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Effectiveness of Structured Teaching Programme on Knowledge and Awareness Regarding HPV (Human Papilloma Virus) Vaccination on Cervical Cancer among Adolescent Girls

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ABSTRACT

INTRODUCTION: Cervical cancer is a condition in which cancer cells found in the tissues of cervix (lower part of uterus). It is defined as an abnormal cell proliferation in the cervix. The most important cause of cervical cancer Human Papilloma Virus (HPV). HPV is a common infection that is spread through sexual contact. HPV 16 and HPV 18 types are most commonly associated with cervical cancers but other contributes as well. HPV infection is commonly occurring soon after an individual becomes sexually active. For many types of cancer, progress in the areas of cancer screening and treatment has offered promise for earlier detection and higher cure rates. Routine screening with a pap smear is used to detect cancerous cells in the cervix early as well as to detect abnormal cells in the cervix before they become cancerous. **AIM OF THE STUDY:** The aim of the study is to evaluate the effectiveness of structured teaching programme on knowledge and awareness regarding HPV (Human papilloma virus) vaccination on cervical cancer among the adolescent girls. **RESEARCH METHODOLOGY:** The research design adopted for this study is a pre- experimental design with one group pre-test and post-test design. In this study, the target population is adolescent girls who are studying in 9th to 12th class of Rajikiya Balika Inter College, Lucknow (U.P.). **RESULT:** In pre-test, majority of respondents had inadequate 41(82%) of existing level of knowledge, rest 9(18%) had moderate knowledge and none of them had adequate knowledge. Majority of respondents 28(56%) had low level of awareness rest 22(44%) has high level of awareness. In post-test, after implementation structured teaching programme majority of respondents 42(84%) had adequate knowledge and rest 8(16%) had moderate knowledge. After intervention all respondents 50(100%) had high awareness. The t- value for knowledge 22.13 and t-value for awareness 13.60. It shows that the structured teaching programme is effective. **CONCLUSION:** The prevalence of cervical cancer and HPV infections is influenced by many factors like advance age, weakened immune system and sexual transmitted diseases. The HPV vaccination can prevent cervical cancer, genital warts, and other cancer caused by HPV. The protection from the HPV vaccine can last for many years. The main aim of the study was to evaluate the effectiveness of Structured Teaching Programme on Knowledge and awareness regarding HPV (Human Papilloma Virus) vaccination on cervical cancer among adolescent girls. A Pre-Experimental (one group pre-test post-test) research design was adopted and 50 adolescent girls were selected as samples by using Purposive Sampling Technique that was fulfilling the inclusion and exclusion criteria. Data collection and analysis were carried out based on the objectives of the study.

KEYWORDS: *Evaluate Effectiveness, Structured Teaching Programme, Knowledge, and Awareness.*

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INTRODUCTION

Adolescence is a unique stage of human development and an important time for laying the foundations of good health. Adolescents experience rapid physical, cognitive and psychosocial growth. This affects how they feel, think, make decisions and interact with the world around them. Adolescents are likely to face a range of health and social challenges.

The World Health Organization (WHO) defines an adolescent as any person between ages 10 to 19 years.

Age group between 10 to 13 years is comes under early adolescence, age group between 14 to 17 years is comes under middle adolescence and age group between the age of 18 and 19 years is included in late adolescence. Adolescent health encompasses changing transitions within multiple domains including the physical, social, emotional and cognitive and intellectual.

Most common health problem seen among women is cervical cancer. Cervical cancer has a major impact on women lives worldwide. The second most common cancer among women is cervical cancer and it is also the major cause of Indian women mortality. Cervical cancer is now become a challenge for whole health care system.

One of the most important preventions of cervical cancer has been the development of the vaccine for HPV. HPV vaccines are vaccines that prevent infection by certain types of HPV. The WHO recommends HPV Vaccines as part of routine vaccinations in all countries, along with other prevention measures. Vaccines require two or three doses depending on a women's age and immune status. Vaccinating girls around the ages of the 9-14 years is typically recommended. The vaccines provide protection for at least 5 to 10 years.

NEED FOR STUDY

Cervical Cancer is the second leading cause of death due to cancer in India, with an age standardized mortality rate of 12.4 per, 100000 women per year. It also accounts for about 25% of all global deaths from cervical cancer. Incidence: - Cervical cancer is the third most common cancer in India, with an incidence rate of 18.3%. HPV is a common viral infection that causes an estimated 690,000 cases of cancer every year across the globe, according to researchers from the World Health Organization. The virus infects specific tissues, predisposing patients to develop cancers including cervical, anal and head and neck cancer.

Research on HPV vaccination among students can help improve understanding of HPV vaccination and HPV infection and may lead to better health outcomes for young people. Many awareness programs have been started, yet there is still need to impart knowledge regarding HPV virus and vaccine so that people could be prevented by HPV infections.

STATEMENT OF PROBLEM

"Effectiveness of Structured Teaching Program on Knowledge and Awareness regarding HPV (Human Papilloma Virus) Vaccination on Cervical Cancer among Adolescent Girls."

OBJECTIVES

1. To assess the knowledge and awareness regarding HPV (Human papilloma virus) vaccination on cervical cancer among the adolescent girls.
2. To evaluate the effectiveness of structured teaching programme on knowledge and awareness regarding HPV (Human papilloma virus) vaccination on cervical cancer among the adolescent girls.
3. To find out the association between pretest and post-test knowledge and awareness scores of adolescent girls with their selected demographic variables.

RESEARCH HYPOTHESIS

Hypothesis is a tentative statement about the relationship, if any between two or more variables. Hypothesis will be tested at $p < 0.05$ significance level.

H1: The mean post-test knowledge & awareness score is significantly higher than mean pretest knowledge score.

H2: There is significant association between the pretest knowledge & awareness scores with their selected demographical variables.

OPERATIONAL DEFINITION

1. **Evaluate-** It refers to check the effectiveness of structured teaching program on knowledge and awareness regarding HPV (Human Papilloma Virus) vaccination on cervical cancer.
2. **Effectiveness-** In this study It refers to significant of increased level of knowledge of the adolescent girls regarding HPV (Human papilloma virus) vaccination on cervical cancer.
3. **Awareness -** It refers to the ability to be conscious about the HPV vaccination on cervical cancer.
4. **HPV (Human Papilloma Virus) -** HPV Virus is a group of viruses which causes an infection that affects the skin and mucous membrane. It is the main cause of cervical cancer.
5. **HPV Vaccination-** HPV Vaccine is a type of killed vaccine which is used to prevent cervical cancer in females.
6. **Adolescent Girls-** Adolescence girls are the category of girls that are comes under the age group of 12 to 18 years. In this study we have involved adolescent girls of age group 14-18 years.

ASSUMPTION

Assumption is the statement that is taken for granted or, are considered true, even though they have not been scientifically tasted.

- The adolescent girls may have some knowledge & awareness regarding HPV vaccination on cervical cancer.
- Structure teaching program provides knowledge and awareness regarding HPV (Human Papilloma Virus) vaccine on cervical cancer.
- They would be willing to express their knowledge regarding HPV (Human Papilloma Virus) vaccination on cervical cancer.
- The responses to questionnaire will reflect their actual knowledge & awareness regarding HPV (Human Papilloma Virus) vaccination on cervical cancer.

Structure teaching program will improve the knowledge & awareness regarding HPV (Human Papilloma Virus) vaccination on cervical cancer.

DELIMITATIONS This study is delimited to:

- The study is limited to adolescent girls who are present in the Rajkiya Balika Inter College, Lucknow (U.P.) at the time of data collection.
- Assessment of knowledge & awareness only once before giving the structured teaching program.
- 50 adolescent girls only.

RESEARCH APPROACH

Research approach tells the researcher from whom to collect the data and how to analyse it.

Quantitative research approach was considered to be the most appropriate approach in order to assess the knowledge and awareness regarding HPV (Human Papilloma Virus) vaccination on cervical cancer among the adolescent girls.

RESEARCH DESIGN

A research design is the plan, structure, and strategy of investigation conceived to obtain answers to research questions and control variance. The research design adopted for this study is a pre-experimental design with one group pre- test and post-test design.

POPULATION

A population is the group about which a researcher wants to make conclusions. This could be a group of people, Organization, events, or any other units that share specific traits.

Target population- In this study, the target population was adolescent girls who were studying in 9th to 12th class of selected Inter College, Lucknow (U.P.).

Accessible population- In this study the accessible population was 50 adolescent girls studying in class 9th to 12th from Rajkiya Balika Inter College, Lucknow (U.P.).

SETTING OF STUDY (SOURCE OF DATA COLLECTION)

In this study, the sample consisted of 50 adolescent girls studying in class 9th to 12th from Rajkiya Balika Inter College, Lucknow (U.P.).

SAMPLE AND SAMPLING TECHNIQUES

Sample

In this study the sample consist of adolescent girls from Rajikiya Balika Inter College, Lucknow (U.P.) in 9th to 12th class.

Sample size

In this study the sample size was 50 adolescent girls. who full fill the criteria of selection and studying in Rajkiya Balika Inter College, Lucknow (U.P.).

Sampling technique

In this study non probability, purposive sampling technique was used. Non probability sampling

CRITERIA FOR SAMPLE COLLECTION

INCLUSIVE CRITERIA – In present study inclusive criteria were-

a. Adolescent girls of class 9th to 12th class in Rajkiya Balika Inter College.
b. Who are willing to participate in the study.
c. Who available at the time of data collection.

EXCLUSIVE CRITERIA – In present study exclusion criteria were-

a. Adolescent girls who are absent at the time of data collection.
b. who are not willing to participate in the study.

DESCRIPTION OF TOOLS

In this study tool consist of three parts:

Section A: Demographic Variables
Section B: Self-structured questionnaires on Knowledge
Section C: Self-structured questionnaires on Awareness

RESULTS AND DISCUSSION

SECTION-I: Frequency and percentage distribution of adolescent girls according to their selected demographic variables.

Most variable age in present study was 16 years 14(28%), religion was Hindu 47(94%), educational status was 18th standard 20 (40%), were living in rural area 36(72%), belonging to nuclear family 40(80%), 43(86%) girls‟ family monthly income was <20,000rs., 28(56%) girl‟s father was high school passed, 28(56%) girl‟s mother was high school passed.

SECTION-II: Assessment of existing level of knowledge and level of awareness regarding HPV (Human Papilloma Virus) Vaccination on cervical cancer among adolescent girls.

Table 1: Existing level of knowledge (pre-test) regarding HPV (Human Papilloma Virus) Vaccination on cervical cancer among adolescent girls.

S. NO.	LEVEL OF KNOWLEDGE	FREQUENCY	PERCENTAGE
1.	INADEQUATE (0-50%)	41	82%
2.	MODERATE (50-75%)	9	18%
3.	ADEQUATE (75-100%)	0	00%
	TOTAL	**50**	**100%**

Table 2: Existing level of awareness (pre-test) regarding HPV (Human Papilloma Virus) Vaccination on cervical cancer among adolescent girls.

S. NO.	LEVEL OF AWARENESS	FREQUENCY	PERCENTAGE
1.	LOW AWARENESS (0-50%)	28	56%
2.	HIGH AWARENESS (50-100%)	22	44%
	TOTAL	**50**	**100%**

SECTION-III: Assessment of post intervention level of knowledge and level of awareness regarding HPV (Human Papilloma Virus) Vaccination on cervical cancer among adolescent girls. After implementing structured teaching program majority of respondents 42(84%) had adequate knowledge and rest 8(16%) had moderate knowledge. After intervention all respondents 50(100%) had high awareness.

Table 3: Post Intervention (Post-Test) level of knowledge regarding HPV (Human Papilloma Virus) Vaccination on cervical cancer among adolescent girls

S. NO.	LEVEL OF KNOWLEDGE	FREQUENCY	PERCENTAGE
1.	INADEQUATE KNOWLEDGE (0-50%)	00	00%
2.	MODERATE KNOWLEGDE (50-75%)	08	16%
3.	ADEQUATE KNOWLEDGE (75-100%)	42	84%
	TOTAL	**50**	**100%**

Table 4: Post Intervention (Post-Test) level of awareness regarding HPV (Human Papilloma Virus) Vaccination on cervical cancer among adolescent girls

S. NO.	LEVEL OF AWARENESS	FREQUENCY	PERCENTAGE
1.	LOW AWARENESS (0-50%)	0	0%
2.	HIGH AWARENESS (50-100%)	50	100%
	TOTAL	**50**	**100%**

SECTION-IV: Evaluation of effectiveness of structured teaching programme on knowledge and awareness regarding HPV (Human Papilloma Virus) Vaccination on cervical cancer among adolescent girls. The overall effectiveness of Structured Teaching Programme is that, a statistically significant change in mean knowledge scores and awareness scores of adolescent girls was observed after intervention of Structured Teaching Programme. Pre- intervention mean knowledge score of study population was 8.72 ±2.29. After intervention it was found to be 17.32 ±2.10. A change of 8.6 in knowledge score was observed which was found to be statistically significant. Pre- intervention mean awareness score of study population was 4.42± 1.82. After intervention it was found to be 7.7 ± 0.49. A change of 3.28 in awareness score was observed which was found to be statistically significant. The calculated t- value is 22.13 is significant for knowledge level at $p \leq 0.05$ level. The calculated t- value is 13.60 is significant for awareness level at $p \leq 0.05$ level. Hence H1 is accepted. This section fulfils the objective no. 2.

Table 5: Difference of pre-test and post-test level of knowledge

LEVEL OF KNOWLEDGE	PRE-TEST		POST-TEST	
	n= 50	%	n= 50	%
INADEQUATE KNOWLEDGE (0-50%)	41	82%	0	0%
MODERATE KNOWLEDGE (50-75%)	9	18%	8	16%
ADEQUATE KNOWLEDGE (75-100%)	0	0%	42	84%

Table 6: Difference of pre-test and post-test level of awareness

LEVEL OF AWARENESS	PRE-TEST		POST-TEST	
	n=50	%	n=50	%
LOW AWARENESS (0-50%)	28	56%	0	0%
HIGH AWARENESS (50-100%)	22	44%	50	100%

Table 7: Effectiveness of Structured Teaching Programme on knowledge regarding HPV (Human Papilloma Virus) Vaccination among adolescent girls

TEST	MEAN	STANDARD DEVIATION	MEAN DIFFERENCE	t- VALUE	TABLE VALUE
PRE-TEST	8.72	2.29	8.6	22.13	2.00
POST-TEST	17.32	2.10			

Table 8: Effectiveness of Structured Teaching Programme on awareness regarding HPV (Human Papilloma Virus) Vaccination among adolescent girls

TEST	MEAN	STANDARD DEVIATION	MEAN DIFFERENCE	t- VALUE	TABLE VALUE
PRE-TEST	4.42	1.82	3.28	13.60	2.00
POST-TEST	7.7	0.5			

SECTION-V: Association of pre-test knowledge scores and awareness scores with their selected demographic variables. This section deals with the association between Pre-test knowledge scores and awareness scores with their selected demographic variables. In this research the knowledge is divided into three categories – Inadequate Knowledge, Moderate Knowledge and Adequate Knowledge. The awareness is divided into two categories- low awareness and high awareness. The Chi square test was done to find out association between Pre-test scores and demographic variables. There is no association between level of knowledge and demographic variables. There is association between educational status (Chi square- 8.520), father's educational status (Chi square- 11.843) with awareness scores. Hence H2 is accepted. This section fulfils the objective no. 3.

Table 9: Association of pre-test knowledge scores with their selected demographic variables

Variables	n=50	INADEQUATE n=41		MODERATE n= 9		ADEQUATE n= 0		Chi square	df	p-value
		n	%	n	%	n	%			
AGE										
14 Years	9	6	66.7	3	33.33	0	0	8.967	8	15.51
15 Years	11	8	72.7	3	27.27	0	0			
16 Years	14	14	100	0	0	0	0			
17 Years	8	5	62.5	3	37.5	0	0			
18 Years	8	8	100	0	0	0	0			
RELIGION										
Hindu	47	39	83	8	17.02	0	0	0.508	6	12.59
Muslim	3	2	66.7	1	33.33	0	0			
Christian	0	0	0	0	0	0	0			
Others	0	0	0	0	0	0	0			
EDUCATIONAL STATUS										
9th standard	8	8	100	0	0	0	0	5.871	6	12.59
10th standard	20	15	75	5	25	0	0			
11thstandard	13	9	69.2	4	30.77	0	0			
12th standard	9	9	100	0	0	0	0			
RESIDENCE										
Rural	36	29	80.6	7	19.44	0	0	0.182	2	5.99
Urban	14	12	85.7	2	14.29	0	0			
FAMILY TYPE										
Nuclear family	40	33	82.5	7	17.5	0	0	0.034	4	9.49
Joint family	10	8	80	2	20	0	0			

DISCUSSION

The present study was aimed to assess effectiveness of Structured Teaching Program on Knowledge and Awareness regarding HPV (Human Papilloma Virus) Vaccination on Cervical Cancer among Adolescent Girls in order to achieve the objectives of the study.

A Quasi-Experimental (one group pre-test post-test) research design was adopted and 50 adolescent girls were selected as samples by using Purposive Sampling Technique that was fulfilling the inclusion and exclusion criteria. Data collection and analysis were carried out based on the objectives of the study.

`The subjects were evaluated through self-structured knowledge & awareness questionnaire regarding HPV (Human Papilloma Virus) Vaccination on Cervical Cancer among Adolescent Girls.

SUMMARY

This chapter discusses about the objectives and their relation to the findings from the results and review of the related studies.

The present study was aimed to assess the knowledge regarding knowledge & awareness questionnaire regarding HPV (Human Papilloma Virus) Vaccination on Cervical Cancer among Adolescent Girls in order to achieve the objectives of the study.

A Quasi-Experimental (one group pre-test post-test) research design was adopted and 50 adolescent girls were selected as samples by using Purposive Sampling Technique that was fulfilling the inclusion and exclusion criteria.

The subjects were evaluated through self-structured knowledge & awareness questionnaire regarding HPV (Human Papilloma Virus) Vaccination on Cervical Cancer among Adolescent Structured questionnaire on knowledge- Structured questionnaire on knowledge comprised of 20 multiple choice questions (four options each), only one answer was correct. An evaluation was to be done by giving a “one” mark for each correct answer and a “zero” for wrong unanswered question.

Structured questionnaire on awareness- Structured questionnaire on awareness comprised of 8 multiple choice question (two option each), only one answer was correct. Evaluation was to be done by giving “one” mark for each correct answer and “zero” for wrong unanswered question.

Data collection and analysis were carried out based on the objective of the study. Findings of the study were discussed in terms of objectives and hypothesis along with the findings of other studies.

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