



A Knowledge, Attitude and Practice about Human Papillomavirus (HPV) among B.Sc. Nursing Students in Government College of Nursing, SMS Medical College, Jaipur, Rajasthan: A Cross-sectional study

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Abstract

Background: Human papillomavirus (HPV) infection is one of most common sexually transmitted diseases and associated with cancers i.e., cervical cancer, head and neck squamous cell carcinoma (HNSCC) and anal cancer. Cervical cancer is 4th most important cancer in women globally and HPV infection is responsible for estimated 6,04,000 new cases of cervical cancer and 3,42,000 cervical cancer deaths in 2020. It has been proven that HPV vaccination, preferably before initiation of sexual life, is highly effective in HPV and cervical cancer prevention. So, present study was conducted to assess level of knowledge, attitude and practice about HPV and vaccination among nursing students.

Material and Method: Cross-Sectional Descriptive study conducted on 260 Bsc. Nursing Students of Government College of nursing SMS Medical College, Jaipur, by self-administered semi-structured questionnaire by online surveys from 29-11-2022 to 2-12-2022.

Result: Majority (86.5%) of students aware about HPV and 79.2% know that HPV may cause cervical cancer. Majority (72.3%) of students considered that HPV vaccination is effective in prevention of cervical cancer and 38.5% students know about the correct doses of HPV vaccination. Although 77.3% of students were in favour of recommending this vaccine, but only 8.5% were vaccinated.

Conclusion: Beside good knowledge and attitude about the HPV, its vaccination and role of HPV vaccination in cancer prevention, there is lack of practice of HPV vaccination in Bsc. Nursing students. Further researches are recommended to explore this gap.

Keyword: Human Papillomavirus (HPV) Vaccine, Nursing students, Sawai Man Singh Medical College, KAP study, Cross-Sectional study

Introduction

Human papillomavirus (HPV) infection is the most common sexually transmitted infection worldwide¹. Human papilloma virus is major cause of cervical cancer (Sp. HPV16 & 18)¹ Cervical cancer is the fourth most common cancer among women globally². About 90% of the new cases and deaths worldwide in 2020 occurred in low- and middle-income countries including India². India alone accounts for one-quarter of the worldwide burden of cervical cancers³. In India crude cervical cancer incidence is 18.7 per 100 000 women (2020)⁴ HPV vaccination (preferably before initiation of sexual life) is highly effective against HPV infection and cervical cancer⁵. Prevention of HPV can reduce the incidence of cervical cancers as well as genital warts⁵ And Prevention of HPV will depend upon KAP about HPV and HPV vaccination.

For this reason, it's better to assess the KAP of medical professionals who are knowledge provider for community. So, this present study was conducted to assess the level of knowledge, attitude and practice of nursing students about the HPV and its vaccination.

Objective

1. To assess the level of knowledge, attitude and practice about the HPV and its vaccination among nursing students
2. To describe the socio-demographic patterns of students

3. To assess reasons for not getting vaccinated against HPV

Materials and Methods

Followed the ethical guidelines of the Institutional Review Board (Government nursing college Sawai Man Singh Medical College, Jaipur) and attained its approval on 20-11-2022. All students of both sexes studying Nursing were included in the study. The only criterion for exclusion was unwillingness of a student to participate in the study.

Study type & design: Cross-Sectional Descriptive type of Observational Study

Study area: Government nursing college, SMS Medical College, Jaipur, Rajasthan

Study period: Online survey from 29-11-2022 to 2-12-2022 and 2 days extra for analysis

Sample Size: Sample size was calculated 237 subjects at 95% confidence limit and absolute allowable error 6%, assuming 33.5% prevalence of HPV vaccination among B.Sc. nursing students⁶. So, for study purpose 260 nursing students were taken with attrition of 10 %.

Study Universe: All B.Sc. nursing students of Govt. College of Nursing, Jaipur

Inclusion criteria: All B.Sc. nursing students, who has filled the Google form

Exclusion criteria: Not complete google form.

Study tool: Self-administered semi-structured questionnaire on Google form

Data collection and analysis: data collected by Google form and analysed by Microsoft excel 2010.

Results

A total of 237 students are participated in the in the final analysis, (figure-1) majority (86.5%) of students are aware about HPV and 79.2% know that HPV may cause cervical cancer. When we assess socio-demographic characteristics (Table-1) Males (49%) and Females

(51%) in which first years were 33%, second year were 22%, 3rd years were 26% and 4th years were 19% got participated. Religion wise 95% belong to Hindu, 4% Muslim and 0.4% Sikh. Residence of participants were 36% belong to Urban area and 64% belong to Rural area. Majority (figure-2) (72.3%) of students considered that HPV vaccination is effective in prevention of cervical cancer and 38.5% students know about the correct doses of HPV vaccination. Although 77.3% of students were in favor of recommending this vaccine, but only 8.5% were vaccinated.

Table 1: Socio-demographic characteristics of study subjects

Characteristics		Number	%
Sex	Male	127	48.85
	Female	133	51.15
Study year	1st year	87	33.46
	2nd year	56	21.54
	3rd year	67	25.77
	4th year	50	19.23
Religion	Hindu	248	95.38
	Muslim	11	4.23
	Sikh	1	0.38
Residence	Urban	93	35.77
	Rural	167	64.23

Mean Age of students was 21.7±1.9 years

Knowledge of nursing students

According to figures, the findings revealed that 86.5% of the study sample know correctly regarding knowledge about HPV vaccination (Figure 1) were as only 13.4 % doesn't know about it. Moreover, 30.8% of the nursing students had a low level of knowledge regarding the HPV vaccine in general. In addition, the highest percentage (72.3%) of the study sample answered correctly regarding HPV vaccine helpful in cancer prevention

(Figure 2) however, the rest were answered incorrectly but 79.2% know that HPV can cause cervical cancer (Figure 4). In addition, 61.5% of the nursing students had a low level of knowledge regarding dose of HPV vaccine (Figure 3).

Figure 1: Knowledge about HPV answered YES/NO

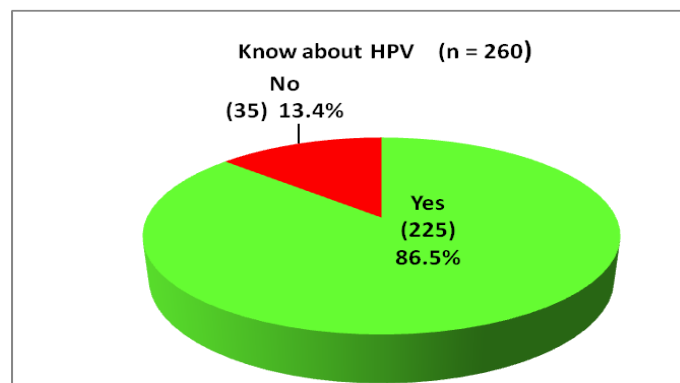


Figure 2: Knowledge about HPV vaccine effective in cancer prevention

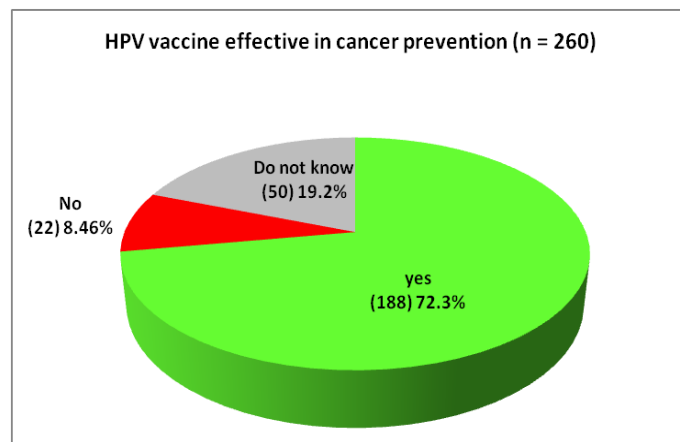


Figure 3: Knowledge about dose of HPV vaccine

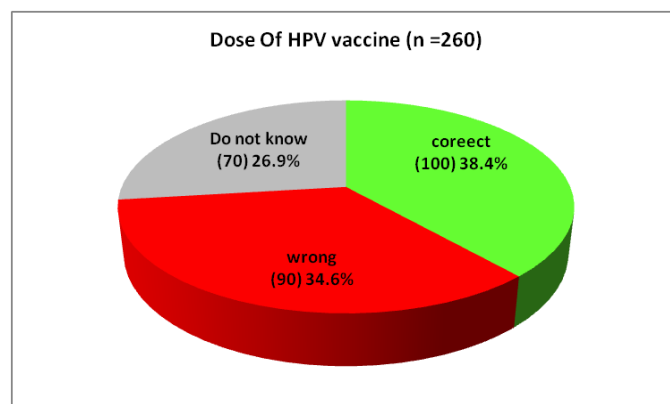
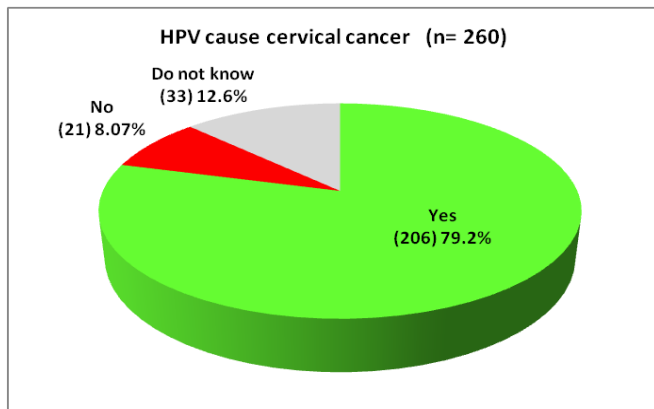


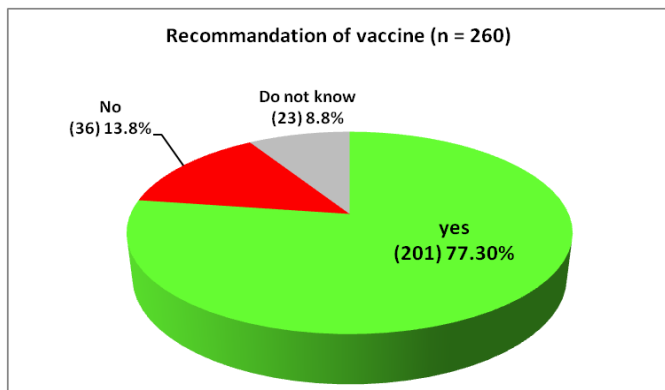
Figure 4: Knowledge about HPV cause cervical cancer



Attitude of nursing students

Out of 260 nursing students, 77.30% students are with attitude that they will recommend HPV vaccination (figure-5) were as 22.6% of students are confused on their attitude towards this question.

Figure 5: Attitude about recommendation of vaccine



Practice of nursing students

About 260 nursing students while assessing practise about vaccination status (figure-6) a 'NO' answer given by majority 78.08% (203 students) were as only 8.46% only fully vaccinated. However finding out the practice about reason for not getting vaccination (figure-7) 43% of students with lack of knowledge, 2.3% worried of side effects, 8.07 is not sure about it effectiveness, 6.9% didn't took because of its cost and 39.6% due to any other reason.

Figure 6: Practice about vaccination status of participants

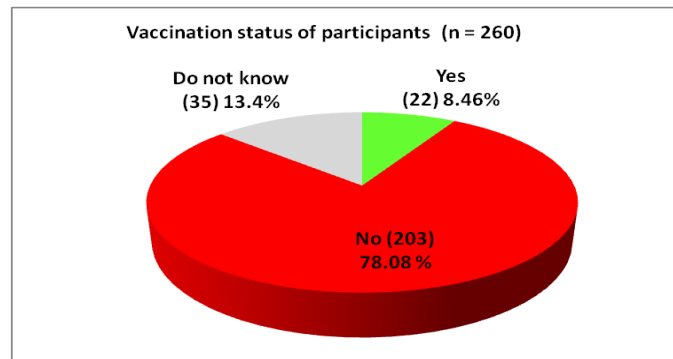
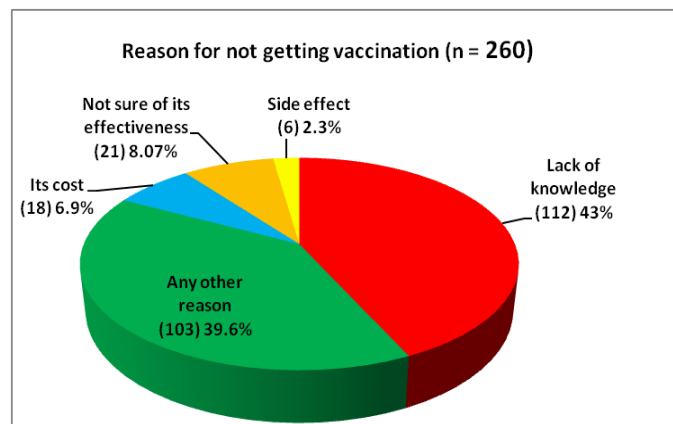


Figure 7: Practice about reason for not getting vaccination



Discussion

Majority of participants in our study were well aware of the preventable nature of cervical cancer. Most of them knew about its viral etiology. A study conducted by Saha et al in Kolkata, India revealed a very low level of awareness among the graduate and postgraduate students about this important public health issue⁷. Another recently published questionnaire-based study conducted to find out awareness about the risk factors for cervical cancer among the educated youth in India, Sri Lanka and Nepal. The average awareness in this regard was found to be cervix cancer was 66% in India, 58.8% in Nepal and 57.7% in Sri Lanka⁸. This study results were supported by White et al., 2016 and Gang Chen et al., (2022)⁹ who revealed that college students had low knowledge of HPV and the HPV vaccine with a mean score of 22.73 ± 9.01. In addition, the current study was supported by

Ilgun O Cinar et al., (2019)¹⁰ who found that 33.7% of participating college students reported receiving the HPV vaccine, and only 7.2% of students reported knowing about the vaccine. Additionally, the current study results were supported by Mahboubeh Taebi (2019)¹¹, who conducted a study among women, medical students, and nurses and showed that little was known about HPV vaccination. The current study showed that there was a relationship between attitude towards HPV and knowledge of HPV. This result may be because of the importance of being vaccinated against HPV. This study is consistent with the findings of the study by D'Errico et al. (2021)¹², who said that participants who had higher HPV knowledge were more likely to have a more positive attitude toward HPV and the HPV vaccination. In this study, approximately two-thirds of the students intended on receiving the HPV vaccine and recommending the vaccine to others, which is similar to the findings from the other surveys done in India and China.^{13,14,15} Low vaccine acceptability among medical students has also been reported in Chennai, South India and Chongqing, China.^{16,17}

Conclusion

This was a cross-sectional descriptive observational study to know the knowledge, attitude and practice of B.Sc. Nursing students regarding HPV and its vaccination. Cervical cancer is one of the vaccine preventable cancers caused primarily by HPV infection. Majority (86.5%) of students are aware about HPV and 79.2% know that HPV may cause cervical cancer. 72.3% of students considered that HPV vaccination is effective in prevention of cervical cancer. 38.5% students know about the correct doses of HPV vaccination. Although 77.3% of students were in favour of recommending this vaccine, but only 8.5% were vaccinated. Most common

reason for not getting vaccination is lack of knowledge (43%).

Strength and Limitation

The present study's findings have greatly added to previous HPV studies. However, study's weaknesses should be addressed. Because the sample size was limited to a specific group of people and the participants were recruited from a specific group in a specific context for convenience sampling, the results' generalizability is limited. One of the study constraints was that the College of Nursing at SMS had a female-dominated educational environment. Furthermore, the current findings were prone to response bias and subjectivity because they were based on self-reported data. Furthermore, this study merely found correlations between study variables; no causal relationship was found. Longitudinal, experimental, and multi-site research may be useful in the future.

Recommendations

As beside good knowledge and attitude about the HPV & its vaccination, practice of vaccination is very less, so there is need of motivation regarding vaccination. This fact is further supported by the fact that most prevalent reason for non –practicing vaccination was 'lack of knowledge'. Further researches are recommended to explore this gap between knowledge, attitude and practice. HPV vaccination is very less (8.5%) in nursing students, who are the service providers. So the status of general population can be imagined. Thus, strong drive for IEC for HPV vaccination should be launched

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