

## Original Research Article

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# Effectiveness of planned teaching programme on knowledge regarding poly cystic ovarian disease among adolescent girls of Sursinghdhar, New Tehri, Uttarkhand, India

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## ABSTRACT

**Background:** An experimental study was conducted to evaluate the effectiveness of planned teaching programme on knowledge regarding polycystic ovarian disease (PCOD) among adolescent girls.

**Methods:** The research design adopted for the study was one group pre – test post – test design and approach was educative and evaluative approach. This study was undertaken in village of Sursinghdhar, New Tehri, Uttarakhand, India. The data were collected through the questionnaire method with sample size 60 adolescent girls.

**Results:** Findings related to the assessment of pre-test knowledge regarding PCOD depicted that 48.4% of the respondents had average knowledge while 43.3% had poor knowledge. Only 8.3% had good knowledge regarding PCOD. The pretest mean and Sd was  $10.1 \pm 4.0$ . Post-test knowledge regarding PCOD depicted that 81.7% of respondents had good knowledge whereas 16.7% and 1.6% reported average and poor knowledge. The post test mean and SD was  $19.0 \pm 2.8$ . Effectiveness of PTP on knowledge regarding PCOD among adolescent girls was calculated by paired t- test; and value was 24.1 with p value of 0.001 (S) at  $\leq 0.05$  level of significance. It was highly significant. Chi square test revealed that there was significant association between pre-test knowledge score with age (p value 0.02) and previous knowledge socio-demographic variable p value 0.05 at  $\leq 0.05$  level of significance

**Conclusions:** The overall findings of the study clearly shows that the pretest knowledge was very less related to PCOD and there is the statistically enhancement in post-test knowledge after PTP. It reveals that, if the adolescent girls are provided regular awareness programme on PCOD will definitely brief up their knowledge, which in turn to improve the total quality of one's reproductive health.

**Keywords:** Adolescent girls, Polycystic ovarian syndrome, Structured teaching programme

## INTRODUCTION

Adolescence is a period of transition between childhood and adulthood, a time of profound biological, intellectual, psychological, and economic changes. During this period individual reaches physical and sexual maturity, develop more sophisticated reasoning abilities. The changes of adolescence have important implications for

understanding the kinds of health risks to which young people are exposed, the health enhancing and risk taking behaviors in which they engage, and the major opportunities for health promotion among this population.<sup>1</sup>

In adolescent period many diseases affecting adolescent girls like menstrual irregularities, dysmenorrhea, menorrhagia, premenstrual syndrome, amenorrhea, oligomenorrhea, premature ovarian failure or polycystic

ovarian syndrome. Now a day's polycystic ovarian syndrome is considered as a widespread problem among adolescent girls.<sup>2</sup> Polycystic ovarian syndrome (PCOS) was formerly called Stein-Levinthal Syndrome. In 1935 Dr. Stein and Levinthal described a syndrome in which women suffered irregular and usually rare periods, hirsutism (hair growth), and varying degrees of infertility.<sup>3</sup>

The short-term complications of polycystic ovarian disease include menstrual irregularities, hyperandrogenism, insulin resistance and hyperinsulimia, obstructive sleep apnea, dyslipidemia, oligoovulation anovulation and long-term complication includes endometrial hyperplasia, metabolic syndrome, cardiovascular disease, psychological disorders.<sup>4</sup> A healthy lifestyle is one of the most important aspects of managing Polycystic ovarian syndrome successfully. A healthy diet will ensure that the adolescent girls are getting an adequate intake of nutrients, vitamins and minerals. Healthy diet and avoid junk foods and regular exercise reduce the severity of polycystic ovarian symptoms.<sup>5</sup>

Healthy food habits and exercise is a great way to help combat the weight gain Talking with other teens and women with PCOS is a great way to share information about treatment and get support.<sup>6</sup> Lack of knowledge and the negative lifestyle attitude towards polycystic ovarian disease among college girls and not taking any measures to improve their lifestyle pattern is felt by the investigator that these college girls can be helped by assessing their knowledge and with a view to change lifestyle by providing necessary information, so as to help them to get aware about the polycystic ovarian syndrome.<sup>7</sup>

In order to create awareness regarding PCOD researcher conducted A study to assess the effectiveness of planned teaching program (PTP) on knowledge regarding PCOD among adolescent girls of Sursinghdhar, New Tehri, Uttarakhand; To evaluate the effectiveness of PTP on knowledge regarding PCOD among adolescent girls and to find out association between pre-test knowledge score with selected demographic variables.

## METHODS

The A quantitative approach and one group pre-test post-test design was selected for study without the control group. The study was conducted at village Kanda and Kanda Kholi, at Sursinghdhar, New Tehri, Uttarakhand. The population comprised of adolescent girls. 60 samples by simple random sampling technique were used in which sample selection done by lottery method. Part 1 The tool consist of 8 items related to demographic variable which were- age, education status, dietary pattern, previous knowledge regarding PCOD, source of information, socio-economic status, family history of PCOD. Part 2: It consist of 25 MCQ on knowledge regarding PCOD and each question has 1 correct answer and each question carry 1 mark for correct answer. Informed written consent was obtained from the participants and ethical permission was

taken from the ethical committee. Pre-test was done and after that structured programme was conducted regarding polycystic ovarian syndrome; after 7th day post-test was done. Descriptive statistics includes frequency, percentage, mean, standard deviation was used to describe the result. Inferential statistics like paired t test, Chi square test, chi square test with Yates correction and Fisher exact test were used to find the effectiveness and association.

## RESULTS

### *Pre-test level of knowledge regarding PCOD among adolescent girls*

The data in Table 1 presents the effectiveness of intervention. At pre-test level the Mean  $\pm$  SD score was found to be  $10.1 \pm 4.0$  while at post-test level the Mean  $\pm$  SD score was found to  $19.0 \pm 2.8$  at 95% CI i.e., 8.8 (8.1-9.6). Further probing into the table.

**Table 1: Demographic variable of participants**

Variable	F	%
<b>Age (in years)</b>		
14-15	25	41.7
16-17	35	58.3
<b>Religion</b>		
Hindu	52	86.7
Muslim	8	13.3
<b>Educational status</b>		
10 <sup>th</sup>	11	18.4
11 <sup>th</sup>	9	15.0
12 <sup>th</sup>	22	36.6
9 <sup>th</sup>	18	30.0
<b>Dietary pattern</b>		
Mixed	46	76.7
Vegetarian	14	23.3
<b>Previous Knowledge regarding PCOD</b>		
Yes	7	11.7
No	53	88.3
<b>Source of Information</b>		
No Information	53	88.3
Family/relatives/friends	3	5.0
Health Worker	1	1.7
Mass Media	3	5.0
<b>Socio-economic Status</b>		
Middle class	56	93.4
Upper class	2	3.3
Lower class	2	3.3
<b>Anyone in family suffered from PCOD</b>		
No	57	95.0
Yes	3	5.0

Data in Table 2 elucidates that at pre-test level the Mean  $\pm$  SD score was found to be  $10.1 \pm 4.0$ . Regarding the knowledge of the adolescent girls about PCOD, it was found that 48.4 percent of the respondents had average knowledge while 43.3 percent had poor knowledge. Only 8.3% reported to had good knowledge regarding PCOD.

**Table 2: Mean $\pm$ SD and category of pre-test score.**

Variable	Mean $\pm$ SD	Poor f (%)	Average f (%)	Good f (%)
Pre-test	10.1 $\pm$ 4.0	26 (43.3)	29 (48.4)	5 (8.3)

**Post-test level of knowledge of regarding PCOD among adolescent girls**

The post-test data in Table 3 illustrates that the Mean $\pm$ SD score was found to  $19.0\pm2.8$ . 81.7% of the samples were found to have good knowledge whereas 16.7% and 1.6% reported to have average and poor knowledge respectively about PCOD.

**Table 3: Mean $\pm$ SD and category of post-test score.**

Variable	Mean $\pm$ SD	Poor f (%)	Average f (%)	Good f (%)
Post-test	19.0 $\pm$ 2.8	1 (1.6)	10 (16.7)	49 (81.7)

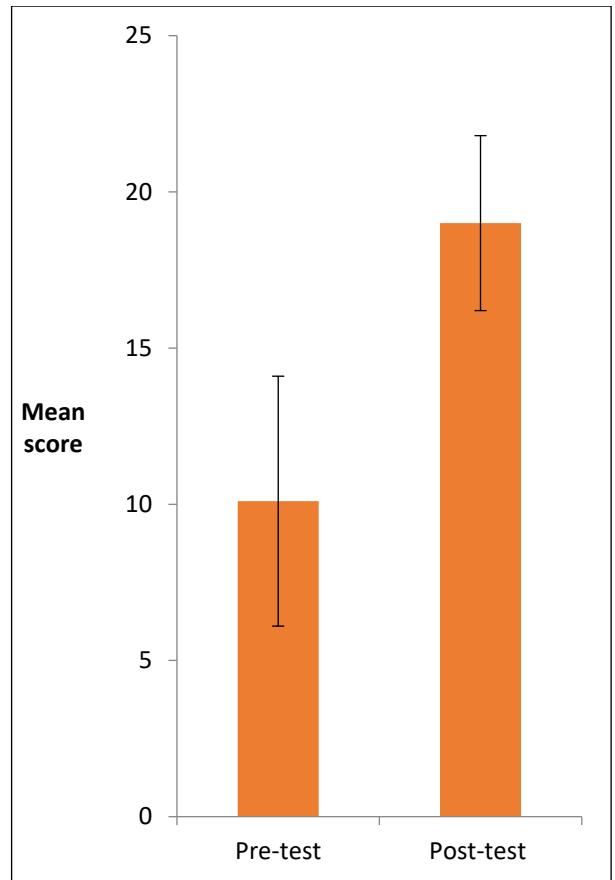
**Table 4: Effectiveness of intervention on PCOD knowledge of the samples.**

Variable	Pre-test (Mean $\pm$ S D)	Post-test (Mean $\pm$ S D)	T value	P value
Knowledge	10.1 $\pm$ 4.0	19.0 $\pm$ 2.8	24.1	0.001 (S)

**Table 5: of demographic variables of participants with knowledge of related to PCOD.**

Variable	Variable category	Knowledge category			Fisher exact test	P value
		Poor f	Average f	Good f		
Age	14-15	16	8	1	2	7.55
	16-17	10	21	4		
Religion	Hindu	22	26	4	2	0.511
	Muslim	4	3	1		
Educational Status	10 <sup>th</sup>	7	3	1	6	0.43 (NS)
	11 <sup>th</sup>	4	5	0		
	12 <sup>th</sup>	6	13	3		
	9 <sup>th</sup>	9	8	1		
Dietary Pattern	Mixed	20	22	4	2	1.00 (NS)
	Vegetarian	6	7	1		
Previous Knowledge regarding PCOD	Yes	1	4	2	2	0.05 (S)
	No	25	25	3		
Source of Information	No Information	25	25	3	6	0.06 (NS)
	Family/relatives/friends	0	2	1		
	Health Worker	1	0	0		
	Mass Media	0	2	1		

Continued.



**Figure 1: Comparison of pre-test and post-test mean knowledge score.**

Variable	Variable category	Knowledge category			Fisher exact test	P value
		Poor	Average	Good		
Socio-economic Status	Middle class	23	28	5	4	0.40 (NS)
	Upper class	1	1	0		
	Lower class	2	0	0		
Anyone in family suffered from PCOD	No	26	27	4	2	0.12 (NS)
	Yes	0	2	1		

It was found that 13% of the adolescent's knowledge level did not change even after intervention. However, the score of 87% of the adolescents increased from their initial level regarding PCOD knowledge. This difference was found to be statistically highly significant at 0.001 level of significance.

## DISCUSSION

Based on the above objective of the study to assess the pre-test level of knowledge regarding PCOD among adolescent girls of Sursinghdhar, New Tehri. The findings shows that 48.4 percent of the respondents had average knowledge while 43.3 percent had poor knowledge. Only 8.3% reported to had good knowledge regarding PCOD. A similar study done by the Kalpana in 2013 to assess of knowledge before administration of structured teaching programme on PCOD show that 109 (90.83) students were inadequate and 11 (09.17) students had moderate knowledge regarding PCOD.

Sunny in 2013 also find that 86.7% of adolescents girls having in adequate knowledge, 13.3% having moderate knowledge and none of them having adequate knowledge. Finding of the study revealed a significant increase in post-test knowledge score after the administration of PTP. 81.7% of the samples were found to have good knowledge whereas 16.7% and 1.6% reported to have average and poor knowledge respectively about PCOD.

It was found that 13% of the students knowledge level did not change even after intervention. However, the score of 87% of the students increased from their initial level regarding PCOD knowledge. This difference was found to be statistically highly significant at 0.001 level of significance. A similar study done by Kalpana in 2013 shows that enhancement between the pre-test and post-test was 19.75. Sunny in 2013 states that there is significant increase of 40.2% knowledge after administration of self-instructional module.

Thus, the difference between pre and post- test knowledge score was significant at 0.001 level. It was concluded that age and previous knowledge about PCOD was found to be significantly associated with pre-test knowledge level but other demographic variables were not significantly associated with knowledge. A similar study done by

Kalpana in 2013 states that educational status, type of family and family income was found to be significantly associated with the pre-test knowledge. Sunny in 2013 revealed that there was significant association between knowledge score and selected demographic variables like age, place of resident and previous knowledge.

## CONCLUSION

The overall findings of the study clearly shows that the pretest knowledge was very less related to PCOD and there is the statistically enhancement in post-test knowledge after PTP. It reveals that, if the adolescent girls are provided regular awareness programme on PCOD will definitely brief up their knowledge, which in turn to improve the total quality of one's reproductive health.

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