



KNOWLEDGE, ATTITUDE & PRACTICES REGARDING HUMAN PAPILLOMA VIRUS INFECTION AND ITS VACCINATION AMONG MEDICAL STUDENTS OF A TERTIARY CARE INSTITUTE IN SOUTHERN RAJASTHAN

Community Medicine

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ABSTRACT

AIMS: To determine the Knowledge, Attitude and Practice regarding awareness of Human papilloma virus, cervical cancer, its screening and vaccination among the medical students. To know the attitude of medical students towards Premarital sexual behaviour.

METHODOLOGY: A cross sectional survey on 150 medical undergraduate students and interns attending clinical postings in RNT Medical College and MB hospital, Udaipur after giving preformed semi structured questionnaire.

RESULTS: Majority (98%) of students had heard about HPV. The scores of knowledge, attitude and practices were 67.4%, 70.9%, and 58% respectively. 24.7% students showed negative attitude towards premarital sexual behaviour. 62.7% students not willing to pay for the vaccine.

CONCLUSION: Overall knowledge of the students regarding HPV is good, showing positive attitude towards the vaccinations but the same is not reflected in their practices and this is statistically significant.

KEYWORDS

Cervical Cancer, Hpv, Hpv Vaccines, Pap Smear.

INTRODUCTION:

Cancer cervix is the most common cancer among women affecting approximately 5 lakh women each year resulting in 270,000 deaths worldwide. About 85% of them belonging to developing Countries⁽¹⁾. In India, cancer cervix is the leading type of cancer. It is estimated that nearly 100,000 new cases of cervical cancer occurring annually contributing significantly for death of Indian women and it is on the progressive increase². HPV infection has been incriminated as important cause of cancer cervix. There are many types of HPVs. The high-risk types are HPV-16 and HPV-18 (associated with cervical cancer) and the low-risk types are HPV-6 and HPV-11 (genital warts). The virus commonly spreads through sexual intercourse³.

HPV infection is vaccine preventable. Vaccine licensed by the US Food and Drug Administration (FDA) on June 8, 2006 for the prevention of cervical cancer. The licensed HPV vaccine is composed of the HPV L1 protein, the major capsid protein of HPV. Expression of the L1 protein in yeast using recombinant DNA technology produces non-infectious virus-like particles (VLP) that resemble HPV virions. Two types of HPV vaccines have been developed and clinically evaluated for prophylactic vaccination. Gardasil and Cervarix have been approved in several countries like USA, Australia and in the European Union. These have been licensed in India for use in females (primary vaccination at 10-12 years, catch-up up to 26 years); but still not a part of national immunization programme⁴. The quadrivalent HPV vaccine is a mixture of four HPV type-specific VLPs prepared from the L1 proteins of HPV 6, 11, 16, and 18 combined with an aluminium adjuvant⁵.

To implement HPV vaccine program successfully in any country, an awareness program should be conducted at various levels regarding HPV infection and cervical cancer. In a few years medical students will be the practicing Clinicians, They will be the first line information resources for the population they will serve. Therefore, the objective of this study is to investigate the knowledge, attitude and beliefs of medical students concerning vaccination against HPV.

METHODS & METHODOLOGY:

Institutional ethical committee of RNTMC had approved this study. A cross sectional hospital based study was conducted on Medical undergraduates and interns attending the clinical postings in RNT Medical college & hospital. Sample size was 136 ± 8 rounded to 150 (based on a previous study Sagar B Bhagat et al⁶, assuming 67.9% students have 60-70% awareness) using formula $n = 4pq / L^2$. A Pre-formed, Pre-tested, Semi-structured questionnaire were given to students after taking the verbal consent. Questionnaire consisted total of 26 questions out of which 15 questions related to knowledge, 5

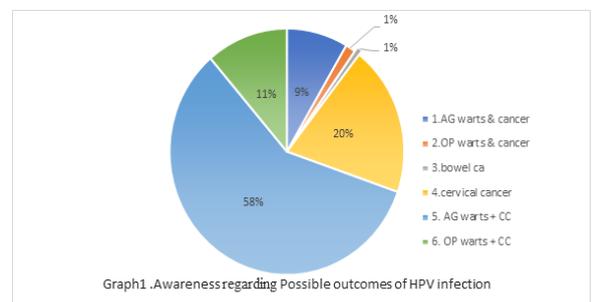
related to attitude & 6 related to practices. Analysis was done using MS Excel 10 & SPSS V.17. Descriptive statistics applied. Significance attributed to P value < 0.05 and results were interpreted in the form of tables, graphs wherever necessary.

RESULTS: Out of 150, majority were females (56.67%) and maximum were in the age group of 21-23 years and were undergraduates (69.3%) (Table 1).

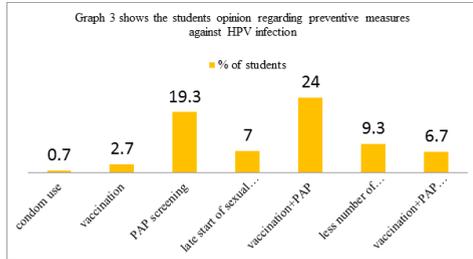
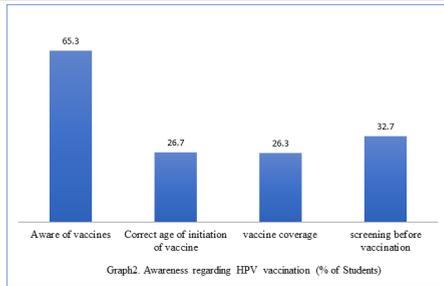
Table 1. Distribution of students according to Age and Educational status

AGE DISTRIBUTION (years)		
21-23	48 (41.1%)	69 (58.9%)
24-26	17 (51.5%)	16 (48.5%)
<i>MEAN AGE</i>	23	22.1
EDUCATIONAL STATUS		
UNDERGRADUATES	47 (45.2%)	57 (54.8%)
INTERNS	18 (39.1%)	28 (60.9%)

Majority of students had heard about HPV (98%), more than two third knew that it can infect both males & females (79.3%), 58% students thought that it will cause anogenital warts & cervical cancer (Graph 1). 39.33 % students agreed that persistent infection with HPV is necessary to cause cervical cancer. Less than one third knew that different strains of HPV is responsible for anogenital warts & cervical cancer (22.7%). Most (81.3%) thought that HPV strains 16 & 18 are responsible for >90% of cervical cancer. Majority (89.3%) believed that PAP smear is the most common & best screening technique for cervical cancer detection. Most (92.7%) agreed that regular PAP smear testing with a frequency of <3 years would reduce the risk of burden of cervical cancer.

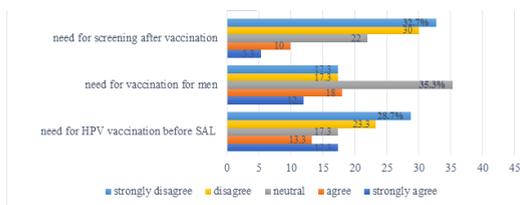


Graph 2 & 3 shows awareness regarding the HPV vaccine and students opinion regarding various preventive measures against HPV infection



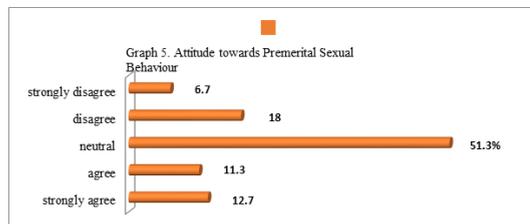
Only 6% showed positive attitude towards their patient's compliance on counselling regarding the HPV vaccination. Only 11.4% students are showing their willingness to pay for the vaccine. 35% were neutral about the need for vaccinating the men. 30.6% students are positive towards the need for vaccination before sexually active life (Graph 4).

Graph 4. A attitude towards HPV vaccination.

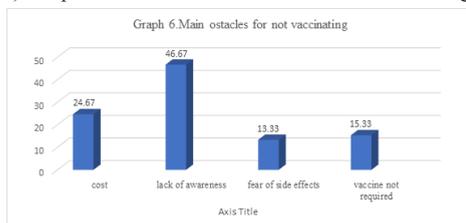


24% of students are showing positive attitude towards premarital sexual behaviour though 34% of students were sexually active previously (graph 5)

Graph 5. Attitude towards Premarital Sexual Behaviour



Only 6.67% students have advised regarding the vaccine to their peers & family members. Only 6% students are ready to give consent & accept the vaccination. One third (33.33%) believed that vaccinating young people against HPV wouldn't encourage them to become sexually active at young age. One fourth (25.33%) of the students have taken the vaccine. Little more than one fourth (26.67%) students thought that HPV vaccine should be added to NIS (national immunization schedule). Graph 6 shows the main obstacles for not vaccinating.



Overall knowledge of the students regarding HPV infection is 67% (Graph 7).

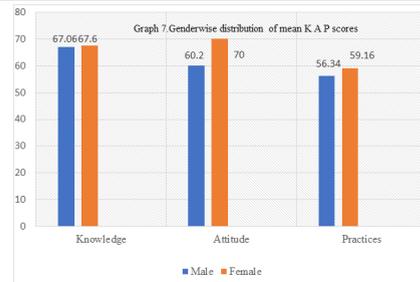


Table 2 shows that 49.3% of students with good knowledge showing positive attitude towards HPV vaccination and this is statistically significant (p<0.05).

Table-2

	KNOWLEDGE SCORES			
ATTITUDE	GOOD	AVERAGE	POOR	TOTAL
POSITIVE	74 (49.3%)	39 (26%)	0	113
NEGATIVE	12 (8%)	25 (16.7%)	0	37
TOTAL	86	64	0	150

31.3% of students with positive attitude are having bad practices regarding HPV vaccination stating no significant association between the attitude and practices (Table 3)

Table-3

ATTITUDE	GOOD	BAD	TOTAL
POSITIVE	66 (44%)	47 (31.3%)	113
NEGATIVE	15 (10%)	22 (14.7%)	37
TOTAL	81	69	150

DISCUSSION:

This study shows that majority of students had heard about HPV and were aware about the aetiology, transmission, screening technique of cervical cancer. This is similar to Sagar B bhagat et al⁶ (89%) and in contrast to the study conducted by Saha et al⁷ in Kolkata, and Di Giuseppe et al⁸ in Italy (23%). India which showed very low level of awareness among the graduates and post graduates about this important public issue.

Study shows that 65.3% students were aware regarding availability of the vaccine which were better than study conducted among women attending routine gynaecologic care in Donders GG, et al⁹ Belgium, Which showed awareness to be 50% in females, comparatively had a better awareness than males regarding availability of vaccine, target population for vaccination.

Source of knowledge being health care professional, internet, word of mouth which is similar findings in Pandey et al¹⁰. Medical teaching will have a definite impact in understanding of this important public health issue with regard the aetiology of cervical cancer, availability of vaccine and its protective efficacy.

Our study showed that main obstacle for not vaccinating being lack of awareness which is similar to Sagar B bhagat et al⁶ while a study conducted by Bhardwaj et al¹¹ showed high cost of vaccine being the major obstacle, whereas Bhatla N et al¹² shows cost, lack of awareness and acceptability as major obstacle.

Our study showed that 30% students thought for need for vaccination for men which is similar to Sagar & Bhagat et al⁶ (35%).

This study showed that 11.4% were willing to pay for the vaccine which is similar to study conducted by Marikannan Maharajan et al¹³ in Malaysia (12.25%). This is probably due to the fact that students are not caring and so the government should take the responsibility to pay for the vaccine (Pulcini et al¹⁴, 2013).

This study also shows that 26.67% students thought that HPV should be added to National Immunization programme. This is similar to the study conducted by Ezat et al¹⁵ (2013) which said national immunization programme had significant association with acceptance of HPV vaccine among the respondents.

Overall knowledge about the HPV, acceptance of the vaccine and practises towards the vaccination is 65.48% which is similar to the study by Sagar B bhagat et al⁶.

There is no significant difference between the KAP of male and female which is in contrast with the study by Sagar B Bhagat et al⁶ which shows more acceptance among the families.

Conclusion:- Overall knowledge of the students regarding HPV infection, cervical cancer, screening process & vaccination against HPV infection is good. Most students have positive attitude towards HPV vaccination but then the same is not reflecting in their practices. There is a KAP gap, most of them showed their disagreement to pay for the vaccine if not publically funded. Most students had neutral attitude towards premarital sexual behaviour though more than one third were sexually active previously.

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