



HPV AND HPV VACCINE AWARENESS AND ACCEPTANCE AMONG ADOLESCENT GIRLS

Gynaecology

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ABSTRACT

PURPOSE : Cervical cancer is the leading cause of cancer death among women in India. HPV is now a well established cause of cancer cervix and type 16 and 18 are responsible for about 70% of cervical cancer cases of world wide. The introduction of HPV vaccine will effectively reduce the burden of cervical cancer in coming decade. So to determine knowledge and attitudes regarding HPV vaccination among adolescent girls and to develop a HPV vaccination program here we need to understand HPV and cervical cancer awareness and willingness to get vaccination.

METHODS : It is a cross sectional study.

Face to face interview with open ended questions.

The population of interest were adolescent girls of age group 14 to 17

Participants recruited sporadically in capital city of Odisha.

We interviewed a convenience sample of 200 adolescent girls

Few participants (25%) had heard of HPV, cervical cancer and HPV vaccine. None of the adolescents were aware about the cancer causing HPV types and name of the HPV vaccine. However after researchers explained the purpose of the vaccine nearly all said they would be willing HPV vaccinating if it available and their parents are convinced and strongly recommended by physician.

CONCLUSION : Despite low awareness on HPV, interest in vaccination was nearly universal in our study. Adolescents vaccine acceptance is high. As parents are the decision making factors for vaccinating their children so Physician to parents vaccine education is important. Focus should not only be on providing information but also on existing beliefs and attitudes towards cervical cancer and vaccination in general.

KEYWORDS

HUMAN PAPILLOMA VIRUS, CERVICAL CANCER, HPV AWARENESS, HPV VACCINE

INTRODUCTION

Morbidity and mortality from cervical cancer is posing health issues affecting women in all over the world. It is the leading cause of cancer death amongst women in India. There are 453.02 million women who are at risk of cervical cancer. In India 122.84 number of new cases are diagnosed annually and 67,474 number of deaths due to cancer cervix. HPV which is the most common STI is now a well established cause of cancer cervix and there is a growing evidence that HPV is a relevant factor in many other anogenital cancers. HPV type 16 and 18 are responsible for about 70% of all cervical cancer cases world wide. Introduction of HPV vaccine that prevent against HPV 16 and 18 infection are now available and have the potential to reduce the incidence of cervical cancer. Despite the availability of vaccine to prevent the disease the vaccination rate is very poor. Recommendation from healthcare professionals are key to HPV vaccine acceptability. This study provides insight into attitude and knowledge among adolescent girls. In our society parents play the key role regarding vaccinating their children even at adolescent age group. Interestingly physicians don't rank the HPV vaccines as important when compared to other vaccines and often discuss about it last during patients visits. None of the study group were aware about the cancer causing HPV types and name of the vaccine. Which reflects that they have very limited knowledge and understanding of the disease. It was also observed that in spite of belonging to well educated and affluent class families the percentage of girls who get vaccinated were very very low. This is alarming because even after almost a decade of introduction of HPV vaccines which are available in India since 2008 not many parents got their daughters vaccinated. So it is important to explore the acceptability of HPV vaccine among the adolescent girls. Better understanding of their may help to improve communication of HPV information between parents, guardians, adolescents and health care providers. As a result there will be a real possibility of primary prevention of cervical cancer cause by HPV.

METHODS AND MEASURES

The setting was a cross sectional quantitative study analysis carried out in a urban city of an eastern state of India. Participants were recruited sporadically. The main outcome measures were awareness of HPV assessed using a questionnaire that asked participants whether they have ever heard of HPV. The response options were yes or no. The study mainly focussed on two parts. The first part to explore the knowledge and awareness on HPV infections and cervical cancer. The

second part informed how well those parents and guardians retained the knowledges and their willingness to vaccinate their adolescent girls. Questionnaires consisted of two parts. A preliminary written questionnaires included questions regarding sociodemographic profile, literacy followed by knowledge about cervical cancer and HPV awareness. Then a proper health briefing on HPV is given by the researchers. Next participants were given second questionnaires. This included whether they have understood the terms used in health talk, discussions were relevant or not, informations given on HPV infections and vaccine created adequate awareness or not. After providing right knowledge we evaluated those participants regarding the willingness for vaccination. The population of interest were adolescent girls aged 14 to 17 years old regardless of their HPV vaccination status. A written consent was taken from all participants before including them in study.

Assuming prevalence of acceptance of HPV vaccine among urban women as 24% (Basu and Mittal, 2011) with absolute precision 6% and 95% confidence interval, the sample size was calculated as 195. However we have included 200 participants all adolescent girls in our study.

DATA ANALYSIS AND RESULTS

Table 1: Socio demographic characteristics of the girls respondents (n=200)

Variable	Number(%)
Age in years	
14	58(29.0)
15 to 16	90(45.0)
17	52(26.0)

Knowledge and attitude of girls respondents about various aspects of cervical cancer and vaccination (n=200)

Variable	Number(%)
Heard about cervical cancer	
No	130(65.5)
Yes	70(35.0)
Heard about Human Papilloma Virus (HPV)	
No	149(76.0)
Yes	51(25.5)

HPV can cause cervical cancer		
No	152(76.0)	
Yes	48(24.0)	
HPV is sexually transmitted		
No	154(77.0)	
Yes	46(23.0)	
Vaccination prevents HPV infection		
No	150(75.0)	
Yes	50(25.0)	
Sources of information(multiple responses)		
Media	18(21.9)	
Friends/Relatives	27(32.9)	
Health care providers	37(45.1)	
Nil	137(68.5)	

Table 3:Acceptance of the cervical cancer vaccine before and after awareness and knowledge programme

Acceptance of vaccine	Before Number(%)	After %
Agreed to vaccinate	37(18.5)	129(64.5)
Refused/Undecided	163(81.5)	71(35.5)

McNemar (with continuity correction)=90.001,df=1,p<0.001

Table 4: Reasons of refusing the cervical cancer vaccine even after awareness and knowledge on subject (n=71)

Reasons for refusal	number(%)
Cost of vaccine is high	29(40.8)
Doubt about safety of vaccine	8(11.3)
Should govt make the vaccine compulsory	15(21.1)
No need to take the vaccine at an earlier age	12(16.9)
Others	07(9.8)

DISCUSSION

All my study participants were adolescent girls living in the capital city of Odisha, an eastern state of India. Most respondents were between 14 to 17 years of age. However a coordinated National programme of HPV vaccine administration does not exist in India. Although private practitioners may get the vaccines for administration to patients willing to pay but no first hand knowledge is there to assess the prevalence of this practices. Currently HPV vaccine available in limited quantities through non govt organizations and industries. Two types of vaccines, named Gardasil and Cervarix which are quadrivalent and bivalent respectively are available in the local market. The aim of the study was to know whether adolescent girls do or donot accept HPV vaccinations and to know the factors that influence their decision. In this study we found 64.5% of the girls would take vaccine against HPV after being enlightened with HPV vaccination awareness. This percentage rose to about 97% If the vaccine were to be provided by govt free of cost. Attitude of participants towards vaccinations in general positive. High acceptance also may be that they believed cervical cancer is severe enough though they had not heard about the disease before this study. Many girls in our sample was their first contact with the topic HPV and HPV vaccination. So providing them information on this topic they agreed to be vaccinated. Only 25% having heard of HPV before, 24.5% heard of HPV vaccination earlier and more than 75% having no knowledge about topic HPV, HPV vaccination and cervical cancer. Specially considering the fact that 65% of girls told that too less information about these topics could be possible cause for them not to get vaccinated. Nearly all participants said that they would like to learn more on this subject.

In this study possible reason for refusal towards HPV vaccine acceptance found to be the cost of the vaccine. The burden of cost was echoed by participants in the study. In about 40.8% of sample size cost detected to be primary barrier to getting HPV vaccine. Current price of this vaccine ranges as Rs2500 to Rs3000 per dose and necessary two to three doses would be out of reach for low income group without govt help.

Three most important information sources are health care providers 45%, friends/ relatives 32.9% and media 21.9%. Despite low awareness of HPV almost all participants said that they would get HPV vaccine if their doctors recommend it. Hence health care professionals were named as decision maker for the acceptance of the vaccine. Therefore the success rate of HPV vaccination programme depends upon willingness and capability of healthcare professionals to recommend to the parents as parents are major decision makers for vaccinating even their adolescent girls.

The findings from study have several implications for practice.

- Most important being positive perception of HPV vaccine.
- Factors responsible for poor vaccination is inadequate and incorrect information about the vaccine.
- Physician to parent vaccine education is important.
- Purpose to highlight the HPV awareness among parents and guardians at population level instead of socioeconomic status or risk level.
- We must try to provide HPV information to all patients at every clinical appointments.
- There is a high acceptability rate of vaccine amongst adolescent girls along with a significant cost barrier of the vaccine, govt should give efforts towards providing the vaccine at reduced cost.
- Health education messages about cervical cancer, HPV and HPV vaccine should be designed to inform adolescent girl child along with their parents and guardians to ensure the highest level of vaccine administration.
- Education should be focussed on primary prevention of cancer cervix by HPV vaccine.
- While introducing the vaccine programme care should be taken on deciding the vaccine distribution places that are accessible for general population.

Study limitations includes

As our participants recruited from urban area located in the capital city of Odisha, India, there fore study population is not optimally representative for the state or country population. Since most of the citizens resides in villages, interpretation of these results for adolescents living in the interior part should be done with caution. Even though representativity of the study is sub optimal it implies a large number of new informations.

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