

EMPOWERING YOUTH: FOSTERING PCOD AWARENESS AMONGST STUDENTS IN SCHOOLS AND COLLEGES FOR BETTER HEALTH AND ENHANCING QUALITY OF LIFE OF PATIENTS***¹Lidiya Anna Kuriyan, Shalet Sara Shaji², Athul H.³, Jeeva Elizabeth Thomas⁴ and Dr. Sofy Binu⁵**^{1,2,3,4}Pharm D Intern, Nazareth College of Pharmacy.⁵Assistant Professor, Department of Pharmacy Practice, Nazareth College of Pharmacy.***Corresponding Author: Lidiya Anna Kuriyan**

Pharm D Intern, Nazareth College of Pharmacy.

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ABSTRACT

Polycystic ovarian disease (PCOD), a prevalent hormonal disorder among women of reproductive age, typically manifests during adolescence, with symptoms fluctuating over time. It entails hormonal imbalances, irregular menstrual cycles, heightened androgen levels, and the formation of ovarian cysts. PCOD affects women across various age brackets, emphasizing the imperative of understanding the condition for effective management and minimizing its enduring consequences. These encompass insulin resistance, glucose intolerance, diabetes, cardiovascular ailments, and the potential development of endometrial malignancies.^[1]

KEYWORDS: Polycystic ovarian disease, Quality of life, Awareness of PCOD, Knowledge of PCOD.**INTRODUCTION**

PCOD (Polycystic Ovarian Disease) is a health condition characterized by the excessive production of immature or partially mature eggs within a woman's ovaries, leading to the formation of cysts over time. The distinguishing characteristics of PCOD include hyperandrogenism, persistent anovulation, polycystic ovarian morphology, and insulin resistance.^[2]

Quality of life (QoL) is a concept that aims to evaluate the overall well-being of individuals or populations, considering both positive and negative aspects across various dimensions of life at a specific time. This includes elements such as physical and mental health, relationships, education, work environment, social status, financial security, freedom, autonomy, sense of belonging, and environmental conditions.^[3]

Struggling with issues such as excessive body hair, difficult-to-manage acne, increased hair loss, or heightened sebum production can greatly diminish a woman's self-esteem, particularly concerning her physical attractiveness, leading to embarrassment and potentially contributing to the development of psychological disorders. Additionally, conditions like being overweight, obesity, insulin resistance, and hyperinsulinemia can either result from or lead to metabolic disorders, significantly impacting the decline in quality of life and self-perception. For women with PCOD, excess body weight and the prolonged effort to

lose it can also negatively affect their self-esteem.^[4]

Type 2 diabetes, cardiovascular disease, endometrial cancer, breast cancer, and ovarian cancer are a few examples of long-term consequences that can significantly affect women's future health and well-being.^[5] Timely identification and treatment of this condition would reduce its subsequent long-term consequences.

OBJECTIVES

- To check awareness and sources of information among females about PCOD.
- To evaluate the knowledge of PCOD among students and measure the quality of life of patients with PCOD.

MATERIALS AND METHODS**Study design**

Cross sectional descriptive study.

Study Site

The study was conducted at schools and colleges in Thiruvalla taluk, Kerala, India after obtaining the approval from the Institutional Review Board of Nazareth College of Pharmacy.

Study Duration

6 months (December 2022 – May 2023)

Sample Size

Total sample size is 750. The sample size was calculated using standard statistical formula:

$$\text{sample size} = 1 + \frac{z^2 * p(1-p)}{e^2 N}$$

N = Population Size

e = Margin of error

z = z score

p = Standard deviation

STUDY APPROVAL

The study was approved by the Institutional Review Board of Nazareth College of Pharmacy.

STUDY CRITERIA

The study will be carried out by considering the following criteria.

INCLUSION CRITERIA

- Population of age between 14-25.
- PCOD diagnosed patients

EXCLUSION CRITERIA

- Students below age 14 and above 25 years
- Geriatrics population.
- Pregnant and lactating women.
- Menarche attained within one year

STUDY SOURCE

The data required for our study were collected from the schools and colleges.

STUDY MATERIALS

Pre-designed data collection form.

STUDY PROCEDURE

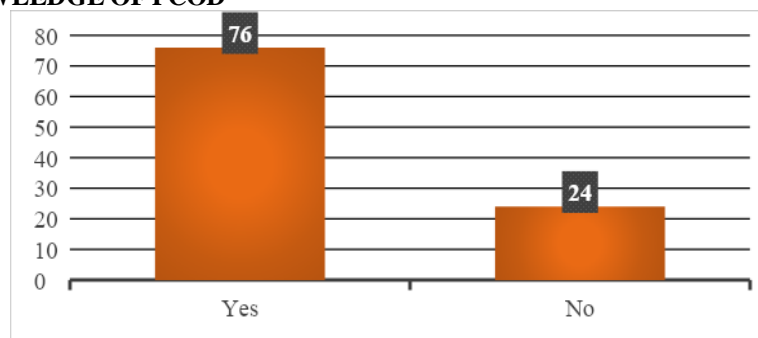
The research took place within educational institutions, where data collection forms were distributed to gather ample information. Subsequently, an awareness program was conducted to enhance participants' understanding of PCOD. Following the pre-assessment, a similar form was administered to assess the effectiveness of the program. The collected data were then statistically analyzed to determine the prevalence of PCOD among the study participants.

DATA ANALYSIS

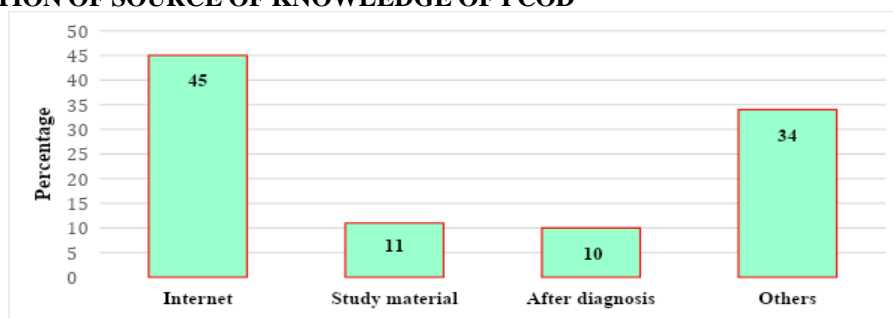
The data was inputted into Microsoft Excel, version 2013, and analyzed using SPSS 28. The findings were then depicted through tables and graphs for presentation.

RESULTS

The study aimed to evaluate the significance of PCOD awareness and knowledge among students in educational institutions and to examine the quality of life experienced by PCOD patients. Data was collected through the use of a questionnaire.

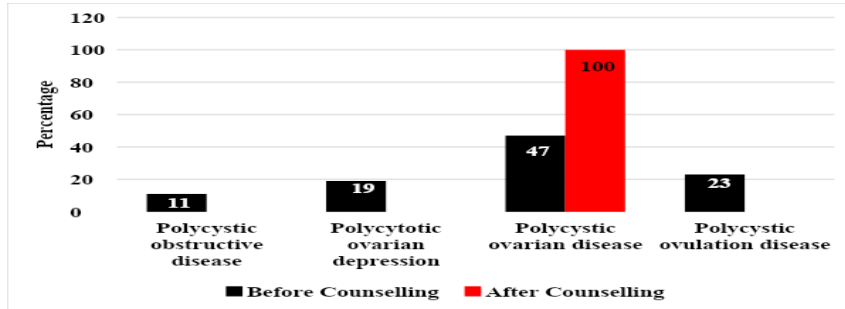
1. DATA ON KNOWLEDGE OF PCOD

When surveyed about their awareness of PCOD, 24% of the study participants indicated that they had not heard of the condition.

2. DISTRIBUTION OF SOURCE OF KNOWLEDGE OF PCOD

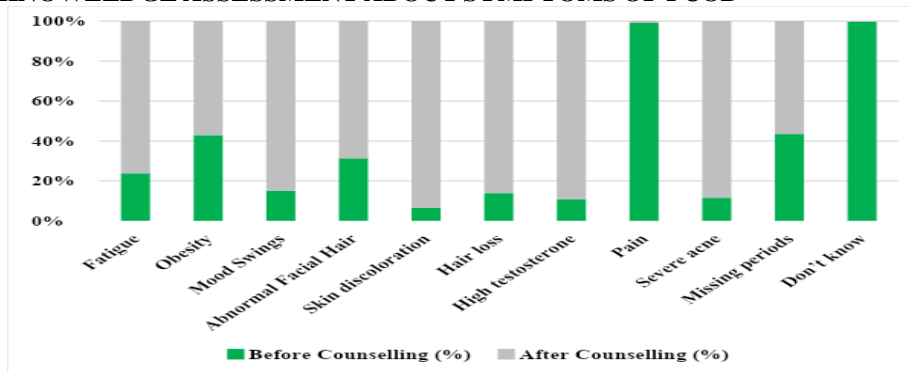
Among the 76% of study participants who were familiar with PCOD, the majority acquired knowledge about it from various online platforms.

3. DATA ON KNOWLEDGE ASSESSMENT ABOUT FULL FORM OF PCOD



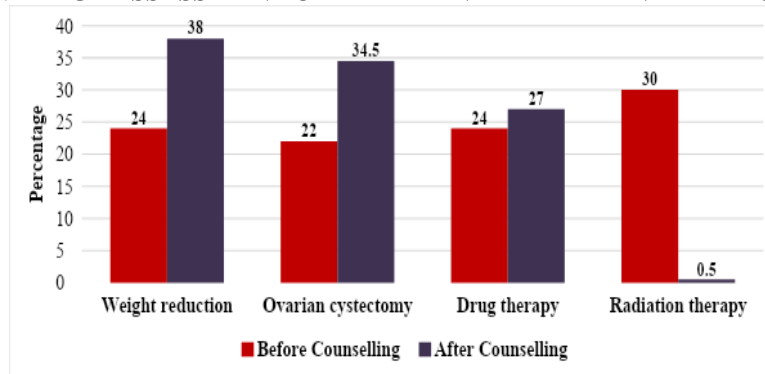
The graph above illustrates the comparison of respondents' answers regarding the full form of PCOD. Following the counseling session, the study population selected the correct answer.

4. DATA ON KNOWLEDGE ASSESSMENT ABOUT SYMPTOMS OF PCOD



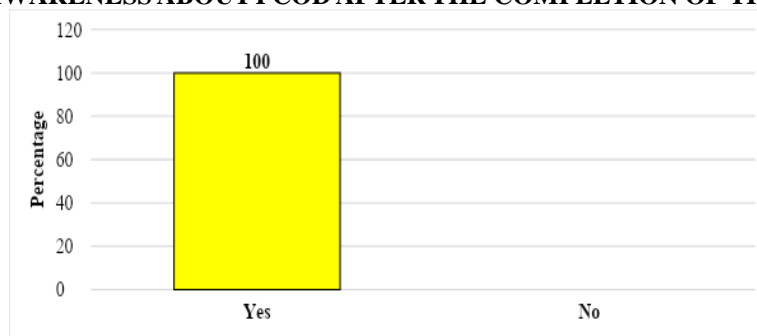
The graph above depicts the difference in individuals' awareness of PCOD symptoms before and after counseling, indicating a significant increase in their knowledge level.

5. DATA ON KNOWLEDGE ASSESSMENT OF DIFFERENT TREATMENT METHODS OF PCOD



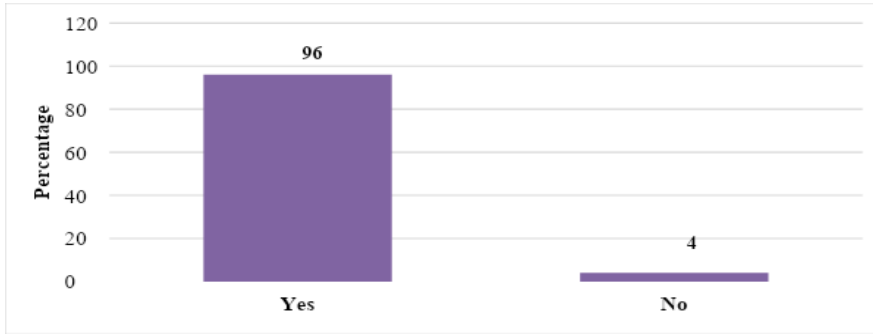
The graph above illustrates the comparison of subjects' understanding of different PCOD treatment methods before and after the counseling session. Following the counseling session, there has been an improvement in the subjects' knowledge.

6. DATA ON THE AWARENESS ABOUT PCOD AFTER THE COMPLETION OF THE SESSION



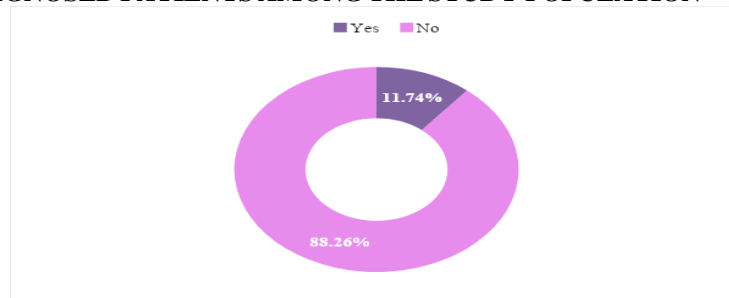
Following the session's conclusion, there has been a notable enhancement in awareness regarding PCOD.

7. DATA ON THE IMPORTANCE OF THE AWARENESS ABOUT PCOD



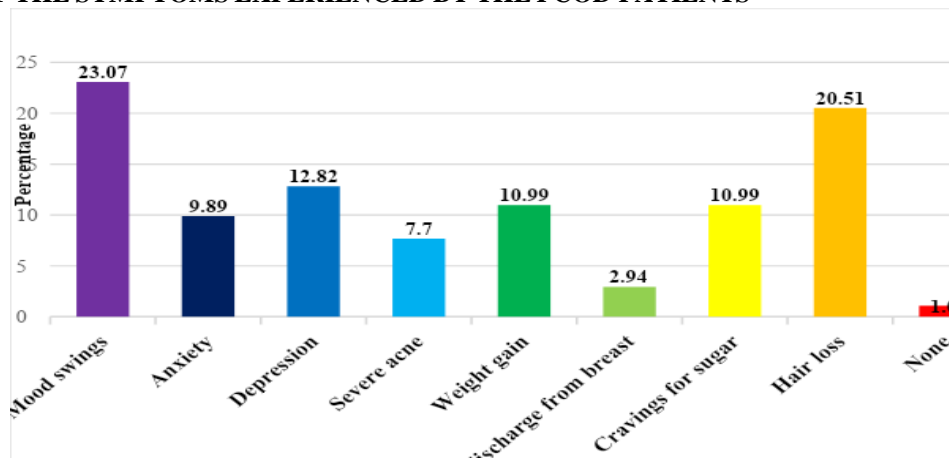
The graph above illustrates the study population's perspective on the importance of knowledge about PCOD. A striking 96% of the study participants responded affirmatively.

8. DATA OF PCOD DIAGNOSED PATIENTS AMONG THE STUDY POPULATION



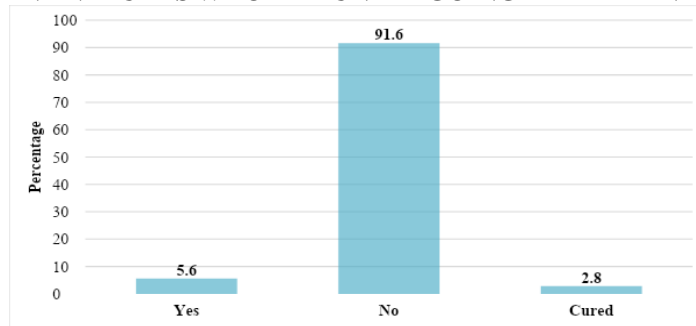
PCOD diagnosis was confirmed in 11.74% of the overall subject population.

9. DATA OF THE SYMPTOMS EXPERIENCED BY THE PCOD PATIENTS



Among PCOD patients, 23.07% experience mood swings, 20.51% suffer from alopecia, 12.82% have depression, 10.99% report weight gain, another 10.99% have sugar cravings, and 9.89% deal with anxiety.

10. DISTRIBUTION OF INDIVIDUALS WHO ARE UNDERGOING TREATMENT FOR PCOD



The graph above displays the number of individuals within the overall study population who are either receiving or not receiving treatment for PCOD.

DISCUSSION

PCOD stands as the most common hormonal disorder impacting fertile women, leading to an excess production of immature or partially mature eggs within the ovaries. While the exact cause of PCOD remains unclear, common contributing factors include unhealthy lifestyle habits, obesity, stress, and hormonal imbalances. In relation to the acknowledgement of PCOD, a study population of 750 subjects were questioned about whether they have heard about PCOD, revealed that 76% of them were familiar with the condition, while 24% were unaware of it. In our study, majority of them are unaware of the available options for managing PCOD. When PCOD is properly managed, the symptoms and long-term repercussions on your health can be significantly reduced. From the survey by the response of the participants, it is clear that the participants are now aware of PCOD.

A healthy diet and exercise can aid PCOD patients in managing their insulin levels as well as weight loss. Our study determined that out of a population of 750, 88 individuals were diagnosed with PCOD, resulting in a prevalence rate of 11.74%. Regarding anxiety and depression among PCOD patients, 9.89% of the 88 subjects experienced anxiety, while 12.82% experienced depression. In the study conducted by Prathap, et al. that showed 100% subjects had anxiety and depression was seen in 93.5%.^[6]

Regarding the occurrence of acne in PCOD patients, androgens significantly contribute to its formation by stimulating the skin's glands to produce excess sebum. Among the 88 participants in the study, 7.69% were found to have acne. In the study conducted by Manvita et al. which shows 28% of cases with acne.^[7] Regarding the alopecia in PCOD patients, out of 88 study participants, 20.51% had hair loss which was almost similar to the study conducted by Manvita et al. which shows 22% of cases with it.^[7]

CONCLUSION

PCOD is a multifaceted illness characterised by metabolic, psychosocial, and reproductive aspects. Enhanced luteinizing hormone levels, decreased follicle-stimulating hormone levels combined with increased androgens, and insulin levels that cause irregular menstruation (oligomenorrhea or amenorrhoea) are reproductive traits. Loss of femininity, body dissatisfaction, anxiety, sadness, eating disorders, and suicidal thoughts are examples of psychological traits. It is imperative to provide young girls with awareness about the illness. Determining the gaps in young female school and college students' knowledge and understanding of PCOD is crucial. Raising awareness at a young age is essential to preventing the repercussions of this frequent chronic illness. The present study indicates awareness of PCOD among students were poor, prior to the counselling session. Quality of life in PCOD patients were poor as per the study which makes it crucial

as the better understanding of the disease is important.

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