ISSN: 2582-7162

Original Article

A Study to Assess the Effectiveness of Planned Teaching Programme On Knowledge and Attitude Regarding Polycystic Ovarian Syndrome (PCOS) Among Adolescent Girls (14-17 Years) In Govt. Girls Sen. Sec. School, Bhangrotu, Nerchowk (Mandi) (H.P.)

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Abstract

Introduction : Polycystic Ovary Syndrome (PCOS) is a common endocrine disorder among adolescent girls, characterized by symptoms such as irregular menstruation, hirsutism, and an increased risk of metabolic complications.

Materials and Methods: In this study the research approach was a pre-experimental "one-group pre-test post-test design", involving 60 adolescent girls (14-17 years) selected through Non-Probability Convenient sampling in Govt. Girls Sen. Sec. School Bhangrotu, Nerchowk (Mandi) (H.P.). Pre-test conducted then next day planned teaching given on polycystic ovarian syndrome then after one-week post-test done on same group, and analysis done by using descriptive and inferential statistics.

Results: The present study findings showed that 85% girls had Adequate knowledge. The mean post-test knowledge score was 24.05 (SD = 2.929), compared to the pre-test mean score of 10.79 (SD = 2.18). The paired t-test indicated a statistically significant difference ($t = 33.897$, $p < 0.001$), confirming the effectiveness of the teaching programme.

Conclusions : There was a marked improvement in attitudes towards PCOS. None of the participants had a negative attitude, 2.5% had a neutral attitude, and a substantial 97.5% had a positive attitude. The change in attitude

How to cite this article: Preet P, Gupta D. A Study to Assess the Effectiveness of Planned Teaching Programme On Knowledge and Attitude Regarding Polycystic Ovarian Syndrome (PCOS) Among Adolescent Girls (14-17 Years) In Govt. Girls Sen. Sec. School, Bhangrotu, Nerchowk (Mandi) (H.P.). SDES-IJIR; 2025; 6-2: 923-929

Submitted: 25-March -2025; **Accepted:** 25-April-2025; **Published:** 08-May-2025

Introduction

Polycystic Ovary Syndrome (PCOS) is a common endocrine disorder that affects a significant number of adolescent girls worldwide. The prevalence of PCOS varies across different populations, with higher rates reported in certain ethnic groups. 1 At the global level, PCOS poses a significant health burden. The global prevalence of PCOS is estimated to be between 5 and 18%, with an average prevalence of 276.4 cases per 100,000 people in Europe. 2 This means that approximately 116 million women worldwide have PCOS. The prevalence of PCOS varies by region, with the highest rates being reported in the Middle East and South Asia.

The lowest rates are reported in Western Europe and North America. The World Health Organization (WHO)

does not have specific data on the prevalence of PCOS by country.3 However, the WHO does estimate that 1 in 10 women of reproductive age worldwide has PCOS. This means that there are approximately 222 million women with PCOS worldwide. The WHO also estimates that 50% of women with PCOS are not aware that they have the condition.

This is because PCOS can often be asymptomatic or the symptoms can be mild. As a result, many women with PCOS go undiagnosed and untreated.4 In India, PCOS has emerged as a significant health concern. India has one of the highest prevalence rates of PCOS in the world, with estimates suggesting that 1 in every 5 women in the country may be affected by the syndrome. Several factors contribute to the high prevalence of PCOS in India, including genetic predisposition, lifestyle changes, dietary habits, and obesity.5

In 2019, Ganie et al. concluded the prevalence of PCOS in India ranging from 3.7%–22.5% depending on the population studied and criteria used for diagnosis. A report from this laboratory showed that overall, 71% of the women with PCOS resided in urban regions, while 29% in rural regions in the Haryana state of India. The symptoms of PCOS can vary from woman 2 to woman, but they often include irregular or absent menstrual periods, hirsutism (excessive hair growth), acne, and infertility. PCOS can also increase the risk of developing type 2 diabetes, heart disease, and endometrial cancer.6 PCOS presents with a range of signs and symptoms that can vary in severity. Common signs and symptoms include irregular menstrual cycles, prolonged or heavy periods, hirsutism (excessive hair growth on the face, chest, or back), acne, weight gain or difficulty losing weight, and hair loss.

Some girls may also experience mood swings, anxiety, and depression. It is important to note that not all girls with PCOS will experience the same symptoms, and the severity can vary from individual to individual.

The exact cause of PCOS is not fully understood, but it is believed to involve a combination of genetic and environmental factors. Hormonal imbalances, specifically elevated levels of androgens (male hormones), play a significant role in the development of PCOS. Insulin resistance, a condition in which the body's cells do not respond effectively to insulin, is also associated with PCOS. Genetic predisposition, obesity, unhealthy lifestyle habits, and exposure to endocrine-disrupting chemicals are considered contributing factors. However, more research is needed to fully understand the complex etiology of PCOS.

Government policies and initiatives play a crucial role in addressing PCOS among adolescent girls. Governments can focus on:

1. **Awareness Campaigns:** Developing and implementing awareness campaigns to educate the public, healthcare professionals, and schools about PCOS, its signs, symptoms, and management options.
2. **Access to Healthcare:** Ensuring affordable and accessible healthcare services, including screening, diagnosis, and treatment for PCOS. This can involve reducing financial barriers, increasing the number of healthcare professionals with expertise in PCOS, and improving infrastructure for diagnosis and treatment.
3. **School-Based Programs:** Introducing comprehensive reproductive health education programs in schools that cover topics such as PCOS, menstrual

Objectives

1. To assess the knowledge and attitude regarding PCOS among adolescent girls (14 -17 years) in Govt. Girls Sen. Sec. School at Nerchowk (Mandi) (H.P.).
2. To prepare and administer the structured teaching programme regarding PCOS among adolescent girls (14 -17 years) in Govt. Girls Sen. Sec. School at Nerchowk (Mandi) (H.P.).

https://doi.org/10.47997/sdes-ijir/6.2.2025:923-929

3. To find out effectiveness of the structured teaching programme regarding PCOS among adolescent (14 - 17 years) in Govt. Girls Sen. Sec. School at Nerchowk (Mandi) (H.P.).
4. To determine the association between knowledge and attitude regarding PCOS among adolescent girls with their selected demographic variables.

Materials & Methods

Research Approach: Research approach employing a quantitative research approach to assess the effectiveness of a planned teaching program on PCOS knowledge and attitudes among adolescent girls.

Research Design: The research design selected for the present study was pre-experimental with one• group pretest and post-test design, in which pre-test was conducted, followed by Planned Teaching Program regarding Polycystic Ovarian Syndrome (PCOS) and then conducted post- test for the same group.

Independent variable: The planned teaching program aimed at educating• adolescent girls about PCOS and its management.

Dependent variable: The knowledge and attitudes regarding PCOS among• adolescent girls, which are expected to be influenced by the teaching program.

Research Setting: The study setting is the location in which the research is conducted it could be natural, partially controlled, or highly controlled. The present study was conducted in Govt. Girls Sen Sec School, Bhangrotu, Nerchowk, Mandi, Himachal Pradesh.

Population: The target population for this study consists of adolescent girls aged 14-17 years attending Govt. Girls Sen. Sec. School Bhangrotu, Nerchowk, Mandi, Himachal Pradesh.

Sample: In this study, the participants were selected from the population of adolescent girls attending the school.

Sample size: The total sample size was depending on the feasibility and availability of participants within the school.

Sampling technique: The study was employing a convenient sampling technique, selecting participants who are easily accessible and willing to participate.

Criteria for selection of sample

Inclusive criteria: For present study inclusive criteria included:

1. Student who were willing to participate in the study.
2. Student who were present at the time of the data collection.

Exclusive criteria: For present study exclusion criteria included:

1. Adolescent girls who were sick or not present at the time of data collection.
2. Adolescent girls who are not willing to participate.

Tool of Data Collection

Tools are the procedures or instruments used by the researcher to collect data. To assess the knowledge and attitude regarding Polycystic Ovarian Syndrome (PCOS) among adolescent girls (14 -17 Years) tool consists of sections A, B and C.

Section A- Socio- Demographic Profile

Section B- Self structured questionnaire related Knowledge regarding Polycystic Ovarian Syndrome (PCOS)

Section C- Likert scale to assess Attitude scale regarding Polycystic Ovarian Syndrome (PCOS)

https://doi.org/10.47997/sdes-ijir/6.2.2025:923-929

SECTION-A

Findings related to frequency (f) & percentage (%)distribution of sociodemographic profile of the subject.

Frequency(f) & percentage (%)distribution of socio- demographic profile of the subjects

Demographic Variables	Options	f (%)
Age	14 years	35 (43.8%)
	15 years	16 (20.0%)
	16 years	24 (30.0%)
	17 years	5 (6.3%)
Education Status	9^{th}	16 (20.0%)
	10^{th}	24 (30.0%)
	11^{th}	24 (30.0%)
	12^{th}	16 (20.0%)
At Age When the Menarche Onset	<11 years	9 (11.3%)
	12 years	37 (46.3%)
	13 years	22 (27.5%)
	14 or above	12 (15.0%)
Regularity of Menstrual Cycle	Regular	52 (65.0%)
	Irregular	27 (33.8%)
	Spotting	1(1.3%)
	Absence	-
Duration of Menstrual Blood Flow	2-3 days	14 (17.5%)
	4-5 days	44 (55.0%)
	6-7 days	15 (18.8%)
	> 7 days	7 (8.8%)
Weight	< 35 kg	25 (31.3%)
	35-45kg	29 (36.3%)
	46-55kg	24 (30.0%)
	56-65kg	2 (2.5%)

Table4.1 (B) Frequency(f) & percentage (%)distribution of socio- demographic profile of the subjects

Demographic Variables	Options	f (%)
Area	Rural	37 (46.3%)
	Urban	43 (53.8%)
type of Family	Joint family	45 (56.3%)
	Nuclear family	33 (41.3%)
	Single parent	-
	Extended family	2 (2.5%)

https://doi.org/10.47997/sdes-ijir/6.2.2025:923-929

Food Usually Liking	Junk food consumption	11 (13.8%)
	Vegetarian	55 (68.8%)
	Non-vegetarian	11 (13.8%)
	Eggetarian	3 (3.8%)
Sleeping Pattern	Less than 6hours	5 (6.3%)
	6-8hours	47 (58.8%)
	8-10hours	21 (26.3%)
	Morethan10 hours	7 (8.8%)
Socio-Economic Factor	Lower	8 (10.0%)
	Middle	70 (87.5%)
	Higher	2 (2.5%)
Family History of Menstrual Disturbance	Yes	23 (28.8%)
	No	57 (71.3%)
Previous Information	Yes	38 (47.5%)
	No	42 (52.5%)
Source of Information	Social media	10 (37.0%)
	Family members	23 (85.2%)
	Newspaper	-
	Friends	4 (14.8%)

Table 4.15 (A): Association of pretest and post-test knowledge scores with socio-demographic variables regarding polycystic ovary syndrome (PCOS)

ASSOCIATION OF PRE-TEST AND POST TEST KNOWLEDGE SCORES WITH SELECTED SOCIO-DEMOGRAPHIC VARIABLES.									
Demographic Variable	**Options**	**Pre-Test**				**Post-Test**			
		Chi Test	**PValue**	**df**	**Table Value**	**Chi Test**	**PValue**	**df**	**Table Value**
Age	14 years	6.221	0.101	3	7.815	7.204	0.066	3	7.815
	15 years								
	16 years								
	17 years								
Education Status	9th	9.820	**0.020****	3	7.815	1.732	0.630	3	7.815
	10th								
	11th								
	12th								
At Age When the Menarche Onset	<11years	5.093	0.165	3	7.815	2.627	0.453	3	7.815
	12 years								
	13 years								
	14 or above								

https://doi.org/10.47997/sdes-ijir/6.2.2025:923-929

Regularity of Menstrual Cycle	Regular Irregular Spotting Absence	0.788	0.674	2	5.991	0.183	0.912	2	5.991
Duration of Menstrual Blood Flow	2-3days 4-5days 6-7days >7 days	0.711	0.871	3	7.815	23.864	**0.000*** **	3	7.815
Weight	<35 kg 35-45kg 46-55kg	3.465	0.325	3	7.815	2.552	0.466	3	7.815

significant*highly significant

Conclusions

The study focused on assessing the assessing the knowledge and attitude regarding polycystic ovarian syndrome (PCOS) among adolescent girls (14 -17years). The results reveal the significant impact of a planned teaching program. The pretest-posttest design demonstrated a substantial increase in knowledge scores, witha statistically significant difference confirmed by the paired t-test. Furthermore, the intervention markedly shifted the participants' attitudes towards PCOS, fostering a positive outlook. The enhanced understanding and positive attitude towards PCOS underscore the necessity for integrating similar educational initiatives into school curriculums, which could lead to better health awareness and management among adolescents.

Financial support and sponsorship: Nil

Conflicts of interests: There is no conflict of interest

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