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Knowledge and Attitude Towards Human Papilloma Virus and Human Papilloma Virus Vaccine

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ABSTRACT

Background: Human papilloma virus is the leading cause of cervical cancer with Human papilloma virus 16 and 18 being the commonest variants. The primary prevention by vaccination against HPV is finally gaining its momentum. This study aimed to evaluate the knowledge and attitude towards Human papilloma virus and Human papilloma virus vaccine and highlighted on the setback of their inadequate knowledge.

Methods: This was a community based cross sectional study done among 120 women who attended cervical cancer screening camp at satellite clinic of Paropakar Maternity and Women`s Hospital at Bhaisepati of Kathmandu district. The interview was done one on one with a preformed questionnaire. Data was primarily entered in an individual form and analysis was done using SPSS version 23 program and was depicted in tables, diagrams and chart.

Results: The mean age of the women was 41.8±9.9 with majority belonging to age group 41-50 years (47.16%), 88 (74%) women were multiparous,59 (49%) were uneducated and 50 (33%) were previously screened for cervical cancer. Among 27 (22%) of the women who had heard about HPV and knew that it causes cervical cancer, most of them have heard from social media while 110(91.6%) did not know about its vaccine and its availability while 100% of the participants had positive attitude towards receiving the information and keen on vaccinating their daughters.

Conclusions: Knowledge and awareness of Human Papilloma Virus and its vaccine still remains low among the women in our society. However, there was high acceptance of HPV vaccine, indicating potentially high uptake rates in these communities.

Keywords: Attitude; human papilloma virus; knowledge; vaccine.

INTRODUCTION

Globally cervical cancer is a significant health concern and is the fourth most common cancer among women attributing about 342000 deaths in the year 2020.[1] In the context of Nepal, maternal death due to cervical cancer in the year 2019 was 2000 and the crude incidence of cervical cancer per 100000 women was 14.2.[2] Human papilloma virus particularly variants 16 and 18 are the most common cause of cervical cancer. Though tertiary hospitals have been involved in HPV vaccination program as primary prevention of cervical cancer, its crucial for service providers to have an insight of understanding of our population regarding HPV and HPV vaccine with focus on rural satellite clinics. This study aims to assess knowledge and attitude towards HPV and the vaccine, while also highlighting any significant gaps in understanding. This will, from a public health perspective, help identify effective solutions and optimal methods for sharing HPV vaccine information based on participants' viewpoints.

METHODS

This was a community based cross sectional study. It was done among the women of Bhaisepati municipality of Kathmandu district, Nepal. All the women attending cervical cancer screening camp at satellite clinic of Paropakar Maternity and Women's Hospital in January

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2024 were included in this study. Ethical approval was taken from the hospital (64/342). Women were informed about the study and informed consent was taken. Patients were then interviewed face to face and a preformed questionnaire were filled. The questionnaire strategy was formed after reviewing various literature and studies from all over the world, based on the knowledge and attitude towards HPV and the HPV vaccine and translating them into native Nepali language that was understandable to all the women and was validated with two senior consultants. The questionnaire consisted of 4 sections.

Section 1: Questions regarding detailed personal history. It consisted of personal history regarding age, occupation, parity, medical and surgical history, educational background, marital status, age at first sexual intercourse, presence of multiple sexual partner, smoking, contraceptive history and history of cervical cancer screening.

Section 2: Questions related to knowledge of HPV virus.

Section 3: Questions related to knowledge regarding HPV vaccine.

Section 4: Questions related to attitude towards HPV vaccine.

Data was entered and analyzed in SPSS version 23. Mean and standard deviation was calculated along with number and percentage and depicted in tables and charts.

RESULTS

Total 120 women were included in the study All the women accepted to get enrolled in the study (100% acceptance to the study).

Mean age of the women was 41.8±9.9, majority belonging to age group 41-50 years (47.16%), followed by 31-40 years (28.3%), and age <30 years (13.25%). Most of the women were multiparous, majority being Para 2 (60.8%) followed by Primipara (19.15%) and Para 4 (9.1%). 59 (49%) women were illiterate, 34 (26.3%) had completed their secondary education, 12 (10%) had completed their primary and 9 (7.5%) had acquired higher education (Table 1).

Only 50 (33.3%) of the women were previously screened for cervical cancer at least once.

Table 1. Sociodemographic profile of the women.

	N (%)
Age (years)	
≤30	15 (13.2)
31-40	39 (28.3)
41-50	55 (47.1)
51-60	9 (7.5)
>60	2 (1.8)
Parity	
0	8 (6.6)
1	23 (19.1)
2	73 (60.8)
3	5 (4.1)
4	11 (9.1)
Caste	
Brahmin/Chhettri	60 (50)
Indigenous	45 (37.5)
Madhesi	9 (7.5)
Dalit	6 (5)
Education	
Illiterate	59 (49.2)
Primary	12 (10)
Secondary	34 (28.3)
Higher secondary	6 (5)
Higher education	9 (7.5)
Menopause	
No	90 (75)
Yes	30 (25)
Previous cervical cancer screening	
No	80 (66.6)
Yes	40 (33.4)

Among 120 women attending the screening clinic, only 27 (22%) had heard about HPV. Most of them heard from social media followed by health personnel and radio (Fig 1).

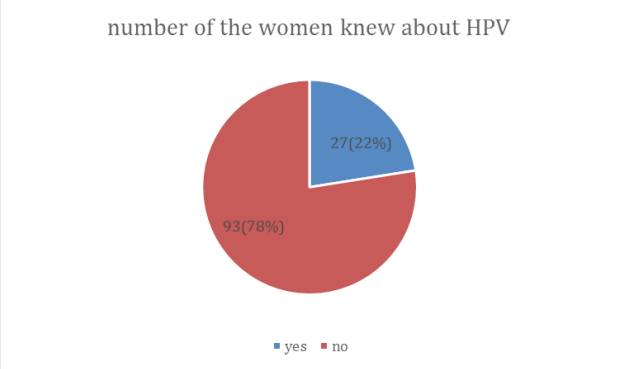

Figure 1. Number of women who knew about HPV.

Table 2. Knowledge regarding HPV.

	N (%)
Do you know HPV virus causes cervical cancer?	
Yes	22 (18.4)
No	98 (81.6)
Does HPV spread by sexual contact?	
Yes	25 (20.8)
No	95 (79.2)
Does HPV cause other types of cancer?	
Yes	0
No	120 (100)
Does HPV infect both male and female?	
Yes	15 (12.5)
No	105 (87.5)
Can HPV be detected?	
Yes	20 (16.6)
No	100 (83.4)

Among 120 women, only 27 (22%) knew HPV as the causative agent of cervical cancer, and25 (20.8%) were aware of sexual transmission of HPV but none of the women had knowledge of HPV causing other types of cancer as well. Only 15 (12.5%) among 120 women were aware that HPV can infect both male and female. HPV Screening tools and its availability was known to only 20(16.6%) women before coming to the cervical cancer screening camp.

Table 3. Knowledge and attitude towards HPV vaccine.

	N (%)
Do you know about HPV vaccine?	
Yes	10 (8.3)
No	110 (91.7)
Do you know who are eligible candidates for HPV vaccine ?	
Yes	10 (8.3)
No	110 (91.7)
Do you know we will soon have vaccine against HPV virus in Nepal?	
Yes	10 (8.3)
No	110 (91.7)
Do you think HPV vaccines have side effect?	
Yes	0
No	120 (100)
Would you give HPV vaccine to your daughters if available?	
Yes	120 (100)
No	0
Do you wish to have information regarding HPV vaccine?	
Yes	120 (100)
No	0

Only 10 (8.3%) women attending the cervical cancer screening camp knew about HPV vaccine and its eligibility criteria. These 10 women were also aware about roll out of the HPV vaccine nationwide in Nepal in near future. Regardless of the poor knowledge regarding HPV vaccine among the women, all of them i.e 100% were willing to gain the information and knowledge about the vaccine and more importantly were eager to vaccinate their daughters and female children at their houses if available.

DISCUSSION

According to Annual Cancer Report of Nepal, Cervical cancer alone comprises of 9% of the total cancer in female i.e third most common cancer in female.[3] Vaccine against Human Papilloma Virus (HPV) protects against either two, four or nine types of HPV but all HPV vaccine protects against 16 and 18 subtypes which are the major contributors of cervical cancer. It is estimated that HPV vaccines may prevent 70% of cervical cancer, 80% of anal cancer, 60% of vaginal cancer, 40% of vulvar cancer, and show more than 90% efficacy in preventing HPV-

positive oropharyngeal cancer. They additionally prevent some genital warts, with the quadrivalent and nonavalent vaccines that protect against HPV types HPV-6 and HPV-11 providing greater protection.

Now that primary prevention of cervical cancer by HPV vaccination is taking a pace and finally in the verge of gaining it momentum and hopefully in near future all the school going girls are expected have the coverage of HPV vaccine[4,5] it is essential to understand the awareness regarding HPV and HPV vaccine among our population and their acceptance towards HPV vaccine. Various studies have been conducted in Nepal regarding the knowledge and acceptance towards HPV vaccine among various population groups especially medical personnel[7-11], but very limited studies among general Nepalese population.[4,12-14]

In our study only 27 (22%) of women had heard about HPV and its association with cervical cancer and about 25 (20%) knew how it spreads while only 20% were aware about its screening which was still higher that the study by Vaidya et al[13] among Nepalese women attending tertiary hospital, which reported that only 8.25% of the study population knew about cervical cancer screening and only 2.6% knew about HPV causing cervical cancer. Johnson et al[15] in their study among Nepalese women of two different communities, have stated that only 15.4% of the women were aware about HPV, which is lower compared to our study. Montgomery et al[16] have stated in their study among Indian women that 36% were aware about HPV and 15% knew its association with cervical cancer.

Only 8.3% of the women in our study had knowledge regarding HPV vaccine which was higher compared to Vaidya et al[13] where only 2.36% women knew about HPV vaccine and only 4.13% knew that the vaccine can prevent cervical cancer. This result varied largely from the study by Jeannot et al[16] among university students in Switzerland where nearly 95% of women knew about HPV vaccine compared to low- and middle-income countries like ours Kristina et al[17] in their study among Developing Economies Countries of South-East Asia Region found that knowledge on availability of HPV vaccine to protect women against cervical cancer was varied from 7.8–97.5%. However, the positive attitude ranged from 36.1–92.1. Despite of lesser knowledge of HPV and its vaccine, all of the women had positive attitude towards the vaccine and were willing to vaccinate their girls if available. This is in contrast to the study by Addisu [18] among Ethiopian schoolgirls, where positive attitude towards the vaccine was only 45%.

Surprisingly, though 50 among 120 women had cervical cancer screening done in the past, only 15 of them knew about screening of Human Papilloma Virus which is the causative agent of cervical cancer which highlights the lack of communication between the healthcare workers and patients attending screening clinic or camps and availability of HPV virus screening as a primary screening tool. Hence, proper education and awareness regarding cervical cancer and vaccination against HPV among the general population by either health care workers, government or stakeholders is extremely important to decrease the burden of cervical cancer.

CONCLUSIONS

The study concludes that understanding of Human Papilloma Virus (HPV) and its vaccine still remains very limited among women in Nepal. However, there is a strong willingness to accept the HPV vaccine for their children.

CONFLICT OF INTEREST

There are no conflicts of interest.

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