ORIGINAL RESEARCH PAPER
Volume - 15 | Issue - 11 | November - 2026 | PRINT ISSN No. 2277 - 8179 | DOI : 10.36106/ijsr
INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

A STUDY TO ASSESS THE KNOWLEDGE REGARDING POLYCYSTIC OVARY SYNDROME (PCOS) AMONG COLLEGE STUDENTS IN A SELECTED COLLEGE, SENAPATI, MANIPUR

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ABSTRACT

BACKGROUND: Polycystic Ovary Syndrome (PCOS) is a common hormonal disorder in women, linked to menstrual irregularities and long-term health risk, college students are vulnerable due to lifestyle factors, yet awareness is often low. Polycystic ovary syndrome is highly prevalent endocrine and metabolic disorder associated with significant adverse effect on women's health, with often occurring during adolescent.(1) According to recent global estimates, the number of polycystic ovary syndrome cases increased from 1.48 million in 1990 to approximately 2.3 million in 2021. It often causes ovulatory dysfunction which commonly leads to challenges with conception, making polycystic ovary syndrome a leading cause of female infertility.(2) **AIM:** A study to assess the knowledge regarding Polycystic Ovary Syndrome (PCOS) among college students in a selected College Senapati, Manipur." **METHODS AND MATERIAL:** A descriptive research design was used in this study to achieve the objectives. Purposive sampling technique was adopted to obtain the required sample. The study was conducted among college students in a selected college of Senapati, Manipur. Participants were selected based on inclusion and exclusion criteria. Knowledge regarding Polycystic Ovary Syndrome (PCOS) was assessed by distributing a structured knowledge questionnaire to the respondents.**RESULTS** A total of 108 college students participated in the study. The majority (60%) were in the age group of 18-21 years, followed by 40% in the age group of 22-25 years. Regarding educational progression, 20 (18.53%) were in the 1st-2nd semester, 26 (24.07%) in the 3rd-4th semester, 35 (32.41%) in the 5th-6th semester, and 27 (25.9%) in the 7th-8th semester. In terms of knowledge levels, 20% of students had good knowledge, 50% had average knowledge, and 30% had poor knowledge about PCOS. Awareness was highest for symptoms such as irregular menstruation (72%) and weight gain (65.1%), but much lower for long-term complications such as infertility (28%) and diabetes (15%).A significant association was found between semester of study and knowledge level ($p<0.05$), with higher semesters showing better awareness. No significant association was found between knowledge level and age group.**Discussion and Conclusion**The study revealed that although most students had average knowledge about PCOS, only a few demonstrated good understanding. Awareness of symptoms was higher compared to long-term complications. Knowledge level increased with semester, indicating academic exposure influences awareness. Therefore, there is a need to improve health education to enhance awareness and early prevention of PCOS.

KEYWORDS

PCOS, Knowledge Level, College Students

INTRODUCTION:

Polycystic ovary syndrome is highly prevalent endocrine and metabolic disorder associated with significant adverse effect on women's health, with often occurring during adolescent. It often causes ovulatory dysfunction which commonly leads to challenges with conception, making polycystic ovary syndrome a leading cause of female infertility. Symptoms of Polycyctic ovary syndrome (PCOS) include irregular menses, usually oligomenorrhea or amenorrhea, mild obesity, and mild hirsutism. Some women has acne, weight gain, fatigue, low energy, mood swings, depression, anxiety and headaches. In some women, fertility is impaired. Symptoms vary from women to women areas of thickened, acanthosis nigricans, may appear in the axillae, on the nape of the neck, in skin folds, and on knuckles and elbows. .[2]

Polycystic ovary syndrome is linked to several complications affecting reproductive, metabolic and cardiovascular health. Ovulatory dysfunction leads to infertility, and elevated estrogens increases the risk of endometrial hyperplasia and cancer. High androgen level contributes to metabolic syndrome, obesity, and hirsutism. Insulin resistance worsens hormonal imbalances and increases the risks of type-I diabetes and sleep apnoea. Polycystic ovary syndrome is also associated with cardio vascular risks such as hypertension, dyslipidemia, and sub clinical atherosclerosis, as well as chronic inflammation that may lead to non- alcoholic fatty liver disease. Polycystic ovary syndrome (PCOS) has become one of the leading reproductive and metabolic health concerns affecting women worldwide. .[3]

Its global burden is increasing steadily, posing a serious threat to women's health across all socio-demographic regions. According to the Global Burden of Disease Study 1990–2021, there were approximately 2.3 million new cases, 69.5 million existing cases, and around 610,000 disability-adjusted life years attributed to PCOS in the

year 2021. .[4] College students represent a vital segment of the population in terms of reproductive health education. Assessing their knowledge will help in identifying gaps, misconceptions, and the need for health education programs.

RESEARCH METHODOLOGY

The objectives of the study were to assess the knowledge regarding Polycystic Ovary Syndrome (PCOS) among college students, to find out the association of knowledge regarding polycystic ovary syndrome with the selected demographic variables, the research approach for this study was quantitative research approach, a descriptive research design was used to assess the knowledge regarding Polycystic Ovary Syndrome among college students in a selected college Senapati, Manipur, The present study was conducted in Mt. Zion College, Kathikho, Karong, Senapati, Manipur, A total of 108 college students were selected using convenience sampling technique.

The data were collected by using a structured knowledge questionnaire to assess the knowledge regarding Polycystic Ovary Syndrome among the college students, and technique used was paper and pencil. Formal permission was obtained from the concerned authorities of the selected college, the data collection period was collected from 11th August to 17th August 2025 from 108 college students of a selected college, the sample were selected on the basis of inclusion and exclusion criteria by using convenience sampling technique, the investigator visited the selected college on the given respective dates, where the investigator introduced themselves to the Participant, and explained about the purpose of the study, and assured the participants of confidentiality and anonymity to get their co-operation and prompt responses during data collection, information sheet was distributed among the participant, a written informed consent was taken from the participants, Demographic variables and Structured knowledge questionnaire for assessing knowledge regarding polycystic ovary syndrome was distributed among the participants where the participants took approximately 10-15 minutes were complete and the participants were found cooperative.

PLAN FOR DATA ANALYSIS :

(1) Descriptive statistics: collected data will be analyzed by using descriptive statistics such as Frequency, mean, percentage and standard deviation.
(2): Inferential statistics:

SECTION-I: Description of Frequency and percentage distribution of sample characteristics of college students

Table No. 1: Frequency and percentage distribution of sample characteristics of college students n=108

		Frequency (f)	Percentage (%)
Age in years	18-21	83	76.86%
	22-25	25	23.15%
	>25	0	0%
Educational placement	1st -2nd Semester	20	18.53%
	3rd -4th Semester	26	24.07%
	5th -6th Semester	35	32.41%
	7th-8th Semester	27	25%
Gender	Female	66	61.11%
	Male	42	38.89%
Any Medical professionals in the family.	No medical professional in the family	101	98%
	Had medical professional in the family	7	2%
Previously diagnosed with PCOS	Yes	Nil	0%
	No	108	100%
Family history of PCOS	No family history	105	97%
	Has family history of PCOS	3	3%
Previous knowledge of PCOS	Yes	22	20.38%
	Source of information:		
	Information through social media	12	54.55%
	Information through friends or family	8	36.35%
	Information through health professionals	2	9.10%
	No	86	79.62%

The data in table 1 shows that, out of 108 college students, majority of participants i.e.76.86% of them were aged between 18-21 years and 23.15% of them were aged 22-25 years. In terms of educational placement, Out of 108 participants, majority 35(32.41%) are in 5th -6th Semester, 27(25%) are in 7th-8th Semester, 26(24.07%) are in 3rd -4th Semester, 20 (18.53%) are in 1st -2nd Semester.

Regarding Gender, Out of 108 participants, majority 66(61.11%) are female and 42(38.89%) are male.

In terms of any medical professionals in the family, Out of 108 participants 101(98%) has no medical professional in the family and7(2%) has medical professional in the family.

In terms of previously diagnosed with PCOS, 108 (108%) were not diagnosed with PCOS.

Regarding family history of PCOS, Out of 108 participants 105 (97%) has no family history of PCOS, and 3(3%) has family history of PCOS.

In terms of previous knowledge of PCOS, out of 108 participants 86(79.62 %) have no previous knowledge of PCOS and 22(20.38%) have previous knowledge of PCOS. Out of 22 participants, who have previous knowledge of PCOS, 12(54.55%)got the information through social media, 8(36.35%) through friends or family and 2(9.10%) through health professionals.

SECTION-II:

Frequency and percentage distribution of college students according to their level of knowledge regarding PCOS

Table:2 Frequency and percentage distribution of college students according to their level of knowledge regarding PCOS.

Score Range	Frequency	Percentage	Mean	Standard Deviation	Range of score	Total score
1-6(<7)	12	11.11%	9.843	2.81	12	20
7-13	89	82.41%				
14-20(>13)	7	6.48%				

Data represented in table 2 indicates out of 108 college students, majority i.e. 89 (82.41%) have an average knowledge, 12 (11.11%) of participants have poor knowledge and only 7 (6.48%) participants have good knowledge.

SECTION-III: Chi square test showing the association of knowledge regarding PCOS and selected demographic variables.

Table 3: Chi square test showing the association of knowledge regarding PCOS and selected demographic variables.

Sample characteristics	Groups	Knowledge			Total	Chi square	Df	P Value
		Poor knowledge	Average knowledge	Good knowledge				
Age in years	18-21	11(10.19%)	66(61.11%)	6(5.56%)	83	2.049	4	NS
	22-25	1(0.93%)	21(19.44%)	3(2.78%)	25			
	>25	0	0	0	0			
	Total	12(11.11%)	87(80.56%)	9(8.33%)	108			
Previous Knowledge of PCOS	Yes	7(6.482%)	13(12.037%)	2(1.852%)	22	12.24	2	S
	No	5(4.629%)	74(68.518%)	7(6.482%)	86			
	Total	12	87	9	108			

Source of information for previous knowledge of PCOS	Social Media	4(18.18%)	8(36.36 3%)	0	12	8.677	4	NS
	Family or Friends	1(4.545%)	5(22.727%)	2(9.091%)	8			
	Health Professionals	2(9.091%)	0	0	2			
	Total	7	13	2	22			
Educational placement of the student	1-2 Semester	6(5.56%)	14(12.96%)	0	20	17.401	6	S
	3-4 Semester	1(0.93%)	24(22.22%)	1(0.93%)	26			
	5-6 Semester	3(2.78%)	26(24.07%)	6(5.56%)	35			
	7-8 Semester	2(1.85%)	23(21.30%)	2(1.85%)	27			
	Total	12	87	9	108			
Gender	MALE	8(7.41%)	33(30.56%)	1(0.93%)	42	8.143	2	S
	FEMALE	4(3.70%)	54(50%)	8(7.41%)	66			
	Total	12(11.11%)	87(80.56%)	9(8.33%)	108			
Any medical Professionals in the family	Yes	1(0.925%)	6(5.56%)	0	7	1.598	2	NS
	No	11(10.186%)	81(75%)	9(8.334%)	101			
	Total	12	87	9	108			
Previously Diagnosed with PCOS	Yes	0	0	0	0	5.991	2	NS
	No	12(11.11%)	87(80.56%)	9(8.33%)	108			
	Total	12	87	9	108			
Family History of PCOS	Yes	2(1.85%)	1(0.93%)	0	3	9.409	2	S
	No	10(9.26%)	86(79.63%)	9(8.33%)	105			
	Total	12	87	9	108			

S-Significant at 0.05 level of significance, NS-Not significant at 0.05 level of significant.

The data presented in table shows that there was No significant association of knowledge regarding PCOS with the selected demographic variables with respect to age in years, Source of information for previous knowledge of PCOS, Any medical Professionals in the family, Previously Diagnosed with PCOS. There was significant association of knowledge regarding PCOS with the selected demographic variables with respect to Previous Knowledge of PCOS, Educational placement of the student, Gender, Family History of PCOS.

SUMMARY:

1. Age: Majority 83 (76.86%) participants belonged to 18-21 years.
2. Educational placement: Majority 35 (32.41%) participants belonged to 5th-6th semester.
3. Gender: Majority of the sample were female 66 (61.11%).
4. Any medical professionals in the family: Majority 101 (93.52 %) of the participants had no medical professionals in the family.
5. Previously diagnosed with PCOS: All participants (100%) reported no prior diagnosis of PCOS.
6. Family history of PCOS: Majority 105 (97.3%) had no family history of PCOS.
7. Previous knowledge of PCOS: Majority 86 (79.62%) had no previous knowledge of PCOS

RECOMMENDATIONS

1. A comparative study can be done among college students to evaluate the level of knowledge regarding Polycystic Ovary Syndrome.
2. A similar study can be done to assess effect of structured teaching programme on knowledge regarding Polycystic Ovary Syndrome.
3. A similar study can be conducted in another field.

CONCLUSION:

A total of 108 college students responded. Out of 108 responded majority 83(76.86%) were in the age of 18-21 years , 66(61.11%) were female, 42%(38.89%) were male,35(32.41%)were in 5th-6th Semester, 101(93.52%)had no medical professional in the family , 108(100%) had not been previously diagnose with PCOS, 105(97.3%) had no family history of PCOS, 86(79.62%) had not been previously diagnose PCOS. In knowledge, majority, 89(82.41%) respondents had average knowledge. No association was found between knowledge regarding hypertension with the age, educational placement of student, any medical professionals in the family, previously diagnosed with PCOS family history of PCOS and previous knowledge of PCOS.

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