

Evaluation of Knowledge, Attitude, and Opinion of the Faculty of Health Sciences Students Toward Human Papilloma Virus (HPV) and HPV Vaccines

Abstract

Background: Human papillomavirus (HPV) is one of the most common sexually transmitted infections in the world, and cervical cancer, which has been proven to be associated with HPV, is the third-most common cancer in women in the world.

Aim: This study aimed to evaluate the knowledge, attitude, and opinion of the Faculty of Health Sciences students toward the HPV and vaccination.

Methods: The study was conducted using a cross-sectional research design. The sample of the research consisted of 576 students studying at the Faculty of Health Sciences of a university. The data were collected using the forms prepared online, including an introductory information form and the Human Papillomavirus Information scale. The data were evaluated using percentage, standard deviation, frequency, mean, median, minimum–maximum values, Mann–Whitney U test, and Kruskal–Wallis tests.

Results: It was determined that 19.8% of the students were studying at the department of midwifery, 36.8% were studying at the department of nursing, and 2.1% had a family history of cervical cancer. Those who were studying at the midwifery and nursing departments had been living in a small town for a long period, and learned about HPV during undergraduate education was found to have a higher level of knowledge on HPV screening tests and vaccination. Had the intent to be vaccinated and had already been vaccinated, received training from the health-care professionals on HPV vaccine, and advocated that the opinion of family members about vaccination is not of importance and all genders should be vaccinated were found to have a higher level of knowledge on HPV screening tests and vaccination ($P < 0.001$).

Conclusion: Students studying at the faculty of health sciences should have more information about sexually transmitted diseases since they represent future health-care professionals.

Keywords: HPV, HPV vaccine, sexual health, health training, students

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Introduction

Cancers, which occupy the second place in the world and in Türkiye after cardiovascular diseases, constitute an important issue among death cases with known reasons.¹ In addition, there is also a rapid increase in the number of cancers and cancer-related mortality rates every year. According to the data of the International Agency for Research on Cancer in 2020, the number of new cancer cases was reported as 19.3 million, and the number of cancer-related deaths was reported as 10 million. In Türkiye, the number of new cancer cases is reported as 233,834, whereas the number of cancer-related life losses is 126,335.²

According to the data reported by the World Health Organization, cervical cancer, which ranks second among cancers in women and seventh among all cancers in the world, has affected the lives of 604,127 women in 2020.³ HPV is the infectious agent causing 95% of pre-invasive cervical neoplasms. It is a papovaviridae class virus, transmitted sexually in both men and women, causing cervical cancer in women, and penile and anus cancer in men.⁴ There are approximately 200 types of HPV that have been identified, and types of 16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59, 66, 68, and 73 pose a high risk for pre-cancerous and squamous intraepithelial lesions. It is stated that one out of every five women who come into contact with HPV develops cervical cancer.⁵

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Prophylactic vaccination is successfully performed for diseases related to HPV.⁴ It is noted that the administration of the vaccine before the start of sexual life increases its effectiveness.⁵ There are three types of vaccines, named bivalent (Cervarix), quadrivalent (Gardasil), and non-avalent (Gardasil 9), granted by the Food and Drug Administration and the European Medicines Agency. These vaccines are approved for use in children and adolescents aged between 9 and 15, as well as women aged between 16 and 26.^{4,6} Many countries, including the United States (USA), Canada, Australia, Austria, Germany, France, and Israel, have added the HPV vaccine to the routine vaccination calendar.⁷ In Turkey, the HPV vaccines licensed in 2007 (quadrivalent) and 2008 (bivalent) were not included in the national vaccination calendar of the Ministry of Health due to high costs.^{8,9} Cervical cancer, which has a high mortality rate, is a disease that can be prevented with a vaccine. However, reasons such as lack of sufficient information about the vaccine, concerns about the effects and side effects, low perception of the risk of developing HPV infection or HPV-related cancer,^{6,10} and knowledge, attitude, and beliefs about the vaccine decrease vaccination rates.

All health-care personnel should have up-to-date information about HPV vaccines, support the HPV vaccine, and be aware of individuals' existing wrong attitudes and beliefs. Health sciences students who will direct public health and take part in the delivery of health services in the future will be the most important health service providers of the future. For this reason, it is especially important for students studying in the field of health to develop positive attitudes and behaviors toward the HPV vaccine.^{3,4,8,10} Determination of knowledge, opinion, and behaviors of health-care students about the issue before graduation is the first step. The next step is the assessment of the personnel responsible for delivering health-care services. Finally, planning in-service training and public training programs are considered important. This approach helps in understanding the reasons for the low vaccination rates and provides adequate information. In this direction, the study was planned to evaluate the knowledge, attitudes, and opinions of the students of the faculty of health sciences toward the HPV and HPV vaccines.

Research Questions

1. What is the cervical cancer knowledge level of the Faculty of Health Sciences students?
2. What are the views of the Faculty of Health Sciences students regarding HPV infection vaccination?

Materials and Methods

Study Design and Sample

The study was conducted using a cross-sectional research design to evaluate the knowledge, attitude, and opinion of the Faculty of Health Sciences students toward HPV infection and vaccination.

The universe of the study consisted of 1055 students studying at the Faculty of Health Sciences of a university. The sample of the research was "G. With the Power-3.1.9.2" program, $1-\beta=0.99$ power and $\alpha=0.01$ error level, the effect size was determined as 215 with the assumption of $f=0.32$.¹¹ A total of 576 students who volunteered to participate in the study constituted the research sample. Before commencing the study, a pilot application involving 20 students was carried out. Regarding the comprehensibility of the survey forms subsequent to the pilot application, no issues were identified.

Inclusion Criteria

- Being a student at the Faculty of Health Sciences of the university where the study was conducted
- Ability to use social networks
- Volunteering to participate

Data Collection Tools

"Introductory information form" and the "HPV information scale" were used for data collection. The data were collected using a web-based survey between 1 and 31 March 2022.

Introductory Information Form

The introductory information form was prepared by the researchers through scanning the literature related to the subject.⁴⁻⁸ The form consisted of 23 questions aimed at determining the sociodemographic characteristics of individuals and their opinion on the COVID-19 vaccine.

Human Papillomavirus Information Scale (HPV Information Scale)

The HPV information scale was developed by Waller et al.¹² in 2013, to measure the level of knowledge of individuals about HPV infection, vaccines, and screening tests. In the scale, it is examined whether individuals have ever heard of HPV, HPV vaccines, and screening tests, and to what extent they have knowledge on these topics. The scale consists of three subscales of 29 items and an independent subscale of six items. The first subscale of the HPV information scale includes 16 items questioning the participants' general knowledge about HPV. The second subscale includes six items related to HPV screening tests. In the third subscale consisting of seven items, participants are asked to respond to statements related to the HPV vaccine. They are expected to mark each item as "Yes", "No," and "I do not know". During the evaluation, each correct answer is Scored "1", while the statements "I do not know" and incorrect answers are Scored "0". The overall score obtained from the HPV information scale ranges from 0 to 33, and higher scores indicate a higher level of knowledge about screening tests and vaccines. The validity and reliability of the Turkish version of the scale were performed by Demir.¹³ The Cronbach's α value was found 0.96.¹³ In the current study, the Cronbach's alpha was found 0.93.

Data Collection

Before data collection, institutional permission was obtained. WhatsApp class groups were reached by the lecturers who were also advisors of those classes. The online survey link was shared with the students through the app and they were invited to the study. The data were collected using the forms prepared online. The questionnaire form was prepared through the Google Forms web application and sent to students on WhatsApp. On the first page of the questionnaire, students were informed about the study, and their consent was obtained. Those who accepted to participate in the study were asked to fill out the questionnaire after approving the informed consent form. All data obtained using the online self-report method were recorded through online forms. The forms took approximately 15–20 min to fill for each participant.

Statistical Analysis

IBM SPSS Statistics for Windows, Version 25.0 program (IBM SPSS Corp.; Armonk, NY, USA), statistical package program was used to analyze the results obtained in the study. The data were evaluated using descriptive statistical methods such as percentage, standard

deviation, frequency, mean, median, minimum–maximum values, and in addition to Skewness and Kurtosis distribution tests for examining the normal distribution. It was determined that the data did not show normal distribution. The Mann–Whitney U test and Kruskal–Wallis test were used in independent groups for statistical calculations.

Ethical Consideration

Approval of the ethics committee was obtained from Osmaniye Korkut Ata University to conduct the study (Approval Number: 2022/2/21, Date: 25.02.2022), and the permission of the institution was obtained from the dean of the relevant faculty. The first page of the questionnaire sent to the participants contained information about the purpose of the study, its content, and the fact that participation was based on volunteerism. The identity information of the participants was not recorded in the questionnaire. Written and verbal consent was obtained from the students participating in the study. The study was conducted in accordance with the principles of the Helsinki Declaration.

Results

In the study, the overall score average of the students obtained from the HPV information scale was found 7.14 ± 7.22 . The overall score averages that students obtained from the subscales were as follows: general information on HPV 4.68 ± 4.5 , information on HPV screening test 0.75 ± 1.35 , general information on HPV 1.06 ± 1.59 , and current information on HPV vaccination program 0.65 ± 1.16 , respectively, and the Cronbach's alpha value of the overall scale was found 0.93 (Table 1).

The scores obtained according to the sociodemographic characteristics of the students are given in Table 2. It was determined that 19.8% of the students were studying at the department of midwifery, 36.8% were studying at the department of nursing, 40.8% were in first grade, 87.3% were female, 52.6% had equal income and expenses, 9.5% were smokers, and 2.1% had a family history of cervical cancer. According to the results, those studying at the department of midwifery (8.43 ± 7.17) and the department of nursing (8.01 ± 7.79) obtained statistically higher overall score averages from the scale compared to those studying at the department of social work (4.18 ± 5.64) ($P=0.002$). It was found that students studying at 2nd, 3rd, and 4th grades ($8.02 \pm$

7.08 ; 9.79 ± 7.71 ; 11.16 ± 7.09 , respectively) obtained significantly higher overall score averages compared to those in the first grade ($P < 0.001$). In addition, when students were evaluated according to the settlements where they had lived the longest, those who lived in a town, city, or metropolitan regions (11.78 ± 6.23) were found to have statistically significantly higher overall score averages compared to those who lived in a village ($P=0.003$).

A comparison of students' HPV-related information and HPV information scale score averages is given in Table 3. It was determined that 61.1% of the students had knowledge about HPV, 27.6% had received information during undergraduate education, 6.9% had received the HPV vaccine, and 38.2% were considering to be vaccinated. The most common reason was uncertainty about the side effects of the vaccine with a rate of 29.9 % for not being vaccinated, and only 9.7% of students said they received information from health-care personnel.

Overall score averages of the students who had knowledge about HPV were statistically significantly higher than those who were uninformed ($P < 0.001$), whereas those who received the information during their undergraduate education had higher scores than those who learned from the Internet, social network, or social circles ($P < 0.001$), those who were vaccinated had higher scores than others ($P < 0.001$), and those who were considering to be vaccinated had higher scores than those who were not ($P < 0.001$). In addition, the overall score averages of those who received training on HPV vaccines by health-care professionals had statistically higher scores than those who did not receive any training ($P < 0.001$), whereas those who considered the opinion of the family members about getting the HPV vaccine was of no importance had higher scores than those who considered the opposite ($P < 0.001$), and those who knew people getting vaccinated had higher scores than those who did not ($P < 0.001$). It was found that those who believed that the HPV vaccine was protective had statistically higher overall score averages than others ($P < 0.001$). In addition, in the study, it was determined that the level of knowledge about HPV screening tests and vaccination of students who considered that all genders should be vaccinated was significantly higher ($P < 0.001$).

Discussion

HPV, classified as a sexually transmitted infection, detrimentally impacts individuals on physical, psychological, and social levels.¹⁴ The awareness of HPV is critically important, particularly for healthcare professionals who play a pivotal role in enhancing public health.⁸

In this study, the average score obtained by students on the HPV Information Scale was found to be low. Previous studies investigating university students' knowledge about HPV, such as those by Aslan and Bakan,¹⁵ reported an average HPV Information Scale score of 5.86 ± 6.40 among health education students, while Turhan Çakır et al.¹⁶ found an average of 9.08 ± 8.32 . The scale, with scores ranging from 0 to 33, indicates that higher scores correspond to a greater understanding of HPV screening tests and vaccines.¹³ Our findings, alongside existing literature, suggest that university students generally have a limited knowledge of HPV screening tests and vaccines. This conclusion is consistent with other studies,^{15,16} which also reported low knowledge levels among similar student populations.

This study observed that students in midwifery and nursing had higher levels of HPV knowledge compared to their peers in other

Scale	Mean±standard deviation	Median (Min-Max)	Cronbach's alpha
Total HPV-IS	7.14±7.22	6 (0–25)	0.938
General HPV information	4.68±4.5	5 (0–11)	
HPV screening test information	0.75±1.35	0 (0–6)	
General HPV vaccine information	1.06±1.59	0 (0–5)	
Information on the current HPV vaccination schedule	0.65±1.16	0 (0–5)	

HPV-IS: HPV information scale, HPV: Human papilloma virus.

Table 2. Distribution of HPV Information Scale Mean Scores by Socio-Demographic Characteristics of Students (n=576)

	n (%)	Human papilloma virus-information scale		
		Mean±standard deviation	Median(Min-Max)	Testing and materiality
Department				
Midwifery	114 (19.8)	8.43±7.17	9 (0-23)	
Nursing	212 (36.8)	8.01±7.79	8 (0-25)	
Nutrition and dietetics	134 (23.3)	6.07±6.77	5 (0-22)	1>5. 2>5
Health-care management	61 (10.6)	6.7±6.57	6 (0-22)	KW=17.506
Social service	55 (9.5)	4.18±5.64	0 (0-23)	P=0.002
Gender				
Women	503 (87.3)	7.29±7.19	6 (0-25)	U=16342.000
Male	73 (12.7)	6.12±7.44	0 (0-23)	P=0.117
Class				
1 st Class	235 (40.8)	4.51±6.15	0 (0-22)	
2 nd Class	191 (33.2)	8.02±7.08	7 (0-23)	2>1. 3>1. 4>1
3 rd Class	112 (19.4)	9.79±7.71	10 (0-24)	KW=59.029
4 th grade	38 (6.6)	11.16±7.09	11.5 (0-25)	P<0.001
Marital status				
Married	10 (1.7)	7.8±8.95	3.5 (0-20)	U=2791.500
Single	566 (98.3)	7.13±7.2	6 (0-25)	P=0.939
Income rate				
Income less than expenses	235 (40.8)	6.74±6.88	5 (0-23)	
Income equals expense	303 (52.6)	7.5±7.5	6 (0-25)	KW=1.177
Income more than expenses	38 (6.6)	6.71±7.13	6 (0-22)	P=0.555
Region where participants live the longest				
Village	96 (16.7)	7.4±7.07	6 (0-22)	
Town	27 (4.7)	11.78±6.23	14 (0-23)	2>1. 2>3. 2>4.
City	260 (45.1)	6.93±7.36	5 (0-25)	KW=13.701
Big city	193 (33.5)	6.65±7.06	5 (0-24)	P=0.003
Having a sexually transmitted disease				
No	576 (100)	7.14±7.22	6 (0-25)	
Smoking status				
Yes	55 (9.5)	6.55±7.04	5 (0-22)	U=13488.000
No	521 (90.5)	7.2±7.25	6 (0-25)	P=0.461
Family history of cervical cancer				
Yes	12 (2.1)	10±8.7	6.5 (0-21)	U=2656.000
No	564 (97.9)	7.08±7.19	6 (0-25)	P=0.188

HPV: Human papilloma virus, * The average age: 20.81±2.27.

Table 3. Comparison of Students' Levels of Information on HPV and Average Points of HPV Knowledge Scale (n=576)				
	n (%)	Human papillomavirus-information scale		
		Mean±standard deviation	Median (Min-Max)	Testing and materiality
The state of knowledge about HPV				
Yes	352 (61.1)	10±6.68	10 (0-25)	U=15303.500
No	224 (38.9)	2.64±5.57	0 (0-21)	P<0.001
The place of knowledge about HPV (n:352)				
Undergraduate education	159 (27.6)	12.11±6.63	13 (0-24)	
Internet/social Media	131 (22.7)	7.63±6.06	7 (0-23)	1>2. 1>3
Family and circle of friends	36 (6.3)	8.89±6.03	9 (0-25)	KW=35.645
Health employee	26 (4.5)	10.58±6.85	12 (0-20)	P<0.001
Knowing HPV as a sexually transmitted disease only seen in women				
Yes	123 (21.4)	6.8±7.24	5 (0-25)	U=27252.500
No	453 (78.6)	7.23±7.23	6 (0-24)	p=0.702
The situation about HPV vaccination				
Yes	40 (6.9)	13.94±5.37	15 (0-24)	U=6158.000
No	536 (93.1)	9.62±6.68	9 (0-25)	P<0.001
Consideration of getting the HPV vaccine (n=536)				
Yes	205 (38.2)	8.62±7.54	9 (0-25)	U=26445.000
No	331 (61.8)	5.66±6.61	4 (0-23)	P<0.001
Reason for not wanting to get HPV vaccine (n=331)				
Vaccination fee is high	12 (3.6)	9.92±7.69	7.5 (0-22)	
Do not think the vaccine is harmful	7 (2.1)	10.86±7.36	11 (0-20)	
Not knowing the side effects of the vaccine	99 (29.9)	4.14±5.68	0 (0-23)	
Not finding the vaccine safe	31 (9.4)	6.61±7.38	4 (0-21)	KW=14.520
Other	182 (55)	5.93±6.68	4 (0-23)	p=0.05
Status of getting information from health-care professionals about HPV vaccine				
Yes	56 (9.7)	13.85±6.33	15 (0-23)	U=5018.500
No	520 (90.3)	5.18±6.31	3 (0-23)	P<0.001
Adoption of family opinion on HPV vaccination				
Yes	367 (63.7)	4.76±6.07	0 (0-22)	U=30789.500
Doesn't care about family opinion	209 (36.3)	7.61±7.3	6 (0-23)	P<0.001
Presence of relatives who have had HPV vaccination in their environment				
Yes	60 (10.4)	12±7.03	11 (0-21)	U=8966.000
No	516 (89.6)	5.49±6.52	3.5 (0-23)	P<0.001
Status believing that the HPV vaccine is protective				
Yes	433 (75.2)	6.7±6.63	6 (0-23)	U=21093.500
No	143 (24.8)	4.01±6.32	0 (0-22)	P<0.001

(Continued)

Table 3. Comparison of Students' Levels of Information on HPV and Average Points of HPV Knowledge Scale (n=576)

	n (%)	Human papillomavirus-information scale		
		Mean±standard deviation	Median (Min-Max)	Testing and materiality
Thinking that every age group should be vaccinated for protection from HPV				
Yes	113 (19.6)	7.74±7.16	8 (0-23)	1>3. 2>3
No	75 (13)	7.55±7.62	6 (0-22)	KW=41.906
Indecisive	388 (67.4)	5.01±6.21	1 (0-23)	P<0.001
Thinking that both sexes should be vaccinated to prevent HPV				
Yes	364 (63.2)	12.83±7.6	7 (0-23)	1>3. 2>3
No	11 (1.9)	7.78±6.98	13.5 (0-20)	KW=86.473
Does not know	201 (34.9)	3.19±5.11	0 (0-20)	P<0.001

KW: Kruskal-Wallis test. U: Mann-Whitney U test, HPV: Human papillomavirus.

departments. Başlı et al.¹⁷ also found that students in these fields were more informed about HPV than those in Nutrition and Dietetics. Yağız Altıntaş et al.¹⁸ reported that nursing students' knowledge about HPV was higher, likely due to their focused education in women's health. A study in Iraq showed that over half of the nursing and medical students had information about HPV and its vaccines.¹⁹ Kızılca Çakaloz et al.²⁰ noted a majority of students were aware of the Pap smear test and HPV. In another study, only 24.1% of university students had heard of HPV, and 25.1% were aware of the HPV vaccine.²¹ In a study with students aged 18 to 30 at a public university in Türkiye, 43.7% had heard of HPV, and 26.6% knew about HPV vaccines.²² The higher knowledge levels in midwifery and nursing students are believed to be related to their educational curriculum. These findings align with the broader literature on this subject.

Senior health sciences students exhibited higher knowledge levels about HPV compared to their junior counterparts. This observation aligns with the findings of Gismondi et al.,²³ where medical school seniors demonstrated greater knowledge and awareness of HPV than freshmen. Similarly, other studies have reported a correlation between academic advancement and increased HPV knowledge; final-year students consistently show higher levels of understanding.²⁴⁻²⁶ These findings, consistent with existing literature, suggest that knowledge and awareness about HPV increase with the student's academic progression.

Students who had resided in towns for extended periods demonstrated higher levels of HPV knowledge compared to those from other areas. This finding diverges from Turhan Çakır et al.'s study,¹⁶ which indicated that knowledge about HPV and its vaccines varies based on the region of residence, with more developed areas exhibiting higher knowledge levels. The discrepancy with the literature could be attributed to the fact that our study's participants, all undergraduate students, displayed varying levels of HPV awareness irrespective of their geographical location.

Participants who were familiar with HPV infection demonstrated higher scores on the HPV information scale compared to those who were not. This observation aligns with findings from other studies. For instance, Turhan Çakır et al.¹⁶ observed that medical students who were more frequently exposed to information about HPV infection

also achieved higher scores. Similarly, Karki et al.²⁷ reported that university students with awareness of HPV showed a moderate level of knowledge about the virus. Agadayi et al.²⁸ found that a significant portion of their study sample was familiar with both HPV and its vaccines, and these participants tended to score higher, paralleling trends seen in other studies. These findings corroborate the trend observed in our study, suggesting a link between awareness of HPV and knowledge levels.

Individuals who learned about HPV during their undergraduate education exhibited higher knowledge levels than those who gained information from the Internet, social media, or personal acquaintances. This finding is consistent with Kasymova et al.'s²⁹ study in 2019, which reported that participants who received HPV education at the undergraduate level had higher knowledge levels. Similarly, Barnard et al.³⁰ found that those who cited undergraduate education as their primary source of HPV information had moderate knowledge about the virus. Thompson et al.³¹ observed that college graduates possessed greater HPV knowledge compared to high school graduates. The dissemination of unreliable information about HPV and its vaccines through social media and websites negatively affects public health awareness. The training provided during undergraduate education, tailored to raise professional and occupational awareness of sexually transmitted diseases, enhances students' understanding of sexual health protection and development. These findings from our study align well with the existing literature.

A significant correlation was observed between higher awareness levels of HPV and its vaccines and an increased willingness to receive vaccination.²² Participants contemplating or previously received the HPV vaccine demonstrated a notably higher understanding of HPV. This finding is supported by Shah et al.,³² who reported that individuals with greater HPV knowledge tended to have more favorable attitudes towards vaccination. A study focusing on a female cohort found that women informed about HPV and its vaccines were more inclined to get vaccinated.³³ Furthermore, a systematic review by Holman et al.³⁴ highlighted a positive link between enhanced HPV knowledge and vaccination status. These results are consistent with the broader research literature, reinforcing the importance of education in promoting vaccination.

This study found that individuals who received training on HPV vaccines from health professionals demonstrated higher levels of HPV knowledge and stronger belief in vaccine efficacy. Literature review reveals that professional training significantly boosts confidence in vaccine protection, increases vaccination rates, and enhances HPV knowledge.³⁵⁻³⁷ Agadayi et al.²⁸ discovered that family physicians were the key information source for vaccinated individuals. It can be inferred that education provided by healthcare professionals plays a vital role in elevating vaccination rates, thereby effectively safeguarding against infectious diseases. These findings align with existing literature.

In this study, we discovered that individuals who deemed family opinions on vaccination irrelevant and who believed in vaccinating all genders exhibited higher knowledge about HPV screening tests and vaccination. Previous research has shown that parental knowledge of HPV and its vaccines is often insufficient.³⁸⁻⁴¹ Grandahl et al.⁶ highlight that positive parental beliefs and attitudes towards HPV vaccination are crucial predictors. These findings, consistent with the literature, underscore the significance of favorable parental attitudes in enhancing HPV awareness and increasing vaccination rates.

The majority of students supported vaccination against HPV for all genders. It's noteworthy that over 70% of sexually active women contract HPV, and 1 in 5 of these women develop HPV-related cervical cancer.⁴² Additionally, most HPV infections are found in adolescent girls aged 15 to 24, often due to a lack of preventive knowledge and unprotected sexual activity.⁴² Prophylactic vaccination can prevent primary HPV-related diseases, including cervical, anal, and penile cancers, as well as genital warts in both males and females.⁶ Our findings emphasize the need for widespread vaccination across all genders. However, it's important to note the limitations of our research: the study focused on health sciences students, which may restrict the generalizability of our results to the broader population.

Limitations of the Study

The research is limited to students studying at the Faculty of Health Sciences of a university in Turkey, and it cannot be generalized to other samples. It may be recommended to conduct similar studies at universities in regions with different geographical and cultural characteristics, with a larger sample group.

Conclusion

According to the study results, individuals studying in midwifery and nursing departments had higher knowledge levels regarding HPV screening tests and vaccination. Similarly, seniors, those with long-term residence in a town, individuals considering HPV vaccination, those who were already vaccinated, and those who received vaccination training from health professionals also exhibited elevated knowledge levels. In addition, participants who disregarded the opinions of family members and supported universal vaccination had a better understanding of HPV screening tests and vaccination. Considering that students studying at the Faculty of Health Sciences will become future health professionals. Therefore, they should have more information about sexually transmitted diseases to maintain reproductive health. If so, to increase the level of knowledge about HPV screening tests and HPV vaccination, it is important to increase the awareness of students about HPV to reach the target audience.

Ethics Committee Approval: Approval of the ethics committee was obtained from Osmaniye Korkut Ata University to conduct the study (Approval Number: 2022/2/21, Date: 25.02.2022).

Informed Consent: Written and verbal consent was obtained from the students participating in the study.

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