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EFFECTIVENESS OF PLANNED TEACHING PROGRAMME ON KNOWLEDGE REGARDING HUMAN PAPILLOMA VIRUS (HPV) & HPV VACCINE AMONG ADOLESCENT GIRLS

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ABSTRACT

Cancer has been recognized since ancient times, with evidence of the disease found in fossilized bone tumors and documented in ancient manuscripts. Cervical cancer, one of the most common cancers affecting women worldwide, is primarily caused by infection with the Human Papilloma Virus (HPV). The aim of the study was to assess the effectiveness ofplanned teaching programme on knowledge regarding Human Papilloma Virus (HPV) & HPV vaccine among adolescent girls. **Objectives:**1. To assess the knowledge of adolescent girls regarding HPV &HPV vaccine, 2. To evaluate the effectiveness of planned teaching programme regarding HPV & HPV vaccine among adolescent girls 3. To associate the knowledge regarding HPV and HPV vaccine with selected baseline variables. **Methodology:** The research design used for the study was one group pretest post test design. A total of 60 students, aged 12 to 15 years, were chosen from schools using convenient sampling. Data was collected by using a structured questionnaire. **Result:**The highest percentage in pre-test 78.33% had average knowledge, 21.66% had poor knowledge and 0% had good knowledge and in post-test highest knowledge70% had average knowledge, 26.66% had good knowledge and 3.33% had poor knowledge. The findings of this study suggest that planned teaching programme is effective in improving the knowledge regarding HPV & HPV Vaccine among adolescent girls.

Keywords: Human Papilloma Virus, HPV Vaccine, Effectiveness, Planned teaching program, Adolescent girls

INTRODUCTION

Cancer is a group of diseases characterized by uncontrolled growth and spread of abnormal cells. If left unchecked, this spread, known as metastasis, can lead to death. Cancer arises from various external factors such as tobacco, chemicals, radiation, and infectious agents, as well as internal factors like genetic mutations, hormonal imbalances, immune dysfunctions, and random mutations. In India, cancer has emerged as a significant cause of mortality. Globally, cancer is identified as the second leading cause of death, following cardiovascular disease, with deaths projected to rise from 7.1 million in 2002 to 11.5 million by 2030. Notably, one-third of cancers are preventable, and another third are curable through early detection and effective treatment.

Cervical cancer is a major public health concern, with an estimated 4.7 lakh new cases and 2.3 lakh deaths annually worldwide. India bears the highest burden, with 1.3 lakh new cases and 73,000 deaths each year. By 2025, projections indicate 2.03 lakh new cases and 1.2 lakh deaths annually. The crude incidence rate of cervical cancer in India is 23.5 per 1 lakh population per year. Women at risk number

366.58 million. Cervical cancer ranks as the most frequent cancer among women in India and the leading cancer among women aged 15 to 44 years.

Human Papilloma virus (HPV) is the primary causative agent of cervical cancer. Of the 130 HPV types identified, 15 are classified as high-risk, with HPV-16 and HPV-18 alone responsible for over 70% of cervical cancer cases. Vaccination against HPV has the potential to reduce cervical cancer deaths by two-thirds globally, along with reducing medical interventions and associated anxieties.

According to the December 2022 WHO guidelines, the HPV vaccine schedule includes one or two doses for girls aged 9-14 years, one or two doses for women aged 15-20 years, and two doses six months apart for women older than 21 years. Immunocompromised individuals require a minimum of two or three doses.

NEED OF STUDY

Cervical cancer is ranked as the most frequent cancer among women in India. India has a population of approximately 365.71 million women above 15 years of age who are at risk of developing cervical cancer. Current estimates indicate approximately 1,32,000 new cases are diagnosed and 74,900 deaths occur annually in India, accounting for nearly one-third of global cervical cancer deaths. Indian women face a 2.5% cumulative lifetime risk and a 1.4% cumulative death risk from cervical cancer.

Early detection of cervical cancer through Pap smear screening, starting at the age of 20 years, has proven useful in reducing the incidence of invasive disease, especially in younger women. Routine screening programs have significantly decreased the incidence of invasive cervical cancer. However, past experiences indicate that most women do not seek early detection and instead present for treatment only at advanced stages. This highlights the need to improve the knowledge and attitudes of women regarding cervical cancer. Health education is crucial, and a structured teaching program can help in the detection and prevention of cervical cancer.

Various mass programs are conducted to detect cervical cancer early. Nurses have a significant responsibility to encourage women to participate in regular screening programs to detect and prevent cervical cancer at an early stage. The Advisory Committee on Immunization Practices (ACIP) recommends HPV vaccination for everyone up to 26 years of age if not adequately vaccinated earlier. The vaccination is administered as a series of either two or three doses, depending on the age at initial vaccination. Vaccination is not generally recommended for individuals older than 26 years. However, adults aged 27 to 45 years may consider HPV vaccination based on discussions with their clinician if they were not vaccinated earlier, though it provides limited benefits due to prior exposure to HPV.

AIM OF THE STUDY

To assess the effectiveness of planned teaching programme on knowledge regarding Human Papilloma Virus (HPV) & HPV vaccine among adolescent girls in selected schools of the city.

RESEARCH METHODOLOGY

Objectives

- To assess the knowledge of adolescent girls regarding HPV &HPV vaccine
- To evaluate the effectiveness of planned teaching programme on knowledge regarding HPV & HPV vaccine among adolescent girls.
- To associate the knowledge regarding HPV and HPV vaccine with selected baseline variables.

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Research type: Pre-experimental study

Research design: The research design selected for the present study was Quantitative Pre-experimental design.

*Sample and Sample Size: The **study sample**consisted of 60of **adolescent girls** from a selected schools of Pune city.*

Sampling technique: A convenient sampling technique was used for selecting 60 girls from selected school who met the designed set of criteria during the period of data collection.

Tool description: Data was collected using a **Structured questionnaire** developed to assess the **effectiveness of the planned teaching programme** on the knowledge regarding HPV and HPV vaccine among adolescent girls.

Validity: The content validity of the tool was done by 7 experts in the field. The suggestions from the experts were incorporated into the final tool.

Reliability: The reliability was tested by using the test-retest method. In the test-retest method reliability was 0.73, hence the tool was found to be reliable.

Data collection:

After the Research and Ethics Committee clearance and after obtaining permission from the concerned authority the study was started. The purpose of the study was explained to the participants and consent was taken. 60 adolescent girls who met the inclusion criteria were selected using a convenient sampling technique. The pretest was conducted using a structured questionnaire to assess the baseline knowledge of the participants regarding the HPV & HPV vaccine.The planned teaching programme was conducted after the pretest. Post post-test was conducted to assess the effectiveness planned teaching programme on knowledge by using the same structured questionnaire on 7th day.A planwas made for data analysis on the basis of the objectives and hypothesis of the study.

RESULTS

Table No. 1: Frequency and Percentage distribution of adolescent girls according to demographic variables.

(n=60)

SR NO	DEMOGRAPHIC VARIABLE	FREQUENCY	PERCENTAGE
1	**AGE IN YEARS**		
a	Below 12	**0**	**0 %**
b	12-13	6	10 %
c	13-14	51	85 %
d	15 & above	3	5 %
2	**EDUCATION**		
a	8th std	28	46.6 %
b	9th std	23	38.3 %
c	10th std	9	15 %
3	**INCOME**		
a	Below 10000	0	0 %
b	10000-20000	10	16.6 %
c	20000-30000	7	11.6 %
d	Above 30000	43	71.6 %

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Majority of the samples belonged to the age group of 13 years to 14 years. Among the samples, majority of students persued 8th grade (46.6%). The family income of majority of samples were more than 30000 per month(71.6%).

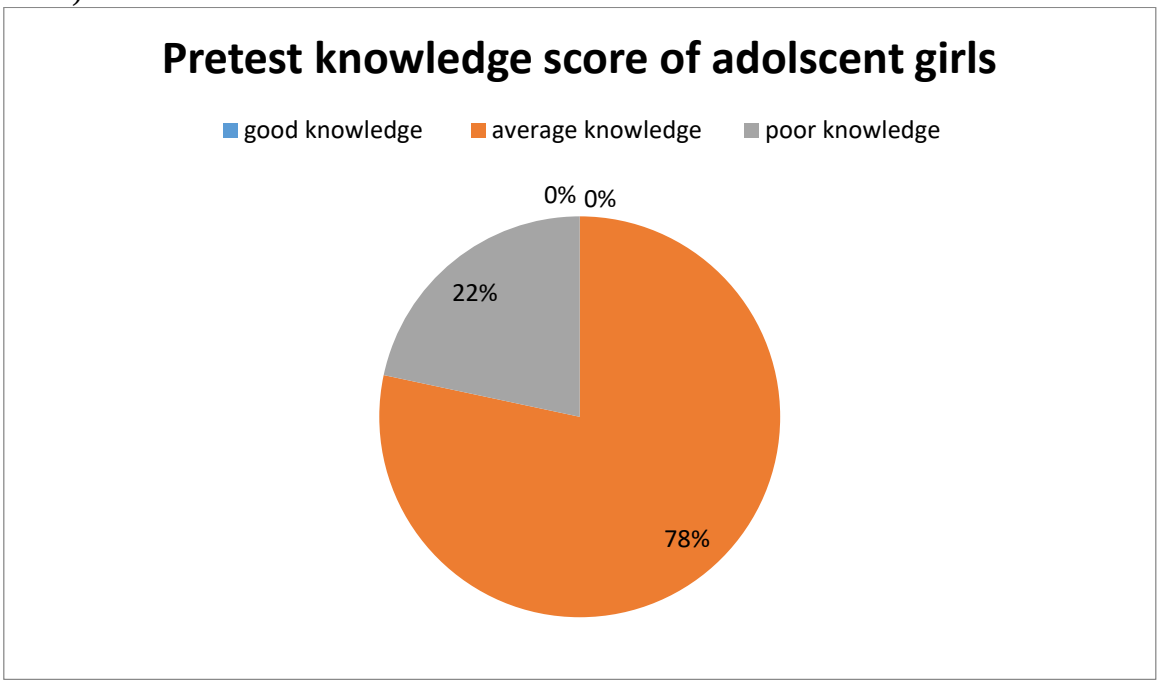

Fig 1: Distribution of pretest knowledge scores of adolescent girls regarding HPV & HPV Vaccine. (n=60)

Figure 1 shows that the majority of the samples (78%) had average knowledge during the pretest and none of the samples had good knowledge.

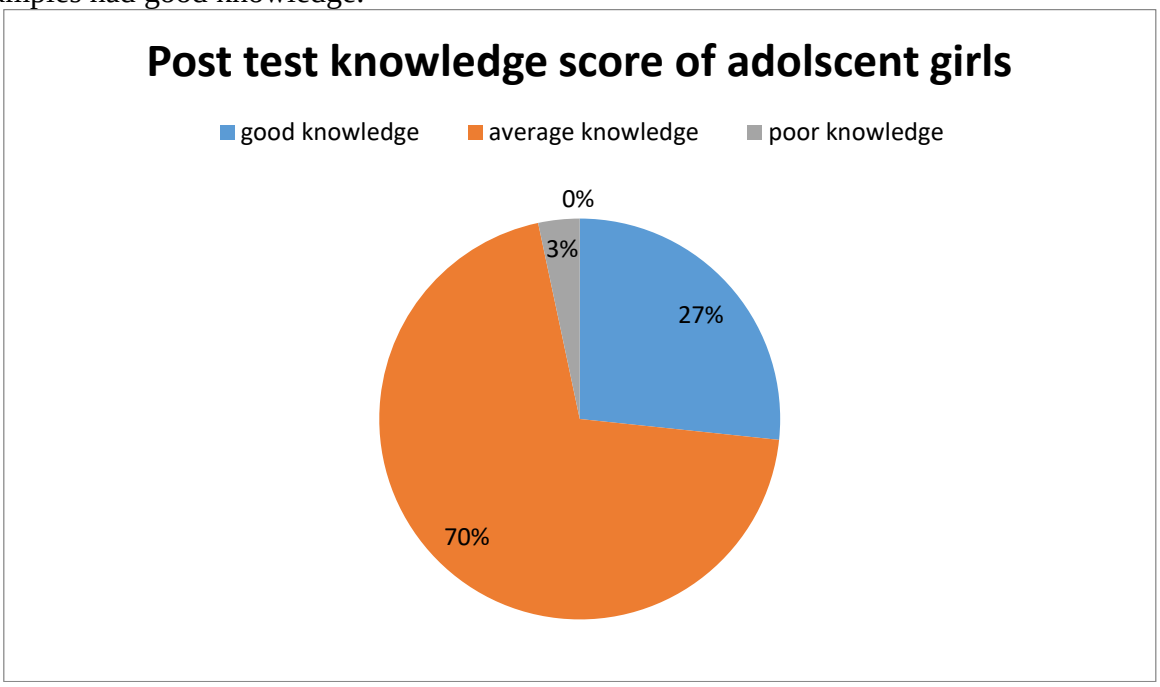

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Fig 2: Distribution of posttest knowledge scores of adolescent girls regarding HPV & HPV Vaccine. (n=60)

Figure 2 shows that the majority of the samples (78%) had average knowledge, 70% had average knowledge and only 3% had poor knowledge during the posttest.

Table No. 2: comparison of knowledge scores before and after a planned teaching program on HPV and the HPV vaccine.

(n=60)

SN	Group	Mean	SD	Mean difference	't' value	P Value	Level of significance
1	Pre-test	9.38	2.351	3.57	**9.72**	**<0.0001**	**Significant**
2	Post-test	12.95	2.205				

Table No. 2 presents the effectiveness of the planned teaching program on knowledge regarding HPV and the HPV vaccine among a sample of 60 participants. The mean pre-test knowledge score was 9.38 with a standard deviation of 2.351, while the mean post-test score increased to 12.95 with a standard deviation of 2.205. The mean difference in scores was 3.57. A paired t-test was performed to assess the statistical significance of this difference, yielding a t-value of 9.72 and a p-value of <0.0001. Since the p-value is significantly less than 0.05, the improvement in knowledge is considered statistically significant. These results clearly indicate that the planned teaching program was effective in enhancing the participants' knowledge regarding HPV and the HPV vaccine.

The study showed no significant association between knowledge scores and baseline variables of the adolescent girls.

DISCUSSION

This pre-experimental study assessed the effectiveness of a planned teaching program on knowledge about Human Papilloma Virus (HPV) and HPV vaccination among adolescent girls. The study employed a robust quantitative approach, and a pilot study on six participants validated the feasibility and preparedness for the final study. The reliability of the tool was established using the test-retest method, with a reliability coefficient of 0.73, confirming the tool's adequacy for measuring knowledge levels. Content validity further ensured the accuracy and consistency of the data collection instrument, enhancing the study's credibility.

The findings revealed a significant improvement in knowledge levels following the educational intervention, underscoring the effectiveness of structured teaching programs in addressing knowledge gaps about HPV and its vaccine. These results align with prior research emphasizing the importance of health education in promoting preventive behaviors among adolescents, a group crucial for vaccination uptake.

A similar study conducted by Mrs. Munirathnamma K, Mr. Paramesha, Mrs. Mamatha G, Mrs. Dhanalakshmi showed that the mean difference between pre-test knowledge scores and post-test knowledge scores of adolescent girls is 4.67. This indicates an increase in knowledge scores of adolescent girls after administration of STP.

Another study conducted by Ms. Ruth Lalhmingthang and Ms. RinkuparIawim showed that female faculty (50%) was having good knowledge in the pre test and 83.3% were havinggood knowledge regarding prevention of cervical cancer by vaccination in the post test. It also showed that the gain in

knowledge score was significant at 0.05 level of significance and calculated paired‘t’value was 6, which was more than the tabulated paired ‘t’ value 1.68. This emphasizes the effectiveness of planned teaching program in improving knowledge and creating awareness about HPV and HPV Vaccine.

Challenges observed during the study included variability in baseline knowledge and initial resistance to the teaching program. Future studies could overcome these by including larger, more diverse samples and exploring long-term knowledge retention and behavioral changes.

CONCLUSION

The study was conducted to assess the effectiveness of planned teaching programme on knowledge regarding HPV and HPV vaccine among adolescent girls. The findings revealed that in pre-test 78.33% had average knowledge, 21.66% had poor knowledge and 0% had good knowledge and in post test, 70% had average knowledge, 26.66% had good knowledge and 3.33% had poor knowledge. The study reveals that planned teaching programme is effective regarding HPV & HPV Vaccine among adolescent girls.

In conclusion, the study demonstrates that planned teaching programs are effective in increasing knowledge about HPV and its vaccine among adolescent girls. These findings highlight the role of educational interventions in empowering adolescents to make informed health decisions and support public health efforts to improve HPV vaccination rates. Adolescent girls represent a critical population for HPV vaccination campaigns, given their vulnerability to HPV-related complications later in life. By improving their understanding of HPV and the benefits of vaccination, planned teaching programs empower young individuals to make informed health decisions, potentially influencing vaccine uptake rates positively. This research reinforces the importance of integrating targeted educational initiatives within public health strategies to combat HPV-related diseases, emphasizing the value of well-designed teaching programs to improve adolescent health literacy.and promote informed decision making ultimately contributing to enhanced preventive healthcare measures ,better vaccination coverage increased awareness and reduced risk of HPV releted diseases in the long term.

Conflict of interest: The authors certify that they have no involvement in any organization or entry with any financial or non financial interest in the subject matter or material discussed in this paper.

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