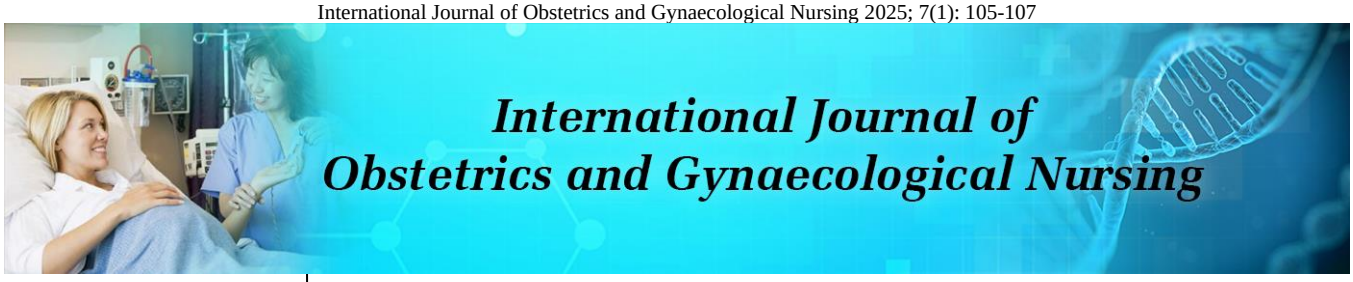

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A study to assess the effectiveness of structured teaching programme on HPV vaccination for prevention of cervical cancer among adolescent girls in selected schools of Dehradun, Uttarakhand

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Abstract
Cervical cancer is the fourth most common cancer globally and the most frequent in women in India. The study aims to assess and enhance knowledge about the HPV vaccine for cervical cancer prevention among adolescent girls through a structured teaching program. A quantitative approach with a one-group pre-test post-test design was used. 90 students were selected using non-probability purposive sampling. In the pre-test, 86.6% had poor knowledge, 13.4% had moderate knowledge, and none had good knowledge. In the post-test, 37.7% had moderate knowledge, and 62.3% had good knowledge. The reliability coefficient was 0.95. The pre-test mean score was 6.93, and the post-test mean score was 15.61. The t-value was 26.2077, and the p-value was 0.0001, indicating a significant difference between pre-test and post-test knowledge levels. The study found no association between knowledge levels and selected demographic variables.

Keywords: HPV vaccine, cervical cancer, structured teaching program, adolescent girls

Introduction
Cancer is a group of diseases involving abnormal cell growth that can spread to other parts of the body. In India, cancer cases are projected to increase from 14.6 lakh in 2022 to 15.5 lakh by 2025, with mortality rising from 7,70,230 in 2020 to 8,08,558 in 2022. Carcinoma cervix, a common cancer in developing countries, occurs in 16 cases per 100,000 women annually, with a 9% mortality rate. Cervical cancer is mainly caused by infections with human papillomavirus (HPV). Around 80-90% of cervical cancers are squamous cell carcinomas, while 10-20% are adenocarcinomas. HPV vaccines, like Gardasil and Cervarix, protect against high-risk HPV types, reducing the risk of cervical cancer and precancerous conditions. Gardasil, available in India, targets four HPV types (6, 11, 16, and 18), with 70% efficacy against cervical cancer. HPV types 16 and 18 cause most cervical cancers, while types 6 and 11 cause genital warts. The quadrivalent HPV vaccine requires three doses over six months. Screening for cervical cancer, including Pap smears and HPV tests, is recommended for women over 25, even if asymptomatic. Early detection through screening helps identify precancerous changes, allowing for effective treatment and prevention of cancer development.

Materials and Methods
This chapter deals with the research approach, variables, population, sampling techniques, development of tools, intervention, content validity of tools, data collection procedure. At the end investigator has given structured teaching programme on HPV vaccination & cervical cancer.
The samples were selected by purposive sampling technique based on sampling criteria. A total of 90 adolescent girls were selected for the say Written informed consent was obtained from the study subjects. The objectives and purpose of the study was explained and assurance of maintenance of confidentiality was given. Pre-test was conducted to assess the knowledge regarding prevention of cervical cancer with the help of self-structured

questionnaire followed by structured teaching program which was administered for 45 minutes. Post test was conducted on the 8th day of administering structured teaching program.

Research Approach

The present study suggests to find out the existing knowledge of girls of 9-15 yrs. age group regarding the effectiveness of HPV vaccine in the prevention of cervical cancer. In this study researcher has adopted one group pre-test post-test design. In this design, subject is selected by purposive sampling techniques. Level of knowledge regarding HPV vaccine was assessed before and after the administration of structured teaching programme.

Results

The data was planned and analysed based on objectives and hypotheses of the study. Data collected was processed for appropriateness and relevancy. The data collected from 90 samples were entered into master data sheet for the analysis. Differential statistics and inferential statistics were used to analyse the obtained data in order to achieve the results based on objectives and hypotheses of the study.

Presentation of data

Table 1: Frequency & Percentage distribution of pre-test & post-test knowledge score

Assessment	Level of Knowledge					
	Poor (0-8)		Modrate (9-15)		Good (16-22)	
	Score	F	Score	f	Score	f
Pre-test	78	86.6	12	13.4	0	0
Post-test	0	0	34	37.7	56	62.3

Table 1 That the level of knowledge in pre-test, moderate is 34.4% & poor is 86.6% meanwhile in post-test there is no student in poor category in moderate there is 37.7% & in good there is 62.3%.

Table 2: Finding related to effectiveness of structured teaching programme regarding HPV vaccination in prevention of cervical cancer

Knowledge score	Mean	Sd	Mean difference	't' value	'p' value
Pre-test	6.93	14.81	8.68	26.2077	0.000I*
Post-test	15.61	32.29			

s* = significant $p<0.001$ level

The table illustrates that the t-Value is 26.2077 and the tabulated value is 1.65 which indicates that t calculated is more than t tabulated, which means research hypothesis 1 is accepted.

Conclusion

Based on the findings of this study, it is evident that the structured teaching program has significantly improved the knowledge of the adolescent girls. The girls were unaware about the HPV vaccination through the teaching we provided them awareness regarding HPV infection and importance of vaccination for preventing cervical cancer.

Limitations: The limitations of the study were:

- The study was only limited to the adolescent girls of MKP intercollege Dehradun.
- The data collection tools used for investigation were prepared for this purpose only and used for the first time, where tools content validity has not been established.
- The study was limited to specific dimensions of HPV vaccination among primary section students and standard tools were not used.

Recommendations

- A similar study can be conducted on large sample for better generalization. A long-term follow-up study can be conducted to find out the effectiveness of structured teaching program in enhancing the knowledge level of adolescent girls regarding cervical cancer.
- A similar study can be conducted to compare the intervention with an alternative intervention to create awareness regarding HPV vaccine among the adolescent girls.
- A study can also be conducted including the girl parents for providing the knowledge regarding the importance of vaccination at right age for prevention of cervical cancer.

Implications

1. **Nursing Education:** Nurses need to be educated about HPV and its link to cervical cancer to better inform others. Nursing programs should include lessons on the vaccine's role in cancer prevention and how to address myths or fears. Effective communication with adolescents and families is essential for understanding the vaccine's importance.
2. **Nursing Practice:** Nurses in schools or community health settings can play a crucial role in educating young girls about HPV vaccination. They should provide accurate information, encourage vaccination, and address concerns. Nurses can also help remove barriers like misinformation or lack of healthcare access.
3. **Nursing Research:** Nurses can contribute to research on effective teaching methods for HPV vaccination. Research can focus on overcoming cultural, logistical barriers and finding ways to ensure adolescents retain knowledge after educational programs.
4. **Nursing Administration:** Nurse administrators should facilitate health awareness programs on HPV vaccination and organize in-service education to improve knowledge on cervical cancer prevention.

These implications highlight the critical role of nursing in increasing awareness and facilitating the adoption of HPV vaccination to prevent cervical cancer.

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Conflict of Interest

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