

Effectiveness of Structured Teaching Programme on Knowledge and Attitude regarding Human Papilloma Virus Infection and Vaccine among Adolescent Girls

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Abstract: ***Introduction:** Adolescent health is the range of approaches for preventing, detecting or treating young people's health and wellbeing. Adolescent health also encompasses children's and young people's sexual and reproductive health. HPV infection occurs in women of all age groups. Human Papilloma Virus is a causative agent of cervical cancer. Vaccination against HPV is an important mode of primary prevention against cervical cancer. Therefore, the awareness and knowledge of HPV infection and the attitude toward HPV vaccines among adolescent girls should be known. So, structured teaching programme (STP) was developed and administered to improve knowledge and attitude regarding Human Papilloma Virus Infection and Vaccine among adolescent girls. **Material and methods:** A pre- experimental study was conducted in the month of January, 2021 at Rajkiya Kanya Mahavidyalaya Lakkar Bazar Shimla Himachal Pradesh. 60 adolescent girls were selected by using convenience sampling technique. Pre-test was conducted. Structured teaching programme (STP) regarding Human Papilloma Virus Infection and Vaccine was provided to the samples. Then after seven days post-test was conducted. Data was collected by using self-structured questionnaire and a Likert scale. Gathered data was analysed by calculating mean, median, mean percentage, mean difference, standard deviation, paired t-test to evaluate the effectiveness of structured teaching programme and chi square test to find association of knowledge with selected socio-demographic variables. **Results:** The study findings showed that post-test mean score of knowledge and attitude regarding Human Papilloma Virus Infection and Vaccine among adolescent girls has statistically improved which was statistically significant. **Conclusion:** Statistical analysis of data reveals that structured teaching programme (STP) was effective in enhancing knowledge and attitude of Adolescent Girls regarding Human Papilloma Virus Infection and Vaccine.*

Keywords: Attitude, Human Papillomavirus, HPV vaccine, adolescent girls, STP

1. Introduction

Adolescent health is the range of approaches for preventing, detecting or treating young people's health and wellbeing. Adolescent health also encompasses children's and young people's sexual and reproductive health. Adolescence is a period of life with specific health and developmental needs and rights. Adolescence is one of the most rapid phases of human development where biological maturity precedes psychosocial maturity. The World Health Organization (WHO) defines adolescents as those people between 10 and 19 years of age.^[1]

Sexually transmitted infection also called Sexually transmitted diseases (STDs) are infections that can be transferred from one person to another through any type of sexual contact.^[2] More than 1 million sexually transmitted infections (STIs) are acquired every day worldwide. More than 290 million women have an HPV infection, one of the most common STIs. HPV infection causes 528 000 cases of cervical cancer and 266 000 cervical cancer deaths each year.^[3]

Human papillomavirus (HPV) is one of the most common sexually transmitted infections. Over 50% of sexually active

women are exposed to at least one HPV type during their lifetime. HPV infection occurs in women of all age groups and the highest rates of HPV infection are seen in women 20–24 years old.^[4]

The peak time for acquiring infection for both women and men is shortly after becoming sexually active. Genital HPV types have been classified as either high risk (mainly types 16 and 18) or low risk (mainly types 6 and 11), reflecting their potential risk of causing malignant lesions. HPV infections usually clear up without any intervention within a few months after acquisition and about 90% clear within 2 years. HPV types 16 and 18 cause approximately 70% of cervical cancers. A small proportion of infections with certain types of HPV can persist and progress to cervical cancer. Cervical cancer is by far the most common HPV related disease. Nearly all cases of cervical cancer can be attributable to HPV infection.^[3]

According to Centre for Disease Control and Prevention, HPV vaccination is for 11- and 12-year-old girls, but it is also recommended for girls and women age 13 through 26 years of age who have not yet been vaccinated or completed the vaccine series. Therefore, from a public health

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perspective, the most effective population to target for HPV vaccination is young girls.^[5]

Therefore, the awareness and knowledge of HPV infection and the attitude toward HPV vaccines among adolescent girls will greatly influence the success of an immunization program against HPV infection and reduces the chances of cervical cancer in females.

2. Need of the Study

Human papilloma virus (HPV) is a sexually transmitted virus and its association with chronic diseases has been well documented. Although majority of its infections are benign and transient, but persistent infection with HPV is associated with development of cervical cancer. Its association with cervical cancer in particular has been proved scientifically beyond any reasonable doubt. All sexually active women are infected with HPV at least once during their lifetime, and the highest prevalence is seen soon after the onset of sexual activities.^[6]

In India, cervical cancer remains as the commonest female cancer and the annual incidence of more than 1, 32,000 every year. Recognition of this dreaded virus in cervical cancer has led to stimulated search for preventive vaccines. A lack of knowledge about HPV and low levels of understanding of HPV vaccination has direct implications for women's participation. Despite this, the importance of health education as an integral part of primary prevention for cervical cancer is often ignored.^[7]

Vaidakis Dennis et al (2017) conducted a national epidemiologic study on Knowledge of Greek adolescents on human papilloma virus (HPV) and vaccination. There were 4547 adolescents, a representative sample for Greek territory with a mean age of 17 years. Student completed a questionnaire with 36 questions, 43% and 75% of the participants knew about HPV or cervical cancer, while more than 6 out of 10 did not know the association between the two. More than 60% of the participants could not answer correctly neither about HPV infection and cervical cancer frequency in sexually active women, nor about protection methods against HPV and cervical cancer.^[8]

HPV vaccines have been introduced in many developed countries in recent years. As preventing cancer with the help of a vaccine is a comparatively new concept, awareness and education will have important implication in the implementation of this strategy. It should be well understood that the mere availability of an effective vaccine is not synonymous with an effective vaccination program. Awareness programs conducted at various levels addressing tailored issues will help to successfully implement HPV vaccination in our country.

HPV infections and HPV-related diseases have increased in recent decades due to increased sexual risk taking behaviour. Adolescents have low awareness and knowledge about the virus, especially regarding the cancer risks. Educational school-based interventions can increase adolescents' awareness and knowledge about HPV prevention, enhance preventive behaviours for sexually transmitted infections in

general and reduce sexual risk taking. Interventions can also have a beneficial effect on beliefs about HPV vaccination among girls and change their attitude.^[9]

After an extensive review of literature, it has been found that the highest prevalence of HPV is found among teenagers and young adults. Adolescents do not receive education regarding HPV on a regular basis. Therefore, preventive strategies, such as the implementation of effective educational interventions among adolescents, are very much needed. Current study was undertaken as very few studies have been conducted on this topic. So, it is valuable to assess the effectiveness of structured teaching programme on knowledge regarding Human Papilloma Virus Infection and Vaccine among adolescent girls.

3. Materials and Methods

In this study quantitative research approach and pre-experimental research design were used to collect data from sample size 60 adolescent girls of Rajkiya Kanya Mahavidyalaya Lakkar Bazar Shimla, (H.P.).

60 Adolescent Girls were selected by using convenient sampling technique of Rajkiya Kanya Mahavidyalaya Lakkar Bazar Shimla, (H.P.) a structured knowledge questionnaire was developed to assess the knowledge and attitude regarding human papilloma virus infection and vaccine. Tool is divided into 3 sections:

Section I:-It consists of demographic variables such as age educational status, type of family, family income residential area, religion, previous knowledge, and source of information regarding Human Papillomavirus Infection.

Section-II:-Structured knowledge questionnaire to assess the knowledge of adolescent girls towards human papilloma virus infection and vaccine consists of 24 items. Each item is in multiple choices with 4 options and one correct answer. Among 24 questions 16 statements were related to Human Papillomavirus Infection, 8 statements related to vaccination.

Section-III:-Structured 5 point Likert scale to assess the attitude of adolescent girls towards Human Papillomavirus Infection and vaccine. Each question has five responses.

Tool was given for opinion and evaluation by the experts from different departments to check the content validity and for their opinion, suggestions and corrections. Suggestions given by the experts are incorporated and the tool was finalized with few modifications. Ethical approval was obtained from the ethical and legal committee for conducting study.

Formal permission obtained from the concerned authorities. Permission was taken from Principal Rajkiya Kanya Mahavidyalaya Lakkar Bazar Shimla, (H.P.). Before conducting the study, informed consent was obtained from the participants (adolescent girls) for their willingness to participate in the study. Pre-test was considered and thereafter structured teaching programme will be administered. Post-test was conducted after 7 days.

The data was analysed by using both descriptive and inferential statistics.

4. Results

The study revealed that in pre-test knowledge score, majority 45 (75%) had average knowledge, 8 (13.3%) had good knowledge and 7 (11.7%) had poor knowledge. In

Post-test knowledge score 41 (68.3%) had good knowledge, 19(31.7%) had average knowledge and no one had poor knowledge In pre-test attitude score, majority 50 (83.3%) had neutral attitude, 8 (13.3%) had Negative attitude and only 2 (3.3%) had positive attitude. In post-test score majority 44 (73.3%) had positive attitude, 16 (26.7%) had neutral attitude and none (0%) had negative attitude.

Table 1: Comparison within pre-test and post – test knowledge with “paired t-test” N=60

Knowledge	Mean	Mean%	S.D.	Mean Difference	Paired t-test	P value	Table Value at 0.05	Results
Pre –test	11.87	49.40	3.154	5.530	29.454 *	<0.001	2.00	Significant
Post – test	17.4	72.50	2.352					

(*Significant $p \leq 0.05$)

Hence it was revealed that structural teaching programme was effective in increasing the knowledge and enhancing the attitude of adolescent girls.

Table 2: Comparison within pre-test and post – test attitude score with “paired t-test” N=60

Attitude	Mean	S.D.	Mean%	Mean Difference	Paired t -Test	P value	Table Value at 0.05	Results
Pre-test	53.92	6.505	67.40	12.400	13.997*	<0.001	2.00	Significant
Post-test	66.32	4.728	82.90					

(*Significant $p \leq 0.05$)

5. Discussion

Human papillomavirus (HPV) is one of the most common causes of sexually transmitted infections. Cancer is an invincible disease which has plagued mankind for centuries. Cervical cancer is ranked as the second most common cancer among women worldwide and is a major cause of female mortality. The development of HPV vaccine has shown an advancement of fight against cervical cancers. But the awareness of the association of Human papillomavirus with cervical cancer and its prevention by HPV vaccine is very low among the young Indian population.

The purpose of present study was to assess the effectiveness of Structured Teaching Programme regarding Human papillomavirus Infection and Vaccine among Adolescent Girls. The pre-test and post-test knowledge score of adolescent girls regarding Human papillomavirus Infection and vaccine was calculated by paired “t” test and “t” value 29.457 shows the effectiveness of Structured Teaching Programme. The mean post-test knowledge score 17.4 was higher than the mean pre-test knowledge score 11.87. The mean post-test attitude score 66.32 was higher than the mean pre-test attitude score 53.92. Similarly, in other studies also it was noted that pre-knowledge of Adolescent Girls regarding knowledge attitude was less. After the Structured Teaching programme Knowledge level is improved and their attitude also improved.

6. Conclusion

The main focus of the study was to assess the effectiveness of structural teaching programme regarding Human Papillomavirus Infection and Vaccine. As HPV is the leading cause of cervical cancer in the world. So greater attention should be paid to increase the knowledge of people regarding infection and vaccination. There was a significant difference in the level of knowledge score between pre-test

and post-test score after administration of structured teaching programme. The mean post-test knowledge score was 17.4 which was higher than the mean pre-test knowledge score 11.87 also mean post-test attitude score 66.32 was higher than the mean pre-test attitude score 53.92. Hence it was concluded that after implementation of Structured Teaching Programme majority of adolescent girl’s knowledge and attitude had improved regarding Human Papillomavirus Infection and Vaccine respectively.

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