



KNOWLEDGE AND ATTITUDE TOWARDS POLYCYSTIC OVARIAN SYNDROME AMONG ADOLESCENT GIRLS – A CROSS SECTIONAL SURVEY

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ABSTRACT

Introduction Polycystic Ovary Syndrome (PCOS) is one of the most common endocrinopathy affecting adolescent girls in their reproductive age. It has an unknown etiology and is recognized as a heterogeneous disorder that results in the overproduction of androgens, primarily from the ovary, and is associated with insulin resistance. The global prevalence of PCOS is estimated to be between (6%) and (26%). It is caused by a sedentary lifestyle and lack of nutritional food. Materials and methods A cross sectional study was conducted among 150 adolescent girls who are studying in Pre-University College of Udupi District, Karnataka. The samples were chosen using simple random sampling technique who fulfilled the inclusion criteria. The data was collected using a demographic proforma, knowledge questionnaire on PCOS and attitude scale. Results Majority of the adolescent girls 112 (74.7%) were aged 16years, 38% of the adolescent girls had their menarche at the age of 13 years. 83.3% of the girls had a regular menstrual cycle. 130(86.7%) had moderate level of knowledge. 150(100%) girls have unfavourable attitudes toward PCOS. Conclusion The study concluded that there is a need to intensify efforts in creating awareness about the complications of polycystic ovarian syndrome. A multidisciplinary approach to tackling polycystic ovarian syndrome must be emphasized.

Keyword- Knowledge, Attitude, PCOS.

I. Introduction

Polycystic ovarian syndrome is a metabolic disorder characterized by symptoms like hair loss, obesity, and infertility.[1] polycystic ovarian syndrome strikes mostly at an early age. Therefore, a substantial number of young adults go through this. PCOS is common among members of the younger generation, with almost 10 million people affected globally. One in four adolescent girls in India is estimated to have polycystic ovarian syndrome in the years 2019–2020. [2]

Worldwide statistics show more than 1.2 billion are adolescents. This indicates that roughly one in every six people is an adolescent.[3] Approximately 243 million (21%) of the Indian population constitute adolescents.[4] They have specific needs which vary with gender, life circumstances, and socioeconomic conditions.[5] Many physical, sexual, cognitive, social, and emotional changes during this time can bring anticipation and anxiety to adolescent and their families.[6] It is important for youth to understand this disease at its onset, along with the causes and implications in the future.

Few Indian studies have shown that there is a lack of knowledge and an unfavorable attitude toward PCOS. [7,8] this can lead to late detection of PCOS. The current study intends to assess the level of knowledge and attitude regarding PCOS among adolescent girls and the relationship between the level of knowledge and attitude with different demographic factors. This will enable to obtain basic data regarding the level of knowledge and attitude and further help in developing future interventions.

II. METHODS

The cross-sectional survey was conducted among 150 adolescent girls in Pre-University Colleges of Udupi district by using a simple random technique. Informed written consent was obtained from the participant's parents. Demographic details were collected using a semi-structured proforma. The level of knowledge and attitude was assessed using a structured knowledge questionnaire and attitude scale on PCOS which was developed and validated. The sociodemographic variables included age, occupation, education, previous awareness about PCOS, and source of information. The level of knowledge and attitude was assessed using a knowledge questionnaire and attitude rating scale.

The knowledge questionnaire included information regarding meaning, causes, signs and symptoms, predisposing factors, diagnostic measures, management, and complications to prevent PCOS. The level of knowledge was categorized into three categories namely good, average, and poor with the score range of (0 – 10), (11 – 20), and (21 – 30) respectively. The attitude scale comprised of 10 items. These items covered different areas including consequences and acceptance of polycystic ovarian syndrome. The attitude scores were arbitrarily categorized into unfavorable (1-16) and favorable (34-50) attitudes.

Pre-university girls aged between 16-19 years who have attained menarche, can read, and write English, and have not attended any training for PCOS for the past 3 months were included in the study. Prior to the study, ethical approval was obtained from the Institutional Research Ethics Committee (IRC 2/2021/ 02/05/2021). All the information obtained from the adolescent girls was kept confidential.

The sample size was calculated by taking a similar previous study's mean, power, and standard deviation. The reliability of the knowledge questionnaire on polycystic ovarian syndrome was established by the Split-half method and the coefficient value obtained was found to be, $r =$

0.75. The reliability of the attitude rating scale on polycystic ovarian syndrome was established by Cronbach's Alpha and the reliability was found to be, $r = 0.80$. The pilot study was found to be feasible, practicable, and acceptable.

The data was entered into Microsoft excel 2019, and the descriptive data were summarized using means, and percentages. The data was further analyzed using the statistical software SPSS16.

III. RESULTS

Table 1: Frequency and Percentage distribution of adolescent girls based on socio-demographic data

Sample characteristics	Frequency	Percentage
	(f)	(%)
1. Age (in years)		
a. 16	112	74.66
b. 17	36	24
c. 18	1	0.66
d. 19	1	0.66
2. Religion		
a. Hindu	133	88.66
b. Muslim	2	1.33
c. Christian	15	10
3. Educational status of the father		
a. Illiterate	11	7.33
b. Primary	21	14
c. Middle school	37	24.66
d. High school	40	26.66
e. Pre-University	31	20.66
f. Diploma	3	2
g. Graduate	7	4.66
h. Postgraduate and above	0	0
4. Educational status of the mother		
a. Illiterate	2	1.33
b. Primary	11	7.33
c. Middle school	46	30.66
d. High school	56	37.33
e. Pre-University	23	15.33
f. Diploma	3	2
g. Graduate	7	4.66
h. Postgraduate and above	2	1.33

5. Occupation of the Father		
a. Homemaker	17	11.33
b. Unemployed	3	2
c. Agriculture	13	8.66
d. Self-employed	34	22.66
e. Private job	30	20
f. Government job	9	6
g. Health care professionals	11	7.33
h. Fishing	33	22
6. Occupation of the mother		
a. Homemaker	98	65.33
b. Unemployed	9	6
c. Agriculture	8	5.33
d. Self-employed	5	3.33
e. Private job	9	6
government job	5	3.33
g. Health care Professional	9	6
h. Fishing	7	4.66
7. Type of the family		
a. Joint family	51	34
b. nuclear family	84	56
c. Single parent	7	4.66
d. Extended family	8	5.33
8. Monthly income of the family (in rupees)		
a. < 10,000	59	39.33
b. 10,001-20,000	37	24.66
c. 20,001-30,000	24	16
d. 30,001-40,000	13	8.66
e. 40,001-50,000	9	6
f. <50,001	10	6.66
9. Area of residence		
a. Rural	107	71.33
b. Urban	43	28.66
10. Age at first menstruation (in years)		
a. 9	1	0.66
b. 10	6	4
c. 11	9	6
d. 12	31	20.66
e. 13	57	38
f. 14	36	24
g. 15	10	6.66
11. Regularity of menstrual cycle		
a. Regular	125	83.33
b. Irregular	25	16.66
12. Number of days of the menstrual cycle		
a. 3	4	2.66
b. 4	19	12.66
c. 5	61	40.66
d. 6	31	20.66
e. 7	33	22

f.8	2	1.33
13. Previous information about PCOS		
a. Yes	27	18
b. No	123	82
14. Source of previous information about PCOS		
a. Family members	16	10.66
b. Friends	0	0
c. Mass media	8	5.33
d. School teachers	3	2

Table 1 describes the socio-demographic data of adolescent girls. Most of the adolescent girls 112 (74.7%) were aged 16 years, from a rural background (71.3%), were from a nuclear family (56%), and belonged to (88.6%) Hindu religion. Regarding the educational status of parents, 109(72.6%) of fathers and 115(76.6%) mothers had a high school education or below. The majority of fathers were employed (86.6%) and most were engaged in fishing, private jobs or self-employed. 65.3% of the mothers were homemakers and only 22% were employed in job.

With regard to the income of the family, 39.3% had an income below 10000 rupees per month and 24.6% had a monthly income below 20000 rupees. 38% of the adolescent girls had their menarche at the age of 13 years and 24% at the age of 14 years. So, majority (82.6%) of adolescent girls had their menarche between the ages of 12 to 14 years. 83.3% of the girls had a regular menstrual cycle, and 61.2% had 5-6 days of menstruation during their periods. 82% had no prior information about PCOS and among those who had information, the major source of information was from their family members followed by mass media.

TABLE 2: FREQUENCY AND PERCENTAGE DISTRIBUTION OF LEVEL OF KNOWLEDGE SCORE OF THE ADOLESCENT GIRLS ON PCOS

Level of knowledge	Range of score	Frequency (f)	Percentage (%)
		Poor	0-10
Moderate	11-20	130	86.7%
Good	21-30	2	1.3%

Table 2 describes the adolescent girl's overall knowledge about PCOS and the data is described as frequency and percentage based on the level of the score range. 130(86.7%) had moderate level of knowledge, 2(1.3%) had good knowledge and 18(12%) girls had poor knowledge regarding PCOS.

TABLE 3: FREQUENCY AND PERCENTAGE DISTRIBUTION OF LEVEL OF ATTITUDE SCORE OF THE ADOLESCENT GIRLS ON PCOS

Level of Attitude	Range of score	Frequency (f)	Percentage (%)
		Unfavorable attitude	10 – 29
Favorable attitude	30-50	0	0

The attitude of adolescent girls regarding PCOS was assessed (Table 3) and it was found that all 150(100%) girls have unfavorable attitudes toward PCOS.

IV. DISCUSSION

The current study aimed at assessing the level of knowledge and attitude regarding PCOS among adolescent girls, and to explore the relationship between socio-demographic factors and the level of knowledge and attitude. The study will help us to gain more idea about the adolescent girl's knowledge and attitude regarding PCOS which is an important public health problem which will help us in planning interventions.

Regarding the socio-demographic profile of the adolescent girls, most were aged 16, from a rural background, and from a low monthly income family. The majority of parents had primary education, most of the fathers were manual laborers and the mothers were homemakers. Most of the adolescent girls were from a nuclear family. A study conducted in Mangalore that looked at adolescent girls' knowledge also showed a similar socio-demographic profile. [7].

A study from Benha University among late adolescent girls revealed that the mean age was 18.4 years and reported that most parents had a secondary level of education.[9]

In the current study, the majority (86.7%) had a moderate level of knowledge. The age group 16-17 years showed a significant correlation with the level of knowledge. None of the other demographic factors showed any significance. These findings are of public health importance and point to the need to develop educational modules and training for our adolescent children. Different results were shown in other studies from other parts of India. A study from Trivandrum found that

88.33 % of samples have inadequate knowledge, in another study conducted at Mangalore 70% had poor, and 28.8% had an average level of knowledge. [7,8]. In another study, 50% had average knowledge and 14% had good knowledge.[10]

In our current study, the entire adolescent girls had an unfavorable attitude toward PCOS. This finding is interesting because even though the majority had a moderate level of knowledge regarding PCOS, it didn't reflect on the attitude scores showing that the current level of knowledge is not enough to change the attitude. This points to the need for well-planned school-based educational interventions. In a previous study from Egypt, 52.7% of the girls had a negative attitude toward PCOS.[9] In a previous study, 75% of the adolescents had neutral and 25% had negative attitudes regarding PCOS.[8]

Since most of the samples were from a rural background, the results may not be generalizable to the entire population.

V. FUNDING

The authors report no source of funding from any external institutions or agencies.

VI. REFERENCES

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