

A Descriptive Study to Assess the Knowledge Regarding Poly Cystic Ovarian Syndrome among Adolescence Girls in Selected Higher Secondary School Kanpur

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Abstract: *Purpose: Poly cystic ovarian syndrome is a heterogeneous disorder characterised by hyperandrogenism and chronic an ovulation 6% to 20% of reproductive women are affected. Symptoms of PCOS arise during the early pubertal years both normal female pubertal development and PCOS are characterised by irregular menstrual cycle, an ovulation, and acne. There for the study titled 'A descriptive study to assess the knowledge regarding poly cystic ovarian syndrome among adolescence girls in selected higher secondary school Kanpur.' was undertaken.*

Keywords: Poly cystic ovarian syndrome, Adolescence girls, Knowledge assessment, Reproductive women, Hyperandrogenism

1. Introduction

Adolescence is a transitory period in which an individual shifts from childhood into adulthood. For most, this period is a time of physical, social, and emotional changes. The development that occurs within adolescence is key in setting the stage for adulthood. Adolescent age is a life phase that is situated between the years of childhood and adulthood. The adolescent age basically marks the transition of an individual from childhood to adulthood. The adolescent age is marked between **15 years to 19 years** of an individual's life.¹

2. Background Study

Polycystic ovarian syndrome (PCOS) is the most common endocrine disorder among women of reproductive age groups. It is one of the leading causes of poor fertility. Risk factors include obesity, not enough physical exercise, and a family history. Most studies in India report prevalence of PCOS as 9.13 % to 36 % . Behaviour and life style modifications are important part of treatment for PCOS. A number of cases in the community due to lack of awareness and proper guidance, it remains undiagnosed. Aim of this study was to find the prevalence of PCOS among the young females of Bhopal city. Thus, risk assessment in the form of a survey would be one of the strategies to identify this syndrome early so as to encourage young women to seek timely treatment and prevent its

Need For The Study

It is difficult to diagnose PCOS in adolescents, therefore a high index of suspicion is necessary. Timely screening and treatment are crucial because another important component of the syndrome is insulin resistance hyperinsulinemia increasing the risk for type 2 diabetes, dyslipidaemia, and cardiovascular sequelae.

Diagnosis of PCOS in adolescents should include a thorough family history, exclusion of other causes of hyperandrogenism, and appropriate laboratory evaluation. The scarcity of controlled clinical trials makes treatment controversial. Include lifestyle intervention, oral contraceptive pills, and insulin sensitizers. Long-term follow-up is needed to determine the effectiveness of these approaches in changing the natural history of the reproductive and metabolic outcomes without causing undue harm. prevalence of PCOS in adolescents is unknown, yet a recent study of females, aged 15 to 19 years old estimated it to be 1.14%, using NIH criteria. In addition to reproductive consequences, PCOS can be associated with a wide range of cardio metabolic disorders, including obesity, type 2 diabetes mellitus, dyslipidemia, metabolic syndrome, hypertension, and cardiovascular disease.

3. Objectives of the Study

The objectives of the study are to:

- 1) To assess the socio demographic variable among adolescent girls.
- 2) To assess the knowledge regarding polycystic ovarian syndrome among adolescent girls.
- 3) To assess the association between knowledge regarding polycystic ovarian syndrome with their selected demographic variables.

4. Operational Definition

Assessment

There is no test to define diagnose PCOS. Likely to start with a discussion of your medical history, including your menstrual periods and weight changes.

A physical exam will include checking for signs of excess hair growth, insulin resistance and acne.

Polycystic Ovarian Syndrome

Polycystic ovary syndrome, or PCOS, is a set of symptoms related to a hormonal imbalance that can affect women and girls of reproductive age.

Adolescent Girls

Adolescence, transitional phase of growth and development between childhood and adulthood. defines an adolescent as any person between ages 15 and 19.

Assumption

The study assumes that-
The adolescent girls will have inadequate knowledge regarding PCOS

Delimitation

The study will be delimited-
The study will be limit to adolescent girls selected higher secondary school of Kanpur.

Hypothesis

H1: There will be significant association between knowledge and selected demographic variables

Source of data-

Data will be collected from higher secondary school in Kanpur

Research design-

A research design is the systematic plan to obtain answers to research questions

The design selected to conduct this study is Descriptive research design

Setting-

The present study will be conductive at selected higher secondary school of Kanpur

Population-

All the adolescent girls all higher secondary school of Kanpur

Variables of the study

Independent variables-adolescent girls (age 15–19-year-old).

Dependent variables-

Polycystic ovarian syndrome.

Extraneous variables-

The demographic factors like age, sex, medium of education in higher secondary school.

5. Review of Literature

A literature review is a comprehensive summary of previous research on a topic. The literature review surveys scholarly articles, books, and other sources relevant to a particular area of research. The review should enumerate, describe, summarize, objectively evaluate and clarify this previous research. A descriptive study was conductive to assess the knowledge of Polycystic ovarian syndrome among student

nurse. It has been found through studies that it affects around 5% to 10% of women in their reproductive years of 2016. The data was collected from the nursing students by using structured questionnaire. The data collected from 150 samples in Nitte Usha Institute of Nursing Sciences. Descriptive survey research approach was adopted and data was analysed by using descriptive and inferential statistics. Distribution of the samples on demographic characteristics revealed that 85% of the samples were in the age group of 21-25years, 75% of the samples were Christians, 82% of the samples were consuming mixed diet, and 92% samples had regular menstrual cycle. 76% of the samples were with average knowledge and 10.7% with good knowledge regarding polycystic ovarian syndrome. Hence the study concluded that Source of information, consumption of junk food, dietary patterns of the students were associated with their level of knowledge on PCOS at 5% level of significance. Most of the students (85%) were in the age group of 21-25years. Most of the students were Christians (75.3%). Among the students, 82.7% were consuming mixed diet, 4% of the students were exclusively vegetarians. 92% of the students had regular menstrual cycle. Level of knowledge of the students was assessed through frequency and percentage which depicts that most of the students (114) had average Knowledge (76%).⁵

6. Methodology

A quantitative research approach was appropriate for the present study as it aimed to assess the knowledge regarding poly cystic ovarian syndrome among adolescence girls in selected higher secondary school Kanpur (Kalyanpur dist. Kanpur U.P.). Total 100 adolescence girl were selected with convenient sampling technique. Permission was taken from the school authority who were selected as sample. Self-structured knowledge questionnaire containing 30 question was used to evaluate the assess knowledge regarding PCOS in adolescence girl.

7. Result

The result depicted that there was significant assess score with statistically significant at $p < 0.05$ level. Hence it was inferred that assess the knowledge regarding PCOS among adolescence girls.

Section I- Description of Socio Demographic Variables

adolescent age group was distributed in to various categories according to adolescent age group girls, religion, type of family, number of children in family, family income, previous knowledge, residence, marital status, maintain hygiene during period, used sanitary pads regarding ovarian cyst.

- According to age of adolescent girl, 96% (96) were in the age of 13-19, 4% (4) were in the age of 20-25.
- According to the religion, 91% (91) were Hindu, 7% (7) were Muslim, 2% (2) were Christian.
- According to type of family, 50% (50) were nuclear family, 49% (49) were joint family, and 1% (1) were extended family.

According to number of children in the family, 6% (6) have 1 child, 22% (22) have 2 child, 40% (40) have 3 children, 32% (32) have more than 3 children.

- According to family income, 84% (84) were 40,000, 4% (4) were 80,000, 7% (7) were 50,000, 5% (5) were 90,000.
- According to previous knowledge related to ovarian cyst, 51% (51) have previous knowledge, 49% (49) didn't have previous knowledge.
- According to the residence, 32% (32) were in rural, 68% (68) were in urban.
- According to marital status, 94% (94) were single, 3% (3) were married, 3% (3) were widowed.

- According to the maintain hygiene during period, 95% (95) maintained, 5% (5) didn't maintained.
- According to sanitary pad used in one day, 48% (48) used 2 pads, 26% (26) used 3 pads, 12% (12) used 5 pads, 14% (14) used 6 pads.

Association of knowledge with selected demographic variable by using chi-square test.

Objective – To determine the association of knowledge regarding poly cyst ovarian syndrome among adolescent age group of girls with selected demographics variables.

Table 2: Association of knowledge with age of adolescent girl

Sr.No..	Demographic variables	Frequency	Chi square	DF	Inference
1.	Age of the adolescent				
	13-19 years	96	14.528	10	0.150 P<0.05
	20-25 years	4			
	25-35 years				
	40-45 years				

- $X^2(10)$ at 18.307, NS= Nonsignificant
- Table shows that, there was not significance association between post test score regarding poly cyst ovarian syndrome ($X^2(10) = 14.528, p < 0.05$) at level of significant.
- Hence, the hypothesis was rejected.

Table 3: Association of knowledge with religion of adolescent girl

SR.N.	Demographic variables	Frequency	Chi square	DF	Inference
2.	Religion				
	Hindu	91	41.234	20	0.003 P<0.05
	Muslim	7			
	Christian	2			
	Any other				

- $X^2(20)$ at 31.410, S= significant
- Table shows that, there was significance association between post test score regarding poly cyst ovarian syndrome ($X^2(20) = 41.234, p < 0.05$) at level of significant.
- Hence, the hypothesis was proved.

Table 4: Association of knowledge with type of family of adolescent girl

SR.N.	Demographic variables	Frequency	Chi square	DF	Inference
3.	Type of family				
	Nuclear family	50	20.329	20	0.438
	Joint family	49			
	Extended family	1			
	Other				

- $X^2(20)$ at 31.410, NS= Non significant
- Table shows that, there was not significance association between post test score regarding poly cyst ovarian syndrome ($X^2(20) = 20.329, p < 0.05$) at level of significant.
- Hence, the hypothesis was rejected.

Table 5: Association of knowledge with number of children

SR.N.	Demographic variables	Frequency	Chi square	DF	Inference
4.	Number of children in the family				
	One child	6	13.260	30	0.996
	Two children	22			
	Three children	40			
	More than three children.	32			

- $X^2(30)$ at 43.773, NS= Non significant
- Table shows that, there was not significance association between post test score regarding poly cyst ovarian syndrome ($X^2(30) = 13.260, p < 0.05$) at level of significant.
- Hence, the hypothesis was rejected.

Table 6: Association of knowledge with family income

SR.N.	Demographic variables	Frequency	Chi square	DF	Inference
5.	Family income per annum (combined)				
	40,000	84	53.836	30	0.005
	80,000	4			
	50,000	7			
	90,000	5			

- $X^2(30)$ at 43.773, S= significant
- Table shows that, there was significance association between post test score regarding poly cyst ovarian syndrome ($X^2(30) = 14.53.836$, $p < 0.05$) at level of significant.
- Hence, the hypothesis was proved.

Table 7: Association of knowledge with previous knowledge of adolescent girl

SR.N.	Demographic variables	Frequency	Chi square	DF	Inference
6.	Did you hear about the ovarian cyst before				
	Yes	51	4.954	10	0.894
	No	49			

- $X^2(10)$ at 18.307, NS= Non-significant
- Table shows that, there was not significance association between post test score regarding poly cyst ovarian syndrome ($X^2(10) = 4.954$, $p < 0.05$) at level of significant.
- Hence, the hypothesis was rejected.

Table 8: Association of knowledge with residence of adolescent girl

SR.N.	Demographic variables	Frequency	Chi square	DF	Inference
7.	Residence				
	Rural	32	6.165	10	0.801
	urban	68			

- $X^2(10)$ at 18.307, NS= Nonsignificant
- Table shows that, there was not significance association between post test score regarding poly cyst ovarian syndrome ($X^2(10) = 6.165$, $p < 0.05$) at level of significant.
- Hence, the hypothesis was rejected.

Table 9: Association of knowledge with marital status of adolescent girl

SR.N.	Demographic variables	Frequency	Chi square	DF	Inference
8.	Marital status				
	Single	94	29.172	20	0.084
	Married	3			
	Widowed	3			
	Marriage duration				

- $X^2(20)$ at 31.410, NS= Non significant
- Table shows that, there was not significance association between post test score regarding poly cyst ovarian syndrome ($X^2(20) = 29.172$, $p < 0.05$) at level of significant.
- Hence, the hypothesis was rejected.

Table 10: Association of knowledge with maintain hygiene during periods

SR.N.	Demographic variables	Frequency	Chi square	DF	Inference
9.	Maintain hygiene during period				
	Yes	95	26.784	10	0.003
	No	5			

- $X^2(10)$ at 18.307, S= significant
- Table shows that, there was significance association between post test score regarding poly cyst ovarian syndrome ($X^2(10) = 26.784$, $p < 0.05$) at level of significant.
- Hence, the hypothesis was proved.

Table 11: Association of knowledge with how many sanitary pads can be used in one day

SR.N.	Demographic variables	Frequency	Chi square	DF	Inference
10.	How many sanitary pad can be use in one day				
	2	48	24.642	30	0.742
	3	26			
	5	12			
	6	14			

- $X^2(30)$ at 43.773, NS= Non significant
- Table shows that, there was not significance association between post test score regarding poly cyst ovarian syndrome ($X^2(30) = 24.642$, $p < 0.05$) at level of significant.
- Hence, the hypothesis was rejected.

8. Discussion

- Finding revealed that according to age, religion, type of family, number of children in the family, family income, did you hear about the ovarian cyst before, residence, marital status, maintain hygiene during period, how many sanitary can be use in one day regarding poly cyst ovarian syndrome. These all are significant and difference in frequency at $p < 0.05$.
- Analysis of data regarding 2nd objective of the study, to assess the knowledge regarding poly cyst ovarian syndrome among adolescent age group girls in selected higher secondary school indicate that the mean knowledge score of adolescent age group girls was 2.16+0.50 mean percentage 2.16% and 72% adolescent age group girls has average knowledge regarding poly cyst ovarian syndrome.
- Analysis of data regarding 3rd objective of the study; To determine the association of knowledge regarding poly cyst ovarian syndrome among adolescent age girl group with selected socio demographic variable accordance to age, religion, type of family, number of children in the family, family income, did you hear about the ovarian cyst before, residence, marital status, maintain hygiene during period, how many sanitary can be use in one day regarding poly cyst ovarian syndrome.

9. Summary

Poly cyst ovarian syndrome is an endocrine system disorder that occurs in women of reproductive age. PCOS is suspected in women who present with enlargement of their ovaries and /or with multiple follicles within each ovary. It is diagnosed via transvaginal ultrasound of the ovaries. The exact cause of PCOS is still unknown. Factor that might play a major role like- excess insulin, Low grade inflammation, Heredity, Excess androgen etc. we can identify the PCOS with sign and symptom of irregular period, Excess androgen, Polycystic ovaries. We can easily identify with physical examination, pelvic exam, blood test, an ultrasound. And treatment of PCOS are life style changes, medications, progestin therapy and home remedies

This chapter has brought the various major finding, implication, limitation and provided recommendation for further researchers, similar studies should be conducted to yield more reliable result for future reference. The subject's participation the study contributed to the fruitful and successful completion of the study.

The review of literature provides information, which enable the investigation to study the extent of selected problem to develop conceptual framework, data analysis and integration. The conceptual frame work for this study is based on CSJMU KANPUR. The study was descriptive research design, convenient technique was used to selected higher secondary school Kanpur. The structured knowledge questionnaire was developed and used for data collection.

The mainly study was conduct in October 2022 with sample size 100. The test was done to know the level pf knowledge of adolescent girls regarding poly cyst ovarian syndrome.

The obtained data was analysed in term of objective and hypothesis using descriptive and inferentialstatic

10. Conclusion

- The present study was conducted among 100 adolescent age group girls to assess the knowledge regarding poly cyst ovarian syndrome.
- On the basis of level of knowledge score the findings revealed that majority of adolescent age group girl 72% had average knowledge regarding poly cyst ovarian syndrome.

There was significant association of the knowledge regarding poly cyst ovarian syndrome among adolescent age group women with the selected socio demographic variable

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