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Awareness And Knowledge of Cervical Cancer, HPV And HPV Vaccine Among University Female Students

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ABSTRACT

The present study was done to determine the level of awareness and knowledge of cervical cancer and HPV among university female students. The knowledge of HPV vaccine and its acceptance was also analyzed. This was a cross sectional study conducted on the 174 University female students attending the University student health care complex, Banaras Hindu University (BHU). The overall awareness of cervical cancer among university female students in our study was 62.6%. The most effective mode of information for Cervical Cancer awareness in our study was Media (37.6%).The knowledge of HPV vaccine was still low (15.5%) and only 8% study participants get vaccinated for HPV. Awareness of cervical cancer and HPV is important to decrease the cervical cancer related deaths. Media can play a very important role in creating awareness. Acceptability of HPV vaccine can be enhanced by reducing the cost of vaccine.

KEYWORDS : University females, cervical cancer, Pap smear, HPV, HPV vaccine.

Introduction

Cervical cancer is the fourth most common cancer worldwide for females, and the seventh most common cancer overall, with more than 527,000 new cases diagnosed in 2012 (8% of female cases and 4% of the total). [1] In 2012, it was estimated that there were 266,000 deaths due to cervical cancer .[1] It is the second most common cause of female specific cancer after breast cancer accounting for around 8% of both total cancer cases and total cancer deaths in women.[2] Approximately 80% of cervical cancers occur in developing countries.[3]

A lack of effective screening programs aimed at detecting and treating precancerous conditions is a key reason for the much higher cervical cancer incidence in developing countries. It has been estimated that only about 5% of women in developing countries have been screened for cervical dysplasia in the past 5 years, compared with 40% to 50% of women in developed countries.[4]

The role of Human Papilloma Virus (HPV) is now well established in causation of cancer cervix. Based on a meta-analysis, the adjusted HPV prevalence worldwide among women with normal cytological findings was estimated to be 11.7% (95% confidence interval (CI): 11.6-11.7%). [5]Persistent infection with oncogenic, high risk HPV genotypes is strongly associated with the development of cervical cancer. [6, 7] By August 2014, 58 countries (30%) had introduced HPV vaccine in their national immunization programme for girls, and in some countries also for boys.[8]

Our Aim was to determine the knowledge and awareness of cervical cancer and HPV in university female students. The awareness of HPV vaccine and its acceptance was also analyzed.

Material and Method

This was a cross sectional study conducted on the University female students attending the University student health care complex, Banaras Hindu University (BHU).The data were collected from July 2014 to January 2015.

174 university female students attending the University student health care complex were interviewed and the information was recorded on a structured questionnaire. The questionnaire consists of three sections. The first section include questionnaire regarding brief introduction and asked for information concerning demographics age, socio-economic status, educational and family background. The second section consists of questions regarding awareness of Cancer cervix, source of information, cause of cervical cancer, pap smear and relation to HPV. The last part consists of awareness of HPV, its relation to cervical cancer & warts, source of information, HPV Vaccine and its acceptance.

The exclusion criteria in our study were the refusal to participate or refusal to sign the consent form.

The questionnaire was completed and the data was analyzed for the results

Results

The study group consists of 174 female university students of BHU.

The various characteristics of participants enrolled in the study are shown in Table 1.

Characteristics		Total (N=174)
Age (yrs)		21.9±2.6
Married	Unmarried	149
	Married	25
Education	Graduation	107
	Post Graduation	67
Residence	Urban	153
	Rural	21

Table 1. Characteristics of University female students in the present study (Mean ± SD)

The mean age of participant females were 21.9± 2.6 yrs. Most of the participants were unmarried i.e. 149 (85.6 %). 61.5 % participants were graduate students while 38.5 % were postgraduate students.

Majority of participants belong to urban background i.e. 87.9%.

Awareness of Cervical cancer among university female students in study group reported in Table 2.

2. Awareness of Cervical Cancer among University female students

		Total (N=174)
Have heard of Cancer Cervix	Yes	109 (62.6%)
	No	65 (37.3%)
Source of Information	Physicians	10/109 (9.1%)
	Health Professionals(other than doctor)	9/109 (8.2%)
	Family	12/109 (11%)
	Friends	21/109 (19.2%)
	Media (television,radio, magazine,newspaper)	41/109 (37.6%)
	Internet	16/109 (14.7%)

Cause of cancer cervix	Genetic	14/109 (12.8%)
	Sexually transmitted infection	13/109 (11.9%)
	HPV	34/109 (31.2%)
	Not Known	48/109 (44%)
Cancer cervix can be prevented	Yes	82/109 (75.2%)
	No	27/109 (24.8%)
Pap smear can detect before getting cancer cervix	Yes	17/109 (15.6%)
	No	92/109 (84.4%)

Among 174 university students 109 (74.1%) had heard of cervical cancer. The main source of information was media (37.6%) i.e. television,radio,newspaper,magazine/movies. Next important sources of information were friends (19.2%) and Internet (14.7%). Rest of 31 participants heard of Cervical cancer from family.doctors and other health professionals.

Majority did not know the cause of Cervical cancer i.e. 44%. 75.2% students knew that cervical cancer can be prevented but 84.4% didn't know about role of Pap smear in early detection of pre-cancerous lesions.

Awareness regarding of HPV and HPV vaccines in females students as shown in Table 3.

Table 2. Awareness of HPV and HPV vaccine among University female students

		Total (N=174)
Have heard of HPV	Yes	41 (23.6%)
	No	133 (76.4%)
Source of Information	Physicians	7/41 (17%)
	Health Professionals(other than doctor)	2/41 (4.9%)
	Family	2/41 (4.9%)
	Friends	1/41 (2.4%)
	Media (television,radio, magazine,newspaper)	21/41 (51.2%)
	Internet	8/41 (19.5%)
Knew that HPV can Cause	Cancer cervix	34/174 (19.5%)
	Sexually transmitted infection	25/174 (14.4%)
	Warts	15/174 (8.6%)
HPV vaccine can prevent Cancer cervix	Yes	27/174 (15.5%)
	No	147/174 (84.5%)
Are you vaccinated for HPV	Yes	14/174 (8%)
	No	160/174 (92%)

HPV Vaccination attitude (N=160)			
Wants to be vaccinated	Yes		56 (35%)
	No		104 (65%)
	If No, specify reason	Cost	85/104 (81.7%)
		Doubt of safety/efficacy	14/104 (13.5%)
		Parents would not allow	5/104 (4.8%)

Out of 174 participants, only 41participants (23.6%) heard of HPV. Main source of information was Media i.e.51.2% while rest 48.8% participants got the HPV information from family (4.9%), friends (2.5%), Doctors (17%), health professionals (4.9%) and internet (19.5%).

Out of 174 participants only 19.5% knew that HPV can cause cervical cancer. While only 14.4% and 8.6% knew that HPV can cause sexually transmitted infections and warts respectively.

The awareness of HPV vaccine in prevention of cervical cancer was there in only 15.5% participants while 84.5% participants were unaware of preventive role of HPV vaccine.

Out of 174 participants only 14 students got vaccinated for HPV (8%).

160 participants were not vaccinated for HPV.

Out of these unvaccinated 160 students, only 56 wanted to get vaccinated in future (35%).

Rest 104 (65%) did not want to get vaccinated in future mainly due to its high cost (81.7%).

Discussion:

Worldwide, cervical cancer is both the fourth most common cause of cancer and deaths from cancer in women. [1] Cervical cancer incidence rates are highest in Eastern Africa and lowest in Western Asia, but this partly reflects varying data quality worldwide.[9] Indian women face a 2.5% cumulative lifetime risk and 1.4% cumulative death risk from cervical cancer. At any given time, about 6.6% of women in the general population are estimated to harbor cervical HPV infection.[10]

The overall awareness of cervical cancer among university female students in our study was 62.6%.Johnson DC et al found similar level of awareness in Nepali population (53.3%).[11] Other studies from developed countries found higher level of awareness in general population but the most of the population they studied were middle aged and married.[12,13]

The most effective mode of information for Cervical Cancer awareness in our study was Media (37.6%). Majority of studies reported main role of Media and Medical workers in creating awareness of cervical cancer and its prevention.[11,13]

In the present study few students knew the cause of cervical cancer (31.2%) and role of Pap smear in prevention and early detection of cervical cancer (15.6%). Assoumou SZ et al also found only 27.9% of their participants were aware about cervical cancer prevention through screening.[13] Ali SF et al found higher percentage (54%) of their studied population who were aware of cervical cancer prevention & screening. But Ali SF did their study on interns and Nursing staff.[12]

The awareness of HPV among our studied group was low i.e. only 23.6%. Similar low level of awareness is reported in studies from other developing countries 33% to 8.8%.[11,12,13]

The knowledge of HPV vaccine was still low (15.5%) and only 8% study participants get vaccinated for HPV. Our findings consistent with the studies of other developing countries.[11,12,13]

The American College of Obstetricians and Gynaecologists recommends that HPV vaccination be offered to all female patients aged between 9 and 26 years who have not been previously vaccinated and also emphasizes continued regular cervical cytology screening.[14] The Indian Academy of Pediatrics Committee on Immunisation (IAPCOI) recommends offering HPV vaccine to all females who can afford the vaccine (Category 2 of IAP categorisation of vaccines).

In our study we also assesed the acceptability of HPV vaccine among participants and we found the cost of vaccine was the main issue for the acceptance of HPV vaccine. Ozyer et al reported the lack of information as the main barrier to HPV vaccination.[15] In India the cost of vaccine has to be decreased to enhance the acceptability of HPV Vaccine.

Conclusion: Cervical cancer is the leading cause of cancer related deaths in India. Awareness of cervical cancer and HPV is important to decrease these cervical cancer related deaths. Media can play a very important role in creating awareness regarding cervical cancer, HPV and HPV Vaccine. Acceptability of HPV vaccine can be enhanced by reducing the cost of vaccine.

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