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A Study to Develop and Evaluate the Effectiveness of A School Based Educational Programme on Knowledge and Attitude Regarding HPV (Human Papilloma Virus) Infection & It's Prevention Among Adolescent School Girls of Selected Schools of Vadodara

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ABSTRACT

This study was conducted to assess effectiveness of school based educational programme on Knowledge and Attitude regarding Human Papilloma Virus Infection & it's prevention. The target population for the study was school going adolescence girls in selected schools of Vadodara and in this study Adolescent age is early adolescent 10-14 years and middle adolescent 15-17 years has been preferred. The School Based Educational Program was prepared and conducted focusing on introduction, definition, sign and symptoms of HPV infection, causes of HPV infection and prevention of HPV Infection. A quantitative research approach with Quasi -experimental research design was adopted for the study. A total 80 samples were selected by simple random sampling technique. Data was collected using structured knowledge questionnaire & likert scale. A structured knowledge questionnaire was used to assess the knowledge, and likert scale was used to assess the attitude on HPV (human papilloma virus) infection & it's prevention. The data were collected and analyzed using both descriptive and inferential statistics to find out the significant difference between the pre-test and post-test knowledge and Attitude scores. Mean pre-test knowledge score was **8.7±3.23** and mean post-test knowledge score was **20.82±3.76** with mean difference of **12.12** and ("t"value-24.42, df-79) was found statistically highly significant at $p<0.05$. Mean pre-test attitude score was **44.96±7.34** and mean post-test attitude score was **71.59±12.49** with mean difference of **26.63** and ($t = 30.81$, df-79) was found statistically highly significant at $p<0.05$. Findings revealed that School Based Educational Program was effective in improving positive attitude of school going adolescent girls regarding human papilloma virus infection and its prevention.

Keywords: Knowledge ,Attitude, Human Papilloma virus, Prevention, School going adolescent girls, School based educational programme.

1. INTRODUCTION:

HPV infection is one of the most common sexually transmitted infections affecting both the genders equally worldwide. They are responsible for almost all the cases of cervical cancer and as many as five other cancers including the head & neck, vulva, vaginal, penile and anal cancers .Based on the anatomical site, genetic makeup and clinical manifestation, HPV is classified as high risk (HR) and low risk (LR) subtypes. The low risk subtypes are often referred as non-oncogenic that can cause skin warts and the most common strains are HPV 6 and 11. The high risk subtypes are the ones with oncogenic potential and the most common strains include HPV 16 and 18.[1]

Although majority of its infections are benign and transient, but persistent infection with HPV is associated with development of cervical cancer. All sexually active women are infected with HPV at least once during their lifetime India, cervical cancer remains as the commonest female cancer and the annual incidence of more than 1, 32,000 every year. [2]

Adolescent health also encompasses children's and young people's sexual and reproductive health. The peak time for acquiring infection for both women and men is shortly after becoming sexually active. Cervical cancer is by far the most common HPV related disease. [3]

Worldwide, the risk of being infected at least once in a lifetime among both men and women is 50%. The most common types worldwide are HPV 16 and 18, which are the main types linked to carcinogenesis. Both HPV 16 and HPV 18 are preventable by vaccination. [4]

Cervical cancer is the fourth most common malignancy among women worldwide, and approximately 570,000 new cases and 311,000 deaths are reported every year. 6-8 According to the World Health Organization (WHO), prepubescent girls aged 9–14 years are the primary target group for HPV vaccination. [5]

The priority purpose of HPV immunization is the prevention of cervical cancer, which accounts for 82% of all HPV-related cancers. The 2020 WHO Global Strategy to Accelerate the Elimination of Cervical Cancer as a Public Health Problem recommends that HPV vaccines should be included in all national immunization programme and should reach 90% of all girls by age 15 by 2030. Prevention of cervical cancer is best achieved through the immunization of girls before they become sexually active. WHO recommended primary target population for HPV vaccination is girls aged 9–14 years before they become sexually active. HPV immunization programme should prioritize high coverage from the time of introduction. Achieving over 80% coverage in girls also reduces the risk of HPV infection for boys. [6]

The Indian Academy of Clinical Epidemiology and Global Health (2021) Pediatrics Committee on Immunization (IAPCOI). It is ideal that the vaccine is administered prior to the sexual debut to avoid the transmission of the virus and hence IAPCOI recommends that girls aged 9–14 should be vaccinated compulsorily with two intramuscular doses at 6 months interval. And for girls aged 15 and older till the age of 26, three intramuscular doses of either of the vaccine at 6 months interval is recommended. It is of general observation that adolescent girl's HPV immunization is seen predominantly among India's educated population. Spreading awareness among younger generation holds the key to improving knowledge of HPV related disease burden and advocate for immunization programs. [1]

Incidence of HPV related cancers for 2025 was projected. Among all cancers, 7.5% were HPV related cancers. Cervical cancer (87.6%) and oropharyngeal cancer (63.2%) were the most common HPV related cancers in India among females and males, respectively. The projected incidence of HPV related cancers is expected to increase to 121,302 by 2025. Implementation of effective prevention and control strategies like HPV vaccination and scaling up of screening could reduce the burden of HPV related cancers. India

contributed to 7% of the global cancer incidence and 24% of global HPV related cancer incidence in 2020. Four out of five cervical cancers reported in India were caused by infections from HPV types 16 and 18. [7]

2. MATERIAL & METHODS:

A Quantitative Research Approach with Quasi experimental design.one group Pre-test& Post-test research design was adopted for the study. A total 80 samples were selected by Probability systematic random sampling technique from selected Schools of Vadodara. The reliability of tool was measured by test-retest method. The tool was reliable for Knowledge (r = 0.94) and for Attitude (r = 0.84). Data collection was done from selected Schools of Vadodara i.e. DR.N.G.Shah Sarvajanik High School, Shri Narayan Vidhyalaya, Navjeevan High School ,New Sunrise School . A structured knowledge questionnaire & Likert Attitude Scale was developed to assess the knowledge and attitude regarding human papilloma virus infection and it's prevention. Tool is divided into 3 sections:

SCTION-I Consists of socio-demographic data of age, religion, parents occupation, parents education level, previous knowledge regarding HPV, source of knowledge, type of school.

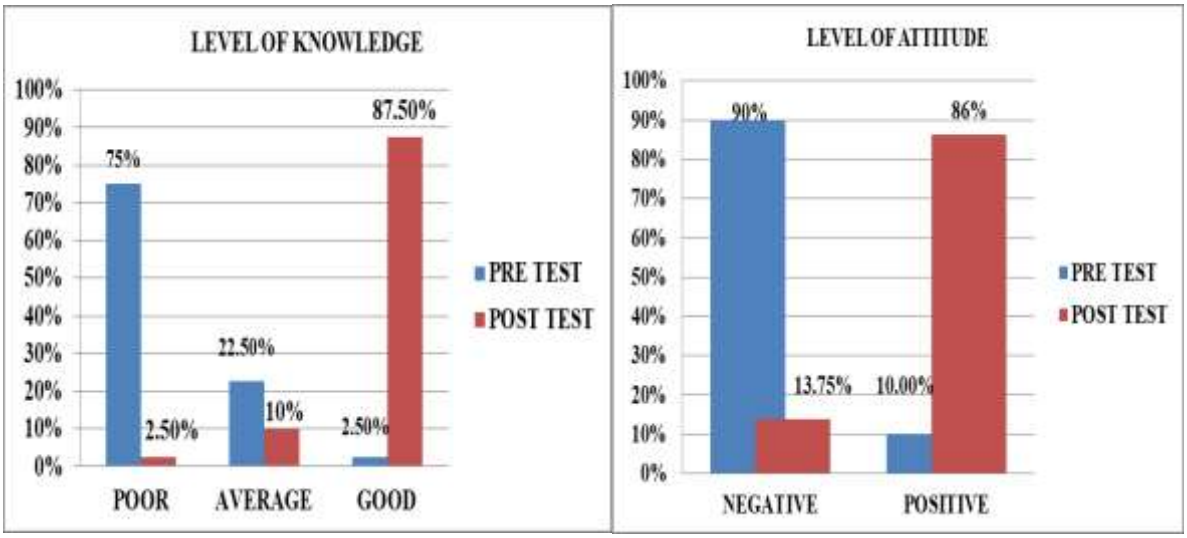
SECTION – II Comprise items on knowledge regarding Human Papilloma Virus infection and its prevention. Total item will be 26 and each item carries 1 mark. Maximum score of the questionnaire is 26. Investigator gave 1 mark for correct answer and 0 mark for wrong answer.

SECTION – III Researcher has used Structured 5 point likert attitude scale to assess the attitude regarding Human Papilloma Virus infection and it's prevention. It contains total 20 statements. It contains 10 negative and 10 positive statements.

Development of school based educational programme: The selection of content and appropriate teaching learning activity was selected and organized in appropriate manner considering the sequence and level of samples. School based educational programme include: introduction, definition, sign and symptoms of HPV infection, causes of HPV infection and prevention of HPV Infection.

3. RESULT:

In this study the pre-test among total 80 respondents; 60(75%) had poor knowledge, 18(22.5%) had average knowledge, and 2(2.5%) had good knowledge in pre-test. Whereas in the post-test 2(2.5%) respondents had poor knowledge, 8(10%) respondents had average and 70(87.5%) respondents had good knowledge. In pre-test majority of subjects 72(90%) had negative attitude and 8 (10%) had positive attitude while in post-test all of subjects 11(13.75%) had negative attitude and 69(86.25%) had positive attitude.



Knowledge	Mean	S.D	Mean Difference	Paired t-test	P value	Table Value at 0.05	Results
Pre-Test	8.7	3.23					
Post-Test	20.82	3.76	12.12	24.42	0.000*	1.99	Significant

Table 1: Comparison within pre-test and post – test knowledge with "paired t-test" N=80

Knowledge	Mean	S.D	Mean Difference	Paired t-test	P value	Table Value at 0.05	Results
Pre-Test	44.96	7.34					
Post-Test	71.59	12.49	26.63	30.81	0.000*	1.99	Significant

Table 2: Comparison within pre-test and post – test attitude with "paired t-test" N=80

4. DISCUSSION:

HPV infection is one of the most common viral infection of the female and male reproductive tract worldwide. Cancer of the cervix uteri is the 4th most common cancer among women worldwide. Human papillomavirus (HPV) is one of the most common causes of anogenital cancers in both men and women worldwide. There are 2 groups of HPVs: (1) low-risk HPV types that can lead to genital warts, and (2) high-risk HPV types that are involved in HPV-associated oncogenesis. Today, Public Health targets the immunization of adolescents of both genders based on new and important scientific evidence for maximum protection from all HPV related pathologies directly preventable with vaccination. Universal vaccination of girls is the most effective strategy to avoid cases of and deaths from cancer caused by HPV but the awareness & knowledge regarding Human papillomavirus with cervical cancer and its prevention by HPV vaccine is very low among the adolescence & young Indian population.

The purpose of present study was to assess the effectiveness of School Based Educational Programme regarding Human papillomavirus Infection and it's prevention among school going adolescence girls. The pre-test and post-test knowledge & Attitude score of school going adolescence girls regarding Human papillomavirus Infection and it's prevention was calculated by paired "t'' test and "t'' value of knowledge

24.42 & "t" value of attitude 30.81 shows the effectiveness of School Based Educational Programme. The mean post-test knowledge & attitude score 3.76 & 12.49 was higher than the mean pre-test knowledge & attitude score 3.23 & 7.34 and the correlation coefficient between Post Knowledge score and Post attitude score was 0.486 which was in between 0-1. Thus, the investigator concluded that there was moderately significant positive correlation between the Knowledge and attitude of school going adolescent girls regarding Human Papilloma Virus Infection and its Prevention. Findings revealed that School Based Educational Program was effective in improving the knowledge and improving the positive attitude of school going adolescence girls. regarding Human Papilloma Virus Infection and its Prevention.

5. CONCUSION:

In this study there was inadequate knowledge and negative attitude regarding human papilloma virus infection and its prevention among school going adolescent girls from selected schools of Vadodara. The investigator had developed and conducted school based educational programme which covers various aspects knowledge and positive attitude of school going adolescence girls regarding human papilloma virus infection and its prevention. The mean post-test knowledge score 3.76 & the mean post-test attitude score 12.49 was higher than the mean pre-test knowledge 3.23 & the mean post-test attitude score 7.34. The school based educational programme had made significant influence over school going adolescent girls which resulted in significant increase in knowledge and positive attitude after implementation of programme.

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