

A Study to Assess the Effectiveness of Planned Teaching Programme on Knowledge regarding Prevention of Cervical Cancer and Awareness of Human Papilloma Virus Vaccination among Adolescent Girls in Selected Colleges at, Bagalkot, Karnataka

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Abstract: Cervical cancer is a major public health problem globally, and it is the second most common cancer in women worldwide. Hence, every year more than 270, 000 women die from cervical cancer; more than 85% of these deaths are in low-income and middle-income countries like India. Healthy and nutritionally sound adolescent reflect the country's potential human resources so great concern is needed hence the adolescent girls should have conscious about health and wellbeing of their health. **Objective:** To determine the effectiveness of planned teaching Programme on knowledge regarding prevention cervical cancer awareness of Human papilloma virus vaccination among adolescent girls. **Methods:** The study was conducted in Govt PU college for girls at Bagalkot. Data was collected 50 adolescent girls who are all studying in Govt PU college for girls at Bagalkot. A quantitative evaluative research approach, one group is pre-test, post-test design. The Simple random sampling technique. Data were obtained with the help of a structured closed ended knowledge questionnaire. **Results:** The calculated "t" value (22.92) was much higher than table "t" value (1.96) for Degree freedom 49 and at 0.05% level of significance. The planned teaching programme prepared and administered by researcher was successful improving the knowledge of adolescent girls. Hence such education planning must be provided to update the knowledge and keep the health states in there hand.

Keywords: adolescent girls, Govt PU college for girls, prevention of cervical cancer and awareness of HPV vaccination, effectiveness, Planned teaching programme, knowledge, socio demographic variables

1. Introduction

Healthy and nutritionally sound adolescent reflect the country's potential human resources. The countries future greatly depends on them. The health and well-being of the youth is of great concern because they are the future pillars of the country. **1** The women are wonderful creation by God.

The female reproductive system is the concerned with ovulation, fertilization, growth and development of fetus, and its subsequent exit to the outer world. The organs are broadly divided into external, internal and accessory reproductive organs. The external organs are Mons's pubis, labia major, labia minor, hymen, clitoris, vestibule, urethra, skene's gland, Bartholin glands and vestibular bulbs. The internal genital organs include vagina, cervix, uterus, fallopian tube, ovaries and mammary glands (breast). The cervix is the lower most part of the uterus and is made up of strong muscles.³ The cervix is protrudes and opens through a canal into the vagina. The function of cervix is allowing

the flow of menstrual blood from the uterus into the vagina and direct the sperms into the uterus during intercourse. The opening of the cervical canal is normally very narrow. The cell lining the cervix comprises of two types, the squamous or flat cell and the columnar cells. The cervix cells become abnormal growth and division will be abnormal is observed may be caused by damage in the cell's DNA (genetic material inside cells that determine cellular characteristics and functioning).⁴ Cervical cancer it is caused by the human papilloma virus (HPV) some of cofactors and risk factors provided by the American cancer society includes.

Human immunodeficiency virus (HIV) infection, Chlamydia, hormonal contraception, exposure to the hormonal drug diethylstilbesterol (des) and history of cervical cancer. It is a preventable disease as the different screenings, diagnostic, and therapeutic procedures are effective. In addition, this vaccine can prevent vaginal and vulvae cancer in women.⁹

Volume 10 Issue 12, December 2021

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There are three forms of HPV vaccinations available in the United States. One form is Gardasil (approved in 2006) offers protection against HPV 6, 11, 16, 18 and Cervarix (approved in 2009) offers protection against HPV 16 and 18 is the second form and Gardasil 9 (approved in 2014) offers protection against HPV 6, 11, 16, 31, 33, 45, 52, and 58 is the 3rd form.¹⁵ HPV vaccines that have proved effective in the prevention of HPV infection and associated disease with many nations incorporating it in their national adolescent vaccination schedule.¹¹

Objective

- 1) To determine the effectiveness of planned teaching programme on knowledge regarding prevention cervical cancer awareness of Human papilloma virus vaccination among adolescent girls.
- 2) To determine the effectiveness of planned teaching programme on knowledge regarding of cervical cancer awareness of Human papilloma virus vaccination among adolescent girls.
- 3) To find out the association between post-test knowledge scores regarding prevention of cervical cancer and awareness of papilloma virus vaccination among adolescent girls with their selected socio-demographic variables.

Hypothesis

H1: There is a significant difference between pre-test and post-test knowledge score of adolescent girls regarding prevention of cervical cancer and awareness of Human papilloma virus vaccination.

H2: There is a significant association between post-test knowledge scores of adolescent girls regarding prevention of cervical cancer and awareness of Human papilloma virus vaccination with their selected socio demographical variables

2. Material and Methods

Study design: Non experimental the pre-experimental, one group pre-test, post-test design.

Setting of the study: Study was conducted at govt girls PU college Bagalkot.

Sample Size: A50 (n=50) adolescent girls participated

Sampling technique: Researcher used simple-random sampling technique.

Criteria for selection of sample

Inclusion criteria: 1. Available at the time of data collection. 2. Willing to participate in the study. 3. Willing to cooperate during the time of data collection
Exclusion criteria: 1. Sick and not able to provide the data. 2. Not willing to give written consent.

The data collection instrument is divided into 2 parts.

Part-I: Sociodemographic Variable of adolescent girls

Part-II: Items related to prevention of cervical cancer and awareness of human papilloma virus vaccination.

The tool was divided into 4-parts: Part-a: Questions on general aspects about cervical cancer and highest score is 6 and lowest score is 0. **Part-b:** Questions on knowledge related to causes, risk factors and clinical manifestation of cervical cancer and highest score is 11 and lowest score is 0. **Part-c:** Questions on related to screening and diagnosis of cervical cancer and highest score is 5 and lowest score is 0. **Part-d:** Questions on related to vaccination of human papilloma virus and highest score is 14 and lowest score is 0.

Scoring: Each question has one correct option and each correct response is assigned one mark and the wrong answer carries zero mark. The maximum possible score is 36.

Data Collection: The main study was conducted for a period of 4 weeks between 16/4/2021 to 22/4/2021 at B. V. V. S High school Bagalkot.

Variables of the study: Variables is a content that has measurable changing attributes. Variables are qualities, properties, or characteristics of persons, things, or situation that change or vary.

Independent variable: Planned teaching programme on knowledge regarding prevention of cervical cancer and awareness of human papilloma virus vaccination.

Dependent variable: Knowledge of the adolescent girls regarding prevention of cervical cancer and awareness of human papilloma virus vaccination.

Statistical Analysis: The data was analyzed by using both descriptive and inferential statistics. Demographic data was analyzed by using frequency and percentage distribution. Mean and standard deviation and paired "t" test were used to determine the significance of difference between pre-test and post-test knowledge of cervical cancer and human papilloma virus vaccination. Chi square test and Fisher's formula test was used to find association between post-test knowledge of adolescent girls about prevention of cervical cancer and awareness of human papilloma virus vaccination and selected demographic variable of adolescent girls.

Ethical consideration: Permission was obtained from Principal, SHRI B. V. V. Sangha's Sajjalashree Institute of Nursing Sciences, Bagalkot. Permission was obtained from Principal, Govt PU college for girls, Bagalkot. Consent was obtained from subjects (adolescent girls).

3. Results

Table 1: Description of socio-demographic characteristic of sample

Socio-demographic Variables	Frequency	Percentage
Age		
16 years	2	4%
17 years	36	72%
18 years	6	12%
19 years	6	12%
Religion		
Hindu	30	60%
Muslim	7	14%
Christian	8	16%

Others	5	10%
Course of study		
PUC 1 st year	36	72%
PUC 2 nd year	14	28%
Type of family		
Joint family	29	58%
Nuclear family	21	42%
Education status of father		
Illiterate	17	34%
primary education	16	32%
Secondary education	6	12%
pre-university	6	12%
Degree	5	10%
Education status of mother		
Illiterate	22	44%
primary education	14	28%
Secondary education	5	10%
Pre-university	4	8%
Degree	5	10%
Occupation of father		
Coolie	23	46%
Farmer	17	34%
Govt employee	4	8%
Private employee	3	6%
Business	3	6%
Occupation of mother		
House wife	18	36%
Coolie	17	34%
Agriculture	7	14%
Govt employee	3	6%
Private employee	5	10%
Family monthly income		

5000-10000rs	29	58%
10000-15000rs	9	18%
15000-20000	6	12%
20000 and above	6	12%
Age at menarche		
12 years	13	26%
13 years	17	34%
14 years	9	18%
15 years and above	11	22%
Received vaccination		
Yes	0	0%
No	50	100%
Source of information		
Electric media	4	8%
Health personnel	36	72%
Print media	4	8%
Internet media	6	12%

Table 2: Percentage wise distribution of adolescent girls according to level of knowledge in pre-test and Post-test

Level of knowledge	Pre-test		Post-test	
	Number of respondents	Percentage (%)	Number of respondents	Percentage (%)
Excellent	00	00	16	32%
Good	1	2%	32	64%
Average	17	34%	02	4%
Poor	30	60%	00	0%
Very poor	2	4%	00	0%
Total	50	100%	50	100%

Table 3: Area wise mean, standard deviation and mean percentage of the knowledge scores in pretest and post-test. N=50

Knowledge area	Max. score	Pre-Test (O ₁)		Post-Test (O ₂)		Effectiveness (O ₂ -O ₁)	
		Mean ±SD	Mean %	Mean±SD	Mean%	Mean ±SD	Mean%
General aspect of cervical cancer.	6	2.26 ± 1.32	37.66%	4.92 ± 0.92	82%	2.66 ± 0.4	44%
Knowledge related to causes, risk factors and clinical manifestation of cervical cancer	11	4.06 ± 1.34	36.96%	7.9 ± 1.35	71.8%	3.84 ± 0.01	34.9%
Screening and diagnosis of cervical cancer.	5	1.06 ± 0.86	21.2%	3.64 ± 1.04	72.8%	2.58 ± 0.18	51.6%
Vaccination of cervical cancer.	14	4.94 ± 2.06	35.28%	10.08 ± 2.22	72%	5.14 ± 0.16	36.7%
Total	36	12.32 ± 5.58	34.22%	26.54 ± 5.53	73.72%	14.22 ± 0.75	39.5%

Table4: Association between post-test knowledge scores and selected sociodemographic variables, N=50

S. No	Socio demographic variables	Df	Chi-square-value	Table value	Association
1	Age	1	0.70	3.84	Not significant
2	Religion	1	0.37	3.84	Not significant
3	Course of study	1	6.75	3.84	significant
4	Type of family	1	1.83	3.84	Not significant
5	Educational status of father	1	0.87	3.84	Not significant
6	Educational status of mother	1	3.24	3.84	Not significant
7	Occupation of father	1	0.82	3.84	Not significant
8	Occupation of mother.	1	0.58	3.84	Not significant
9	Family Monthly income	1	1.83	3.84	Not significant
10	Age at menarche.	1	0.81	3.84	Not significant
11	Received vaccination against human papilloma virus.	1	0	3.84	Not significant
12	Source of information about HPV vaccination	1	0.083	3.84	Not significant

Finding showed that a significant association was found between post-test knowledge scores of adolescent girls, with their selected sociodemographic variables only with course of study [$\chi^2 = 6.75$ at $p < 0.05$]. Hence the H₂ stated that is accepted for course of study. There was no significant association found between variables such as, age, religion, type of family, education status of father, education status of mother, occupation of father, occupation of mother, family

monthly income, age at menarche, received vaccination against human papilloma virus, and source of information about HPV vaccination with post-test knowledge scores of adolescent girls Govt PU college for girls at, Bagalkot.

4. Limitation of the study

The study is limited to 50 adolescent girls studying in Govt PU college for girls.

5. Conclusion

There is a significant difference between pre-test and post-test knowledge scores regarding prevention of cervical cancer and awareness of human papilloma virus vaccination among Govt PU college for girls at, Bagalkot. Finding revealed the presence of significant difference between pre-test and post-test knowledge scores, hence the Planned Teaching Programme proved to be effective.

Source of Funding: Nil

Conflict of interest: None

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