

# EFFECTIVENESS OF INFORMATION, EDUCATION AND COMMUNICATION (IEC) PACKAGE ON KNOWLEDGE REGARDING HUMAN PAPILLOMAVIRUS (HPV) AMONG ADOLESCENT GIRLS IN SELECTED SCHOOL AT TIRUVANNAMALAI.

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## ABSTRACT

Adolescence is the phase of life between childhood and adulthood, from ages 10 to 19. It is a unique stage of human development and an important time for laying the foundations of good health (WHO).

In 2023 there were 1.3 billion adolescents in the world population, which is of 16% of the world population. In India, the adolescent population is 253 million, which is the largest in the world. This means that every fifth person in India is an adolescent. (UNICEF, 2023)

This study was conducted to assess the effectiveness of Information, Education and Communication (IEC) Package on knowledge regarding Human Papillomavirus (HPV) among adolescent girls in selected school at Tiruvannamalai, Tamil Nadu, India. Which comes under Quasi experimental research design. The adolescent girls were selected in experimental group 30 and control group 30 by using convenience sampling technique. Knowledge was assessed by using structured knowledge questionnaire. The calculated paired t value  $t=13.4496$  was found to be statistically significant at  $p<0.0001$  for experimental group and the calculated paired t value  $t=1.3061$  for control group was not found to be statistically significant at  $p<0.05$  level. In pre test, the calculated unpaired 't' value of  $t=0.8072$  was found to be statistically non-significant at  $p<0.05$  which indicates that there was no significant difference in the pre test level of knowledge between the experimental and control group. In post test, the calculated unpaired 't' value of  $t= 5.1656$  was found to be statistically significant at  $p<0.05$  which indicates that there was difference in the post test score of knowledge between groups. This clearly shows that the implementation of IEC package had significant increase in level of knowledge among adolescent girls in experimental group than the control group.

Keywords: IEC package, Knowledge, HPV, Adolescence.

## INTRODUCTION

**Adolescence** is a vital stage of growth and development and marks the period of a transition from childhood to adulthood with a change from complete dependence to relative independence. In Indian society, adolescent's period begins from 10 years and ends up to 19 years (WHO).

By the time a girl attains sexual maturity, she should be well aware of the female genital tract and its common diseases, as well as the mode of its prevention.

The **cervix** is part of the female reproductive system. Around 2-3 centimeters (0.8-1.2) in length, it is the lower narrower part of the uterus continuous above with the broader upper part or body of the uterus. The cervix connects the vagina to the uterus<sup>(1)</sup>.

**Cervical cancer** develops in a woman's cervix (the entrance to the uterus from the vagina). Maintaining a healthy cervix decreases the risk of cervical related conditions and is important for overall health. There are various problems that can affect the functioning of a cervix such as HPV, Cervicitis, pelvic inflammatory disease, cervical insufficiency, cervical polyps, and STD and Cervical cancer<sup>(1)</sup>.

**HPV** cervical infection results in cervical morphological lesions ranging from normalcy (cytologically normal women) to different stages of precancerous lesions (CIN-1, CIN-2, CIN-3/CIS) and invasive cervical cancer. HPV infection is measured by means of HPV DNA detection in cervical cells (fresh tissue, paraffin embedded or exfoliated cells)<sup>(3)</sup>.

**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 adolescent's 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 among girls and change their attitude<sup>(3)</sup>.

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. This research study was initiated by the researcher under the influence of other researchers' and researcher clinical experience through current study was to assess the effectiveness of IEC package on knowledge regarding Human Papilloma Virus Infection among adolescent girls.

#### **STATEMENT OF THE PROBLEM**

A study to assess the effectiveness of Information, Education and Communication (IEC) Package on knowledge regarding Human Papillomavirus (HPV) among adolescent girls in selected school at Tiruvannamalai.

#### **OBJECTIVES:-**

- ✓ To assess the pre and post test level of knowledge regarding HPV among adolescent girls in experimental and control group.
- ✓ To compare the pre and post test level of knowledge regarding HPV among adolescent girls within experimental and control group
- ✓ To compare the pre and post test level of knowledge regarding HPV among adolescent girls between experimental and control group.
- ✓ To associate the post test level of knowledge regarding HPV among adolescent girls in experimental and control group with their selected demographical variables.

#### **RESEARCH HYPOTHESIS**

- ✓ There is a significant difference in the pre and post level of knowledge regarding HPV among adolescent girls within experimental and control group at  $p < 0.05$  level.
- ✓ There is a significant difference in the pre and post level of knowledge regarding HPV among adolescent girls between experimental and control group at  $p < 0.05$  level.
- ✓ There is a significant association of post –test level of knowledge regarding HPV in experimental and control group among adolescent girls with their selected demographical variables at  $p < 0.05$  level.

#### **CONCEPTUAL FRAMEWORK:**

The framework adopted for the study is based on **general system theory** <sup>(10)</sup>.

**CRITERIA FOR SAMPLE SELECTION:**

**INCLUSION CRITERIA:**

**Adolescent girls who;**

- ✓ are in the age group of 13-19 years.
- ✓ are available during the data collection period of the study.
- ✓ can read, write and understand Tamil or English

**EXCLUSION CRITERIA:**

**Adolescent girls who;**

- ✓ are in mentally disturbed.
- ✓ are affected with physical health problem.
- ✓ was already attended educational class regarding HPV?
- ✓ were affected with deafness
- ✓ was already getting HPV vaccine.

**MATERIALS AND METHODS:**

The study was conducted at Sri Sai Vidhya Mandhir Matriculation School, Mallavadi, Tiruvannamalai district. Data were collected for a period of 1 week in the month of October. Formal permission was obtained from the headmaster of the school. The research design was adopted for the study was pre and post-test only design which comes under quasi experimental research design<sup>(2)</sup>. First the researcher selected 30 students for the control group and followed by 30 students were selected for the experimental group by the convenience sampling technique as per the sample selection criteria<sup>(2)</sup>. The students were made to sit in a well-ventilated area and the researcher had given a brief introduction and information about the purpose of the study. The consent for the study participation was obtained and confidentiality regarding the data was assured. The researcher collected data regarding demographic variables by using a structured interview and pretest was conducted to assess the level of knowledge regarding HPV<sup>(4)</sup> which was assessed by using the structured knowledge questionnaires for the control group on the day 1 after that the control group followed their routine activities. In the experimental group the pre test was conducted on the 7<sup>th</sup> day and the control group post test was conducted the same day after the researcher was made to the student sit in a comfortable class room with well-ventilated area and implemented the selected (IEC) package regarding HPV (Human papilloma virus). For experimental group the post test was conducted on the 14<sup>th</sup> day by using the same questionnaires.

**DATA ANALYSIS:**

Both descriptive and inferential statistics were used to analyze the data<sup>(2)</sup>.

**RESULTS AND DISCUSSION**

The major findings of the study are<sup>(5)</sup>

**Assessment of the pre and post test level of knowledge regarding HPV among adolescent girls experimental and control group.**

n=30+30

Level of Knowledge	Experimental group				Control group			
	Pre test		Post test		Pre test		Post test	
	f	%	F	%	F	%	F	%
Inadequate knowledge	28	93.4%	6	20%	13	43.3%	15	50
Moderately adequate knowledge	1	3.3%	23	76.7%	15	50%	14	46.7
Adequate knowledge	1	3.3%	1	3.3%	2	6.7%	1	3.3

The experimental group level of knowledge pre-test 28(93.4%) had inadequate knowledge, 1(3.3%) had moderately adequate knowledge and 1(3.3%) had adequate knowledge. Whereas in post test 6(20%) had inadequate knowledge 23(76.7%) had moderately adequate knowledge and 1(3.3%) had adequate knowledge.

In control group the level of knowledge pre test 13(43.3%) had inadequate knowledge, 15(50%) had moderately adequate knowledge and 2(6.7%) had adequate knowledge. In post test 15(50%) had inadequate knowledge, 14(46.7%) had moderately adequate knowledge and 1(3.3%) had adequate knowledge<sup>(6)</sup>.

**Comparison of pre and post test level of knowledge regarding HPV among adolescent girls within experimental and control group.**

n=30+30

S.NO	GROUP	PRE TEST		POST TEST		PAIRED 't' TEST
		Mean	SD	Mean	SD	
1	Experimental	7.97	3.58	15.53	3.35	t=13.4496 p<0.0001 S***
2	Control	9.10	6.78	8.60	6.54	t=1.3061 NS

In experimental group the pre test mean score of knowledge was 7.97 with SD was 3.58 and whereas in post test mean score was 15.53 with SD was 3.35. The calculated paired t value t=13.4459 was found to be statistically high significant at p<0.0001 level.

In control group the pre test mean score of knowledge 9.10 with SD 6.78 and whereas in post test mean score was 8.60 with SD was 6.54. The calculated paired t value t=1.3061 was found to be statistically non-significant at p<0.05 level. This clearly shows that the implementation of IEC package had improvement in post test level of knowledge regarding HPV among adolescent girls in experimental group than the control group.

**Comparison of the pre and post test level of knowledge regarding HPV among adolescent girls between experimental and control group.**

n=30+30

S.NO	ASSESSMENT	GROUP	MEAN	SD	UNPAIRED 't' TEST
1	Pre test	Experimental group	7.97	3.58	t=0.8072 p<0.05 NS
		Control group	9.10	6.78	
2	Post test	Experimental group	15.53	3.35	t=5.1656 p<0.0001S***
		Control group	8.60	6.54	

The table shows that, the pre test mean score of knowledge in the experimental group was 7.97 with S.D =3.58 and in control group was 9.10 with S.D=6.78. The calculated unpaired 't' value of t= 0.8072 was found to be statistically non-significant at p<0.05 level which indicates that there was no significant difference in the pre test level of knowledge between the experimental and control group.

The post test mean score of knowledge in the experimental group was 15.53 with S.D 3.35 and in control group was 8.60 with S.D 6.54. The calculated unpaired 't' value of t=5.1656 was found to be statistically significant at p<0.0001 level which indicates that there was difference in the post test score of knowledge between groups. This clearly shows that the implementation of IEC package had significant improvement in level of knowledge in the experimental group than the control group<sup>(7)</sup>.

## ASSOCIATION OF POST TEST LEVEL OF KNOWLEDGE REGARDING HPV AMONG ADOLESCENT GIRLS WITH THEIR SELECTED DEMOGRAPHIC VARIABLE IN EXPERIMENTAL GROUP AND CONTROL GROUP.

The experimental group, there was statistically non-significant association of posttest score of knowledge with selected demographic variables like age, educational status, dietary pattern, family income per month, family type, religion, living area, occupation of father and occupation of mother among adolescent girls. In control group there was no statistically significant association was observed in demographic variables like age, educational status, family type, and family income for month, religion, living area, occupation of father and occupation of mother<sup>(9)</sup>.

### IMPLICATIONS

The IEC package can be practice as one of the nursing interventions as it proved to improve knowledge regarding HPV among adolescents.

### CONCLUSION

The present study was conducted to assess the effectiveness of IEC package on knowledge regarding HPV among adolescent girls at selected school at Tiruvannamalai. The study findings concluded that there was a statistically significant difference in the score of knowledge after implementation of IEC package and this proved to be improving the knowledge among adolescent girls after implementing IEC package.

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