



## Research Article

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### EFFECTIVENESS OF VIDEO ASSISTED TEACHING PROGRAM REGARDING THE KNOWLEDGE OF POLYCYSTIC OVARIAN DISEASE AND ITS PREVENTION AMONG ADOLESCENT GIRLS STUDYING IN SELECTED HIGHER SECONDARY SCHOOLS AT KOLLAM, INDIA

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#### ABSTRACT

This study entitled “effectiveness of video assisted teaching program regarding knowledge of polycystic ovarian disease and its prevention among adolescent girls studying in selected higher secondary schools at Kollam” was conducted with the objectives; to assess the effectiveness of video assisted teaching program on polycystic ovarian disease and its prevention, to find the association between pre-test knowledge on polycystic ovarian disease and its prevention with selected demographic variables. Demographic data was collected by distributing a questionnaire on knowledge. Then the video assisted teaching program was given on the same day for the experimental group. Post-test was done after one week of intervention. Data collected were analyzed using descriptive and inferential statistics. The study result shows mean post-test knowledge score of experimental group ( $21.6 \pm 2.84$ ) was higher than mean pre-test knowledge score ( $15.06 \pm 2.75$ ) and calculated ‘t’ value is greater than the table value at 0.05 level of significance. It indicates that there was significant improvement in the knowledge of polycystic ovarian disease and its prevention among adolescent girls. The mean post-test knowledge score of the experimental group ( $21.6 \pm 2.84$ ) was greater than the mean post-test knowledge score of the control group ( $15.98 \pm 3.65$ ) and calculated ‘t’ value is greater than table value at 0.05 level of significance ( $p < 0.05$ ). It indicates that there is significant difference between mean post-test knowledge scores of experimental and control groups. So the present study shows that video assisted teaching program was effective in improving knowledge of polycystic ovarian disease and its prevention among adolescent girls.

**KEYWORDS:** Video assisted teaching program; knowledge; polycystic ovarian disease; adolescent girls.

#### INTRODUCTION

Adolescence is the time of transition between childhood and adulthood, a time of profound biological, intellectual and psychological changes. During this period adolescent girls reach physical, mental as well as sexual maturity, develops more sophisticated reasoning abilities. The changes occurs in the adolescence have important roles to understand the kinds of health hazards to which young girls are exposed, the health enhancing and risk taking behaviours in which they engage, and the major opportunities/challenges for health promotion among this population.<sup>1</sup> PCOD affects 6 % to 8 % of women of reproductive age in the US (using the 1990 National Institutes of Health criteria). The prevalence studies in Greece, Spain, and the UK have revealed similar estimates. PCOD accounts for 80 % to 90 % of cases of hyper-androgenism in women. In one large series of women presenting with androgen excess or ovulatory dysfunction, approximately 80 % had PCOD.<sup>2</sup> The American College of Nurse-Midwives found that between 5 and 30% of women have some characteristic of PCOD. The disorder is probably the most common hormonal abnormality in women of reproductive age and certainly is a leading cause of infertility.<sup>3</sup>

#### OBJECTIVES

\* To assess the effectiveness of video assisted teaching program on polycystic ovarian disease and its prevention among adolescent girls studying in selected higher secondary schools at Kollam.

\* To find the association between pre-test knowledge scores on polycystic ovarian disease and its prevention with selected demographic variable.

(Age, religion, education of father, education of mother, area of residence, type of family, dietary pattern, source of information regarding polycystic ovarian disease).

#### MATERIALS AND METHODS

##### Research approach and design

The present study selected the quantitative approach for determining the effectiveness of the video assisted teaching program regarding the knowledge of polycystic ovarian disease and its prevention among adolescent girls. Quasi experimental non-equivalent pre-test post-test control group design was used for this study.<sup>4</sup>

**Sample:** 100 adolescent girls studying in the selected higher secondary schools at Kollam.

**Sampling technique:** Simple random sampling technique was used to select the samples.

##### Inclusion criteria

- Age group between 14-16 years
- Students willing to participate in the study

##### Exclusion criteria

- Adolescent girls who have attended classes regarding polycystic ovarian diseases previously.

Tools and techniques

Tool 1 – Demographic proforma

Tool 2 – Structured knowledge questionnaire

A 30 item pre validated and reliable were objective type with score of 30. Scores were categorized under poor, average and good.

**Video assisted teaching program**

The intervention used in this study was video assisted teaching program regarding the knowledge of polycystic ovarian disease and its prevention among adolescent girls.

**Data collection process**

Prior to data collection a formal written permission was obtained from the institution and written consent was taken from the participants. Samples fulfilling the inclusion criterion will be included in the study. 50 samples were assigned to control group and 50 to experimental group. Pre-test was done using the knowledge questionnaire. The students took 20 minutes to complete the questionnaire. Video assisted teaching program was

given to experimental group only and post-test for both the groups was done on the 14<sup>th</sup> day using the same tool.

**Ethical consideration**

The study was conducted after obtaining written approval from institutional ethics committee (No.BBCON/754/17 dated 13.05.2017). Informed consent was taken from parents and informed assent from participants. Students who fulfilled the sampling criteria were identified, purpose of the study was explained and confidentiality was assured.

**Statistical analysis**

The collected data were analysed using descriptive and inferential statistics.

**RESULTS**

**Demographic variables**

**Table 1: Frequency and percentage distribution of selected demographic variables of samples  
N=100**

Sl. No.	Demographic variables	Experimental group		Control group	
		frequency	percentage	frequency	Percentage
1	<b>Age in years</b>				
	14	21	42%	35	70%
	15	23	46%	15	30%
	16	6	12%	0	0%
2	<b>Religion</b>				
	Hindu	31	62%	40	80%
	Muslim	8	16%	9	18%
	Christian	11	22%	1	2%
	Others	0	0%	0	0%
3	<b>Education of father</b>				
	Primary	0	0%	0	0%
	High school	1	2%	1	2%
	Higher secondary	9	18%	12	24%
	Graduation and above	40	80%	37	74%
4	<b>Education of mother</b>				
	Primary	0	0%	0	0%
	High school	2	4%	1	2%
	Higher secondary	6	12%	18	36%
	Graduation and above	42	84%	31	62%
5	<b>Area of residence</b>				
	Rural	24	48%	20	40%
	Urban	26	52%	30	60%
6	<b>Type of family</b>				
	Nuclear	37	74%	43	86%
	Joint	13	26%	7	14%
	Extended	0	0%	0	0%
7	<b>Dietary pattern</b>				
	Vegetarian	1	2%	1	2%
	Non-vegetarian	49	98%	49	98%
8	<b>Source of information</b>				
	Magazine	0	0%	4	8%
	Parents	23	46%	10	20%
	Teachers	9	18%	16	32%
	Health personal	30	60%	5	10%
	Friends	4	8%	2	4%
	No	11	22%	13	26%

**Effect of video assisted teaching program regarding the knowledge of polycystic ovarian disease among adolescent girls**

**Table 2: Mean, mean difference, standard deviation and ‘t’ test value of pretest and posttest knowledge scores in experimental group (n = 50)**

Test	Mean	Mean difference	SD	‘t’ test value
Pretest	15.06	6.54	2.75	14.89*
Posttest	21.6		2.84	

t<sub>(49)</sub>=2.02 , \* significant at 0.05 level of significance.

**Table 3: Mean, mean difference and standard deviation and unpaired 't' test of posttest knowledge scores among experimental and control group, N=100**

Group	Mean	Mean difference	Standard deviation	't' value
Experimental group	21.6	5.62	2.84	8.52*
Control group	15.98		3.65	

t<sub>(98)</sub>= 2.00, \*significant at 0.05 level of significance

Table 2: describes the mean, mean difference, standard deviation and 't' test value of pre-test and post-test knowledge scores in experimental group. It shows that 't' value (14.89) is greater than the tabulated value. So there is significant difference between the mean pre-test and post-test knowledge scores of experimental group regarding the knowledge of polycystic ovarian disease and its prevention among adolescent girls.

Table 3: Describes the mean, mean difference and standard deviation and unpaired 't' test of post-test knowledge scores among experimental and control group. It shows that the calculated 't' value (8.52) is more than the table value (2.00), there was significant difference between post-test knowledge scores among experimental and control group at 0.05 level of significance.

**Association with demographic variables**

**Table 4: Association with demographic variables N=100**

Demographic variables	Level of knowledge			df	X <sup>2</sup>	P value	Level of significance
	Poor	Average	Good				
<b>Age in years</b>							
14 years	3	51	3	4	2.822	0.588	NS
15 years	2	33	0				
16 years	0	8	0				
<b>Religion</b>							
Hindu	5	63	1	4	2.025	0.731	NS
Christian	1	11	1				
Muslim	1	16	1				
Others							
<b>Education of father</b>							
Primary	0	0	0	4	2.177	0.703	NS
High school	0	2	0				
Higher secondary	2	18	0				
Graduation and above	3	72	3				
<b>Education of mother</b>							
Primary	0	0	0	4	1.759	0.780	NS
High school	0	2	0				
Higher secondary	2	24	0				
Graduation and above	3	66	3				
<b>Areas of residence</b>							
Rural	4	39	3	2	6.331	0.042	S
Urban	1	53	0				
<b>Type of family</b>							
Nuclear	5	73	2	2	1.608	0.447	NS
Joint	0	19	1				
Extended	0	0	0				
<b>Dietary pattern</b>							
Vegetarian	0	2	0	2	0.177	0.915	NS
Non vegetarian	5	90	0				
<b>Source of information</b>							
Magazine	0	2	0	10	17.325	0.068	NS
Parents	4	29	0				
Teachers	0	25	0				
Health professional	1	7	0				
Friend	0	9	0				
No	0	21	3				

0.05 level of significance, S-Significant, NS-Non significant

The chi square value is 6.33 for area of residence (p= 0.042 < 0.05). As p value is lesser than 0.05 level of significance and it shows there is a significant association between knowledge with selected variable such as area of residence except age, religion, educational status of parents, type of family, dietary pattern, source of information.

**DISCUSSION**

The findings are discussed based on the objectives

- To assess the effectiveness of video assisted teaching program on polycystic ovarian disease and its prevention

among adolescent girls studying in selected higher secondary schools at Kollam.

- To find the association between pre-test knowledge scores on polycystic ovarian disease and its prevention with selected demographic variable.

The findings of the present study revealed that, there was significant difference between the pre-test and post-test knowledge scores of experimental group, before and after video assisted teaching program and were statistically significant at 0.05 level. There was also significant difference between the post-test knowledge scores of experimental and control group at 0.05 level of significance. It shows that video assisted teaching

program regarding the knowledge of polycystic ovarian disease and its prevention was effective in improving knowledge among adolescent girls.

The findings of the present study were supported by another quasi experimental non randomized control group study which was conducted at Madurai to evaluate the effectiveness of video assisted teaching programme on knowledge and self-reported practices related to concepts of polycystic ovary syndrome among adolescent girls in selected schools. They found that video assisted teaching program was an effective strategy in improving knowledge regarding polycystic ovarian disease among adolescent girls.<sup>5,6</sup>

In the present study the association between pre-test knowledge scores and selected demographic variables was found with selected variable such as area of residence except age, religion, education of parents, type of family, dietary pattern and source of information.

The findings of the present study were supported by a quantitative one group pre-test post-test experimental research to assess the effectiveness of video assisted teaching regarding life style modification on knowledge and practice among patients with PCOD at SRM general hospital, Kattankulathur in 2017.<sup>7,8</sup> In the referent study there was a significant association found between the knowledge on life style modification among patients with PCOD after video assisted teaching and the demographic variables like age, educational status, occupation, area of residence and monthly income.

## CONCLUSION

The present study is aimed to assess the effectiveness of video assisted teaching program regarding the knowledge of polycystic ovarian disease and its prevention among adolescent girls. The mean post-test knowledge score of the experimental group (21.6±2.84) was greater than the mean post-test knowledge score of the control group (15.98±3.65) and calculated 't' value is greater than table value at 0.05 level of significance ( $p < 0.05$ ). It indicates that there is significant difference between mean post-test knowledge scores of experimental and control groups. So the present study shows that video assisted teaching program was effective in improving knowledge of polycystic ovarian disease and its prevention among adolescent girls.

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