

# Need Assessment About Cervical Cancer Prevention Trainings Among Woman Health Care Workers Working in A Training and Research Hospital in Turkey

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## ABSTRACT

**Aim:** Positive behaviors of healthcare workers are very important in terms of presenting preventive health recommendations. However, in many studies, it has been found that the behaviors of health personnel are not sufficient. The aim of this study was to determine the training needs of women healthcare workers, working in a tertiary hospital, in the field of cervical cancer prevention education and to propose a training method.

**Methods:** This cross sectional, descriptive study was conducted between March 1 and May 31, 2017 with 500 women health care workers working in a training and research hospital. A questionnaire consisting of knowledge and behaviors about cervical cancer prevention were applied. Descriptive statistical methods were used in the evaluation of the data.

**Results:** Among the women health care workers who participated in our study, regular gynecologic examination rate was 17.8%, servikal smear rate was 37.2% and HPV vaccination rate was only 4%. Cervical cancer knowledge score averaged 9,5 out of 20 full score. Despite the low vaccination rate of women healthcare workers, the majority of them (67.4%) recommend vaccination to their relatives.

**Conclusion:** Women healthcare workers have an important role as health educators and supporters of cervical cancer prevention. Inadequate knowledge and attitudes of women healthcare workers may cause adverse effects on society. In our study, it was found that female healthcare workers had an average level of knowledge about cervical cancer prevention, but this information did not turn into behaviour. For this reason, there is a need for training to provide adequate behavior change.

**Keywords:** uterine cervical cancer, vaccination, primary prevention, education

## Türkiye'de Bir Eğitim ve Araştırma Hastanesinde Çalışan Kadın Sağlık Çalışanlarının Servikal Kanser Önleme Konusundaki Eğitim Gereksinimleri

### ÖZ

**Amaç:** Sağlık çalışanlarının olumlu davranışları, hastalara koruyucu sağlık önerileri sunulması açısından çok önemlidir. Ancak, birçok çalışmada, sağlık personelinin davranışlarının yeterli düzeyde örnek olmadığı bulunmuştur. Bu çalışmanın amacı, üçüncü basamak bir hastanede çalışan kadın sağlık çalışanlarının servikal kanser önleme eğitimi konusundaki eğitim gereksinimlerini belirlemek ve bir eğitim yöntemi önermektir.

**Yöntemler:** Bu kesitsel, tanımlayıcı çalışma 1 Mart - 31 Mayıs 2017 tarihleri arasında, bir eğitim ve araştırma hastanesinde çalışan 500 kadın sağlık çalışanı ile gerçekleştirilmiştir. Katılımcılara servikal kanserden korunma hakkında bilgi, tutum ve davranışlarını sorgulayan bir anket uygulanmıştır. Verilerin değerlendirilmesinde tanımlayıcı istatistiksel yöntemler kullanılmıştır.

**Bulgular:** Çalışmamıza katılan kadın sağlık çalışanları arasında düzenli jinekolojik muayene oranı %17,8; servikal smear oranı %37,2; HPV aşılama oranı sadece %4 idi. Serviks kanseri bilgi skoru ortalama 20 tam puandan 9,5 idi. Kadın sağlık çalışanlarının düşük aşılama oranlarına rağmen, çoğunluğu akrabalarına (%67,4) aşı yapılmasını önermekteydi.

**Tartışma:** Kadın sağlık çalışanları, servikal kanser önleme konusunda sağlık eğitimcisi ve destekleyicisi olarak önemli bir role sahiptir. Kadın sağlık çalışanlarının yetersiz bilgi ve davranışları toplum üzerinde olumsuz etkilere neden olabilir. Çalışmamızda, kadın sağlık çalışanlarının serviks kanserini önleme konusunda ortalama düzeyde bilgi sahibi oldukları, ancak bu bilginin davranışa dönüşmediği saptanmıştır. Bu nedenle, yeterli davranış değişikliğini sağlayacak eğitim gereksinimi bulunmaktadır.

**Anahtar kelimeler:** uterin servikal kanser, bağışıklama, primer korunma, eğitim

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## Introduction

According to Global Cancer Statistics (GLOBOCAN) 2012 data; there are 266.000 women worldwide who die from cervical cancer in 2012 and this is equivalent to 7.5% of all cancer deaths. Approximately 90% of cervical cancer-related deaths occur in underdeveloped countries (1). Effective control of cancer can be achieved through scientific, multidisciplinary and cost-effective screening programs (2). One of the three cancers that included in the Turkey National Cancer Control Program is cervical cancer (3).

The major risk factors of cervical cancer are; sexual intercourse with multiple partners, early first sexual intercourse age (16 years or younger), using oral contraceptives for longer than 5 years, active or passive smoking, the history of squamous intraepithelial lesion, Human Papillomavirus (HPV) infection or other sexually transmitted diseases.

The education of healthcare professionals is an important part of building cancer awareness. Screening and vaccination behavior of healthcare workers is very important both in terms of preventing the spread of disease and increasing the number of screening and vaccination proposals of the patients. Also, it is very important for healthcare professionals to carry out these screenings for themselves and to be a positive behavioral example in the society. It is possible to raise the awareness of the target population if the healthcare professionals, who are role models for the community, behave correctly about cervical cancer.

In this study we aimed to assess the knowledge and behaviors of women healthcare workers regarding cervical cancer screening tests and HPV immunization working in a tertiary hospital in Ankara and propose a training method.

## Methods

This cross sectional descriptive study was conducted in Ankara Dışkapı Yıldırım Beyazıt Training and Research Hospital between March 1st to May 31, 2017. The approval was obtained from the hospital ethics committee for the study.

The sample of this descriptive study consisted of 500 women was taken from 1061 female healthcare workers, including 353 physicians, 555 nurses and 153 other healthcare workers. The questionnaire form prepared by the researchers was applied with face to face in order to measure the participants' sociodemographic characteristics, information and behaviors of cervical cancer screening and HPV vaccination.

In order to compare the knowledge level of the women healthcare workers participating in the research, a questionnaire consisting of 20 questions was prepared by investigating the current literature by the researchers. In the answers to the information questions, the "right" answers were valued as one point, the "wrong" and "no opinion" answers as zero points. The level of knowledge of participants was calculated by summing the points. Each participant can score the highest twenty and the lowest zero from this survey.

Descriptive statistical methods were used in the evaluation of the data. In the evaluation of categorical variables Pearson chi-square test were used. For the variables determined not to fit normal distribution, the comparison between two independent groups analyzed with Mann-Whitney U Test; and for the comparison between three independent groups Kruskal-Wallis Test were used. When there was a significant difference between the three independent groups, Bonferroni correction was applied in Post-hoc binary comparisons in order to determine the source of the difference. Statistical significance level was accepted as  $p < 0.05$ . SPSS Ver.24 was used to calculate the data.

## Results

Among the female healthcare workers participating in the survey 38% (n = 190) physicians, 44% (n = 220) nurses and 18% (n = 90) were other healthcare workers. Their ages ranged from 17 to 63, with a mean of  $34.1 \pm 9.05$  years. 32.4% (n = 162) of the participants were in the 25-29 age group and 27.2% (n = 136) were in the age group of 40 years and over.

When we investigate the situations that can be a risk for cervical cancer among the participants:

average age of first marriage was 25 ± 3.3 (min=18, max=41); 12.6% had 3 or more pregnancies; 195 (39%) of them using oral contraceptives and also the number of women who is smoking was 128 (25.6%). The most common use of oral contraceptive was in the physician group (43.7%).

Only 17.8% (n = 89) of the participants had regular gynecological examination and 37.2% (n = 186) had smear test. Physicians gynecological examination (11.6%) and smear test rates (24.2%) were found to be lower than nurses (18.6% and 45.9%) and other healthcare workers (28.9% and 43.3%), respectively. The difference is statistically significant (p<0.05). "Having smear" behaviors according to the risky situations of women healthcare workers participating in the research given in Table 1.

**Table 1.** "Having smear" behaviors according to the risky situations of women healthcare workers participating in the research

Risky situations	Smear		Total	p
	(+)	(-)		
Age>40	92	44	136	0,01
Number of pregnancies > 3	41	22	63	0,00
Menstrual irregularity	38	52	90	0,00
Menopause	23	11	34	0,00
Smoking	59	69	128	0,01

According to age, number of pregnancies, menstrual irregularity, menopause and smoking status, smear behaviors were significantly different.

When 314 women who did not have a smear test were asked the reason of not having the test; 24.5% (n=77) stated "I am not at the risk group", 23.6% (n=74) "I have no complaint", 23.2% (n=73) "I am

thinking of taking it out in the future", 21% (n=66) "I can't find the right time", 14% (n=44) "I am afraid of genital examination" and 4.5% (n=14) "I have no information about the subject".

The number of women who had HPV vaccination was only 20 (4%). 13 of these women who were vaccinated were physicians, 3 were nurses and 4 were other healthcare workers. Occupational distribution of 480 unvaccinated women and the reasons of unvaccination are given in Table 2.

**Table 2.** Occupations of 480 women who did not vaccinated and the reasons for not vaccination (n=500)

	Physician		Nurse		Other		Total	
	N	%	N	%	N	%	N	%
Not know about vaccine	24	14,04	106	61,98	41	23,98	171	35,6
Not in the recommended age group	13	54,17	8	33,33	3	12,50	24	5,0
No recommendation	74	56,82	47	35,61	10	7,57	131	27,3
Possible side effects	14	23,33	24	41,67	19	35,00	57	11,9
Because of the price	14	44,12	15	44,12	4	11,76	33	6,9
Other reasons	45	53,57	26	30,95	13	15,48	84	17,5

When the reasons for not being vaccinated were questioned physicians most frequent response was "my doctor didn't recommend it". "I don't know about vaccine" response was given mostly by nurses and also 'possible side effects' response was given by other healthcare workers at the highest rate.

Table 3 shows the distribution of responses to questions asked to women healthcare workers on their attitudes towards HPV vaccination.

**Table 3.** The distribution of responses to questions asked to women healthcare workers on their attitudes towards HPV vaccination.

	Physician		Nurse		Other		Total	
	Positive n(%)	Negative n(%)	Positive n(%)	Negative n(%)	Positive n(%)	Negative n(%)	Positive n(%)	Negative n(%)
Recommend to her relatives	151 (30,2)	39 (7,8)	131 (26,2)	89 (17,8)	55 (11,0)	35 (7,0)	337 (67,4)	163 (32,6)
Recommend to her daughter	149 (29,8)	41 (8,2)	113 (22,6)	107 (21,4)	50 (10,0)	40 (8,0)	312 (62,4)	188 (37,6)
If vaccine is free	156 (31,2)	34 (6,8)	144 (28,8)	76 (15,2)	63 (12,6)	27 (5,4)	363 (72,6)	137 (27,4)

All occupational groups have a positive attitude towards HPV vaccination. 78.4% of physicians (n=149), 51.4% of nurses (n=113) and 55.6% of other healthcare workers (n=50) propose HPV vaccination to her daughter. Even of the 480 individuals who did not have HPV vaccination, 363 (72.6%) stated that they would vaccinate if the HPV vaccination fee is paid by the government.

The average total knowledge score of 500 women healthcare worker is  $9.6 \pm 3.8$  (min=0, max=19). The average knowledge score according to the occupation, having vaccination and proposing to the relatives is given in Table 4.

**Table 4.** Average knowledge scores according to the occupation, having and proposing vaccination to the relatives

		Average Knowledge Score ( $\bar{X} \pm SD$ )	P
Occupation	Physician	12,0 $\pm$ 2,7	0,00
	Nurse	8,4 $\pm$ 3,3	
	Other healthcare workers	7,1 $\pm$ 4,0	
Vaccination	(+)	11,6 $\pm$ 4,4	0,00
	(-)	9,5 $\pm$ 3,8	
Recommend to her relatives	(+)	10,2 $\pm$ 3,5	0,00
	(-)	8,2 $\pm$ 4,0	
Recommend to her daughter	(+)	10,2 $\pm$ 3,6	0,00
	(-)	8,5 $\pm$ 3,8	

In our study information sources about cervical cancer were listed as; 61.8% (n=309) the graduation schools, 42.6% (n=213) colleagues, 38.2% (n=190) internet, 20.4% (n=102) symposium and 14.2% (n=71) newspapers/magazines. While 84.7% of the physicians and 55.5% of the nurses chose the graduation school option, other healthcare workers have chosen internet option with the rate of 55.6.

## Discussion

Low participation for cervical cancer screening rates of healthcare workers such as 18.4%, 14.1% and 17.2% were reported in studies conducted in different countries (4-6). The ratios of screened nurses were also low. Regular gynecological examination proportions

of female healthcare workers in studies in Turkey changes between 8.7% and 30.3%. In the same studies, smear rates change between 32.8% and 45.2% (7). In our study incidences of regular gynecological examination and smear are 17.8% and 37.2% respectively. The gynecological examination and smear rates in the literature are compatible with our study but are quite low from the rates targeted by developed countries.

In our research compared to nurses and other healthcare workers, the physicians' rates of using oral contraceptives were high while rates of regular gynecological examination (11.6%) and smear (24.2%) rates were low. These ratios can vary in different studies. In a research that conducted with female physicians; regular gynecological examination rate was 53.8% and smear was 33% (8). In a study measuring the awareness of cervical cancer among female physicians in the Antalya Training and Research Hospital, it was found that 20.6% of doctors had regular smears (9).

We conclude that the increase in education level may improve the awareness of the individual about risky behaviors that can lead to cervical cancer but unfortunately it may reduce the interest in screening procedures. We convinced that female doctors can't direct their behaviors towards their own health by reasons such as working conditions, fear of genital examination, virginity, monogamy, use of barrier methods, avoidance of risky behaviors, despite the fact that they have information on the subject.

When we asked the reasons of not having a smear, 23.5% of healthcare workers said "they did not have a complaint", 23.2% said "they thought of taking it out in the future", 21% said "they could not find the appropriate time" and finally 14% said "they were afraid/ashamed of genital examination". The reasons for not being screened in the literature were consistent with our data but they are generally found in similar titles and in close proportions. The most common reasons for not screening women healthcare workers are listed as; lack of related ideas (20.7%), no symptoms (18.2%), time constraints (11.5%), no risk factors (11.5%), fear of genital examination (10.3%).

In another study the reasons were similar to those such as; believing it is not necessary (47%), having no symptom (23.2%), and feeling fear or dislike of the procedure (17.3%) (6). Studies which are consistent with our study have shown that; avoiding genital examination constitute an important part of not having a smear.

Due to cultural barriers, gynecological examination and smear procedure are perceived by women as a shameful and frightening situation. In a study conducted in Uganda, it was found that only 25% of female healthcare workers accepted vaginal examination only done by a woman (10).

While the basic knowledge source of physicians and nurses in our study was the graduated school, other healthcare professionals selected the internet as a source of information with a high rate of 55.6%. This may be related to the lack of participation of other healthcare professionals in the basic training programme or the impact of the media. In other studies that provide information on healthcare workers related to cervical cancer found the most common sources of information such as, graduated school and media in accordance with our study (11).

The proportion of women who underwent HPV vaccination in our study is only 4% (n=20). This rate is quite low similar to the study data of Özçam et al (12). It can be said that socioeconomic status, educational level and active sexual life have a positive effect on the vaccination behavior if the majority of the vaccine recipients are thought to be physicians (65%) and married (70%).

The reasons for not getting vaccinated in our study are generally similar to other studies. In a research conducted with nurses in Thailand, the most common reasons for not getting HPV vaccination are listed as follows; not sure about the effectiveness of the vaccine (55.6%), not thinking herself in the risk group (44.4%) and afraid of side effects (28.9%) (13).

Most of the 480 women who did not have HPV vaccination (61.5%) said that; if she had/would have a child they would vaccinate their daughter with HPV. The majority of those who would vaccinate their daughter were physicians (47.7%). It was found in the

studies that mothers' involvement in the cervical cancer screening programme effects the daughters HPV vaccination status (14,15).

In our study, the average knowledge score of physicians was higher than nurses and other healthcare workers. Most of the participants with a score higher than 10 points were physicians (61.7%). Our data supports studies showing that the level of knowledge about cervical cancer is affected by the grade of education (16).

We confirmed that female physicians have satisfactory knowledge level of cervical cancer and screening, but their screening test behavior is quite low. In another study, although it is known that screening prevents cervical cancer, screening attitudes and practices of participants were found to be negative (11).

When HPV vaccination is considered; parental attitudes, the risk of low-perceived HPV infection, the suspicion that only sexually active adolescents need vaccination, the insecurity of the pharmaceutical industry, possible side effects, lack of the experience of vaccination and the price of vaccine are seen as potential barriers. In researches it has been determined that vaccination decision was not under healthcare workers control and parental attitudes were obstacles. On the other hand, the recommendations of healthcare workers were the most important factor for parents in deciding whether to vaccinate their children (17,18).

## Conclusion

As a conclusion, as being a role model to the society, healthcare workers has an impact on the positive health behaviors of people. However, it should not be forgotten that healthcare professionals are also human and they also have beliefs, fears, bad habits etc. As a result, there is a need for adequate behavioral change training on cervical cancer prevention for healthcare workers both in undergraduate and postgraduate level.

Policy makers should include behavioral change trainings in undergraduate and in-service trainings that will provide healthy lifestyle development as well as theoretical training in medical professions trainings.

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