

KNOWLEDGE AND ATTITUDE TOWARDS HUMAN PAPILLOMA VIRUS AND ITS VACCINE AMONG PHARMACY STUDENTS OF TERTIARY TEACHING UNIVERSITY HOSPITAL IN SOUTH INDIA

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ABSTRACT

BACKGROUND

Cervical cancer in women can be effectively prevented by HPV vaccine. Healthcare professionals including pharmacists have a role in creating awareness about this vaccine to public. In this context, it was decided to study awareness level about HPV among pharmacy students. The aim of the study is to study the knowledge and attitude towards human papilloma virus and its vaccine among pharmacy students of tertiary teaching university hospital in South India.

MATERIALS AND METHODS

Cross sectional, questionnaire-based study among pharmacy students.

RESULTS

229 pharmacy students participated in the study. The mean total knowledge score among participants was 2.69 (SD=2.260) out of the possible maximum of 11 and the mean total attitude score was 2.67 (SD=2.437) out of the possible maximum of 10. Lack of knowledge about vaccine was the main reason for not taking the vaccine. Knowledge about the vaccines improves the attitude towards it (p<0.0001).

CONCLUSION

There is a need to design education program for pharmacy students to increase awareness about HPV, which in turn will increase the awareness among public positively.

KEYWORDS

KAP, Pharmacy Students, HPV.

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BACKGROUND

Human Papilloma Virus (HPV), particularly genotypes 16 and 18, has a strong association in causation of cervical cancer in women.⁽¹⁾ Genital HPV infections are common in most of the sexually active individuals.⁽²⁾ Though most individuals have asymptomatic infections, but in a few, it may lead on to persistent (chronic) infection, which is a risk factor for cervical cancer.⁽³⁾ HPV persistent infection can be effectively prevented by vaccination. But, there is no widespread awareness about this vaccine.^(4,5) Healthcare professionals' importance in creating awareness about this vaccine is well studied.^(6,7) In our settings, when a new medicine or vaccine is offered by physician, caregivers tend to seek a "second opinion" from other healthcare provider particularly pharmacists. Pharmacists play an important role in implementation of HPV vaccine program.⁽⁸⁾ In this context,

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we planned a study to test the knowledge and attitude towards human papilloma virus and its vaccine among pharmacy students in our hospital, which is a tertiary teaching university hospital.

MATERIALS AND METHODS

This was a cross-sectional study conducted from 1st May 2016 to 30th June 2016 as a part of Undergraduate Summer Research Fellowship Program of our university. Subjects were 2nd, 3rd and 4th year pharmacy students. After informed consent and explaining about the study, students were asked to fill a pretested and prevalidated KAP questionnaire.

KAP QUESTIONNAIRE

KAP questionnaires with three sections were developed. Section 1 consists of student's demographic details like name, age, sex, year of college, parent's education status. Section 2 was designed to test the knowledge regarding HPV infection and vaccination. Section 3 was designed to test the attitude towards HPV vaccination.

Section 2 had 11 questions for which participants were asked to respond as "True", "False" or "I don't know." One point was given for correct answer and zero point for incorrect answer. Total score was calculated and categorised as poor (0-4 points), average (5-8 points) and good (9-11

points). The questions were designed to test regarding the mode of transmission of HPV, its clinical features, diagnostic test, treatment, complications and prevention. In addition to the questions, participants were enquired whether they had heard about HPV and the source of information and also whether they knew anyone with HPV infection or cervical cancer.

Section 3 had questions on attitude for which 5 point Likert scale was applied (strongly agree = +2, agree = +1, neutral = 0, disagree = -1 and strongly disagree = -2) for the questions valued as positive and (strongly agree = -2, agree = -1, neutral = 0, disagree = +1 and strongly disagree = +2) for the questions valued as negative. The questions were designed to test positive and negative views about vaccine and also regarding the inclusion of HPV vaccine in national immunisation schedule. The total score was calculated and categorised negative (less than 3), neutral (4-7) and positive (more than 7). In addition to the questions, participants were asked whether they had heard or taken HPV vaccine. Participants were asked about the reasons for not taking or recommending the vaccine. Participants were also asked whether they have been enquired about the vaccine by friends or relatives and their response to it.

The research proposal was approved by The Research and Ethics Committee of Sri Ramachandra Medical College and Research Institute.

ANALYSIS

Statistical Package for the Social Sciences, Version 16 was used for statistical analysis. Descriptive analysis was used to analyse the demographic data and Pearson Chi-square analysis was used to compare the knowledge score with attitude score on HPV infection and vaccination and also to compare the knowledge score and attitude score with other variables.

RESULTS

Questionnaire was distributed to 270, 2nd- 4th year pharmacy students. 229 responded and completed the questionnaire with a response rate of 84.8%. Participants were predominantly female. (n=150, 65.5%). Their demographic details are shown in Table 1. 104 (45.4%) students had heard of HPV and 179 (78.2%) students had heard of cervical cancer. But, only 59 (25.8%) students knew that HPV can cause cervical cancer. Majority (69, 30.1%) were not sure about their source of information. Among those who were sure, major source was internet (54, 23.6%).

The mean total knowledge score was 2.69 (SD=2.260) out of the possible maximum of 11. 173 (75.5%) students had poor score and 55 (24%) had average score.

59 (25.8%) students had heard of HPV vaccine and only 5 out of 150 females had taken the vaccine. 93 (40.6%) students quoted lack of knowledge about the vaccine as a reason for not taking it.

The mean total attitude score was 2.67 (SD=2.437) out of the possible maximum of 10. Only 9 (3.9%) had positive attitude towards the vaccine (Table 2). 21 students had been questioned about HPV and among them 14 had advised to take the vaccine.

Male students had poor knowledge and negative attitude towards HPV vaccine in comparison to female students, which was significant. There was no significant difference in knowledge among students of different years. Parents' education status had no significant influence on knowledge or attitude of the students towards HPV.

Students with poor knowledge about HPV had negative attitude and those with average knowledge had neutral attitude. This difference was significant (Table 3).

DISCUSSION

The present findings in this study reveal that knowledge level about HPV and vaccine was low among pharmacy students. Though many students had heard of cervical cancer, only a proportion of them knew the causal association between HPV and cervical cancer. Similar findings have been reported in previous studies done among health care workers.⁽⁹⁻¹²⁾

The main reason quoted by participants in our study for not taking HPV vaccine was lack of knowledge, which differs from a Nigerian study report where safety of the vaccine was the concern.⁽⁹⁾

The mean knowledge score about HPV was low in this study like that of in similar other studies.^(13,14) Inadequate details about HPV in various educational programs maybe the reason for this low knowledge.

The main source of information about HPV was internet in this study in contrast to other studies where TV/Radio has been reported.⁽¹⁵⁾ This emphasizes the fact that internet reading by the students should be scrutinised and proper scientific reading of the e-information should be taught.

Student's year of college was not a factor influencing the knowledge of HPV in this study in contrast to studies done previously.⁽¹⁶⁾ So, students must be exposed to educational programs on common preventable illnesses.

There is a direct relationship between knowledge of vaccine and attitude towards it in our study. One in ten student was questioned about HPV vaccine by their friends and relatives and two third of them have advised to take the vaccine. Educating students in a teaching hospital will not only improve vaccine uptake among them, but also among their friends and relatives.

As it is a self-administered questionnaire-based study, there is possibility of incorrect details given by the students, which is the limitation of study.

CONCLUSION

The level of knowledge about HPV and vaccine is low among pharmacy students of tertiary teaching university hospital. This necessitates the development of education program on common epidemiologically important illness to sensitise all the students across the university.

Authors' Contribution

T. S. Arunprasath designed the study, analysed the data, did literature review and wrote the paper. R. Mahitha contributed to the data entry, literature review and writing-up process. Both authors read and approved the final manuscript.

Demographic Characteristics	N (%)
Sex	
Male	79 (34.5%)
Female	150 (65.5%)
Year of College	
2	87 (38%)
3	75 (32.7%)
4	67 (29.3%)
Mother's Education Status	
Not answered	5 (2.2%)
Primary school	25 (10.9%)
Higher secondary	79 (34.5%)
UG	73 (31.9%)
PG	29 (12.7%)
Professional	18 (7.9%)
Father's Education Status	
Not answered	6 (2.6%)

Primary school	13 (5.7%)
Higher secondary	70 (30.6%)
UG	72 (31.4%)
PG	34 (14.8%)
Professional	34 (14.8%)
Religion	
Hindu	198 (86.5%)
Muslim	18 (7.9%)
Christian	11 (4.8%)
Others	2 (0.9%)

Table 1. Demographic Characteristics of Participants

Attitude	N (%)
Negative	151 (65.9%)
Neutral	69 (30.1%)
Positive	9 (3.9%)

Table 2. Level of Attitude

Knowledge Score	Attitude Score				Total	Level of Significance
	Poor score	Negative Attitude	Neutral Attitude	Positive Attitude		
Average score	22	29	4	55	P <0.001	
Good score	0	1	0	1		

Table 3. Relationship Between Knowledge About HPV and its Vaccine and Attitude Towards HPV Vaccine

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