions in Turkey.^{12,13} Reviewing the studies conducted in different countries and among different ethnic groups, it was seen that the rates of having Pap smear tests were variable. The rate of having a Pap smear test was reported as 74% in Korea, 69% in Spain, 76% in Vietnam, 99% in the United States of America, and 83% in Serbia.^{9,14-17} These differences may be due to socio-cultural and demographic characteristics.

Numerous studies have investigated the incidence of having a Pap smear test according to women's sociodemographic characteristics. In a study by Akyüz et al¹², the highest rate of Pap smear tests was seen in women between the ages of 30 and 39, women who had been

married for between 11 and 20 years, and women who had had 4 or more deliveries. Nguyen et al. found that the rate of Pap smear tests was higher in women older than 40, Wellensiek et al. found the same in women who gave birth, and Siahpush and Singh in women between the ages of 30 and 49.^{9,10,18} Similar to these studies, in our study it was found that the rate of Pap smear tests increased significantly with age, duration of marriage and number of deliveries. The highest rate of Pap smear tests was seen in women who have been married for between 21 and 30 years and those who have given birth 4 times or more ($p < 0.001$). This result can be explained by the fact that the knowledge and awareness as well as the rate of having an examination due to obstetric or gynecological reasons increases in parallel with the duration of marriage since women generally become sexually active with marriage in the Turkish community. In our study, it was found that although 62.8% of the women knew that a Pap smear test is performed for cancer screening, nearly half of the women did not know or had incorrect information concerning the necessary conditions for having a Pap smear test and how frequently it should be performed.

In this study, the most important reasons why these women had not performed a Pap smear test were determined to be that 29.4% of the women did not consider that they were at risk of cancer while 24.9% of the women had insufficient knowledge about the test. In addition, it was found that 18% and 9.7% of the women, respectively, did not have the test because they found it disturbing or embarrassing and because they were afraid of the test result. Similar to our study, Almobarak et al.¹⁹ found in their study that 36.3% of the women did not have the test because they believed that they did not need it as they were healthy, 24.4% of the women because they thought the test could be painful and 5% of the women because they felt ashamed. Previously conducted studies have shown that women who consider themselves included in the risk group for cervical cancer had a higher rate of having a Pap smear test.^{10,20}

In our study, there was no significant difference in terms of the level of awareness among those who had and did not have a history of cancer in their immediate relatives. In a study on cervical cancer conducted in Turkey, it was seen that having a history of cancer in the family did not affect the knowledge score of women.²¹ Our study is similar to this study.

8% of the women who participated in our study indicated that they did not find it appropriate to have the Pap smear test in a family health center. A Pap smear test can be performed as a screening test

not only in hospitals but also in primary health care institutions. In a study conducted on Sudanese women, it was found that the majority of women preferred to have the Pap smear test performed by a gynecologist in a hospital, whereas only 0.09% of the women wanted to have a Pap smear test at a primary healthcare services clinic.¹⁹ This may be because some women think of Pap smear test as part of a gynecological examination.

The most important risk factor for the development of cervical cancer is the sexually transmitted HPV infection. It was shown that the majority (99%) of the preinvasive and invasive cervical cancer cases seen today caused by certain types of HPV.^{22,23} In our study, 24.8% of the women correctly agreed with the statement that “The most important cause of cervical cancer is the sexually transmitted HPV infection”, although it was found that the majority of women did not have any knowledge about HPV. Additionally, the ratio of women who had heard about the HPV vaccine previously was 30.2% in this study. This could be resulted from the fact that the HPV vaccine, which is not yet included in the Turkish national vaccination program, is not known enough by the public. In our study, the rate of knowledge about the HPV vaccine significantly increased with educational status, level of income and employment. ($p < 0.05$) This increase was statistically significant. Similar to our study, in a study by Ozan et al. 33.6% of the women knew about HPV and 44.6% of the women knew about the HPV vaccine.²⁴ In this study, having multiple sexual partners (51.1%) and smoking (55.7%) were known by about half of the participants as the factors that increase the risk of cervical cancer.

18.6%, 16% and 31.4% of the participants, respectively, confirmed that the other facts that affect cervical cancer are the long-term use of oral contraceptives, having multiple births, and marriage at an early age, respectively. In addition, 58.3% of the participants answered “I don’t know” to the true statement that “The signs of cervical cancer include abnormal bleeding, vaginal discharge and pain during intercourse”. It was found that awareness of the signs of cervical cancer significantly increased with the educational status of the women who participated in the study. ($p < 0.05$) This increase was statistically significant. Similar to our study, a study that investigates the awareness of English women regarding cervical cancer revealed that the majority of women defined having multiple partners as a risk factor.²⁵ In a study by Arabacı and Özsoy investigating the awareness of women regarding the risk factors for cervical cancer, the most common answers were having more than one sexual partner and lack of genital hygiene.²⁶ It was reported that the level of

awareness regarding cervical cancer was low, however the attitude towards screening was positive in the studies conducted in developing countries such as India, Nepal, Ethiopia and Nigeria. The low levels of awareness were linked to the lack of population-based screenings, insufficient mass communication campaigns and cultural factors.²⁷⁻²⁹

According to the results of our study, more than half of the women did not know the signs of cervical cancer and they had insufficient knowledge on risk factors and when to have a Pap smear test. The women should be primarily targeted in healthcare services and training programs should be developed in order to raise awareness of cancer.

CONFLICT OF INTEREST

The author declares no conflict of interest.

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