

HPV AWARENESS AND ACCEPTANCE OF MOTHERS WITH A GIRL'S CHILD: THE SAMPLE OF TURKEY KIZ ÇOCUĞU OLAN ANNELERİN HPV FARKINDALIĞI VE KABULÜ: TÜRKİYE ÖRNEĞİ

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Abstract

Objective: The awareness, level of knowledge and attitudes of mothers with female children about HPV vaccine were targeted.

Material- Methods: This is a cross-sectional descriptive study. The Research was conducted with 228 parents in Turkey girls studying in primary and secondary schools of the state in the Mediterranean region. In the evaluation of the data, descriptive statistics were shown as mean and standard deviation for the quantitative variables of the research determined by measurement, and as numbers and percentages for qualitative variables determined by counting.

Results: It was determined that 44.7% of the mothers had heard of HPV before and 76.3% of them stated that protection from HPV could be possible with vaccination. It was determined that not all mothers had their children vaccinated.

Conclusion: In our study, it was determined that the mothers' level of knowledge about HPV vaccine was quite low and their attitude towards HPV vaccine was negative. It was determined that the mothers believed that the vaccine was protective, but did not vaccinate their children.

Keywords: HPV, Cervical cancer, Immunization, HPV vaccine, Nurse.

Özet

Giriş: Bu çalışmanın amacı kız çocuğu olan annelerin HPV aşısı hakkındaki farkındalık, bilgi düzeyi ve tutumlarının belirlenmesidir.

Gereç- Yöntem: Bu çalışma kesitsel tanımlayıcı bir çalışmadır. Araştırma, Türkiye'de Akdeniz Bölgesi'ndeki bir büyük şehirde yer alan bir devlet okulunun ilk ve ortaokullarında öğrenim gören 228 kız çocuğunun ebeveyni ile yürütülmüştür. Veriler araştırmacılar tarafından hazırlanan anket formu aracılığıyla toplanmıştır. Verilerin değerlendirilmesinde tanımlayıcı istatistikler, ölçme yoluyla belirlenen araştırmanın nicel değişkenleri için ortalama ve standart sapma, sayma yoluyla belirlenen nitel değişkenler için ise sayı ve yüzde olarak gösterilmiştir.

Bulgular: Annelerin %44,7'sinin daha önce HPV'yi duyduğu ve %76,3'ünün HPV'den korunmanın aşısı ile mümkün olabileceğini belirttiği belirlenmiştir. Tüm annelerin çocuklarına aşısı yaptırmadığı belirlenmiştir.

Sonuç: Çalışmamızda annelerin HPV aşısı hakkındaki bilgi düzeylerinin oldukça düşük olduğu ve HPV aşısına karşı tutumlarının olumsuz olduğu belirlenmiştir. Annelerin aşının koruyucu olduğuna inandıkları ancak çocuklarına aşısı yaptırmadıkları belirlenmiştir.

Anahtar Kelimeler: HPV, Serviks kanseri, Bağışıklama, HPV aşısı, Hemşire

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INTRODUCTION

Cervical cancer ranks fourth among cancers seen in women in the world and ninth in our country, and constitutes 4.5% of cancers seen in women (1,2). Although cervical cancer, whose main factor is HPV, is seen with a low frequency in our country, HPV-related cancers are held responsible for 1% of male cancers and 5-10% of female cancers in the analyzes performed by the International Cancer Research Agency. Similarly, when the data of our country are examined, it is estimated that HPV-related cancers affect women more, and women have approximately five times more HPV-related cancers than men. HPV infections constitutes 96% of cervical cancers, 40-51% of vulva cancers, 90-93% of anal cancers, 36-40% of penile cancers, 40-64% of vaginal cancers, 12-63% of oropharyngeal cancers (3).

About 45,300 cancers occur each year associated with HPV in the United States. Cervical cancer among women is the most common HPV-related cancer, affecting approximately 25,400 women each year (4). With the recommendation of the World Health Organization, community-based screening programs are carried out for breast, cervical and colorectal cancers in our country. The early diagnosis of cervical cancer as a result of its inclusion in the national cancer screening program cannot prevent cervical cancer from being fatal. However, considering the psychological and socioeconomic burden brought by the treatment process, it is obvious how important it is to prevent the disease before it appears. For this reason, country-based health policies and families should be sensitive to primary prevention methods by healthcare professionals (5,6).

HPV vaccine is in the national vaccine program in many European countries (such as America, Australia). Despite being approved to take part in the national immunization program in Turkey since 2007 for HPV Vaccine, by the Social Security Institution (SGK) is not take part in the vaccine payment (7,8). Especially in recent years, vaccination opposition among

parents, including vaccines in the national vaccination program, has been increasing in our country (9). For individuals living in developing countries such as Turkey, which has difficulty allocating to income for private health spending, the fee for the vaccine also supports to the opposition. The most important factors that will affect the vaccination rates in cultures that attach importance to treatment services rather than protection are; parents must have knowledge, opinion and income levels on this subject.

The fact that the rate of applying for HPV vaccine is quite low in our country may be due to the fact that the parents of adolescents who are the target group for HPV vaccine are not aware of the existence and effectiveness of the vaccine, and cannot access the vaccine financially. However, in the literature, the number of studies in large sample groups determining the reasons of families not being able to access the HPV vaccine, their opinions about having it in the future, and their attitudes about the vaccine is quite limited. It is believed that this study will also help raise awareness of the HPV vaccine in families, turn negative attitudes about the vaccine into positive ones, and help us have an idea of the future of the HPV vaccine in Turkey.

For this reason, this study was planned to determine the awareness, level of knowledge and attitudes of families with girls about the HPV vaccine.

MATERIAL- METHODS

Research Type

It is a cross-sectional descriptive study.

Setting and Participants

Research was carried out in primary and secondary education department at a state school in the Mediterranean region in Turkey. In the study, it was planned to reach the mothers of female students who were studying at this school, without going to the sample selection. The study included all parents who were literate, over the age of 18, did not have any

physical disability and agreed to participate. The lists containing the names and surnames of the female students and their mothers were taken. Thus, the parents who participated in the study and did not were followed up. Interviews were made with mothers who came to pick up their children from school in the evening. Data were collected by face-to-face interview method in a room reserved for data collection at school with mothers who accepted the study.

Data Collection

The data were collected by a questionnaire form consisting of 35 questions prepared by the researchers to determine the demographic characteristics (age, gender, economic status etc.) of the mothers and their knowledge about HPV vaccine. The questions asking about HPV vaccine knowledge levels were sent to five experts and necessary corrections were made in line with their recommendations.

Statistical Analysis

Data was evaluated using SPSS 21 package program in computer environment.

Percentile, average and t tests were used to evaluate the data.

Ethical Statement

Before starting the study, written permission was obtained from the Yozgat Bozok University Clinical Ethics Committee (date:19.05.2020, Decision number: 2017_KAEK-189_2020.05.19_03) and the state school where the study would be conducted. Before data was collected, the purpose of the study was explained to the participants and informed consent forms were received.

RESULT

The socio-demographic characteristics of the mothers are given in Table 1. It was observed that the mean age of the mothers who made the sample was 37.47 ± 6.22 . When the educational status was evaluated, it was found that half of the mothers were primary school graduates. The majority of the mothers (63.2%) are unemployed and again the majority (81.6%) stated that their income is medium-poor.

Table 1. Sociodemographic characteristics of the mothers and analysis results

Characteristics	n	%	
The average age (X±SD)	37.47±6.22		
Education Status	Primary Education	114	50.0
	High school	96	42.1
	Undergraduate and above	18	7.9
Working Status	Working	84	36.8
	Not working	144	63.2
Income status	Income equal or less than expenses (medium-poor)	186	81.6
	More than income (good)	42	18.4

The level of knowledge of mothers about HPV infection is given in table 2. 44.7% of the mothers stated that they had heard of HPV before, and 47.7% of the mothers who heard HPV stated that they heard about HPV from sources such as internet, television, newspapers and magazines. 47.4% of the mothers stated that they have no idea about HPV. 55.3% of the mothers reported that they did not know how HPV was transmitted, 28.9%

were transmitted during sexual intercourse, and 28.9% were transmitted by blood and other body fluids. While 65.8% of the mothers reported that HPV is seen in women, 52.6% of them stated that HPV is a predisposing factor for cervical cancer. The majority of mothers stated that protection from HPV can be achieved by vaccination (76.3%) and regular health check-ups (55.3%).

Table 2. Mothers ' level of knowledge about HPV infection (n=228)

		n	%
Have you heard of HPV?	Yes	102	44.7
	No	126	55.3
Where did you first hear about HPV? *	I heard it from the internet, television, newspaper, magazine	102	47.7
	From my family / friend	36	15.8
	From the doctor or nurses	42	18.4
	From school conferences	24	10.5
	From the health knowledge lesson	18	7.9
What comes to mind when it comes to HPV? *	I have no idea	108	47.4
	Cancer	78	34.2
	Sexually transmitted diseases	54	23.7
	Genital warts	66	28.9
How is HPV transmitted? *	I don't know	126	55.3
	By digestion	12	5.3
	During sexual intercourse	66	28.9
	With blood and other body fluids	66	28.9
	Transmission through the skin	30	13.2
	By inhalation	18	7.9
Who gets HPV?	In male	18	7.9
	In women	150	65.8
	In both men and women	60	26.3
	Ovarian cancer	60	26.3
What type of cancer is HPV prepared for? *	Prostate / Penis cancer	36	15.8
	Uterine cancer	78	24.2
	Cervical cancer	120	52.6
	Vaccine	174	76.3
	Condom	42	18.4
What are HPV protection ways? *	Monogamy	48	21.1
	Having fewer children	24	10.5
	Not smoking	54	23.7
	Regular health checks	126	55.3
	Avoiding sexual intercourse at an early age	36	15.8
	Paying attention to the cleansing of the sexual area	60	26.3

* More than one answer was given.

The level of knowledge of mothers about HPV vaccine is given in Table 3. The mothers of 65.8% had heard of HPV vaccine before and of 39.5% heard about HPV vaccine was from sources such as internet, television, newspapers and magazines and of 34.2% heard their family and friends and of 21.1% heard from school conferences. While 47.4% of the mothers stated that HPV vaccine should be given to women, 21.1% stated that it should be given to everybody who is sexually active. While it was observed that almost all of the mothers (92.1%) did not vaccinate their own HPV vaccine, it was found that not all mothers vaccinated HPV vaccine for their children. 63.2% of the mothers had never heard of the

HPV vaccine, 18.4% did not know the side effects of the vaccine, 18.4% did not know where it was made, 15.8% thought it was harmful, 5,3% of them reported that they found the vaccine too expensive and 2.6% found the vaccine's protection low. Again, as the reasons for mothers not to have their children vaccinated with HPV, 47.4% had never heard of it, 28.9% did not know the side effects of the vaccine, 21.2% did not know where it was made, and 18.4% found the vaccine too expensive. The majority of the mothers stated that they did not know that HPV vaccine could encourage early sexuality and polygamy. 78.9% of the mothers reported that they did not know both HPV vaccine could encourage unprotected

risky sexual intercourse and HPV vaccine could cause social stigma. The issues that mothers most want to learn about the HPV vaccine are the reliability of the vaccine at 63.2%, the protection time of the vaccine at 52.6%, and the

effectiveness of the vaccine at 47.4%. All of the mothers stated that they did not know the most appropriate age range of HPV vaccine, the price of the vaccine and the social security.

Table 3. Knowledge level of mothers about HPV vaccine (n = 228)

		n	%
Have you heard of the HPV vaccine?	Yes	150	65.8
	No	78	34.2
Where did you first hear about the HPV vaccine? *	I heard it from the internet. television. newspaper. magazine	78	39.5
	From my family / friend	90	34.2
	From the doctor or nurses	24	10.5
	From school conferences	48	21.1
	From the health knowledge lesson	12	5.3
Who should be given HPV vaccine? *	To women	108	47.4
	To men	30	13.2
	To anyone who is sexually active	48	21.2
	I do not know	42	18.4
Have you had yourself the HPV vaccine? (Parent)	Yes	18	7.9
	No	190	92.1
If no. why didn't you do it? (Parent)*	I've never heard of	144	63.2
	The vaccine is too expensive	12	5.3
	I do not know the side effects of the vaccine	42	18.4
	I don't know where it was made	42	18.4
	I think it is harmful	36	15.8
	I find your protection low	6	2.6
Can HPV vaccine promote early sexuality?	Yes	0	0
	No	42	18.4
	I do not know	186	81.6
Can the HPV vaccine promote polygamy?	Yes	6	2.6
	No	42	18.5
	I do not know	180	78.9
HPV vaccine can promote unprotected. risky sexual intercourse?	Yes	6	2.6
	No	42	18.4
	I do not know	180	78.9
HPV vaccine can cause social stigma?	Yes	12	5.3
	No	36	15.8
	I do not know	180	78.9
What would you like to learn about the HPV vaccine? *	Reliability of the vaccine	144	63.2
	Vaccine efficacy	108	47.4
	Duration of vaccine	120	52.6
Have you had your girl child HPV vaccine?	Yes	0	0
	No	228	0.0
If no. why didn't you do it? *	I have never heard of it	108	47.4
	The vaccine is too expensive	42	18.4
	I don't know the side effects of the vaccine	66	28.9
	I don't know where it was made	48	21.2
	I think it is harmful	12	5.3
	I find your protection low	6	2.6

*More than one answer was given.

The relationship between the mothers' level of education with monthly income and their awareness of HPV vaccine is given in Table 4. A significant difference was found between the mothers' educational status and their awareness of HPV vaccine. As the education levels of the mothers increase. their awareness of HPV vaccine increases ($p < 0.05$). However, although 45% of the mothers were aware of the HPV

vaccine. none of them vaccinated their daughters. When the income status of the mothers and their awareness of HPV vaccine were examined. a significant difference was found ($p < 0.05$). It was found that as the monthly income status of the mothers decreased. their awareness of HPV vaccine decreased.

Table 4. Education and monthly income levels of mothers and being aware of HPV vaccine

Education level of mothers	Being aware of HPV vaccine			X ²	p
	Yes n (%)	No n(%)	Total n (%)		
Primary education	30 (26.3)	84 (73.7))	114 (50)	12.043	0.001
High school	36(37.5)	60(62.5)	96 (42.1)		
University and above	12(66.7)	6(33.3)	18 (7.9)		
Total	108 (45.6)	(67.3)	228 (100)		
Monthly income					
Income equal or less than expenses (medium-poor)	6 (14.3)	36 (85.7)	42 (18.4)	9.081	0.002
More than income (good)	72 (38.7)	114 (61.3)	186 (81.6)		
Total	78 (34.2)	150 (65.8)	228 (100)		

Chi-Square (χ^2). $P < 0.05$

DISCUSSION

Screening programs are effective in the prevention and early diagnosis of cervical cancer. However, deaths from cervical cancer still occur despite effective screening programs. In addition to screening, vaccination is the most effective approach in reducing the incidence of cervical cancer. In studies on HPV vaccine in different countries, parents' attitudes towards HPV and HPV vaccine have been different. In our study, it was determined that the mothers' level of knowledge about HPV vaccine was not good. It was found a majority of people answered the questions about HPV as "I do not know". In a study conducted in the USA, it was reported that 26% of the parents had a low level of knowledge about HPV vaccination (4.10). In addition, it was determined that less than half of the mothers (44.7%) had heard of HPV. 65.8% had heard of the HPV vaccine before, and 39.5% had access to HPV-related information on the internet. In a study conducted by Pınar et al. (2010), it was found that 42.9% of women obtained information about the HPV vaccine

through the press, and Ozan et al. (2011) reported that 44.6% of women heard about the HPV vaccine and 37.8% of them the source of information was television. In another study investigating parents' internet usage for information about HPV vaccine; It has been reported that mothers have higher HPV knowledge. HPV vaccine desire and with increased behavior of getting information from the doctor (11-13). The study reveals that positive parental beliefs and attitudes are one of the important determinants of HPV vaccination. It shows that mothers 'or parents' belief that HPV vaccine is effective, protective and beneficial will increase vaccination rates (14-16). However, the internet is not a reliable source of information most of the time. Although the mothers can easily access information in the city center, their knowledge of HPV infection is low, suggesting that they do not consult health institutions sufficiently and have no information on this issue.

In a study in which parents' knowledge attitude and vaccination practices were investigated in Italy. it was determined that only 19.3% of the parents vaccinated their children. although 60% of the parents looked positively on the HPV vaccine.¹⁴ In a study conducted with parents whose children are in the age range suitable for HPV vaccination. most of the parents have heard about the HPV and HPV vaccine (84% - 87%). but only 30% of them stated that they administered HPV vaccine to their children (17). Again. most of the mothers in our study stated that the HPV vaccine was effective in preventing the disease. but none of them had their daughter vaccinated. The fact that they stated that they did not have detailed information about the vaccine suggests that the level of knowledge about the vaccine is more important than the education level in terms of vaccine applicability. Our findings are in line with the findings of studies in other countries. The fact that none of the mothers had their daughters vaccinated in our study shows that there is a bad attitude towards vaccines in our country.

Thomas et al. (2019) emphasizes that vaccination will cause stigmatization. and that 80% of them will leave their children infertile and that they continue to hesitate about vaccination.¹⁰ In our study. the majority of the mothers stated that they did not know that HPV vaccine could encourage early sexuality and polygamy. Again. the majority of the mothers reported that they did not know both that HPV vaccine could encourage unprotected risky sexual intercourse and that HPV vaccine could cause social stigma. In the studies. the factors affecting the willingness to vaccinate against HPV; Lack of knowledge about HPV. education level. cost. income. concern about vaccine-related side effects. health and religious beliefs. racial. ethnic and cultural differences are stated (5.6.10.8.16.18). In our study. the majority of the mothers stated that they would like to learn about the reliability of the vaccine. the protection time of the vaccine and the effectiveness of the vaccine. In addition. in our

study. it was determined that the education level and working status affected the vaccine awareness. This situation indirectly affects the willingness to the vaccine. As our study shows. the biggest obstacle to HPV vaccination can be considered as not having enough information. In our country. the HPV vaccine can be purchased from pharmacies by families for a fee. In our study. it was determined that most of the mothers (81.6%) did not have a good income level. This suggests that awareness of HPV vaccine may decrease in communities with low income levels.

CONCLUSION

Healthcare professionals need to educate parents about HPV and establish appropriate strategic goals for vaccine acceptance and administration. with the promotion of vaccine acquisition for target groups. In order to increase social sensitivity and awareness. it is recommended that healthcare professionals should create training plans for parents or mothers to increase their knowledge about HPV. taking into account regional sensitivities. It is thought that the Ministry of Health's studies on HPV and cervical cancer using mass media will be beneficial in raising public awareness.

Ethical Statement

Before starting the study, written permission was obtained from the Yozgat Bozok University Clinical Ethics Committee (date:19.05.2020, Decision number: 2017_KAEK-189_2020.05.19_03) and the state school where the study would be conducted. Before data was collected, the purpose of the study was explained to the participants and informed consent forms were received.

Conflict of interest

The authors declare no conflict of interest.

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Author contribution

Concept- Ö.Ş., R.H.A; Design- Ö.Ş., R.H.A, Ş.A; Literature Review- Ö.Ş., R.H.A, Ş.A; Data collection and analysis- Ö.Ş., R.H.A, Ş.A; Writing the article- Ö.Ş., Ş.A; Final reading- Ö.Ş., R.H.A, Ş.A.

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