



“ A STUDY TO EVALUATE THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE REGARDING HPV INFECTION AND IT’S PREVENTION AMONG FEMALES OF SELECTED URBAN AREAS OF AHMEDABAD.”

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ABSTRACT

Study: Investigator conducted “A study to evaluate the effectiveness of structured teaching programme on knowledge regarding HPV infection and it’s prevention among females in selected urban areas of Ahmedabad”

Background: HPV is the most common sexually transmitted virus. It can cause Cervical Cancer in women and it has several other symptoms like genital warts, lesions and oral warts. It can affect both men and women.

Objective :

To evaluate the effectiveness of structured teaching programme on knowledge regarding HPV infection and its prevention among females in selected urban areas of Ahmedabad.

Research Methodology:

Quantitative research approach was used with pre-experimental (one group pre-test and post-test) research design. 60 Samples were selected by Non -probability convenience sampling technique and structured knowledge questionnaire was developed.

Result:

According to the findings, the mean post-test Knowledge score was significantly higher than the mean of pre-test knowledge score with mean difference of (10.96) the calculated “t”value (17.746) was greater than the tabulated value (2.009) at 0.05 level of significance therefore the null hypothesis H₀ was rejected and research hypothesis H₁ was accepted and it revealed that the structure teaching programme was effective in increase the knowledge of HPV infection and it’s prevention among females. The findings also revealed that a significant association has been found between knowledge of samples and educational level. Hence, the research hypothesis H₂ was accepted.

Conclusion:

Structured teaching programme regarding HPV infection and its prevention was effective in improving knowledge about HPV infection and its prevention among females.

INTRODUCTION

HPV infection plays a central role in causing cervical cancer. Among 184 different HPV genotypes, only 40 diverse types can infect anogenital region which can be classified into 3 classes based on their oncogenic potential. HPV16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59, 68, 73 and 82 are included in high- risk group while HPV6, 11,

40, 42, 43, 44, 54, 61, 70, 72 and 81 are included in low-risk group whereas HPV 26, 53 and 66 belong to the group of intermediate risk. Cervical cancer is the most common cancer among women globally, with an estimated 604000 new cases and 342000 deaths in 2020. About 90% of the new cases and deaths worldwide in 2020 occurred in low- and middle-income countries. HPV is thought to be responsible for more than 90% of anal and cervical cancers, about 70% of vaginal and vulvar cancers, and more than 60% of penile cancers. Oropharyngeal cancers traditionally have been caused by tobacco and alcohol, but recent studies show that about 70% of cancers of the oropharynx may be linked to HPV. Many cancers of the oropharynx may be caused by a combination of tobacco, alcohol, and HPV. The primary risk factors for acquiring HPV are generally associated with sexual activity. Evidence suggests that condoms provide some protection against infection and disease progression however any genital contact is

sufficient for transmission HPV is so common and transmissible that having only one sexual partner can also result infection. Sexual contacts : vaginal sex and oral sex. , Non sexual contacts : self-inoculation from mother to child, during birth. This virus infects the genitals in both men and women; since it is not always symptomatic, most sexually active individuals will unknowingly contract it at some point. Usually, an HPV infection resolves by itself. This, coupled with the silence around it, is a big part of why most people are not aware of the virus and the risks it can pose.: If a high-risk HPV infection lasts for many years, it can lead to cell changes. These cell changes can get worse over time, turning into cervical cancer.

Objectives of the studies were

1. To assess pre-test level of knowledge on HPV infection and its prevention among females in selected urban areas of Ahmedabad.
2. To assess post-test level of knowledge regarding HPV infection and its prevention among females in selected urban areas of Ahmedabad.
3. To evaluate effectiveness of structured teaching programme on knowledge regarding HPV infection and its prevention among females in selected urban areas of Ahmedabad.
4. To find out the association of pre-test level of knowledge regarding HPV infection and its prevention with the selected demographic variables of females in selected urban areas of Ahmedabad.

Methodology for research

Quantitative research approach was used with pre-experimental (one group pre-test and post-test) research design. 60 Samples were selected by Non -probability convenience sampling technique and structured knowledge questionnaire was developed.

RESULT

ANALYSIS AND INTERPRETATION OF THE DEMOGRAPHIC VARIABLES OF THE SAMPLES.

Table-4.1 Frequency and percentage wise distribution of samples based on Demographic Variables.

[N=60]

SR NO	DEMOGRAPHIC VARIABLES	FREQUENCY (f)	PERCENTAGE %	
1	AGE	a) 18-27 years	17	28.34
		b) 28-36 years	25	41.66
		c) 37-45 years	18	30
2	RELIGION	a) Hindu	58	96.67
		b) Christian	2	3.33
		c) Muslim	0	0
		d) Other	0	0
3	EDUCATION	a) Illiterate	7	11.67
		b) Primary Education	15	25
		c) Secondary Education	19	31.67
		d) Graduate	19	31.66
4	OCCUPATION	a) Housewife	28	46.67
		b) Labour	3	5
		c) Job	29	48.33
		d) Farmer	0	0
5	MARITAL STATUS	a) Married	39	65
		b) Unmarried	21	35
		c) Widow	0	0
		d) Divorced	0	0
6	HPV VACCINE	a) Yes	7	11.66

	STATUS	b) No	53	88.34
7	PREVIOUS KNOWLEDGE	a) Yes	2	3.33
		b) No	58	96.67
8	SOURCE OF KNOWLEDGE	a) Social Media	0	0
		b) News Paper	0	0
		c) Friends & Family	2	100
		d) Others	0	0

Table 4.1 shows that out of 60 samples, In age, maximum 25 (41.66%) samples belongs to the age group of 28-36 years and minimum 17 (28.33%) samples were in 18-27 years. In Religion maximum 58 (96.66%) samples were Hindu and minimum 0(0%) samples were Muslims and others. In Education maximum 19(31.66%) samples had secondary education and were graduate and minimum 7 (11.66 %) samples were illiterate. In occupation, maximum samples 29 (48.33%) had Job. In marital status, maximum 39 (65%) samples were married and 21% were unmarried. In area of HPV vaccine status, maximum 53 (88.33%) samples were had not taken HPV vaccine and minimum 7 (11.66%) samples had taken HPV vaccine. In area of Previous knowledge maximum 58 (96.66%) samples were not having knowledge regarding HPV infection and its prevention, whereas 2 samples had knowledge and the source were friends and family.

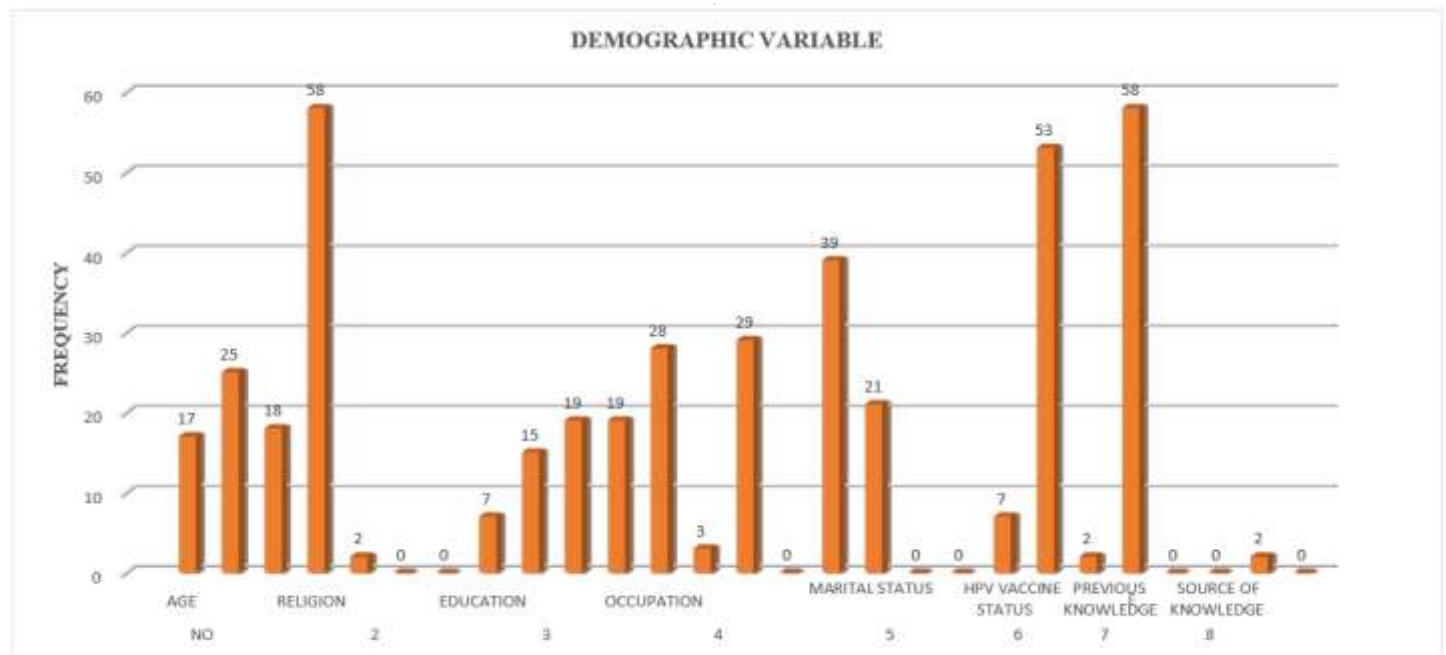


Figure 4 :-Bar graph showing the frequency wise distribution of demographic variables of female.

ANALYSIS AND INTERPRETATION OF THE DATA COLLECTED ON STRUCTURED KNOWLEDGE QUESTIONNAIRE OF THE SAMPLES

Table : 4.2.1 Frequency and Percentage distribution of the pretest and post test knowledge score measured by Structured knowledge questionnaire regarding level of knowledge.

[N=60]

KNOWLEDGE SCORE	PRE-TEST		POST TEST	
	FREQUENCY	PERCENTAGE	FREQUENCY	PERCENTAGE
POOR [0-10]	19	31.66	00	00
AVERAGE [11-20]	41	68.33	29	48.33
GOOD [21-30]	00	00	31	51.66

TOTAL	60	100	60	100
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Table 4.2.1 Shows that 19(31.66) samples had poor, 41(68.33%) samples had average whereas 29(48.33 %) samples had average, 31 (51.66%) samples had good knowledge as per their post-test level of knowledge.

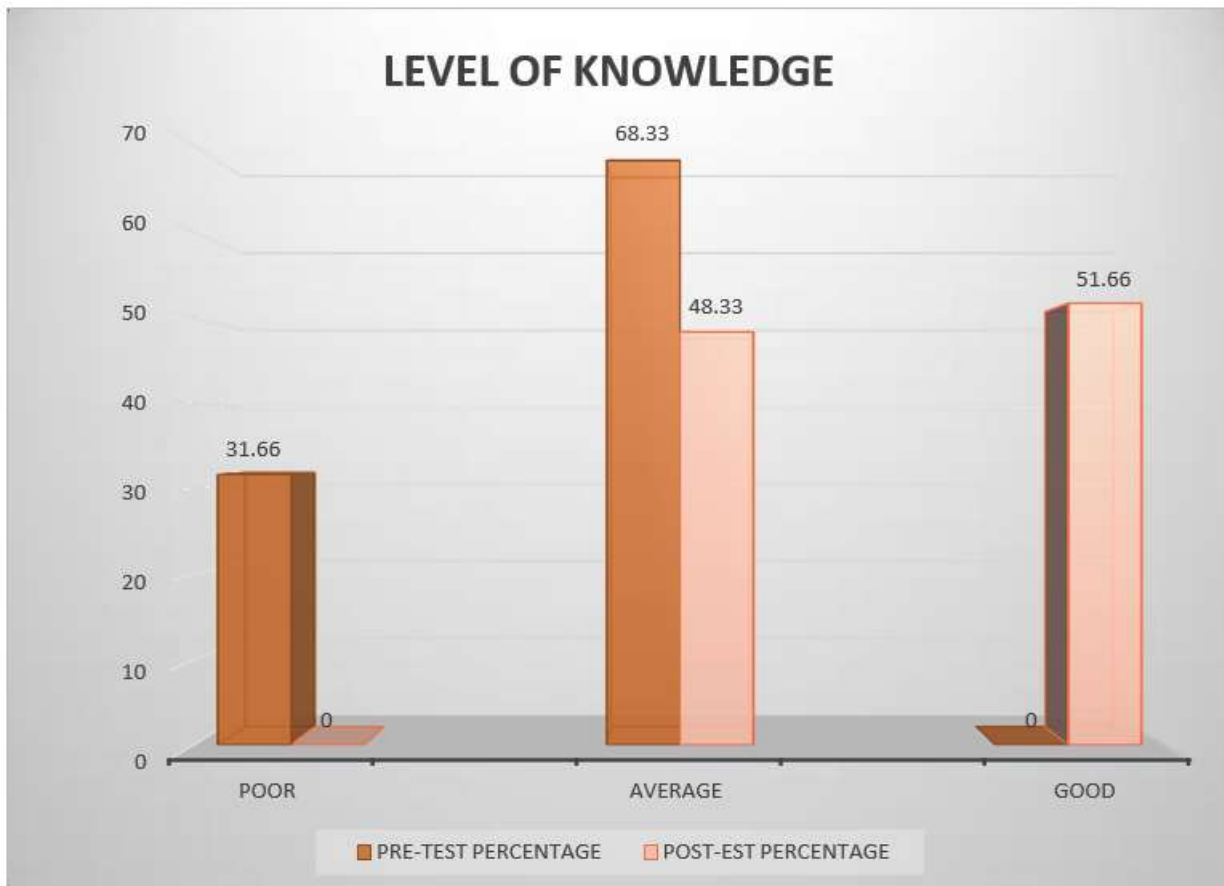


Figure 5 :-Bar Graph showing the comparison of Pretest and Post test knowledgescore of females.

Table 4.2.2 Area wise mean, Mean percentage, Percentage gain, and Mean difference of pre-test and post-test level of knowledge of the samples on females. [N=60]

Sr No	Area of Content	Maximum Score	Pre-test Knowledge Score		Post-test Knowledge Score		Mean Difference	% Gain
			Mean Score	Mean %	Mean Score	Mean %		
1	Introduction	2	0.71	35	1.43	71.6	0.72	36.6
2	Definition	2	0.96	48	1.55	77.5	0.59	29.5
3	Causes	3	0.95	31.66	2.1	71.1	1.15	39.5
4	Risk Factors	3	0.96	32.22	2.1	70	1.14	37.78
5	Signs & Symptoms	6	1.7	28.33	3.9	65.8	2.2	37.47
6	Diagnostic Tests	2	0.38	19	1.26	63.3	0.88	44.3
7	Medical Management	2	0.53	26.6	1.3	67.5	0.77	40.9
8	Prevention	10	3.15	31.5	6.8	68	3.65	29.5
	Total	30	9.3	31.5	20	69.37	11	37

Table 4.2.2 shows the pre-test and post-test level of knowledge obtained by the samples on knowledge.

The area wise result related to Introduction, Pre-test mean score was 0.71(35%) and Post-test mean score was 1.43(71.6%). Hence the difference noted was 0.72 and the percentage gain in this area is 36.6%.The area wise result related to Definition , Pre- test mean score was 0.96 (48%) and Post-test mean score was 1.55(77.5%). Hence the difference noted was 0.59 and percentage gain in this area is 29.5%.The area wise result related Causes, Pre- test mean score was 0.95 (31.66%) and Post-test mean score was 2.1 (71.1%). Hence the mean difference noted was 1.15 and percentage gain in this area is 39.5%.The area wise result related to Risk Factors, Pre- test mean score was 0.96(32.22%) and Post- test mean score was 2.1(70%). Hence the mean difference noted was 1.14 and percentage gain in this area is 37.78%.The area wise result related to Signs & Symptoms, Pre- test mean score was 1.7 (28.33%) and Post-test mean score was 3.9(65.8%). Hence the mean difference noted was 2.22 and percentage gain in this area is 37.47%.The area wise result related to Passive Diagnostic Tests, Pre- test mean score was 0.38(19%) and Post test mean score was 1.26 (63.33%) . Hence the mean difference noted was 0.88 and percentage gain in this area is 44.3%.The area wise result related to Medical Management, Pre- test mean score was 0.53(26.6%) and Post-test mean score was 1.3 (67.5%). Hence the mean difference noted was 0.77 and percentage gain in this area is 40.9%.The area wise result related to Prevention, Pre- test mean score was 3.15(31.5%) and Post- test mean score was 6.8 (68%). Hence the mean difference noted was 3.65 and percentage gain in this area is 29.5%.Thus, it was concluded that there was an increase in the mean post-test knowledge score as compared to the mean pre-test knowledge score after administration of a Structured teaching program on knowledge regarding HPV infection and its prevention.

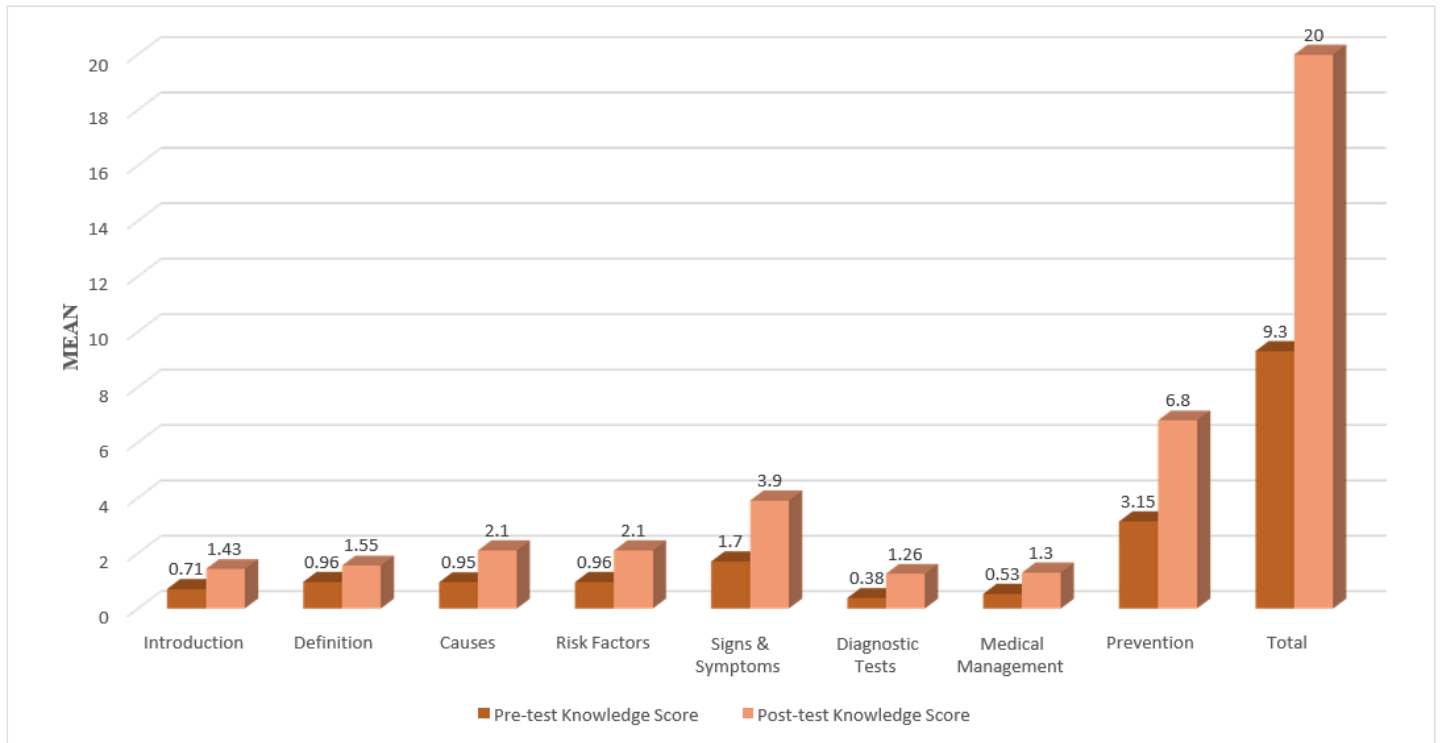


Figure 6:- Bar Graph Showing the Area wise Pre-test and Post-test Knowledge scores of samples on HPV infection and it’s prevention .

Table 4.2.3 Mean, Mean Difference, Standard Deviation (SD) and ‘t’ test value of the Pre-test and Post-test Knowledge scores of samples. [N=60]

Knowledge test	Mean	Std. Deviation	Calculated t test	DF	Table Value	S/NS
Pre Test Knowledge	9.62	4.50	17.746	59	2.009	S
Post Test Knowledge	20.58	2.04				

Table 4.2.3 Shows the Pre-test and Post-test knowledge scores obtained by the respondents on HPV infection and its prevention. The mean Pre-test score was 9.62 and the mean post test score was 20.58 .The mean difference between Pre-test and post-test knowledge score was 10.96 .The table also shows that the Standard deviation of Pretest score of knowledge was 4.50 and Standard deviation of post test score of knowledge was 2.04.The calculated “t” value was 17.746 and the tabulated “t” value was 2.009 at 0.05 level of

significance.

Above table reveals that the mean post-test knowledge score was significantly higher than the mean pre-test knowledge scores. The calculated “t” value (t=17.746) was greater than the tabulated “t” (t=2.009). Therefore the null hypothesis H0 was rejected and research hypothesis was accepted which indicates that the structured teaching program was effective in gaining the knowledge among the samples. Investigator concluded that there was significant increase in the mean post-test knowledge score as compared to the mean pre-test knowledge score after administration of structured teaching program on HPV infection and its prevention which indicates that the structured teaching program was effective.

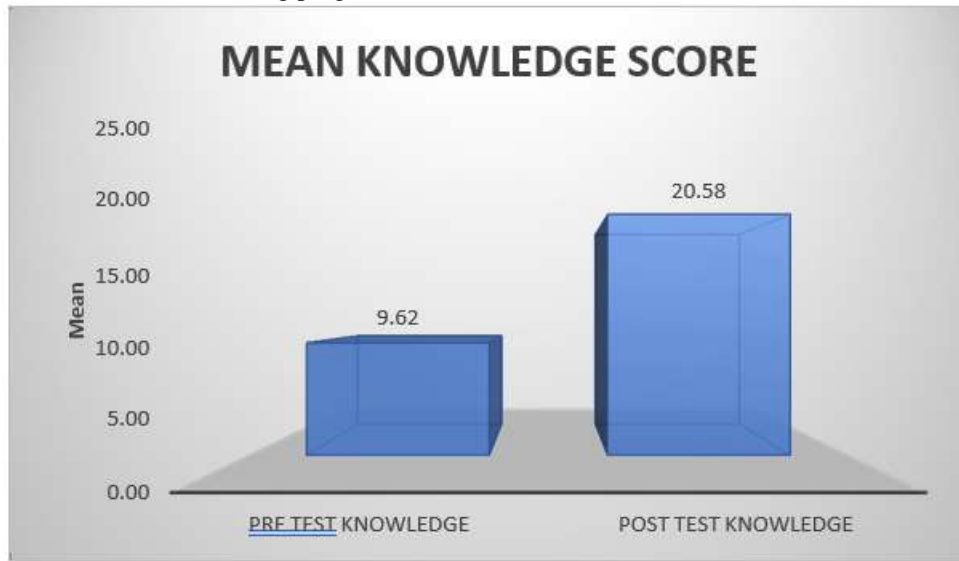


Figure 7 :- Bar graph showing the Mean pre-test and Mean post-test Knowledge scores of samples on HPV infection and it’s prevention

4.3 ANALYSIS AND INTERPRETATION OF THE DATA RELATED TO ASSOCIATION BETWEEN PRE TEST KNOWLEDGE SCORE WITH SELECTED DEMOGRAPHIC VARIABLES OF THE SAMPLES.

1.3 Table 4.3 Association of Pre-test knowledge score with selected Demographic Variables. [N-60]

Demographic Variables	PRETEST		Total	Chi Square	DF	Table Value	S/NS
	Average	Poor					
Age	18-27Years	5	12	1.584	2	5.99	NS
	28-36 Years	10	15				
	37-45 Years	4	14				
Religion	Hindu	18	40	0.321	1	3.84	NS
	Christian	1	1				
Education level	Illiterate	0	7	8.112	3	7.82	S
	Primary Education	5	10				
	Secondary Education	10	9				
	Graduate	4	15				
Occupation	Housewife	11	17	2.365	2	5.99	NS
	Labor work	0	3				
	Job	8	21				
Marital Status	Married	13	26	0.143	1	3.84	NS
	Unmarried	6	15				
HPV Vaccine Status	Yes	2	4	0.009	1	3.84	NS
	No	17	37				
Do you have any previous knowledge regarding HPV infection	Yes	1	1	0.321	1	3.84	NS
	No	18	40				
If yes, what is the source of information	Friends & Family	1	1	Can't Be Computed			

Table 4.3 shows the association of the Demographic Variables of the samples.

For **Age of the samples** with the pre-test knowledge scores, the calculated value of chi square (χ^2) 1.584 was less than 5.99, the table value of chi square (χ^2) at the 2 degree of freedom and 0.05 level of significance. Therefore, Age has **no significant association** with the knowledge of the samples.

For **Religion of the samples** with the pre-test knowledge scores, the calculated value of chi square (χ^2) 0.321 was less than 1, the table value of chi square (χ^2) at the 1 degree of freedom and 0.05 level of significance. Therefore Religion has **no significant association** with the knowledge of the samples.

For **Education level of the samples** with the pre-test knowledge scores, the calculated value of chi square (χ^2) 8.112 was more than 7.82, the table value of chi square (χ^2) at the 3 degree of freedom and 0.05 level of significance. Therefore, education of samples **has significant association** with the knowledge of the samples.

For **Occupation of the samples** with the pre-test knowledge scores, the calculated value of chi square (χ^2) was 2.365 less than 5.99, the table value of chi square (χ^2) at the 2 degree of freedom and 0.05 level of significance. Therefore, Occupation of samples has **no significant association** with the knowledge of the samples.

For **marital status of the samples** with the pre-test knowledge scores, the calculated value of chi square (χ^2) 0.143 was less than 3.84, the table value of chi square (χ^2) at the 1 degree of freedom and 0.05 level of significance. Therefore, marital status of the samples has **no significant association** with the knowledge of the samples.

For **Area of HPV vaccine status of the samples** with the pre-test knowledge scores, the calculated value of chi square (χ^2) 0.009 was less than 3.84, the table value of chi square (χ^2) at the 1 degree of freedom and 0.05 level of significance. Therefore, Area of HPV vaccine status of the samples has **no significant association** with the knowledge of the samples.

For **previous knowledge of samples** with the pre-test knowledge scores, the calculated value of chi square (χ^2) 0.321 was less than 3.84, the table value of chi square (χ^2) at the 1 degree of freedom and 0.05 level of significance. Therefore previous knowledge of the samples has **no significant association** with the knowledge of the samples.

This indicates that from selected demographic variables only one variable education level of the samples has significant association with the knowledge of the samples and no any other demographic variables has significant association with the knowledge of the samples.

DISCUSSION

The present study was conducted to evaluate the effectiveness of structured teaching programme regarding HPV infection and it's prevention among females in selected urban areas of Ahmedabad. In order to achieve the objectives of the study, Pre experimental one-group pre-test and post-test research design was adopted. The data was collected from 60 samples by using a structured knowledge questionnaire. The post-test knowledge score (mean 20.58) was higher than that of the pretest knowledge score (mean 9.62) and which was statistically proved and it revealed that the Structured teaching program was effective in terms of knowledge among females.

A Pavani Sowjanya 1, Meenkashi Jain, Usha Rani Poli, S Padma, Manik Das, Keerti V Shah et.al (2005) A cross sectional study conducted on Prevalence and distribution of high-risk human papilloma virus (HPV) types in invasive squamous cell carcinoma of the cervix and in normal women in Andhra Pradesh, India . Among the HPV positive cancers, the overall type distribution of the major high-risk HPV types was as follows: HPV 16 (66.7%), HPV 18 (19.4%), HPV 33 (5.6%), HPV 35 (5.6%), HPV 45 (5.6%), HPV 52 (2.8%), HPV 58(2.8%), HPV 59(2.8%) and HPV 73 (2.8%). Women participating in the community screening programme provided both a self-collected vaginal swab and a clinician-collected cervical swab for HPV DNA testing. Our results suggest that an effective vaccine targeting. HPV 16 will reduce the cervical cancer burden in Andhra Pradesh.

CONCLUSIONS:

The following conclusions can be drawn from the present study findings:

It was concluded that knowledge of females was increased after implementation of Structured teaching Programme regarding HPV infection and it's prevention. Females gained significant increase in knowledge shows that the structured teaching programme was effective; it was acceptable and useful method of teaching for Females.

Conflict of interest: The authors declare that they have no competing interests.

Ethics declarations

Ethics approval and consent to participate.

JG College of Nursing, Institute Ethics Committee reviewed this study and granted ethical approval. Consents has been obtained from participants.

Consent for publication

Written consent for publication was obtained from each participants.

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