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ORIGINAL RESEARCH

Knowledge, Attitude and Practice Towards Cervical Cancer Screening and HPV Vaccine among Medical Fraternity: An Observational Study

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ABSTRACT

Aims and Objectives: Our goals are to determine how well educated female medical professionals are on HPV infections and vaccination.

Materials and Methods- An observational research was done to study the level of familiarity physicians have with HPV infection and vaccination. In order to study people's openness to and perspective on vaccination, as well as their familiarity with the illness and its symptoms, a survey was done.

Results: Three hundred doctors agreed to take part in the study. They're among the age group of 25 and 40, with an average age of 35.78. The fact that HPV is an STD is common knowledge among 201 professionals. About two-thirds (291) of doctors have cited HPV as a possible reason for cervical cancer. In fact, just 93 people (31% of the total) know that vaginal infections may raise the probability of developing cervical cancer. Only 70 of the doctors and nurses tested positive for Pap smears or HPV, and only 25 had ever been vaccinated against the virus.

Conclusion: Insufficient medical education could have negative effects on the health of the general public, as stated in the conclusion. Aspiring health educators must therefore be well-versed on HPV, cervical cancer, and preventative strategies.

Keywords: Awareness, cervical cancer, human papillomavirus, HPV vaccine

INTRODUCTION

More than 77,348 women in India lose their lives to cervical cancer each year, and an additional 200,000 new cases are diagnosed. More than 80% of cervical cancer cases occur in developing and poor countries [1, 2]. Sexually transmitted Human Papillomavirus types 16 and 18 are directly responsible for the development of cervical cancer in an estimated 70% to 80% of all cases. It has been shown [2, 3] that using condoms helps prevent HPV contamination, however lesions in parts not covered by condoms may still spread the virus. The person may be unaware he has the ailment because there are typically no symptoms [4]. For this reason, HPV vaccination is an essential preventative measure. HPV vaccination defends from one of the modifiable risk factors for cervical cancer, making it an effective primary prevention intervention. [5]

Gardasil (which defends from HPV types 6, 11,16, & 18) & Cervarix (which guards against HPV type 16) are both recombinant HPV vaccines that have been given the green light for usage in India. Despite safety concerns in India, the World Health Organization, the Food and Drug Administration, the Centre for Disease Control, and the Global Advisory Committee on Vaccine Safety have all confirmed and declared that the vaccine is safe and effective (see [6]). There was a 91-100% success rate in the FUTURE trials [7-9]. [10]. While the drug controller general of India gave their clearance to the use of these vaccinations in 2008, they have not been incorporated into India's universal immunisation programme. The HPV vaccine is recommended for all women who can afford it, according to the Indian Academy of Paediatrics and the Federation of Obstetric and Gynecological Societies of India [11]. Despite this, knowledge of and uptake of the vaccine remain low [6]. This is due to a number of factors, the most significant of which are insufficient education on the link between HPV and cervical cancer, the expense of the vaccine, and the recent, unfounded dispute claiming that these vaccines have detrimental side effects. Because of broad HPV vaccination and screening programmes, we can help minimise the number of new cases of cervical cancer diagnosed each year. [9, 13]

Success and advantages of any health programme aimed at controlling and preventing cervical cancer can be significantly impacted by the degree to which potential beneficiaries and caregivers are aware of many essential aspects of the disease. Multiple studies have shown that few people have much of an understanding of the HPV vaccine. [12, 14, 15]

In order to educate the public, it is important that people working in the medical arena have a firm grasp on the topic at hand. The term includes both practising medical professionals and those studying to become doctors. They will graduate as fully qualified medical professionals and have a profound effect on educating a wide population. There is a lack of studies examining the level of awareness among doctors. As a result, we decided to conduct a survey among Indian doctors to discover more about their views on the HPV vaccine and whether or not they really use it.

METHODS

Institutional review board permission allowed for a cross-sectional questionnaire study to assess doctors' familiarity with HPV infection and vaccination. There were a total of six months devoted to the investigation, beginning in November of 2021 and ending in May of 2022. More specifically, the study included 300 female doctors who were married and over the age of 25. People who refused to take part in the study and were too old (25 or older) were the only people who couldn't be included. A questionnaire with 26 items was developed to obtain information on disease awareness, vaccine awareness, and vaccination acceptance and attitude.

- With regards to knowledge, here are 16 questions to consider.
- Attitude evaluation in 10 question
- Individuals are in good standing if they have either gotten a Pap smear, an HPV test, or the HPV vaccine.

The test of knowledge will be on a 16-point scale with only two possible answers (yes/no).

- A yes was worth 1 and a no was worth 0 points. Success was defined as a percentage of answers closer to 50 than to 48 (at least 8 correct).
- 10 items will be used to measure participants' opinions on a 4 point scale (strongly agree, agree, disagree, and strongly disagree).
- Five or more responses of either "Strongly Agree" or "Agree" will indicate a positive attitude (9)

RESULTS

Three hundred doctors took part in the research. They're among the age group of 25 and 40, with an average age of 35.78. Their knowledge of HPV and how it spreads was studied by analysing their responses. 201 professionals revealed that HPV is STD. About two-thirds (291) of doctors have cited HPV as a possible reason for cervical cancer. In fact, just 93 people (31% of the total) know that vaginal infections may raise the probability of developing cervical cancer. While 258 (86%) recognise that sexual activity before the age of consent increases the risk of developing cervical cancer, only 198 (66%) are aware that the HPVcan also cause genital warts & other cancers. Sixty-two percent of women who answered the survey thought that post-coital blood loss is a sign of cervical cancer, and another eighteen percent knew that the HPV vaccine can protect against the disease (table 1).

22 of the 300 doctors agreed that cervical cancer is the 2nd most frequent cancer in females in India, 90 agreed that any woman over the age of 30 has a significant risk of developing cervical cancer, and 135 agreed that all women between the ages of 30 and 65 should be screened for cervical cancer. Fifty percent of doctors agreed that cervix cancer may be detected earlier with screening and would get the HPV vaccine for free if it were offered (table 2). A summary of attitudes concerning HPV vaccinations was shown in Table 3. Only 70 doctors had a Pap smear/HPV test, and only 25 checked the "Have you ever gotten HPV vaccine?" box.

Table 1: Knowledge of Human Papilloma Virus and Cervical Cancer

Statements (n=300)	Yes	No
Do you know that human papilloma virus infection is a risk factor for cervical carcinoma?	291	9
Do you know that having multiple sexual partners is a risk factor for cervical carcinoma?	201	99
Do you know that having sex at early age is a risk factor for cervical carcinoma?	258	42
Do you know that genital infections could increase risk of cervical cancer?	93	207
Do you know that smoking is a risk factor for cervical carcinoma?	210	90
Do you know having children at an early age and having many children increases risk of cervical carcinoma?	174	126
Do you know HPV virus causes genital warts and other cancers too (vulvar cancer, anal cancer, oral and head and neck, penile cancer in males)?	198	102
Do you know that foul-smelling vaginal discharge is a symptom of cervical carcinoma?	102	198
Do you know that post coital bleeding is a symptom of cervical carcinoma?	186	114
Do you know that postmenopausal bleeding (PMB)/intermenstrual/ irregular bleeding is a symptom of cervical carcinoma?	162	138
Do you know that there may not be any	172	128

symptoms at all in early stages?		
Are you aware of the screening for cervical cancer? PAP, LBC, HPV	129	171
Do you know that human papilloma virus infection can be detected without any symptoms?	156	144
Do you know that it is possible to detect cancer cervix in pre-cancer stage with routine screening?	131	169
Are you aware that cervical carcinoma if detected early is treatable?	156	144
Do you know that it is preventable with a vaccine against HPV?	178	122

Table 2: Attitude towards HPV vaccination

Statements (n=300)	Strongly agree	Agree	Strongly disagree	Disagree
Cervical cancer is a common cancer in women in India	22	65	198	15
Any adult woman could develop cervical cancer during her lifetime	90	180	10	20
All women aged 30-65 years should undergo cervical screening	135	95	20	50
Screening can help in early detection of cancer cervix	150	150	0	0
Would you go for cervical cancer screening if available free of cost?	150	150	0	0
Would you like to go for a cervical screening if it would cause no harm?	147	153	0	0
Would you like to go for HPV vaccination after knowing its role in prevention of cervical carcinoma	158	142	0	0
Would you go for HPV vaccination if available free of cost?	190	110	0	0
Would you like to go for HPV vaccination if it caused no harm	176	124	0	0
Not all women need HPV vaccine	185	108	0	7

Table 3: Practice towards HPV Vaccination

Statements (n=300)	Yes	No
Have you ever had a Pap smear test/ HPV test?	70	230
Have you ever received HPV vaccine?	25	275

DISCUSSION

Since ancient times, humanity has been plagued by cancer, an incurable disease with no known cure. Different strategies exist for treating cancer. There are numerous on-going research projects aimed at discovering a cancer vaccine. In the battle against cervical cancer, the development of the HPV vaccine is a major victory.

In this research, we asked doctors how they felt about the HPV vaccine and virus. Our research showed that doctors in India were not aware that the prevalence of cervical cancer could be linked to that of other cancers. We discovered that few people had heard of human papillomavirus (HPV) or the HPV vaccine. Since 90% of HPV infections are asymptomatic and disappear on their own without medical intervention, this could explain the lack of awareness.

Only 18 percent of participants in this research had the correct information about the HPV vaccination, while 27percent had no knowledge of the vaccination, which is similar to the study by Saha et al. [15] in Calcutta, which correspondingly indicated that graduate and postgraduate students had very poor understanding of the vaccine. Medical students inNepal, India & Sri Lanka were surveyed on their attentiveness of cervical cancer risk aspects. In India, 66 percent of the population has this level of knowledge, whereas in Nepal it is 58.8 and in Sri Lanka it is 57.7 [16].

When compared to studies on doctors from other medical schools, these results pale in comparison to D. Mehta et al. [17] and Pandey et al [18]. Awareness was found to be lower in this survey than in previous studies of medical professionals in Bangalore. Studies by Swapnajaswanth et al. [19], Ramavath et al. [14], and Siddharthar J et al. [20] among nurses and the general public found a lower level of HPV vaccine awareness. Possible explanations for these discrepancies include the study participants themselves or the experimental settings [21].

Eighteen percent of respondents had a correct understanding of the HPV vaccine, whereas twenty-seven percent had no information at all. Of those surveyed, 38% had an excellent understanding of HPV, 48% had a moderate comprehension, and 10% had a minimal understanding. Consistent with the findings of research by S Siddharthar J et al. [20], the majority of respondents in the present study believed that they could afford the immunisation as approximately 66.25 percent stated they would get it for free. According to Mehta et al., 66.8% of the sample was willing to get the HPV vaccine. [17] Prior to the start of the trial, only 6% of the participants had received a vaccine. Cost, acceptability, a lack of infrastructure and public knowledge, and fear regarding unidentified ill effects were cited as the key challenges to adopting HPV vaccination initiatives in our country by Bhatla N et al. [22]. According to Bharadwaj et al[23] .'s review, the high price of the vaccines is the main worry for the universal vaccination programme in India.

Cervical cancer rates can be lowered and herd immunity to HPV can be established by the use of routine cervical screening programmes and the inclusion of HPV vaccine in national immunisation schedules. Therefore, practitioners are in the best position to raise awareness about cervical cancer and provide screening services and HPV vaccines, with an emphasis on immunisation of future female children.

CONCLUSION

The current knowledge and attitude gap among practitioners can be lowered through a variety of educational programmes. It is expected that the widespread use of HPV vaccinations will have major beneficial health impacts by reducing the incidence and mortality rates of cervical cancer. This fact needs to be put into practise by vigorous health education programmes, group discussions, and a concentration on the adolescent population.

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