International Journal for Multidisciplinary Research (IJFMR)
E-ISSN: 2582-2160 ● Website: www.ijfmr.com ● Email: editor@ijfmr.com

Assess the Effectiveness of Structured Teaching Programme on Level of Knowledge and Attitude Regarding Hpv Vaccination Among Parents of Adolescents At Selected Urban Community Areas of Silvassa, Dadra and Nagar Haveli

Ms. Ekta Bhoya[1] , Ms. Sejal Patel[2]

[1]Student, M.Sc. Nursing, 2nd year, Shri Vinoba Bhave College of Nursing, Silvassa.
[2]Assistant professor, Shri Vinoba Bhave College of Nursing, Silvassa.

ABSTRACT

Statement of the problem: The present study "Assess the effectiveness of Structured Teaching Programme on level of knowledge and attitude regarding HPV vaccination among parents of adolescents at selected urban community areas of Silvassa, Dadra and Nagar Haveli".

Methods: This quantitative study was used. A total 100 parents of adolescents who met the sampling criteria were selected with purposive sampling technique from urban community areas of DNH. The data were collected using structured knowledge questionnaire and attitude scale. Pre-test and post-test score were utilized to assess the level of knowledge and attitude among the parents of adolescents regarding HPV vaccination.

Results: results showed a significant difference in mean pretest (7.71) and posttest knowledge score(18.92) of parents of adolescents after administering structre teaching programme as measured by 't' test (25.84) which was highly significant at 0.05 level of significance. There was significant differece in mean pretest (28.17) and post test attitude score(38.65) of parents of adolescents after administering structre teaching programme as measured by 't' test (16.06) which was highly significant at 0.05 level of significance. There is significant association between demographical variable that is monthly income with knowledge score at 0.05 level ofsignificant and There is sigfnificant association between demographical variable that is age and monthly income with attitude score at 0.05 level of significant. There is positive correlation between knowledge and attitude in pretest and positve correlation between knowledge and attitude in posttest.

Conclusion: The study concluded that there was a significant knowledge gain in parents of adolescents about HPV vaccination after administration structure teaching programme,

Keywords: Knowledge, Attitudes, Knowledge, Effectiveness of STP, HPV vaccination, Parents of adolescents & Urban Community.

BACKGROUND OF THE STUDY

Adolescent health is the range of approaches for preventing, detecting or treating young people's health

and wellbeing. Adolescent health also encompasses children's and young people's sexual and reproductive health. Adolescence is a period of life with specific health and developmental needs and rights. Adolescence is one of the most rapid phases of human development where biological maturity precedes psychosocial maturity. The World Health Organization (WHO) defines adolescents as those people between 10 and 19 years of age. [1] Concurrently, this period involves indulgence in risk-taking behaviour and exploration of sexuality. Therefore, improving the health and well-being of adolescents is paramount for our future.[2] However, delivering preventive healthcare services to adolescents presents a considerable challenge. Vaccination across the life course is also adviced in the global immunisation agenda 2030.[3] Human Papillomavirus (HPV) presents a formidable global health challenge, with cervical cancer emerging as a primary concern. Cervical cancer is preventable and curable if diagnosed at an early stage and treated promptly and adequately. It ranks as the fourth most common cancer among women worldwide.[4]

HPV is the etiologic agent of virtually all cases of cervical cancer worldwide and is responsible for high proportion of pre invasive cervical cancer as well as genital warts and other non genital cancers.

In India, cervical cancer remains as the commonest female cancer and the annual incidence of more than 1,32,000 every year. Recognition of this dreaded virus in cervical cancer has led to stimulated search for preventive vaccines. HPV vaccines have been introduced in many developed countries in recent years. But with an aim to achieve significant reduction in worldwide cancer, these have been introduced in many developing countries too. Two types of HPV vaccines have been developed and clinically evaluated for prophylactic vaccination. Gardasil (Merck and Co., USA) and Cervarix (Glaxo Smith Kline, Belgium) have been approved in several countries like USA, Australia and in the European Union. These have been licensed in India for use in females (primary vaccination at 10-12 years, catch-up up to 26 years). As there is a rapid urbanization in countries like India, the knowledge about this viral infection and the prevention measures should be known to all the target population. It is important to understand the obstacles to vaccination arising from the attitude from the young people.

During community health nursing practical experience, the investigator has observed that Parents of adolescents did not have adequate knowledge about HPV vaccination. Hence, investigator felt that it is very essential to educate the parents of adolescents regarding HPV infection and vaccination.

OBJECTIVES OF THE STUDY:

1. To assess level of knowledge and attitude on HPV vaccination among parents of adolescents.
2. To determine effectiveness of STP on HPV vaccination by comparing pretest and post test level of knowledge and attitude among parents of adolescents
3. To find correlation between knowledge score and attitude score on HPV vaccination among parents of adolescents.
4. To find association between pretest knowledge score and attitude score on HPV vaccination among parents of adolescents with their selected demographic variables.

HYPOTHESIS

1. **H1:** There is significant difference in pretest and posttest knowledge score on HPV vaccination among parents of adolescents at 0.05 level of significant.
2. **H2:** There is significant difference in pretest and posttest attitude score regarding HPV vaccination among parents of adolescents at 0.05 level of significant.

3. **H3:** There is positive relationship between knowledge and attitude scores regarding HPV vaccination among parents of adolescents at 0.05 of significant..
4. **H4:** There is significant association between level of knowledge and attitude regarding HPV vaccination among parents of adolescents with their selected socio-demographic variables at 0.05 of significant.

OPERATION DEFINTION

- **ASSESS: -** In this study, "assess" refers to the systematic, organized and continuous process of collection data on knowledge and attitude of HPV vaccination among parents of adolescents at selected urban community areas of Silvassa, DNH.
- **EFFECTIVENESS: -** In this study, "effectiveness" refers to the significant gain in knowledge determined by significant difference in pretest and posttest knowledge and attitude scores on HPV vaccination among parents of adolescents at selected urban community areas of Silvassa, DNH.
- **STRUCTURED TEACHING PROGRAMME: -** In this study, "structure teaching programme" refers to material prepared by the researcher to provide information on HPV vaccination with the objective of enhancing their knowledge regarding HPV vaccination.
- **KNOWLEDGE: -** In this study, "knowledge" refers to the correct responses given by parents of adolescents to the knowledge question regarding HPV vaccination and expressed in term of knowledge scores.
- **ATTITUDE: -** In this study, "attitude" refers to the view or opinion of parents of adolescents regarding HPV vaccination as estimated by modified attitude scale in pre and posttest.
- **HUMAN PAPILLOMAVIRUS (HPV) VACCINATION: -** In this study, "HPV vaccination" refers to a vaccine that helps protect the body against infection with certain types of human papillomavirus (HPV).
- **PARENTS OF ADOLESCENTS: -** In this study, "parents of adolescents" refers to the parents of adolescents (adolescent age group 10-19 years) in urban community area.

DELIMITATION

- Sample size is limited to 100 Parents of adolescents
- Parents of adolescents are residing in Selected urban area of Silvassa, DNH

REVIEW OF LITERATURE

Study related to Knowledge and attitude regarding Human Papilloma Virus vaccination.

Debkumar Pal et al., (2023) conducted a study to assess Evidence of Knowledge, Attitude, and Practice Regarding Human Papilloma Virus Vaccination at the Community Level in India: A Systematic Review and Meta-Analysis Database-specific search strategies yielded 2,377 records from five databases. We identified 48 studies for full-text retrieval after screening titles and abstracts. Finally, 27 studies were included in the meta-analysis. The pooled prevalence of knowledge regarding HPV vaccines in India was 0.22 (CI;0.14-0.31, I2 =99.5%). The pooled prevalence of positive attitudes towards the uptake of HPV vaccines in India was 0.45 (CI;0.33-0.57, I2 =100%). The pooled prevalence of coverage of HPV vaccines in India was 0.04 (CI;0.02-0.07, I2 =96%). Significant publication bias was present for the studies' reported knowledge and coverage. The knowledge, attitude, and coverage of the HPV vaccine were low

in India. It suggests effective strategies to improve knowledge and attitudes towards HPV vaccination in India.

Study related to Knowledge and attitude regarding Human Papilloma Virus vaccination.

Swapna Suhas Kadukkat,(2023) conducted 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. 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" 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. structured teaching programme regarding HPV infection and its prevention was effective in improving knowledge about HPV infection and its prevention among females.

Study related to Knowledge and attitude regarding Human Papilloma Virus vaccination among parents of adolescents.

Paapa Dasari1 et al., (2015) conducted a study on Health education regarding human papilloma virus (HPV vaccine) for primary prevention of cervical cancer for parents of adolescent girls Knowledge of causation by HPV virus improved from 50% to 98% on post-test ($p<0.001$). There was a significant improvement (80%) regarding dosage, side effects of the vaccine and 75% improvement regarding age of administration of vaccine. There was a significant improvement in knowledge regarding efficacy of the vaccine, place of availability and cost of HPV vaccine. Acceptability if the vaccine is provided through the schools was about 92% after the health education programme. Though 50% were aware about the disease and its causation the knowledge regarding its prevention by HPV vaccination and its availability was poor at baseline. After the health education programme there was a statistically significant improvement in all aspects

RESEARCH METHODOLOGY

Research approach

Quantitative Research approach

Research Design

Quasi- experimental research design

Study setting

Urban community area of Silvassa Dadra and Nagar Haveli.

Population

Parents of Adolescents

Target population

Parents of Adolescents in Dadra and Nagar Haveli. (10 to 19 years of adolescents)

Accessible population

Parents of Adolescents who are residing in urban area of community Silvassa Dadra and Nagar Haveli.

Sample
100 Parents of adolescents
Sample
100 Parents of adolescents
Sampling technique
Non probability Purposive sampling technique.
Variables
Independent variable :- Structure teaching program on HPV vaccination
Dependent variable :- Knowledge and attitude regarding HPV vaccination among the Parents of Adolescents
Data collection instrument
PART A – Demographic variables
PART B - Structure knowledge questionnaires
PART C – Attitude scale
Intervention
Structure Teaching Program regarding HPV vaccination

SAMPLING CRITERIA
Inclusion Criteria:
- Parents of adolescents.
- Resident of urban community area of Silvassa DNH
- Able to read and speak Hindi, Gujarati & English
- Who are willing to participate in the study and whose have given written consent.

Exclusion Criteria:
- Parents of adolescent who are in the medicine and paramedical filed.
- Parents of adolescent who are cognitive impaired
- Parents of adolescent who are not willing, or not available at the time of data collection

DESCRIPTION OF THE TOOL

Section -1 :	Demographic variables
Section -2 :	Structured knowledge questionnaire to assess the knowledge on HPV vaccination.
Section -3 :	Likert attitude scale to assess the attitude on HPV Vaccination.

Section -1: Demographic variables
The demographic variables consisted of 9.1 items which included like relation with adolescent, age, gender, religion, education status, occupation status, monthly family income, number of adolescents, previous knowledge regarding HPV vaccination, source of information.
Section -2: Structured knowledge questionnaire
A total 25 multiple choice questions were used to assess the level of knowledge regarding HPV vaccination among parents of adolescents in pretest and posttest. The questions were constructed relevant to Introduction & Causes/risk factors of the HPV infection, Types & Mode of transmission of HPV infection of HPVs, Sign and symptoms & Prevention strategies of HPV infection, HPV vaccination, Side-effects and benefits of HPV vaccine.

Section -3: Likert attitude scale

It was consisted of five-point likert scale to assess the attitude regarding HPV vaccination which composed of 10 items which included both positive and negative statements.

Scoring interpretation of the tool:

Section -1: Demographic variables were filled according to their personal status.

Section -2: Scoring process for knowledge questionnaire

It consisted of total 25 multiple choice questions regarding general information about HPV vaccination. The correct and wrong answer was given one and zero respectively. The maximum total score was 25. The total score was computed and caregorized as follow:

Table : 1 criteria scoring and category for knowledge questionnaire

Level of Knowledge	Score
Adequate	19-25
Moderately Adequate	13-18
Highly Inadequate	≤12

Selection -3: Scoring process for attitude scale

The score assigned were as follow:

Positive statement:

Strongly disagree-1, Disagree-2, Undecided-3, Agree-4, Strongly Agree-5

Negative statement:

Strongly disagree-5, Disagree-4, Undecided-3, Agree-2, Strongly Agree-1

The total score was computed and categorized as follow.

Table : 2 Criteria scoring and category for attitude scale

Level of Attitude	Score
Favorable attitude (Positive)	≥ 25
Unfavorable attitude (Negative)	< 25

ORGANIZATION OF THE FINDINGS

Based on the objectives of the study the following descriptions organized as given below:

Section A :	Description of demographic Variables.
Section B :	Analysis of the pretest and posttest level of knowledge and attitude score regarding HPV vaccination.
B.1 :	Analysis of pretest and posttest knowledge score on HPV vaccination among parents of adolescents
B.2 :	Analysis of pretest and posttest attitude score. on HPV vaccination among parents of adolescents
Section C :	Analysis of Paired 't' test to assess the effectiveness of STP on HPV Vaccination on level of knowledge and attitude among parents of adolescents

Section D :	Analysis of Spearman Rank correlation to find relationship between knowledge and attitude scores regarding HPV vaccination among parents of adolescents.
Section E :	Analysis of Chi square test to find association between pretest level of knowledge score with attitude score on HPV vaccination among parents of adolescents with their selected demographic variables.

RESULT

SECTION A: DESCRIPTION OF DEMOGRAPHIC VARIABLES.

Table: 3 Frequency and percentage wise distribution of Parents of adolescents based on Demographic variables.

(n=100)

Demographic variables	Frequency (F)	Percentage (%)
1.Relationship with adolescent:		
Mother	82	82
Father	18	18
2. Age (in years):		
≤34	50	50
35-44	48	48
45-54	2	2
55 and above	0	0
3.Gender:		
Male	18	18
Female	82	82
4. Religion:		
Hindu	100	100
Christian	0	0
Muslim	0	0
Others	0	0
5. Educational status:		
Post graduate	1	1
Graduate	9	9
Intermedia/diploma	7	7
High school	60	60
Middle school	15	15
Primary school	8	8
Illiterate	0	0
6.Occupation:		
Legislator, senior officials, manager	0	0
Professional	2	2
Technicians /associate profession	6	6
Clerk	1	1
Skilled worker, shop and market sales	3	3
worker Skilled agriculture & fishery worker	0	0

Craft and related trade worker	2	2
Plan & machine operator's assemblers	3	3
Elementary occupation	6	6
Unemployed	77	77
7.Monthly income in Rupees:		
≥135169	16	16
67587-135168	6	6
50560-67586	6	6
33793-30559	23	23
20274-33792	42	42
6768-20273	7	7
≤6767	0	0
8.Number of adolescent in family		
One	31	31
Two	56	56
Three	9	9
More than three	4	4
9. Previous knowledge:		
Yes	15	15
No	85	85
10. Source of information:		
Print media	0	0
Electronic media	0	0
Health personnel	14	100
Others	0	0

SECTION B: ANALYSIS OF THE PRE-TEST AND POST-TEST LEVEL OF KNOWLEDGE SCORE AND ATTITUDE SCORE REGARDING HPV INFECTION AND VACCINATION.

Table : 4 Area wise Mean, SD and mean% to assess pre test and post test level of knowledge regarding HPV vaccination among parents of adolescents

n=100

Aspect of Knowledge	Max score	Pre test score			Post test score			Difference in mean%
		Mean	SD	Mean%	Mean	SD	Mean%	
General Aspects	4	1.35	0.98	33.75	3.05	0.91	76.25	42.5
Type & mode of transmission	4	1.18	0.98	29.5	2.71	1.03	67.75	38.25
Sign & symptoms and prevention	6	1.87	1.33	19.66	4.50	1.20	75	55.34
HPV vaccination	6	1.83	1.34	30.5	4.43	1.08	73.83	43.33
benefits & side-effects of HPV vaccine	5	1.48	1.27	29.6	4.23	0.98	84.6	55

Overall	**25**	**7.71**	**3.64**	**30.84**	**18.92**	**2.38**	**75.68**	**44.84**

The above tableno.4 showed that overall level of knowledge at pretest mean and standard deviation were 7.71 ± 3.64 and posttest mean standar deviation were 18.92 ± 2.38 and mean difference was 44.84% reveals that there was an increase in knowledge related to HPV vaccination among parents of adolescents after administration of structure teaching programme regarding HPV vaccination.

B.1 ANALYSIS OF PRE-TEST AND POST-TEST KNOWLEDGE SCORE

Table : 5 Frequency and percentage wise to assess pre test and post test level of knowledge regarding HPV vaccination among parents of adolescents.

N=100

Level of knowledge	**Pre test**		**Post test**	
	f	**%**	**f**	**%**
Inadequate	89	89	0	0
Moderate	11	11	43	43
Adequate	0	0	57	57
Total	**100**	**100**	**100**	**100**

Table no. 5 depict that in the pretest, the maximum number of parents of adolescents 89 (89%) had highly inadequate knowledge on HPV vaccination and very minimal number 11 (11%) parents of adolescents had moderately adequate knowledge on HPV vaccination and no parents of adolescents have adequate knowledge of HPV vaccination.

Whereas in posttest the mjority 57(57%) of parents of adolescents had adequate knowledge and 43 (43%) had moderately adequate knowledge and no one in inadequate knowledge on HPV vaccination.

B.2 ANALYSIS OF PRE-TEST AND POST-TEST ATTITUDE SCORE

Table : 6 Area wise Mean, SD and mean% to assess pre test and post test level of attitude regarding HPV vaccination among parents of adolescents

n=100

Attitude	**Mean**	**SD**	**Mean %**	**Difference in mean%**
Pre test score	14.62	3.68	58.48	19.32
Post test score	19.45	2.73	77.08	

Table no. 6. Showed that the level of attitude at pretest mean and standard deviation were 14.62 ± 3.68 and posttest mean standar deviation were 19.45 ± 2.73 and mean difference was 19.32% reveals that there was an increase in attitude related to HPV vaccination among parents of adolescents after administration of structure teaching programme regarding HPV vaccination.

Table : 7 Frequency and percentage wise distribution of level of attitude among parents of adolescents

n=100

Level of attitude	Pre test		Post test	
	f	%	f	%
Negative	74	74	8	8
Positive	26	26	92	92
Overall	100	100	50	100

Table no. 7 depicts that in the pretest the maximum number of parents of adolescents 74 (74%) had unfavorable (negative) attitude and only 26 (26%) parents of adolescents had favorable (positive) regarding HPV vaccination. Whereas in the posttest the maximum number of parents of adolescents 92 (92%) had favorable (positive) and only 8 (8%) had unfavorable (negative) attitude towards HPV vaccination.

SECTION C: EFFECTIVENESS OF STP ON HPV VACCINATION ON KNOWLEDGE AND ATTITUDE.

Table: 8 Analysis of Paired 't' test to assess the effectiveness of STP on HPV Vaccination on level of knowledge among parents of adolescents

n=100

Level of knowledge	pre test		post test		Mean difference	't'-value	P-value
	Mean	SD	Mean	SD			
General aspects	1.35	0.98	3.05	0.91	1.7	**13.85**	**p<0.001***(HS)**
Types & mode of transmission	1.18	0.99	2.71	1.03	1.53	**10.28**	**p<0.001***(HS)**
Sign&Symptoms and prevention	1.87	1.33	4.50	1.20	2.63	**14.55**	**p<0.001***(HS)**
HPV vaccination	1.83	1.34	4.43	1.08	2.6	**13.63**	**p<0.001***(HS)**
Benefits and side effects of vaccine	1.48	1.27	4.23	0.98	2.75	**16.69**	**p<0.001***(HS)**
Overall	**7.71**	**3.64**	**18.92**	**2.38**	**11.21**	**25.84**	**p<0.001***(HS)**

*-P<0.05, significant and **-P<0.01 &***-P<0.001, Highly significant

The Table no.8 showed that level of knowledge at pretest mean and standard deviation were 7.71 ± 3.64 and posttest mean standar deviation were 18.92 ± 2.38 and mean difference was 11.21% The obtained 't' value is 25.84 found to be higher than the calculated value at p<0.05 level of significance. Hence, the reseach hypothesis stated that there will be significant difference between pretest and posttest level of knowledge on HPV vaccination among parents of adolescents at p<0.05 level of significance is accepted. This supports that the structure teaching programme on level of knowledge regarding HPV vaccination was effective in increasing the level of knowledge amog parents of adolescents regarding HPV vaccination.

Table : 9 Analysis of Paired 't' test to assess the effectiveness of STP on HPV Vaccination on level of attitude among parents of adolescents

n=100

Level of attitude	pre test		post test		Mean difference	't'-value	P-value
	Mean	SD	Mean	SD			
Overall	28.17	5.47	38.65	4.52	10.48	16.06	p<0.001***(HS)

*-P<0.05, significant and **-P<0.01 &***-P<0.001, Highly significant

The Table no. 9 showed that level of attitude at pretest mean and standard deviation were 28.17 ± 5.47 and posttest mean standar deviation were 38.65 ± 4.52 and mean difference was 10.48% The obtained 't' value is 16.06 was found to be higher than the calculated value at p<0.05 level of significance. Hence, the reseach hypothesis stated that there will be significant difference between pretest and posttest level of attitude on HPV vaccination among parents of adolescents at p<0.05 level of significance is accepted. This supports that the structure teaching programme on level of attitude regarding HPV vaccination was effective in increasing the level of attitude amog parents of adolescents regarding HPV vaccination.

SECTION D: CORRELATION BETWEEN THE KNOWLEDGE SCORE AND ATTITUDE SCORE OF PARENTS OF ADOLESCENTS.

Table:10 Analysis of Correlation between knowledge and attitude regarding HPV vaccination among parents of adolescents.

n=100

	Pre test		Post test	
Knowledge and Attitude	'r' value	p-value	'r' value	p-value
	0.337	p=0.006(HS)	0.427	p<0.001***(HS)

Table no.10 depicts moderate positive correlation between Pre test knowledge and attitude scores (0.33) and post test knowledge and attitude scores (0.42) at p<0.05 level of significance . Hence stated hypothesis H3 There will be a significant positive correlation between level of knowledge and attitude score of parents of adolescents on HPV vaccination was accepted at p<0.05 level of significance.

SECTION E: ANALYSIS OF CHI SQUARE TEST TO FIND ASSOCIATION BETWEEN PRETEST LEVEL OF KNOWLEDGE SCORE WITH ATTITUDE SCORE ON HPV VACCINATION AMONG PARENTS OF ADOLESCENTS WITH THEIR SELECTED DEMOGRAPHIC VARIABLES.

Table: 11 Association for level of knowledge in pretest among parents of adolescents and selected demographic data.

n=100

Demographic variables	Inadequate		Moderate		χ2-value	p-value
	f	%	f	%		
1.Relationship with adolescent:	72	72	10	10	0.66	0.415

Mother Father	17	17	1	1	(df=1)	NS
2. Age (in years): <30-34 35-44 45-54	 47 40 2	 47 40 2	 3 8 0	 3 8 0	 3.09 (df=2)	 0.212 NS
3.Gender: Male Female	 17 72	 17 72	 1 10	 1 10	 0.665 (df=1)	 0.415 NS
4. Religion: Hindu	 89	 89	 11	 11	 0 (df=1)	 1 NS
5. Educational status: Post graduate Graduate Intermedia/diploma High school Middle school Primary school	 1 8 7 52 15 6	 1 8 7 52 15 6	 0 1 0 8 0 2	 0 1 0 8 0 2	 4.77 (df=5)	 0.444 NS
6.Occupation: Professional Technicians /associate profession Clerk Skilled worker, shop and market sales worker Craft and related trade worker Plan & machine operator's assemblers Elementary occupation Unemployed	 1 5 1 3 2 3 6 68	 1 5 1 3 2 3 6 68	 1 1 0 0 0 0 0 9	 1 1 0 0 0 0 0 9	 5.19 (df=7)	 0.519 NS
7.Monthly income: >135169 67587-135168 50560-67586 33793-30559 20274-33792 6768-20273	 8 5 6 23 41 6	 8 5 6 23 41 6	 8 1 0 0 1 1	 8 1 0 0 1 1	 31.90 (df=5)	 p<0.001*** HS
8.Number of adolescent in family One	 25	 25	 6	 6	 4.83 (df=3)	 0.184 NS

Two Three More than three	53 8 3	53 8 3	3 1 1	3 1 1		
9. Previous knowledge: Yes No	 13 75	 13 75	 1 10	 1 10	 0.26 (df=1)	 0.610 NS

*p<0.05 significant, ** p<0.01 & ***p<0.001 Highly significant.

Table no. 11 showed that the obtained p value of relationship of adolescents{p<0.41) age(p<0.21), gender (p<0.41),educational status(p<0.44), Occupation(p<0.51), number of adolescents in family(p<0.18)and previous knowledge (p<0.61) were more then the p=0.05 level of significance hence stated hypothesis that there is significance differene in pretest knowledge scores on HPV vaccination of parents of adolescents and above mentioned demographic variables were rejected at 0.05 level of significance.

The obtained p value of monthly income (p<0.001) was less than p<0.05 level of significance the association between the knowledge with monthly income of parents of adolescents regarding HPV vaccination. hence stated hypothesis that there is significance differene in pretest knowledge scores on HPV vaccination of parents of adolescents and monthly income was accepted at 0.05 level of significance.

SECTION E: ANALYSIS OF CHI SQUARE TEST TO FIND ASSOCIATION BETWEEN PRETEST LEVEL OF KNOWLEDGE SCORE WITH ATTITUDE SCORE ON HPV VACCINATION AMONG PARENTS OF ADOLESCENTS WITH THEIR SELECTED DEMOGRAPHIC VARIABLES.

Table: 12 Association for level of attitude in pretest and selected demographic data of parents of adolescents.

n=100

Demographic variables	**Negative**		**Positive**		**χ2-value**	**p-value**
	f	**%**	**f**	**%**		
1.Relationship with adolescent: **Mother** **Father**	 59 15	 59 15	 23 3	 23 3	 0.99 (df=1)	 P=0.319 NS
2. Age (in years): <30-34 35-44 45-54	 40 34 0	 40 34 0	 10 14 2	 10 14 2	 6.878 (df=2)	 0.032* S
3.Gender: Male Female	 15 59	 15 59	 3 23	 3 23	 0.994 (df=1)	 0.319 NS
4. Religion: Hindu	 74	 74	 26	 26	 0 (df=1)	 1 NS

5. Educational status:						
Post graduate	1	1	0	0	5.32	0.378
Graduate	6	6	3	3	(df=5)	NS
Intermedia/diploma	7	7	0	0		
High school	41	41	19	19		
Middle school	13	13	2	2		
Primary school	6	6	2	2		
6.Occupation:						
profession	2	2	0	0	7.17	0.306
Technicians /associate					(df=7)	NS
profession	3	3	3	3		
Clerk						
Skilled worker, shop and	0	0	1	1		
market sales worker	3	3	0	0		
Craft and related trade worker						
Plan & machine operator's	2	2	0	0		
assemblers						
Elemantory occupation	3	3	0	0		
Unemployed						
	4	4	2	2		
	57	57	20	20		
7.Monthly income:						
>135169	6	6	10	10	16.46	0.006**
67587-135168	4	4	2	2	(df=5)	HS
50560-67586	5	5	1	1		
33793-30559	20	20	3	3		
20274-33792	35	35	7	7		
6768-20273	4	4	3	3		
8.Number of adolescent in family	25	25	6	6	6.93	0.07
One	40	40	16	16	(df=3)	NS
Two	8	8	1	1		
Three	1	1	3	3		
More than three						
9. Previous knowledge:						
Yes	9	9	5	5	0.75	0.386
No	64	64	21	21	(df=1)	NS
10. Source of information:						
Health personnel	9	9	5	5	0	1
					(df=1)	NS

***p<0.05 significant, ** p<0.01 & ***p<0.001 Highly significant.**

Table no. 12 shows showed that the obtained p value of relationship of adolescents{p-<0.319), gender

(p<0.31),educational status(<0.37), Occupation(<0.30), number of adolescents in family(p<0.07)and previous knowledge (p<0.38) were more then the p<0.05 level of significance hence stated hypothesis that there is significance differene in pretest attitudescores on HPV vaccination of parents of adolescents and above mentioned demographic variables were rejected at 0.05 level of significance.
The obtained p value of age(p<0.03) monthly income (p<0.006) were less than p<0.05 level of significance hence stated hypothesis that there is significance differene in pretest attitude scores on HPV vaccination of parents of adolescents and age and monthly income was accepted atp< 0.05 level of significance.

DISCUSSION

Based on the objectives of the study the following descriptions organized as given below:

Section A :	Description of demographic Variables.
Section B :	Analysis of the pretest and posttest level of knowledge and attitude score regarding HPV vaccination.
B.1 :	Analysis of pretest and posttest knowledge score on HPV vaccination among parents of adolescents
B.2 :	Analysis of pretest and posttest attitude score. on HPV vaccination among parents of adolescents
Section C :	Analysis of Paired 't' test to assess the effectiveness of STP on HPV Vaccination on level of knowledge and attitude among parents of adolescents
Section D :	Analysis of Spearman Rank correlation to find relationship between knowledge and attitude scores regarding HPV vaccination among parents of adolescents.
Section E :	Analysis of Chi square test to find association between pretest level of knowledge score with attitude score on HPV vaccination among parents of adolescents with their selected demographic variables.

SECTION-A

DESCRIPTION OF DEMOGRAPHIC DATA OF THE PARENTS OF ADOLESCENTS

Relationship with adolescent wise distribution of parents of adolescents reveals that out of the 100 parents of adolescents, the highest 82 (82%) of parents of adolescents were mother, **Age** wise distribution of parents of adolescents reveals that out of the 100 parents of adolescents, the highest 50 (50%) of parents of adolescents were between ≤34 years, **Gender** wise distribution of parents of adolescents reveals that out of the 100 parents of adolescents, most of the parents of adolescents 82(82%) were females,
Religion wise distribution of parents of adolescents reveals that all belonged to hindu religion (100%), **Educational status**, wise distribution of parents of adolescents reveals that out of the 100 parents of adolescents, the highest 60 (60%) of parents of adolescents had High school education, **Occupation**, wise distribution of parents of adolescents revealed that out of the 100 parents of adolescents, 77 (77%) were Unemployed, **Monthly income** wise distribution of parents of adolescents revealed that out of the 100 parents of adolescents, The highest 42 (42%) parents of adolescents were having monthly income of Rs. 20274-33792, **Number of adolescent in family** wise distribution of parents of adolescents revealed that out of the 100 parents of adolescents, where as highest 56 (56%) of parents of adolescents had two Number of adolescent in family, **Previous knowledge** wise distribution of parents of adolescents reveals that out of the 100 parents of adolescents, most of the parents of adolescents 85(85%) have no previous knowledge,

Source of information wise distribution of parents of adolescents reveals that out of the 100 parents of adolescents, 14 (100%) had Health personnel Source of information.

The finding of present study were supported by a study of Ms. Swapna Suhas Kadukkat in that analysis 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%) sampleswere 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.[33]

SECTION-B

ANALYSIS OF THE PRETEST AND POSTTEST LEVEL OF KNOWLEDGE AND ATTITUDE SCORE REGARDING HPV VACCINATION.

Objective 1: To assess pre-test and post-test level of knowledge and attitude on HPV vaccination among parents of adolescents at selected urban area of Dadra and Nagar haveli.

The analysis of knowledge score on HPV vaccination among parents of adolescents in the pretest, the maximum number of parents of adolescents 89 (89%) had highly inadequate knowledge and very minimal number 11 (11%) parents of adolescents had moderately adequate knowledge, and no parents of adolescents have adequate knowledge of HPV vaccination. Whereas in posttest the mjority 57(57%) of parents of adolescents had adequate knowledge and 43 (43%) had moderately adequate knowledge and no one in inadequate knowledge on HPV vaccination. The mean score of pretest knowledge was 7.71 which was increased to 18.92 in posttest. This shows that the knowledge on HPV vaccination among parents of adolescents is increased in posttest beacaused of structure teaching programme. The findings of present study were supported by a study of Mr. Shashi Bhushan Tiwari in that mean knowledge score in pretest was 8.63 and increase up to 15.08 in post test result. [28]

The analysis of attitude score on HPV vaccination among parents of adolescents in pretest disclosed that in the pretest the maximum number of parents of adolescents 74 (74%) had unfavorable (negative) attitude and only 26 (26%) parents of adolescents had favorable (positive) regarding HPV vaccination. Whereas in the posttest the maximum number of parents of adolescents 92 (92%) had favorable (positive) and only 8 (8%) had unfavorable (negative) attitude towards HPV vaccination. The mean score of pretest attitude was 28.17 which was increased to 38.65 in posttest. This shows that the knowledge on HPV vaccination among parents of adolescents is increased in posttest beacaused of structure teaching programme. The findings of present study were supported by a study of Jyoti Dhangal in that mean attitude score in pretest was 53.92 and increase up to 66.32 in post test result [31]

SECTION-C

ANALYSIS OF PAIRED 't' TEST TO ASSESS THE EFFECTIVENESS OF STP ON HPV VACCINATION ON LEVEL OF KNOWLEDGE AND ATTITUDE AMONG PARENTS OF ADOLESCENTS

Objective 2: To determine effectiveness of STP on HPV vaccination among parents of adolescents at sele-

cted urban area of Dadra and Nagar haveli.
Evaluation of effectiveness was done by the inferential statistics. A paired 't' test was computed and the results are shown below:
The finding of the study revealed that there was a significant difference between the pretest and posttest knowledge score ($t=25.84$, $p<0.05$)
The finding of the study revealed that there was a significant difference between the pretest and posttest attitude score ($t=16.06$, $p<0.05$). hence the structure teaching programme was found to be effective.
The finding of pretest study supported by a study of Swapna Suhas Kadukkat in that mean pretest score was 9.62 and mean posttest score was 20.58 in study group that represent the effectiveness of strucutr traching programme.[33]

SECTION-D
CORRELATION BETWEEN PRE-TEST AND POST-TEST KNOWLEDGE AND ATTITUDE SCORE ON HPV VACCINATION.
Objective 3: To find out the correlation between pre- test and post test level of knowledge score with attitude score on HPV vaccination among parents of adolescents.
Correlation between the knowledge and attitude was done by the inferential statistics spearman rank cprrelation test
The finding revealed that there was positive correlation between the knowledge score and attitude score in pre-test ($r=0.337$, $r<0$) and there was positive correlation between the knowledge and attitude score in post-test ($r=0.427$,$r<0$).

SECTION-E
ASSOCIATION BETWEEN PRE-TEST KNOWLEDGE AND ATTITUDE SCORE OF PARENTS OF ADOLESCENTS WITH THEIR SELECTED DEMOGRAPHIC VARIABLES.
Objective 4: To find associate between pre- test level of knowledge score and attitude mean score on HPV vaccination among parents of adolescents with their selected demographic variables.
The finding of the study revealed that there was significant association between level of knowledge with monthly income ($p<0.001$***) are shows significance.
The finding of the study revealed that there was significant association between level of attitude with age ($0.032<0.05$) and monthly income ($p<0.001$***) are shows significance in pretest selected demongraphic data. The finding was supported by a similar study of Jyoti Dhangal, that significant association of good knowledge and positive attitude with age, educational status, type of family, family income, residential area, religion, previous knowledge, and source of information regarding human papillomavirus vaccination.
After the result compilation, the research hypothesis H1,H2,H3,H4 was accepted.

SUMMARY
The present study aims to find out the level of knowledge and attitude among the parents of adolescents at selected urban community areas of Dadra and Nagar Haveli Silvassa.

CONCLUSION
The study concludes that there was a significant knowledge and attitude gain in parents of adolescents

about HPV vaccination after structure teaching programme intervention.

NURSING IMPLICATION OF THE STUDY

The present study findings have vital concern in the field of following nursing areas.

Nursing practice:

- Nurses working in community are key persons who play a major role in health promotion, health maintenance & prevention of disease. Structure teaching programme on HPV vaccination is an effective measure to increases the knowledge and attitude. Nurse can use this Structure teaching programme is an effective measure to increase the knowledge and attitude towards HPV vaccination.
- Structure teaching programme should be made an integral part of preventive management of HPV vaccination among parents of adolescents.
- A nurse, in most cases use the best possible resource available to educate any parents of adolescents, she confronts during her service.
- It should be made a habit among nursing personnel to teach every parents of adolescents in their ward / community about warning sign of HPV and provide guidance to deal with any type of HPV can be given through a community health nurse at hospital/ community

Nursing education:

- The nurse educator can use the Structure teaching programme to teach the student as well as peripheral level health workers to improve their knowledge and attitude towards HPV vaccination.
- It can be used as training module for educating the health workers.
- The Structure teaching programme on HPV vaccination can be used by the nursing student to educate the parents of adolescents on HPV vaccination.
- Conduct the frequent seminar, workshops and conference for students regarding the recent advancement of HPV vaccintion.
- The nursing curriculum should be appropriately modified to include a main thrust to improve the overall outcome of HPV vaccination.

Nursing research

- Dissemination the finding of the study through conference, seminars and by publishing in journals and websites.
- The findings of the study will help the professional nurses and nursing students to improve their knowledge and assessment techniques.
- Nurse researcher play an important role in evidence-based practice in nursing. Hence more researchers on HPV vaccination must be initiated among nurse researcher which will improve the health indicators of the nation.

Nursing administration

- Design a appropriate strategy for conducting screening program of HPV vaccination.
- Make the staff to carry out periodical HPV vaccination assessment and provide surveillance and present an update epidemiological picture of HPV vaccination among adolescents.
- Incorporate the findings of the study to plan training program for all health care personnel at peripheral health units.
- Collaboration with governing bodies and non-governmental organizations to create policies, mobilize resource and create awareness on HPV vaccination.

LIMITATIONS OF THE STUDY

- Generalization of findings was restricted because of the limited sample size.
- The study was limited those women who were able to read and understad Gujrati, Hindi & English language.
- The study was limited to parents of adolescents.
- The use of self-structured close ended tool led restricted response of the parents of adolescents.

RECOMMENDATION

On the basis of findings of the study, the following recommendations have been made for further study:

1. A study could be replicated on a large scale
2. A similar study could be conducted with control group.
3. Comparative sudy can be conducted in urban and rural areas.
4. Similar kind of studies can be conducted for other categories of parents of adolescents in different settings.
5. Utilize the findings of the study to plan regular and periodic health screening in community settings.
6. Structure teaching programme developed can be used at primary health center and health wellness centre level to impact knowledge

REFERENCES

1. World Health Organization. Adolescent health online. Available from: https://www.who.int/maternal_child_adolescent/topics/adolescence/second-decade/en/.
2. World Health Organization. Adolescent health [Internet]. 2023 Jul 5 [cited 2023 Jul 5]. Available from: https://www.who.int/health-topics/adolescent-health#tab=tab_1.
3. Engel D, Afeli AD, Morgan C, Zeck W, Ross DA, Vyankandondera J, Bloem P, Adjeoda KR. Promoting adolescent health through integrated human papillomavirus vaccination programs: the experience of Togo. Vaccine. 2022;40(Suppl 1):A100-6. [PubMed] [Google Scholar].
4. World Health Organization. Cervical cancer: key facts. 2022 Feb 22 [cited 2023 Jul 1]. Available from: https://www.who.int/news-room/fact-sheets/detail/cervical-cancer.
5. International Agency for Research on Cancer. Globocan 2020: India fact sheets. 2021 Mar [cited 2023 Jul 1]. Available from: https://gco.iarc.fr/today/data/factsheets/populations/356-india-fact-sheets.pdf.
6. World Health Organization. Human papillomavirus vaccines: WHO position paper (2022 update). Wkly Epidemiol Rec. 2022;97(50):586-608.
7. De Martel C, Plummer M, Vignat J, Ferlay J, Bray F, Franceschi S. Worldwide burden of cancer attributable to HPV by site, country and HPV type. Lancet Global Health. 2019;7(5):e606-16. Available from: https://pubmed.ncbi.nlm.nih.gov/31862245/.
8. Kombe Kombe AJ, Li B, Zahid A, Mengist HM, Bounda G-A, Zhou Y, et al. Epidemiology and burden of human papillomavirus and related diseases, molecular pathogenesis, and vaccine evaluation. Front Public Health. 2021;8:552028.
9. Ağar E, Aker SŞ. Association of HPV, sexually transmitted infections among patients with genital warts and asymptomatic individuals: a cross-sectional study. Eur J Gynaecol Oncol. 2023;44:145-55.
10. Bhar VS, Gupta N, Singh MP, Nijhawan R, Srinivasan R, Suri V, et al. Human papillomavirus (HPV) types 16 and 18 in liquid-based cervical cytology samples. Virchows Arch. 2015;466(6):711-5.

11. Jenkins D. A review of cross-protection against oncogenic HPV by an HPV-16/18 AS04-adjuvanted cervical cancer vaccine: importance of virological and clinical endpoints and implications for mass vaccination in cervical cancer prevention. Gynecol Oncol. 2008;110(Suppl 1):S18-2Bv 0063
12. Gazzetta S, Valent F, Sala A, Driul L, Brunelli L. Sexually transmitted infections and the HPV-related burden: evolution of Italian epidemiology and policy. Front Public Health. 2024;12:1336250.
13. Latsuzbaia A, Arbyn M, Tapp J, Fischer M, Weyers S, Pesch P, et al. Effectiveness of bivalent and quadrivalent human papillomavirus vaccination in Luxembourg. Cancer Epidemiol. 2019;63:101593.
14. Garbuglia AR, Lapa D, Sias C, Capobianchi MR, Del Porto P. The use of both therapeutic and prophylactic vaccines in the therapy of papillomavirus disease. Front Immunol. 2020;11:188.
15. Roy S, Shankar A. HPV vaccination of girl child in India: intervention for primary prevention of cervical cancer. Asian Pac J Cancer Prev. 2018;19(8):2357-8.
16. Bhatla N, Meena J, Gupta K, Pal B, Divakar H, Bhalerao S, et al. Human papillomavirus vaccination: Good clinical practice recommendations from the federation of obstetric and gynecological societies of India. J Obstet Gynaecol Res. 2020;46(9):1651-60.
17. Sneha LM, Scott JX. Impact of a brief school-based educational intervention to increase the knowledge about HPV vaccination among adolescent girls. Int J Healthcare Educ Med Informatics. 2018;5(3):6-10. Available from: https://doi.org/10.24321/2455.9199.201811.
18. Ghazali S. Awareness of human papillomavirus (HPV) among school children in Johor, Malaysia. Available from: [1library.net]_awareness_of_human_papillomavirus_hpv_among_school_children_in_johor_malaysia[1].pdf.
19. Kumari R, Kumari R. A study to assess the effectiveness of health awareness programme on knowledge regarding human papillomavirus vaccine for cervical cancer among adolescent girls of selected schools of Sasaram. Int J Creative Res Thoughts. 2022;10(6):1927-34. Available from: https://ijcrt.org/papers/IJCRT22A6877.pdf.
20. Mahathas R, Arunprasath TS. Knowledge and attitude towards human papillomavirus and its vaccine among pharmacy students of a tertiary teaching university hospital in South India. J Evid Based Med Healthc. 2016;3(86):2315-20. Available from: https://www.jebmh.com/articles/knowledge-and-attitude-towards-human-papilloma-virus-and-its-vaccineamong-pharmacy-students-of-tertiary-teaching-univers.pdf.pdf.
21. Tripathy SM, Mohapatra S. Knowledge, attitude towards human papillomavirus and HPV vaccine among medical students of a tertiary care teaching hospital in India. Int J Reprod Contracept Obstet Gynaecol. 2015;4(6):1771-4. Available from: https://www.ijrcspub/papers/IJCSP23B1300.pdf.
22. Sharma C. Knowledge of HPV and attitude towards HPV vaccination among medical students of Jodhpur, Rajasthan. Int J Med Health Res. 2018;4(3):94-7. Available from: https://www.researchgate.net/publication/326692811_Knowledge_of_HPV_and_attitude_towards_HPV_vaccination_among_medical_students_of_Jodhpur_Rajasthan.
23. Rashid S. Knowledge, awareness and attitude on HPV, HPV vaccine and cervical cancer among the college students in India. PLoS One. 2016 Nov 18;11(11):e0166713. Available from: https://journals.plos.org/plosone/article.
24. Kandeepan J. Knowledge and attitudes on human papillomavirus (HPV) infection and HPV vaccination among health clinic nurses in the state of Kelantan. 2016. Available from: http://eprints.usm.my/41912/1/Dr._Jeyachelvi_kandeepan-24_pages.pdf.

25. Gollu AN, Gore CA. Knowledge, awareness and attitude of medical students regarding HPV infection and HPV vaccination. Asian Pac J Cancer Care. 2021;6(1):41-5. Available from: http://waocp.com/journal/index.php/apjcc/article/view/577/1671.
26. Tripathy RM, Karmee N. Awareness and attitude about carcinoma cervix and human papillomavirus vaccine: a cross-sectional study among undergraduate female medical students. Int J Med Sci Public Health. 2018;7(2):151-4. Available from: https://www.researchgate.net/publication/322046992_Awareness_and_attitude_about_carcinoma_cervix_and_human_papillomavirus_vaccine_A_crosssectional_study_among_undergraduate_female_medical_students.
27. Pal D, Sahoo BK. Evidence of knowledge, attitude, and practice regarding human papilloma virus vaccination at the community level in India: A systematic review and meta-analysis. Asian Pac J Cancer Prev. 2024;25(3):793-800. DOI:10.31557/APJCP.2024.25.3.793. Available from: https://pubmed.ncbi.nlm.nih.gov/38546062/.
28. Tiwari SB. A study to assess the effectiveness of structured teaching programme on knowledge regarding human papilloma virus vaccination among students at GNSU, Jamuhar, Sasaram. Int J Current Sci. 2023;13(2). Available from: https://rjpn.org/ijcspub/papers/IJCSP23B1300.pdf.
29. Thakur P. A study to assess the effectiveness of (STP) on knowledge of HPV infection and vaccination among adolescent girls at selected schools in Greater Noida. Int J Innov Sci Res Technol. 2023;8:2456-216. Available from: https://www.academa.edu/108835538.
30. Ushara HLC, Wijesimghe HMRR, Vysnavy V. Knowledge and awareness regarding Human Papillomavirus (HPV) infection and vaccination among adolescents aged 14–16 years in selected mixed Government Schools in Kesbewa Educational Division, Sri Lanka. 13th International Research Conference, Paper ID: 432. 2019. Available from: http://ir.kdu.ac.lk/handle/345/3092.
31. Dhangal J, Tanwar K, Kiran S. Effectiveness of structured teaching programme on knowledge and attitude regarding human papillomavirus infection and vaccine among adolescent girls. Int J Sci Res. 2022;7. Available from: https://www.ijsr.net/articlerating.php?paperid=SR23102132817.
32. Arti, Parwej S. A study to assess the effectiveness of structured teaching programme regarding human papilloma virus infection and cervical cancer on knowledge, perceptions and preventive behaviors among college girls in selected colleges of District, Patiala, Punjab. Int J Nurs Care. 2018;7(1):35-40. DOI: 10.5958/2320-8651. Available from: https://www.jetir.org/view?paper=JETIR1812A26.
33. Kadukkat SS. A study to evaluate the effectiveness of structured teaching programme on knowledge regarding HPV infection and its prevention among females of selected urban areas of Ahmedabad. 2023. Available from: https://www.researchgate.net/publication/379909155.
34. Krokidi E, Rao AP. The impact of health education interventions on HPV vaccination uptake, awareness, and acceptance among people under 30 years old in India: a literature review with systematic search. Front Reprod Health. 2023 May 5;DOI: 10.3389/frph.2023.1151179. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10198780/.
35. Lalhmingthang R, Iawim R. A study to assess the effectiveness of planned teaching programme on knowledge regarding prevention of cervical cancer by vaccination among female faculty at selected university Assam. Int J Adv Res. 2019;7(4):356-62. DOI:10.21474/IJAR01/7039. Available from: http://dx.doi.org/10.21474/IJAR01/7039.
36. Roy S, Dubey A. Knowledge, attitude and practice regarding HPV vaccine among parents and caregivers of female child attending Pediatric OPD: intervention for primary prevention. Indian J Soc

Prevent Rehabil Oncol. 2017;8(3):75-8. Available from: https://www.researchgate.net/publication/359746970.

37. Mengist AD. Urban-rural inequities in the parental attitudes and beliefs towards human papillomavirus infection, cervical cancer and HPV vaccine in Mysore, India. J Pediatr Adolesc Gynecol. 2018 Dec;31(6):583-91. DOI: 10.1016/j.jpa.2018.07.008. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7679173/.
38. Musa A. Effect of health education intervention on knowledge of HPV infection and vaccine among parents of adolescents in Kano Metropolis, Nigeria. Eur Acad Res. 2021;IX(8):331-45.
39. Dasari P, Sagili H. Health education regarding human papilloma virus (HPV vaccine) for primary prevention of cervical cancer for parents of adolescent girls. Int J Current Res Rev. 2015;7(20):30-6. Available from: https://ijcrr.com/abstract.php?article_id=420.
40. Sitaresmi MN, Rozanti NM. Improvement of parent's awareness, knowledge, perception, and acceptability of human papillomavirus vaccination after a structured-educational intervention. BMC Public Health. 2020;20:1836. DOI: 10.1186/s12889-020-09962-1. Available from: https://doi.org/10.1186/s12889-020-09962-1.
41. Sharma SK. Nursing Research and Statistics. Haryana (India): Elsevier; 2011. p. 70-71.
42. Basvanthappa. BT. Nursing research, 2nd edition, jaypee brothers publication 2007, pp-177.