



PRACTICES RELATED TO POLYCYSTIC OVARY SYNDROME (PCOS) AMONG YOUNG WOMEN IN TAMIL NADU

Monal Sanjula A¹, Suvedhaa R S² & Dr K Sathyamurthi³

^{1,2}MSW, Department of Social Work, Madras School of Social Work

³Associate Professor, Department of Social Work, Madras School of Social Work

¹Madras School of Social Work, Chennai, Tamil Nadu, India

Abstract: This study aims to assess the practices related to PCOS among young women in Tamil Nadu and to examine their association with selected socio-demographic. A descriptive research design was adopted for the study. Data were collected from young women aged 18–30 years across selected districts of Tamil Nadu using a non-probability convenience sampling method. A semi-structured questionnaire was used to gather information. The findings reveal that two-thirds of the respondents shows a moderate level of practices, while one-fourth reported low-level practices and less than one-fourth show high-level practices. The majority of respondents belonged to the 21–25 years age group. More than half of the respondents were postgraduates and students. Inferential analysis using non-parametric tests indicated that most socio-demographic variables such as age, employment status, income, awareness, and family history do not show a statistically significant association with practice levels. However, educational level shows a significant association with practices ($p < 0.05$), indicating better practices among more educated respondents. Overall, the findings highlight that although a moderate level of practices is observed among most respondents, there remains a need to strengthen consistent and effective health behaviours. From a social work perspective, the study emphasizes the importance of community-based interventions and institutional support systems to promote sustainable lifestyle practices and improve the well-being of young women.

Keywords - Polycystic Ovary Syndrome, health practices, lifestyle management, young women, preventive health, social work perspective

I. INTRODUCTION

Polycystic Ovary Syndrome (PCOS) is a hormonal condition that triggers irregular periods, high androgen levels (resulting in acne, excess facial or body hair, hair loss), and frequently small cysts on the ovaries. It often leads to weight gain, insulin resistance, infertility, and also leading to the long-term risks of type 2 diabetes, heart disease, and uterine cancer [1]. PCOS is not only a reproductive disorder but also has long-term metabolic and psychological implications, including insulin resistance, obesity, infertility, anxiety, and depression [2]. The condition requires continuous management like ongoing practices rather than a one-time treatment.

Globally, knowledge of PCOS remains suboptimal among women, with studies showing moderate awareness of symptoms but poor understanding of metabolic risks and management [4]. Attitudes are often neutral or negative due to stigma around infertility and body image, while practices lag, with low adherence to lifestyle interventions despite high prevalence (5–20%) [4]. Systematic reviews highlight

KAP gaps in diverse populations, underscoring needs for targeted education to boost early screening [5]. In India, KAP studies reveal low-to-moderate knowledge, particularly on long-term complications, with pooled PCOS prevalence near 10–11% under Rotterdam criteria, contributing to underdiagnosis. Regional variations persist, with urban women faring better but overall gaps demanding policy focus [6]. Therefore, the present study aims to assess the level of practices related to Polycystic Ovary Syndrome (PCOS) among young women in Tamil Nadu and to suggest appropriate interventions from a social work perspective to enhance healthy lifestyle behaviours and overall well-being.

1.1. Practice and Lifestyle Management of Polycystic Ovary Syndrome

Research on Polycystic Ovary Syndrome (PCOS) increasingly highlights the importance of behavioural practices and lifestyle management in controlling symptoms and improving overall health outcomes. However, the existing literature shows a gap between awareness and actual implementation of these practices. A cross-sectional KAP study among 418 female students in Telangana. the findings showed that 72% of respondents had poor practice scores, despite moderate levels of attitude which means they reported that a majority of respondents reported poor practice levels despite having moderate attitudes, indicating that knowledge and attitude do not always translate into behaviour [7]. Similarly, Nadeem N et al. (2024), in a study among 255 women diagnosed with PCOS in Pakistan, found that although 38.04% of participants had a positive attitude towards managing the condition, only 2.74% adhered to recommended practices [8]. This disconnect between awareness and action is further supported by Mathur A and Tiwari A (2023), who observed that even though most respondents were aware of PCOS, a significant number led sedentary lifestyles and did not engage in regular exercise Prevalence of Polycystic Ovary Syndrome (PCOS) in adolescent girls and young women: A questionnaire-based study, 2023 in National Capital Region, within the age group of 11 to 30. The six-month study involves simple random sampling with a sampling size as 267. The study found that 77.1% of the respondents are diagnosed with PCOS and the age range at the time of diagnosis was 18-20. The findings related to attitude and practices show that while around 80% of the respondents were aware of the growing concern of the condition, more than a quarter of them don't exercise at all and live a sedentary lifestyle. The study concludes that women are at high risk of PCOS at a young age due to sedentary lifestyle and inactivity and suggests spreading awareness about the problems associated with PCOS with a focus on the importance of lifestyle changes [9].

Further, studies have identified psychological and emotional factors as key determinants influencing health practices. A study highlighted that body image and illness perception significantly affect mental health outcomes, which in turn influence the adoption of healthy behaviours [10]. Likewise, another study found higher levels of depression, anxiety, and stress among women with PCOS, suggesting that psychological burden may act as a barrier to maintaining consistent lifestyle practices. Through a case-control study in Oman, found that women with PCOS had significantly higher levels of depression, anxiety, and stress. These psychological factors were identified as barriers to maintaining consistent health practices [11].

On the other hand, several studies emphasize the importance and effectiveness of lifestyle interventions in managing PCOS. Further, reported that although awareness regarding healthy lifestyle practices was relatively high, adherence remained inconsistent due to barriers such as lack of motivation and time constraints [12]. A structured interventions involving diet, exercise, and behavioural counselling improved adherence; however, long-term maintenance continued to be a challenge [13]. In line with these findings, author observed that unhealthy lifestyle practices, including physical inactivity and poor dietary habits, were prevalent among women with PCOS [14].

II. RESEARCH METHODOLOGY

A descriptive research design was conducted among young women in Tamil Nadu. The study covered multiple districts including Chennai, Tirunelveli, Kancheepuram, Vellore, Cuddalore, Tiruvallur, Madurai, Tiruvarur, Kallakurichi, Erode, Salem, Chengalpattu, Krishnagiri, and Tiruchirappalli. The study population consisted of women aged 18–35 years. A non-probability sampling method was adopted, and participants were selected using convenience sampling. Data were collected using a semi-structured questionnaire. The reliability of the practice scale was assessed using Cronbach's Alpha, and the obtained value was 0.823, indicating acceptable internal consistency of the items used to measure practice towards PCOS. The questionnaire was pre-tested on a small group of women college students

from Chennai. This helped to ensure clarity, relevance, and appropriateness of the questions. The study utilized both primary and secondary data. Primary data were collected directly from respondents, while secondary data were obtained from journals, articles, books, and other relevant sources. The collected data were coded and analysed using SPSS. The normality of the data was assessed using the Kolmogorov–Smirnov and Shapiro–Wilk tests. The results indicated that the data were not normally distributed ($p < 0.05$). Therefore, non-parametric tests were employed for further analysis, with the Mann–Whitney U test used for comparing two groups and the Kruskal–Wallis test used for comparing more than two groups.

III. RESULTS AND DISCUSSION

Socio-Demographic Profile of the Respondent

Table 3.1: Socio-Demographic Profile of the Respondents (N = 83)

<i>Variable</i>	<i>Category</i>	<i>Frequency (n)</i>	<i>Percentage (%)</i>
<i>Age (years)</i>	<i>18–20</i>	9	10.8
	<i>21–25</i>	63	75.9
	<i>26–30</i>	8	9.6
	<i>31–35</i>	3	3.6
<i>Body Mass Index (BMI)</i>	<i>Underweight</i>	10	12.0
	<i>Healthy</i>	37	44.6
	<i>Overweight</i>	28	33.7
	<i>Obesity</i>	8	9.6
<i>Marital Status</i>	<i>Married</i>	12	14.5
	<i>Unmarried</i>	71	85.5
<i>Religion</i>	<i>Hindu</i>	66	79.5
	<i>Muslim</i>	14	16.9
	<i>Christian</i>	1	1.2
	<i>Others</i>	2	2.4
<i>Educational Level</i>	<i>Higher Secondary</i>	2	2.4
	<i>Undergraduate</i>	33	39.8
	<i>Postgraduate</i>	48	57.8
<i>Employment Status</i>	<i>Student</i>	49	59.0
	<i>Working</i>	28	33.7
	<i>Self-employed</i>	2	2.4
	<i>Housewife</i>	4	4.8
<i>Monthly Family Income</i>	<i>Below ₹20,000</i>	17	20.5
	<i>₹20,001–₹50,000</i>	21	25.3
	<i>₹50,001–₹1,00,000</i>	19	22.9
	<i>Above ₹1,00,000</i>	26	31.3
<i>District of Residence</i>	<i>Chennai</i>	52	62.7
	<i>Tiruvallur</i>	8	9.6
	<i>Krishnagiri</i>	4	4.8
	<i>Others</i>	19	22.9
<i>Age at Menarche</i>	<i>10–15 years</i>	79	95.2
	<i>Above 15 years</i>	4	4.8

Table 3.1 shows the socio-demographic profile of the respondents indicates that the majority (75.9%) belonged to the 21–25 years age group. Nearly 44.6% had a normal Body Mass Index, while 33.7% were overweight. The majority of respondents (85.5%) were unmarried, while only 14.5% were married. In terms of religion, most participants (79.5%) identified as Hindu, followed by 16.9% Muslim, with very few belongings to other religious groups. More than half of the participants (57.8%) were postgraduates and 59.0% were students. In terms of income, 31.3% of respondents reported a monthly family income above ₹1,00,000, followed by 25.3% in the ₹20,001–₹50,000 category and 22.9% in the ₹50,001–₹1,00,000 range, while 20.5% belonged to the lower income group. Most participants (62.7%)

were from Chennai. Additionally, the majority (95.2%) reported attaining menarche between 10–15 years, with only a small proportion (4.8%) experiencing it after 15 years.

Table 3.2. Awareness of PCOS among Respondents

<i>Variable</i>	<i>Category</i>	<i>Frequency (n)</i>	<i>Percentage (%)</i>
<i>Awareness of PCOS</i>	<i>Yes</i>	69	83.1
	<i>Maybe</i>	7	8.4
	<i>No</i>	7	8.4
<i>Age at First Awareness</i>	<i>10–17 years</i>	35	42.2
	<i>18–20 years</i>	35	42.2
	<i>21–25 years</i>	11	13.3
	<i>Above 25 years</i>	2	2.4
<i>Source of Awareness</i>	<i>Family/Peers</i>	38	45.8
	<i>Social Media</i>	27	32.5
	<i>Medical Professionals</i>	13	15.7
	<i>Newspapers/Books</i>	3	3.6
	<i>None</i>	2	2.4
<i>Family History of PCOS</i>	<i>Yes</i>	11	13.3
	<i>No</i>	55	66.3
	<i>Not Sure</i>	17	20.5

Table 3.2 findings indicate that a large majority of respondents (83.1%) reported being aware of PCOS, while equal proportions (8.4% each) were either uncertain or unaware of the condition. Regarding age at first awareness, most participants became aware during adolescence and early adulthood, with 42.2% each in the 10–17 and 18–20 age groups. Only a small proportion reported awareness after the age of 20. In terms of source of awareness, family members and peers were the primary source for nearly half of the respondents (45.8%), followed by social media (32.5%). Medical professionals accounted for a smaller proportion (15.7%), while very few respondents reported newspapers/books (3.6%) or no source of awareness (2.4%). With respect to family history, the majority of respondents (66.3%) reported no known history of PCOS, while 13.3% reported a positive family history and 20.5% were unsure.

Figure 3.1. Steps Taken by Respondents after PCOS Diagnosis

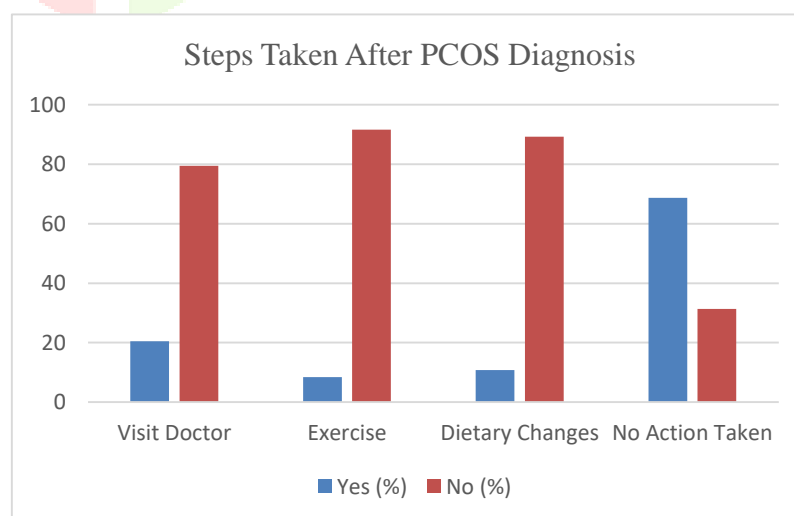


Table 3.3. Association between Socio-Demographic Variables and Level of Practices towards PCOS

<i>Variable</i>	<i>Category</i>	<i>Low n (%)</i>	<i>Moderate n (%)</i>	<i>High n (%)</i>	<i>Total n (%)</i>
<i>Age (years)</i>	<i>18–20</i>	2 (2.4)	4 (4.8)	3 (3.6)	9 (10.8)
	<i>21–25</i>	25 (30.1)	27 (32.5)	11 (13.3)	63 (75.9)
	<i>26–30</i>	2 (2.4)	0 (0.0)	6 (7.2)	8 (9.6)
	<i>31–35</i>	1 (1.2)	1 (1.2)	1 (1.2)	3 (3.6)
<i>Marital Status</i>	<i>Married</i>	6 (7.2)	1 (1.2)	5 (6.0)	12 (14.5)
	<i>Unmarried</i>	24 (28.9)	31 (37.3)	16 (19.3)	71 (85.5)
<i>Educational Level</i>	<i>Higher</i>	2 (2.4)	0 (0.0)	0 (0.0)	2 (2.4)
	<i>Secondary</i>	8 (9.6)	13 (15.7)	12 (14.5)	33 (39.8)
	<i>Undergraduate</i>	20 (24.1)	19 (22.9)	9 (10.8)	48 (57.8)
	<i>Postgraduate</i>				
<i>Employment Status</i>	<i>Student</i>	21 (25.3)	20 (24.1)	8 (9.6)	49 (59.0)
	<i>Working</i>	7 (8.4)	12 (14.5)	9 (10.8)	28 (33.7)
	<i>Self-employed</i>	1 (1.2)	0 (0.0)	1 (1.2)	2 (2.4)
	<i>Housewife</i>	1 (1.2)	0 (0.0)	3 (3.6)	4 (4.8)
<i>Age at Menarche</i>	<i>10–15</i>	29 (34.9)	30 (36.1)	20 (24.1)	79 (95.2)
	<i>>15</i>	1 (1.2)	2 (2.4)	1 (1.2)	4 (4.8)
<i>Awareness of PCOS</i>	<i>Yes</i>	24 (28.9)	28 (33.7)	17 (20.5)	69 (83.1)
	<i>Maybe</i>	3 (3.6)	2 (2.4)	2 (2.4)	7 (8.4)
	<i>No</i>	3 (3.6)	2 (2.4)	2 (2.4)	7 (8.4)

The above table 3.3 presents the association between selected socio-demographic variables and the level of practices towards PCOS among respondents. With regard to age, the majority (75.9%) of respondents belonged to the 21–25 years category, among whom nearly one-third (32.5%) reported moderate practice, while 30.1% shows low practice and almost one-fourth (13.3%) showed high practice. In terms of marital status, the vast majority (85.5%) of respondents were unmarried. Among them, 37.3% had moderate practice, 28.9% had low practice, and almost one-fourth (19.3%) reported high practice. Married respondents constituted 14.5%, with comparatively lower representation across all practice levels. Regarding educational level, more than half of the respondents (57.8%) were postgraduates, among whom 24.1% had low practice, 22.9% had moderate practice, and 10.8% had high practice. Undergraduate respondents showed 39.8%, with 15.7% showing moderate practice and 14.5% high practice. More than half of the respondents (59.0%) were students. Among them, one-fourth (25.3%) shows low practice, 24.1% moderate practice, and 9.6% high practice. Working respondents constituted 33.7%, with 14.5% showing moderate practice and 10.8% high practice. Considering age at menarche, almost all (95.2%) respondents attained menarche between 10–15 years. Among them, 36.1% shows moderate practice, 34.9% low practice, and almost one-fourth (24.1%) high practice. Only 4.8% attained menarche after 15 years. Awareness of PCOS, the majority (83.1%) of respondents were aware of the condition. Among them, 33.7% showed moderate practice, 28.9% low practice, and 20.5% high practice. Overall, the findings indicate that moderate levels of practice were more common across most socio-demographic categories, while high practice levels were comparatively lower, suggesting a gap between awareness and effective health practices among respondents.

Hypothesis Testing

- H_0 : There is no significant association between selected clinical and socio-demographic variables and the level of practices towards PCOS.
- H_1 : There is a significant association between selected clinical and socio-demographic variables and the level of practices towards PCOS.

To test the above hypothesis, non-parametric tests were used. The Mann–Whitney U test was applied to compare the level of practices between two groups, and the Kruskal–Wallis test was used to compare the level of practices among more than two groups.

Table 3.4. Mann–Whitney U Test

<i>Variable</i>	<i>Categories</i>	<i>N</i>	<i>Mean Rank</i>	<i>Mann–Whitney U</i>	<i>Z value</i>	<i>p-value</i>
<i>Clinical diagnosis of PCOS</i>	<i>Yes</i>	19	50.37	449.000	-1.725	0.084
	<i>No</i>	64	39.52			
<i>Irregular menstrual periods</i>	<i>No</i>	46	41.46	826.000	-0.229	0.819
	<i>Yes</i>	37	42.68			
<i>Excessive hair growth</i>	<i>No</i>	63	41.96	627.500	-0.027	0.979
	<i>Yes</i>	20	42.13			
<i>Weight gain</i>	<i>No</i>	56	41.58	732.500	-0.229	0.819
	<i>Yes</i>	27	42.87			
<i>Hair thinning / hair loss</i>	<i>No</i>	44	46.57	657.000	-1.836	0.066
	<i>Yes</i>	39	36.85			
<i>Oily skin / acne</i>	<i>No</i>	52	44.88	604.500	-1.691	0.091
	<i>Yes</i>	30	35.65			
<i>No symptoms</i>	<i>No</i>	72	41.67	372.000	-0.323	0.747
	<i>Yes</i>	11	44.18			

Table 3.4 results indicate that there is no statistically significant difference in practice scores based on clinical diagnosis of PCOS ($p = 0.084$), although respondents diagnosed with PCOS showed a comparatively higher mean rank than those not diagnosed. Similarly, no significant association was found between practice levels and experience of irregular menstrual periods ($p = 0.819$), excessive hair growth ($p = 0.979$), and weight gain ($p = 0.819$), as the p -values were much higher than the 0.05 level of significance. Further, variables such as hair thinning or hair loss ($p = 0.066$) and oily skin or acne ($p = 0.091$) also did not show statistically significant differences, although their p -values were relatively closer to the level of significance, indicating a mild variation in practice scores. In addition, no significant difference was observed between respondents who experienced none of the symptoms and those who did ($p = 0.747$). Overall, the findings reveal that none of the selected clinical variables have a statistically significant association with the level of practices towards PCOS, suggesting that practice behaviours are not influenced by the presence or absence of these clinical symptoms.

Table 3.5. Kruskal–Wallis Test

<i>Variable</i>	<i>H Value</i>	<i>df</i>	<i>p-value</i>
<i>Age</i>	4.834	3	0.184
<i>Educational level</i>	9.280	2	0.010
<i>Employment status</i>	4.364	3	0.225
<i>Monthly family income</i>	1.915	3	0.590
<i>Awareness of PCOS</i>	0.763	2	0.683
<i>Family history of PCOS</i>	1.157	2	0.561

Table 3.5 findings indicate that age ($p = 0.184$), employment status ($p = 0.225$), monthly family income ($p = 0.590$), awareness of PCOS ($p = 0.683$), and family history of PCOS ($p = 0.561$) do not show any statistically significant association with the level of practices, as their p -values are greater than 0.05. However, educational level ($p = 0.010$) shows a statistically significant association with practice levels, indicating that respondents' level of education influences their practices towards PCOS. Overall, the results suggest that among the selected variables, only educational level has a significant impact on practices, while other socio-demographic factors do not have a significant influence.

IV. SUGGESTIONS

- There is a need to develop awareness programs that focus not only on knowledge but also on translating knowledge into healthy practices such as regular exercise, balanced diet, and routine health check-ups. Promote regular physical activity among young women through structured community-based fitness initiatives such as group exercise sessions, yoga programs, and wellness clubs.
- Facilitate nutrition education interventions focusing on healthy dietary practices, emphasizing low-glycaemic and balanced diets through workshops and awareness campaigns.
- Strengthen weight management practices by organizing lifestyle modification programs that integrate diet planning and physical activity. These practices can be facilitated through Primary Health Centres (PHCs) by integrating PCOS-focused counselling during routine outpatient services.
- Enhance health-seeking behaviour by encouraging regular medical consultations and routine screening through outreach programs and health camps.
- Stress management practices can be addressed through the District Mental Health Programme (DMHP) by providing counselling services, mental health awareness sessions, and stress reduction workshops.
- Self-monitoring behaviours can be encouraged through college health clubs and NSS (National Service Scheme) units, promoting menstrual tracking and symptom awareness activities among students.
- Adherence to treatment and healthy practices can be reinforced through ASHA workers and community health nurses, who can provide continuous follow-up, home visits, and motivation.

V. Conclusion

The study focused on understanding the level of practices related to Polycystic Ovary Syndrome (PCOS) among young women and the factors influencing these practices. The findings show that two-thirds of the respondents have a moderate level of practices, while one-fourth have low-level practices and less than one-fourth have high-level practices. This indicates that most respondents follow some healthy practices, but not consistently. The analysis of association revealed that educational level has a significant influence on the level of practices, highlighting the role of education in shaping health-related behaviours. Other variables such as age, employment status, income, awareness, and family history did not show a statistically significant association, suggesting that behavioural practices may be influenced more by access to information and behavioural interventions rather than demographic factors alone. The results underscore the importance of strengthening practice-oriented interventions rather than limiting efforts to awareness alone. The adoption of regular physical activity, balanced diet, stress management, and routine health monitoring remains crucial in managing PCOS effectively. From a social work perspective, the study highlights the need to strengthen behavioural change through community-based interventions and institutional support systems. Strengthening existing systems such as primary healthcare services, women welfare programs, and community networks can help in improving practices among young women. Overall, the study highlights that improving practices related to PCOS requires continuous support, structured interventions, and active involvement of healthcare and social welfare systems to ensure better health outcomes and quality of life.

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