

# A Study to Evaluate the Effectiveness of Structure Teaching Program on Knowledge Regarding Polycystic Ovarian Syndrome Among Undergraduate Female Students in Selected Schools of Sharda University, Greater Noida, Uttar Pradesh

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**Abstract:-** Polycystic Ovarian Syndrome (PCOS)- one amongst the commonest hormonal disorders in women between the age group of 18 years to 45 years. Amenorrhea, infertility, evidence of hyperandrogenism (HA), insulin resistance, dyslipidaemia, and amenorrhea are all possible symptoms of PCOS. Persistent anovulation over an extended period is the apparent underlying cause. **Aim:** The study's aim was to raise public awareness of early PCOS detection and management through the use of healthcare professionals. **Methodology:** To determine the impact of a structured training curriculum on female undergraduate students' comprehension of polycystic ovarian syndrome, a quasi-experimental two group pre and post-test design was utilised. The target population for the study was undergraduate female students. Data analysis was done using the study's aims and assumptions as the basis for the sample size of 60. Statistical Package EZR - Software version 2.4 was used to analyse the data. **Result:** The pre-test knowledge scores of the experimental group and the control group of female students were both  $12.40 \pm 5.19$  and  $11.77 \pm 4.36$ , respectively. The experimental group's post-test knowledge scores were statistically significantly different from the control group's ( $p=0.00$ ) mean scores in this study  $23.53 \pm 3.51$  and the control group's being  $14.53 \pm 2.93$ . **Conclusion:** The results indicate that understanding PCOS is crucial for adolescent groups in

**order to comprehend disease conditions and receive appropriate treatment to avoid developing other life-threatening problems as well as future infertility.**

**Keywords:** Polycystic ovarian syndrome, Hirsutism, Dyslipidaemia, Acanthis Nigricans, Hyperandrogenism.

## I. INTRODUCTION

Polycystic ovarian syndrome (PCOS) is a typical commonest hormonal condition that primarily affects women who are fertile. PCOS is frequently found in women who were initially diagnosed with infertility. The three main signs of polycystic ovarian syndrome are irregular menstruation cycles, excessive body or face hair, and polycystic ovaries.<sup>[1]</sup>

Any of the dysfunctional states can be detected in the clinical picture and ovarian status associated with PCOS. Treatment for PCOS should also focus on looking for these anomalies because these women are much more susceptible to Diabetes Mellitus Type 2, dyslipidaemia, early arteriosclerosis, and endometriosis. A better outcome will come from treating these concomitant anomalies in specific PCOS women.<sup>[2,3]</sup>

Obese or overweight young women with PCOS typically develop future metabolic and reproductive issues that necessitate costly and invasive therapy. When treating these young ladies, diet and nutrition should be carefully taken into account. [4,5]

With this background, the researcher aimed to provide knowledge regarding PCOS to young undergraduate female students.

➤ *Objectives*

- To create, approving, and carrying out a structured educational programme on polycystic ovarian syndrome.
- To examine how the arrangement of the teaching programme has influenced female undergraduate students' knowledge of polycystic ovarian syndrome.

➤ *Research Hypothesis*

- H<sub>1</sub>: There will be a considerable variation in pre- and post-test results in terms of understanding about polycystic ovarian syndrome.

**II. METHODOLOGY**

The impact of a structure teaching programme on undergraduate female students' awareness of polycystic ovarian syndrome was evaluated using a quasi-experimental two group pre and post-test design. The population of the study included female undergraduate students from Sharda University's designated Schools. The research was carried out between May and June of 2022. By employing the purposive sampling strategy, the study's sample size was 60 (using the Independence t-test formula).

➤ *Ethical consideration:*

- Obtained permission from Ethical Committee of Sharda University.
- Dean of concerned schools, Sharda University
- Informed consent obtained from participants.

➤ *Inclusion Criteria*

- Students studying in Sharda University.
- Students present during the sample collection.
- Students willing to participate.

➤ *Exclusion Criteria*

- Students who were diagnosed with PCOS.
- Students who were under the treatment of PCOS.

➤ *The study employed the following instruments to gather the data:*

- Demographic data is the first tool.
- Tool 2: Self-structured quizzes on polycystic ovarian syndrome knowledge.

➤ *Statistical Analysis*

Using the statistical programme EZR - Version 2.4, descriptive and inferential statistics were utilised to analyse the data in accordance with the aims and hypotheses.

**III. RESULTS**

According to the study, the experimental group of 63.3% and 53.3% of the control group's undergraduate female students were in the age range of 21 to 25 years. 90% samples in the experimental group and 93% of the control group are Hindu religion. 76.7% in the experimental group and 63.3% in the control group, are from nuclear families. 60% of samples in experimental group were vegetarian, and 63.3% samples in control group were on a mixed diet. The majority of the samples - 83.3% in the experimental group and 96.7% in the control group were having regular menstrual cycles. In the experimental group, 90.0% of them are menstrual disorder-free as compared to 80.0% in the control group. In the experimental group, 63.3% of female students drank 2-4L of water daily, while 46.7% of them in control group drank no more than 2L. The majority of the students, 40.0% samples in the experimental group and 40.0% in the control group, learned about PCOS from the media. Both groups shared the same initial characteristics (were homogeneous). (p>0.05).

Table 1 compares the knowledge scores from the pre- and post-tests for undergraduate female students in the experimental group and control group. (N=60)

Knowledge scores at time-points	Experimental group			Control Group			Mean Difference	Independentt-test & p value
	n	M	SD	n	M	SD		
Pre-test(n=60)	30	12.40	5.19	30	11.77	4.36	0.63	t=0.51, p=0.61(NS)
Post-test(n=60)	30	23.53	3.51	30	14.53	2.93	9.00	t=10.77, p=0.00(S)

(NS = non-significant, S = significant, p<0.05 = significant)

**Table 1** revealed that there is a statistically significant (p<0.05) mean difference noted in knowledge scores at post-test between interventional group and control group. This demonstrates that the interventional group of undergraduate female students' understanding of polycystic ovarian syndrome was improved by the structure teaching programme.

**IV. DISCUSSION**

The experimental group outperformed the control group on average in terms of knowledge scores in the post-test 23.53 ± 3.51 and the control group scoring 14.53 ± 2.93 which is statistically significant (p<0.05). This demonstrates that the interventional group of undergraduate female

students' understanding of polycystic ovarian syndrome was improved by the structure teaching programme. Another study, undertaken by Kumari D, et. al. provided support for the study shows that significant the mean difference noted in knowledge scores at post-test knowledge between interventional group and control group i.e.,  $12.6 \pm 1.9$  and  $7.4 \pm 2.9$  in control group. After implementing the organised education programme, understanding of polycystic ovarian syndrome was improved.<sup>[6]</sup>

Women with PCOS experience anxiety, depression, eating disorders, and bipolar disorder. Teenage girls are more likely to experience depression than boys because they are more self-conscious about their appearance.<sup>[7,8]</sup> The graduate programme should incorporate counselling for teenagers and in-depth study of the condition to promote awareness of the condition and lifestyle modification. Effective care of PCOS may depend on early and accurate diagnosis.<sup>[9,10]</sup>

## V. CONCLUSION

According to the findings, it's critical for young female groups to know PCOS in order to understand disease conditions and seek the adequate treatment in order to prevent the development of other potentially fatal disorders as well as future infertility as undiagnosed instances may result in a lower quality of life without the right treatment. Therefore, it is imperative to reduce both its incidence and its complications. The prevention and treatment of PCOS can be aided by adopting an active lifestyle that includes physical activity, daily appropriate sleep, good mental health, a nutritionally balanced diet that includes all five food categories in moderation, and frequent activities like yoga and walking.

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