



## A STUDY TO ASSESS THE LEVEL OF KNOWLEDGE REGARDING PCOS AMONG HIGHER SECONDARY SCHOOL GIRLS IN DHARMAPURI, TAMILNADU.

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### ABSTRACT

**Introduction:** Polycystic ovarian syndrome is the major endocrine disorder among 13% of women during reproductive age and 6–18% of adolescents in India. It can cause irregular menstrual periods, ovarian cysts, hirsutism, obesity, acne, male-pattern baldness or thinning of the hair, and infertility. PCOS can be triggered by a sedentary lifestyle, a lack of nutritional food, insulin resistance, low-grade inflammation, heredity, and an excess androgen level. Adolescents should have knowledge and awareness of PCOS, which plays an important role in treating and preventing the disease. **Objectives:** 1) To assess the level of knowledge regarding PCOS among high school girls. 2) To find out the association between the level of knowledge and selected demographic variables. **Methods:** A quantitative evaluative approach and descriptive research design were used for this study. The study was conducted among 100 students of Govt. Girls Higher Secondary School, Adhiyamankottai, Dharmapuri. A non-randomized purposive sampling technique was used for this study. The tool consists of two parts. Section I: demographic variables and Section II: self-administered knowledge questionnaire. Result: The maximum number of samples was 74% with average knowledge, 24% with good knowledge, 2% with poor knowledge, and no one had excellent knowledge. Statistically, no association was found between the level of knowledge and demographic variables such as age in years, group in higher secondary, religion, type of family, living area, father's occupation, mother's occupation, monthly income of family, and family history. **Conclusion:** Through this study, we can identify the need to conduct an awareness program to enhance the knowledge of PCOS, through which we can control and prevent the same problem and its impacts in the future.

**KEYWORDS :** PCOS (polycystic ovarian syndrome), level of knowledge, Higher secondary school girls, Self-administered Knowledge Questionnaire

### INTRODUCTION

Polycystic ovarian syndrome is a major health problem in our country, especially during childbearing age. According to the World Health Organization, 1 in 10 women in the world is affected by PCOS. The hormonal imbalance causes problems in the reproductive system. The ova (female egg) will be produced by the ovary every month by a healthy menstrual cycle. This process is called ovulation. But in the case of PCOS, eggs may not be developed properly due to an imbalance in reproductive hormones. PCOS can cause irregular (or missed) periods. Irregular periods cause a lot of impacts in women, especially infertility. Due to the hormonal imbalance in the reproductive system, a lot of cysts develop in the ovary.

PCOS may be caused by a genetic factor, an environmental factor, or a metabolic disorder. PCOS leads to the following signs and symptoms: irregular uterine bleeding, infertility, recurrent miscarriage, subfertility, ovary dysfunction, amenorrhoea, androgen excess, hirsutism, seborrhoea, acne, alopecia, virilization, acanthosis nigricans, obesity, embarrassed appearance, depression, and anxiety. PCOS may be detected by polycystic ovarian morphology, testosterone level, LH and FSH levels, TSH level, prolactin level, fasting blood glucose level, lipid profile, and 17-hydroxy progesterone level. This PCOS may be treated by lifestyle modification, weight reduction, diet management, and hormonal therapy.

Dr. Anitha C. Rao et al. (2023) conducted a cross-sectional survey on knowledge and attitude towards polycystic ovarian syndrome among 150 adolescent girls in Udipi district, Karnataka. In this study, a simple random sampling technique was used to select the sample. Data were collected by using a demographic and knowledge questionnaire on PCOS and an attitude scale. The finding shows that 130 (86.7%) girls had a moderate level of knowledge and 150 (100%) girls had an unfavorable attitude towards PCOS.

Amira Mohamed Reda et al. (2022) conducted a descriptive

study on the knowledge and attitude of late adolescent girls regarding polycystic ovarian syndrome at Benha University, Egypt. A purposive sampling technique was used for this study to select the samples. The data were collected from 239 late-adolescent girls by using a structured interview questionnaire. This study result shows that more than half of late-adolescent girls had unsatisfactory knowledge and a negative attitude regarding PCOS. This study concluded that there was unsatisfactory knowledge and a negative attitude towards PCOS among late-adolescent girls.

### Specific Objectives

1. To assess the level of knowledge regarding PCOS among Higher secondary school girls
2. To find out the association between the level of knowledge with their selected demographic variables.

### METHODS AND MATERIALS

A quantitative-evaluative approach and descriptive research design were used for this study. The study was conducted among 100 samples at the Govt. Girls Higher Secondary School, Adhiyamankottai, Dharmapuri. A non-randomized purposive sampling technique was used for this study. The inclusion criteria for this study were higher secondary school girls who were willing to participate in the study and had attained menarche. The tool consists of two sections. Section I: Demographic Variables and Section II: Self-Administered Knowledge Questionnaire. The data were collected through the questionnaire method from the samples. The result was analyzed through descriptive and inferential statistics. A chi-square test was used to find the association between the knowledge and the selected demographic variables.

### RESULTS AND DISCUSSION

The collected data was analyzed and presented in the following sections:

#### Section A: Distribution of Samples in Relation to Demographic Data

**Table-1**

S.No	Demographic variables	Frequency	Percentage
1.	Age in years a) 16 b) 17 c) 18 d) >18	90 10 0 0	90 % 10 % 0 % 0 %
2.	Group in Higher Secondary a) Math, Biology b) Pure science c) Computer science d) Commerce e) Vocational group	52 34 14 0 0	52 % 34 % 14 % 0 % 0 %
3.	Religion a) Hindu b) Christian c) Muslim d) Others	98 1 0 1	98 % 1 % 0 % 1 %
4.	Type of family a) Nuclear family b) Joint family c) Extended family	77 22 1	77 % 22 % 1 %
5.	Living area a) Rural b) Urban c) Semi-urban	84 6 10	84 % 6 % 10 %
6.	Educational status of parents a) Father is only literate b) Mother is only literate c) Both are literate d) Both are illiterate	16 17 39 28	16 % 17 % 39 % 28 %
7.	Father's occupation a) Govt. employee b) Private employee c) coolie worker d) Business e) Unemployed	5 8 78 9 0	5 % 8 % 78 % 9 % 0 %
8.	Mother's occupation a) Govt. employee b) Private employee c) coolie worker d) Business e) Unemployed	2 6 84 8 0	2 % 6 % 84 % 8 % 0 %
9.	Monthly income of family a) < Rs. 5,000/- b) Rs 5,001 – 10,000/- c) Rs.10,001—15,000/- d) Rs.15,001– 20,000/- e) >20,000/-	54 28 15 3 0	54 % 28 % 15 % 3 % 0 %
10.	Family history a) Infertility b) Obesity c) Ovarian cysts d) Infertility and obesity e) Obesity and ovarian cyst f) Ovarian cysts and infertility g) None of the above	3 1 4 0 0 2 90	3 % 1 % 4 % 0 % 0 % 2 % 90 %

The above table indicates the frequency and percentage of the demographic variables of higher secondary school girls. The majority of the samples (90%) were in the age group of 16 years. More than half of the samples (52%) were studying in Math's biology group. 98 percent of the samples belong to the Hindu religion. Three-fourths of the samples (77%) belong to the nuclear family. Most of the samples (84%) lived in rural areas. The majority of the samples (39%) parents's educational status was that both were literate. Most of the samples father's (78%) and mother's (84%) occupation was coolie. More than half of the samples (54%) income was below Rs. 5,000/-, and the majority of the samples (90%) family history was not related to the problems of infertility, obesity, or

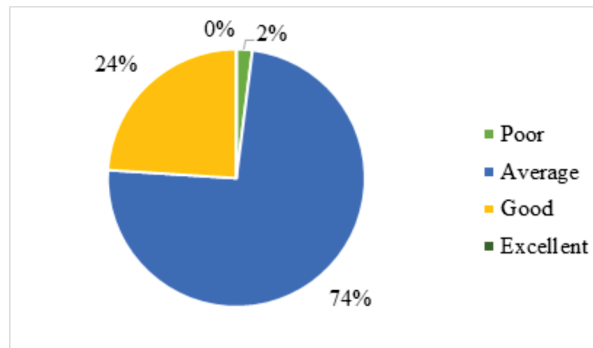
ovarian cysts.

**Section B: Assessment of Knowledge of Samples Regarding PCOS.**

The following table represents the knowledge of the samples regarding PCOS.

**Table-2**

S.NO	KNOWLEDGE SCORE	FREQUENCY	PERCENTAGE
1.	Poor	2	2%
2.	Average	74	74%
3.	Good	24	24%
4.	Excellent	0	0%



**Figure-1**

The pie diagram shows the percentage-wise distribution according to the level of knowledge of samples regarding PCOS. In the maximum number of samples, 74% have average knowledge, 24% have good knowledge, 2% have poor knowledge, and no one has excellent knowledge.

**Section C: Association Between Level of Knowledge and Selected Demographic Variables.**

S.No	Demographic variable	$\chi_2$	Df	P
1	Age in years	1.407	Df=2	5.9 (NS)
2	Group in Higher Secondary	1.824	Df=4	9.4 (NS)
3	Religion	0.213	Df=4	9.4 (NS)
4	Type of family	1.707	Df=4	9.4 (NS)
5	Living area	0.577	Df=4	9.4 (NS)
6	Educational status of parents	0.842	Df=6	12.59 (NS)
7	Father's occupation	0.320	Df=6	12.59 (NS)
8	Mother's occupation	3.112	Df=6	12.59 (NS)
9	Monthly income of family	6.178	Df=6	12.59 (NS)
10	Family history	3.075	Df=8	15.5 (NS)

Note: S-significant, HS-highly significant, NS-not significant

The findings revealed that there is no association between knowledge of higher secondary girls and their selected demographic variables like age in years, group in higher secondary, religion, type of family, living area, father's occupation, mother's occupation, monthly income of family, and family history.

**CONCLUSION**

This study shows that the majority of samples (73%) had average knowledge regarding PCOS. Through this study, we can identify that there is a need to conduct an awareness program to enhance the knowledge of PCOS, through which we can control and prevent the same problem and its impacts in the future.

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