

Awareness Regarding Polycystic Ovarian Syndrome (PCOS) and Its Pregnancy-Related Complications Among Young Female Adults in Kanpur, Uttar Pradesh: A Cross-Sectional Study

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ABSTRACT

Background: Polycystic Ovarian Syndrome (PCOS) is a common, complex hormonal disorder affecting 8–13% of women worldwide, frequently causing reproductive, metabolic, and psychological issues⁷. It is marked by excess androgens, ovulation problems (resulting in irregular periods or infertility), and ovarian cysts⁹. Treatment typically involves lifestyle modifications, hormonal contraceptives, and insulin sensitizers⁸.

Objective: To assess awareness regarding PCOS and its pregnancy-related complications among young female adults and to determine the association between knowledge scores and selected demographic variables.

Methods: A quantitative cross-sectional study was conducted among 40 female college students aged 18–22 years in a selected college in Kanpur, Uttar Pradesh. Convenience sampling was used. Data were collected using a structured questionnaire and analyzed using descriptive and inferential statistics (Chi-square test).

Results: The findings revealed that 60% of participants had average knowledge, 30% had good knowledge, and 10% had poor knowledge regarding PCOS and its complications. The mean knowledge score was 13.05 ± 3.914 . No statistically significant association ($p > 0.05$) was found between knowledge scores and demographic variables.

Conclusion: Awareness regarding PCOS and its pregnancy-related complications among young women was moderate but inadequate. Structured educational interventions are essential to improve knowledge and promote early prevention.

Keywords: PCOS, awareness, pregnancy complications, young women, reproductive health, nursing education

INTRODUCTION

Polycystic Ovarian Syndrome (PCOS) is one of the most common endocrine disorders affecting women of reproductive age¹. Despite its high prevalence, awareness regarding its complications—especially pregnancy-related risks—remains limited among young women. Polycystic Ovarian Syndrome (PCOS) is a prevalent endocrine disorder affecting approximately 8–13% of women globally, with a significant proportion remaining undiagnosed². It is characterized by hyperandrogenism, ovulatory dysfunction, and polycystic ovarian morphology³.

In addition, psychological issues such as anxiety and depression are commonly reported⁴.

Despite its clinical significance, awareness among young women remains inadequate⁵. Early recognition and lifestyle modification can significantly reduce long-term complications, making awareness studies crucial—especially among college-going females⁶.

METHODOLOGY

- **Study Design**
Quantitative cross-sectional study
- **Setting**
Utkarsh college of Nursing, Kanpur, Uttar Pradesh
- **Population**
Young female adults aged 18–22 years
- **Sample Size**
40 participants
- **Sampling Technique**

Convenience sampling

INCLUSION CRITERIA

- Female students aged 18–22 years
- Willing to participate

EXCLUSION CRITERIA

- Diagnosed PCOS cases
- Unwilling participants

RESULTS-

SECTION A: DEMOGRAPHIC VARIABLES

Table 1: Frequency and percentage distribution of sample

VARIABLE	CATEGORY	FREQUENCY	PERCENTAGE (%)
AGE	19–20 years	12	60
	20-21 years	5	25
	21–22 years	3	15
AREA OF LIVING	Urban	9	45
	Rural	11	55
MARITAL STATUS	Unmarried	19	95
	Married	1	5
CURRENT LIVING	Day Scholar	6	30
	Hosteller	14	70
FAMILY TYPE	Nuclear	8	40
	Joint	12	60

Fig 1. BAR DIAGRAM SHOWING PERCENTAGE DISTRIBUTION OF THE SAMPLE ACCORDING TO AGE

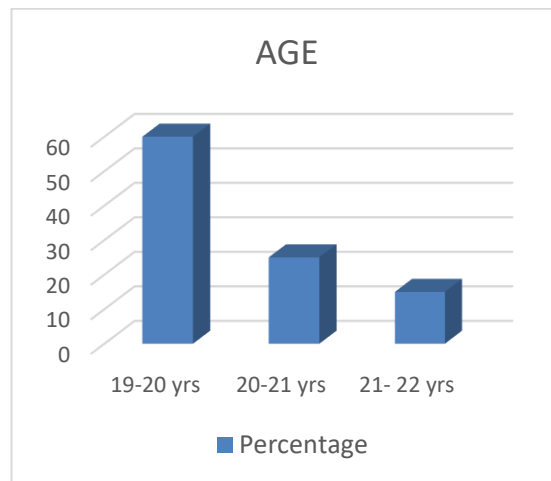


Fig 2. PIE CHART SHOWING PERCENTAGE DISTRIBUTION OF THE SAMPLE ACCORDING TO AREA OF LIVING

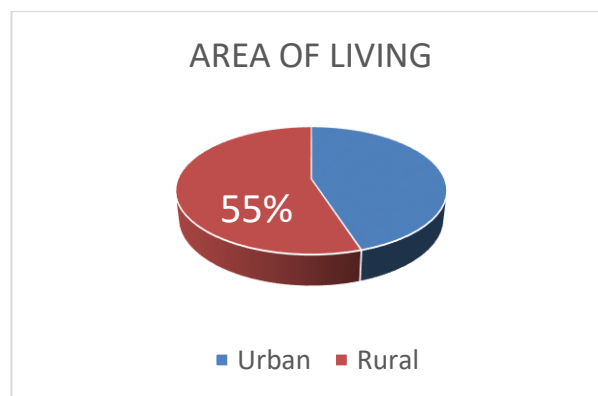


Fig 3. LINE GRAPH SHOWING PERCENTAGE DISTRIBUTION OF THE SAMPLE ACCORDING TO MARITAL STATUS

SCORE RANGE	CATEGORY	FREQUENCY	PERCENTAGE	MEAN SCORE	STANDARD DEVIATION
1-8	Poor	2	10%	13.05	3.914
9-15	Average	12	60%		
16-20	Good	6	30%		

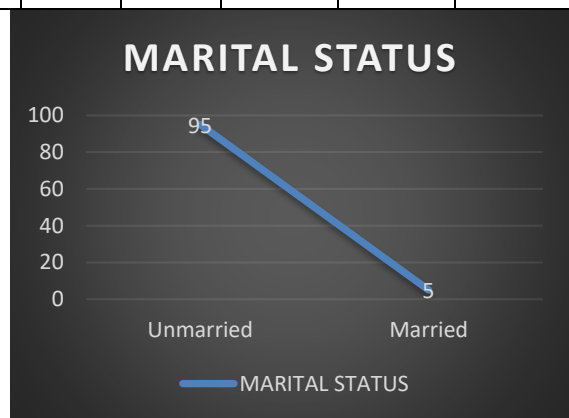


Fig 4. DOUGHNUT GRAPH SHOWING PERCENTAGE DISTRIBUTION OF THE SAMPLE ACCORDING TO CURRENT LIVING

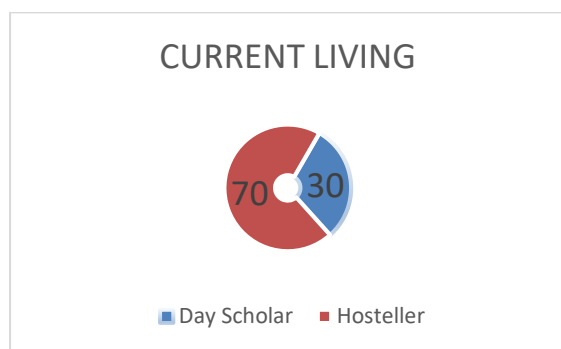
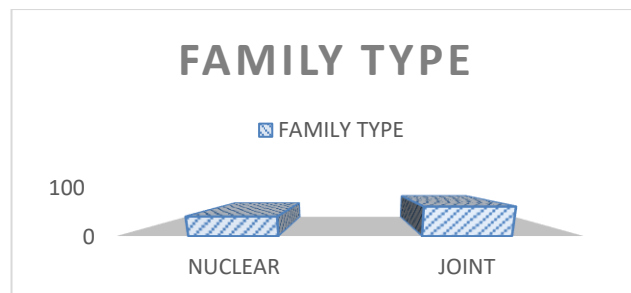


Fig 5. DOUGHNUT GRAPH SHOWING PERCENTAGE DISTRIBUTION OF THE SAMPLE ACCORDING TO CURRENT LIVING



SECTION B: KNOWLEDGE SCORES

SECTION C: ASSOCIATION

Chi-square analysis showed **no statistically significant association (p > 0.05)** between knowledge score and variables such as age, marital status, residence, dietary preference, and academic background.

VARIABLES	LEVEL OF KNOWLEDGE			DF	CHI SQUARE VALUE
	POOR (1 - 8)	AVERAGE (9 - 15)	GOOD (16- 20)		
AGE				4	5.66 NS
(a) 19 - 20 years	1	5	4		
(b) 20 - 21 years					
(c) 21 - 22 years	1	6	3		
MARITAL STATUS				4	2.78 NS
(a) Married	1	4	3		
(b) Unmarried	0	9	3		
CURRENT LIVING SITUATION				2	5.99 NS
(a) Day scholar	2	8	6		
(b) Hosteller	0	3	1		
LOCALITY				2	2.03 NS
(a) Urban	2	6	4		

(b) Rural	0	3	5		
FOOD HABBIT					
(a) Vegetarian	2	2	7	2	2.03
(b) Non vegetarian	0	7	2		NS
TYPE OF FAMILY					
(a) Nuclear	1	13	3	2	0.38
(b) Joint	1	16	6		NS
NO. OF SIBLINGS					
(a) 1	0	5	1	4	1.92
(b) 2	0	5	3		NS
(c) Above 2	2	18	5		

Demographic Characteristics

- Majority (60%) were aged 19–20 years
- 55% belonged to rural areas
- 95% were unmarried
- 70% were hostellers
- 60% belonged to joint families

Knowledge Levels

- Poor knowledge: 10%
- Average knowledge: 60%
- Good knowledge: 30%
- Mean score: 13.05 ± 3.914

Association Findings

- No statistically significant association ($p > 0.05$) was observed between knowledge scores and demographic variables, including age, residence, marital status, and lifestyle factors.

DISCUSSION

- The study findings indicate that most participants had only average knowledge regarding PCOS. These findings are consistent with previous studies showing inadequate awareness among young women.
- The lack of association between demographic variables and knowledge suggests that poor awareness is widespread and not confined to specific groups.
- This highlights the urgent need for structured educational interventions targeting reproductive health awareness among adolescents and young adults.

CONCLUSION

- The study concludes that awareness regarding PCOS and its pregnancy-related complications among young female adults is insufficient. Early education and awareness programs are essential to prevent long-term reproductive and metabolic complications.

NURSING IMPLICATIONS

- **Nursing Practice:** Early screening and counseling for menstrual irregularities and lifestyle changes.
- **Nursing Education:** Integration of PCOS awareness into curriculum and health education programs.
- **Nursing Administration:** Development of policies

promoting reproductive health awareness.

- **Nursing Research:**
Need for large-scale interventional studies.

LIMITATIONS

- Small sample size
- Single setting
- Convenience sampling

RECOMMENDATIONS

- Conduct large-scale studies
- Implement educational interventions
- Develop digital awareness programs
- Include follow-up assessments

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