# "A Study To Assess The Knowledge Regarding Risk Factors And Prevention Of Polycystic Ovarian Syndrome Among Adolescent Girls"

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**Abstract:** Polycystic ovarian syndrome (PCOS) is a complex endocrine disorder associated with long term anovulation and an excess of androgen circulation in the blood.[1] The present study focuses on assessing the knowledge regarding risk factors and prevention of PCOS among adolescent girls in selected school, Thrissur with a view to prepare an information booklet. The objectives of study were to assess the knowledge regarding risk factors and prevention of PCOS among adolescent girls, to associate the knowledge regarding risk factors and prevention of PCOS with their selected demographic variables and to prepare and distribute an information booklet. A descriptive survey design was adopted for the study. The study was conducted on 60 adolescent girls, who were selected by convenience sampling technique. The knowledge was assessed by using a structured knowledge questionnaire regarding risk factors and prevention of PCOS. Following that investigator prepared and distributed an information booklet regarding risk factors and prevention of PCOS. The findings  revealed that 13 (21.67%) of adolescent girls possessed adequate knowledge, whereas 31 (51.67%) had moderate knowledge and 16 (26.67%) of adolescent girls had inadequate knowledge regarding risk factors and prevention of PCOS. The analysis showed that there was a significant association between level of knowledge with number of adolescent girls having previous knowledge regarding PCOS.

**Keywords:** *Adolescent girls, polycystic ovarian syndrome, risk factors, prevention*

## INTRODUCTION

Polycystic ovary syndrome is a reproductive disorder that affects many women, often appearing during adolescence and causing disruptions in their quality of life. This disorder is heterogeneous and impacts at least 7% of adult women. It includes ovulatory dysfunction, polycystic ovaries, and hyperandrogenism, and is most commonly seen in women under 30 years old who may experience infertility. The disorder is oligogenic in nature, with a complex interplay between genetic and environmental factors determining the clinical and biochemical phenotype. A family history of the disorder is relatively common, although the exact familial links remain unclear. Poor dietary choices and physical inactivity can worsen environmental factors linked to PCOS, such as obesity, while infectious agents and toxins may also contribute to the condition. However, lifestyle changes such as weight loss and exercise can help reverse the reproductive and metabolic symptoms of PCOS**.**

## NEED AND SIGNIFICANCE OF THE STUDY

Polycystic ovarian syndrome is the most common endocrinology disorders during adolescence, so there is always a need to investigate all new relevant data. Early recognition and prompt treatment of PCOS in adolescents is important to prevent long term complications.Lack of knowledge and the negative lifestyle attitude towards polycystic ovarian disease among adolescence girls and not taking any measures to improve their lifestyles is observed by the investigators, that these adolescence girls can be helped by assessing their knowledge and with a view to change their lifestyle by providing necessary information.

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The researcher plays a critical role in disseminating information regarding symptom identification and necessary modifications to avoid worsening PCOS issues. Therefore, the researcher believed that providing information books would be a useful method of educating about polycystic ovarian syndrome among teenagers and contributes to the community's knowledge building on polycystic ovarian syndrome.

**Statement of the study**

A study to assess the knowledge regarding risk factors and prevention of polycystic ovarian syndrome among adolescent girls in selected school, Thrissur.

**Objectives of the study**

1. To assess the knowledge regarding risk factors and prevention of polycystic ovarian syndrome among adolescent girls.
2. To associate the knowledge regarding risk factors and prevention of polycystic ovarian syndrome with their selected demographic variables.
3. To prepare and distribute an information booklet regarding polycystic ovarian syndrome.

**Hypothesis**

H0: There is no significant association between knowledge of adolescent girls regarding risk factors and prevention of polycystic ovarian syndrome with their selected demographic variables

H1: There is a significant association between knowledge of adolescent girls regarding risk factors and prevention of polycystic ovarian syndrome with their selected demographic variables.

**Methodology**

Research Approach: In this study quantitative research approach was used.

**Methods of data collection**

Data collection procedures are the means of gathering information to address the research problem. Data was collected on 18 August 2023 from adolescent girls of 8th, 9th and 10th class by purposive sampling technique. A formal permission was obtained from the Principal of Aswini College of Nursing, followed by, permission from the Principal of Seventh Day Adventist Higher Secondary

School, Thrissur for the collection of data. The researchers assured that the study will not interfere with the daily and academic schedules of the students. On the day of data collection, the participants were requested to be seated in auditorium. First the researchers introduced themselves and explained the purpose of study. Tool was distributed to the participants. The participants took 40 minutes to complete all the questions and upon the completion, the questionnaires were returned to the researchers. Adolescent girls from the 8th, 9th and 10th class were invited to participate in the study. The adolescent girls who were leave on the day of data collection were excluded from the study. The researchers collected data from 60 samples and distributed an information booklet to all adolescent girls in 8th, 9thand 10th classes in school. The samples were cooperative during the time of data collection.

**Research Design:** In this study non-experimental descriptive research design was used

**Demographic variables**: In this study demographic variables are age of girls, body weight, age of menarche, menstrual history relating occurrence of PCOS.

**Population:**

**Target population**: In includes all the adolescent girls belonging to Seventh day Adventist Higher Secondary School Thrissur.

**Accessible Population:** The accessible population comprised of the adolescent girls among the 8th, 9th and 10th standard students of Seventh Day Adventist Higher Secondary School, Thrissur.

**Sampling technique**: The samples were selected by purposive sampling technique.

**Sample size**: The sample of the present study consisted of 60 adolescent girls among the Seventh day Adventist Higher Secondary School Thrissur who fulfilled the inclusion criteria**.**

**Sample criteria**

**Inclusion criteria:**

• Adolescent girls who are studying in 8th , 9th and 10th standard
• Adolescent girls who are willing to participate in this study.

**Exclusion criteria**

• Adolescent girls who were leave on the day of data collection

**Description and scoring**

**Section A:** Description of demographic profile of the subjects

**Section B:** Description of frequency and percentage distribution of level of knowledge among adolescent girls regarding PCOS.

**SECTION C:** Description of association between demographic variables and knowledge of adolescent girls.

**RESULT FINDINGS:**

**Section A: Description of demographic profile of the subjects**

**Table 1:**

| Sl.No | Demographic Variables | Frequency | Percentage |
|---|---|---|---|
| 1. | **Age in years** <br> a) Less than 14 years <br> b)14 years <br> c)greater than 14 | <br> 9 <br> 15 <br> 36 | <br> 15% <br> 25% <br> 60% |
| 2. | **Body weight** <br> a)35 to 45kg <br> b)45 to 55kg <br> c)more than 55kg | <br> 25 <br> 26 <br> 9 | <br> 41.67% <br> 43.33% <br> 15% |
| 3. | **Age of menarche** <br> a) below 10 <br> b)10 to 15 <br> c)after 15 | <br> 2 <br> 58 <br> 0 | <br> 3.33% <br> 96.67% <br> 0% |
| 4. | **Regular menstrual cycle** <br><br> a) Yes <br> b)No | <br><br><br> 41 <br> 19 | <br><br><br> 68.33% <br> 31.67% |
| 5. | **Duration of menstrual** <br><br> **bleeding** <br> a)2 to 4 days <br> b)5 to 7 days <br> b) more than 7 days | <br><br><br> 14 <br> 43 <br> 7 | <br><br><br> 23.33% <br> 71.67% <br> 5% |
| 6. | **Painful menstrual cycle** <br><br> a)Yes <br> b)No | <br><br> 29 <br> 31 | <br><br> 48.33% <br> 51.67% |

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| 7. | Family history of PCOS | | |
|---|---|---|---|
| | a)Present | 4 | 6.677% |
| | b)Abscent | 56 | 93.33% |
| 8. | Diagnosed with | | |
| | PCOS | | |
| | a)Yes | 4 | 6.677% |
| | b)No | 56 | 93.33% |
| 9. | Previous knowledge regarding PCOS | | |
| | a)Yes | 29 | 48.33% |
| | b)No | 31 | 51.67% |

**Section B:** Description of frequency and percentage distribution of level of knowledge among adolescent girls regarding PCOS.

| Sl.NO | Level of knowledge | Frequency | Percentage |
|---|---|---|---|
| 1. | Adequate knowledge | 13 | 21.67% |
| 2. | Moderate knowledge | 31 | 51.67% |
| 3. | Inadequate knowledge | 16 | 26.67% |

**SECTION C:** Description of association between demographic variables and knowledge of adolescent girls.

| Sl. NO | Demographic Variables | Level of knowledge | | | | Statistical | Values |
|---|---|---|---|---|---|---|---|
| | | Adequate knowledge | Moderate knowledge | Inadequate knowledge | $\chi^2$value | Calculated value (TV) | |
| 1 | Previous knowledge regarding PCOS | | | | | | |
| | a) Yes | 9 | 14 | 5 | 19.8608 | 5.99 | significant |
| | b) No | 5 | 15 | 11 | $\chi^2$ > TV | Hence S | |

There was significant association between knowledge of adolescent girls with selected demographic variables such as previous knowledge about Poly cystic ovarian syndrome ($X^2$ =19.8608,which is significant at 0.05 level)

## DISCUSSION

The first objective of the study was to assess the knowledge regarding risk factors and prevention of polycystic ovarian syndrome among adolescent girls: In depth analysis of the study findings revealed that among 60 adolescent girls,16 (26.67%) students have inadequate knowledge and 31 (51.67%) students have moderate knowledge and 13 (21.66%) students have adequate knowledge on risk factors and prevention of polycystic ovarian syndrome. The second objective of the study was to associate the knowledge regarding the risk factors and prevention of polycystic ovarian syndrome with their selected demographic variables: The present study findings revealed that there was significant association between knowledge of adolescent girls with selected demographic variables such as previous knowledge about Poly cystic ovarian syndrome( $X2$ =19.8608,which is significant at 0.05 level) it was also evident that there was no significant association between knowledge of adolescent girls with selected demographic variables such as age in years( $X2$ 6.2324, which is not significant, body weight($X2$ 4.33528 which is not significant, age of menarche ($X2$ 4.49533, which is not significant), regularity of menstrual cycle( $X2$ 2.666615, which is not significant), duration of menstrual bleeding( $X2$ 1.7152, which is not significant), painful menstruation ($X2$ 5.514, which 63 is not significant), family history of Poly cystic ovarian syndrome($X2$ 1.7591, which is not significant), diagnosed with poly cystic ovarian syndrome($X2$ 1.45, which is not significant)

## CONCLUSION

From this study, it is clearly evident that some of the adolescent girls had inadequate knowledge regarding risk factors and prevention of Poly cystic ovarian syndrome. So, the nurses must take the responsibility to disseminate the importance of practicing preventive measures. The investigators felt deep sense of satisfaction and fulfillment for undertaking this study.

## REFERENCE.

1. Vink JM, Sadrzadeh S, Lambalk CB, Boomsma DI. Heritability of Polycystic Ovary Syndrome in a Dutch Twin-Family Study. The Journal of Clinical Endocrinology & Metabolism [Internet]. 2006 Jun;91(6):2100–4

2. Legro R, kunselman A, dodson W, Dunaif A. J Clin Endocrinol Metab. Prevalence and predictors of risk for type 2 diabetes mellitus and impaired glucose tolerance in polycystic ovary syndrome. Page 165–169.january 1999

3. Hajivandi L, Noroozi M, Mostafavi F, Ekramzadeh M. Food habits in overweight and obese adolescent girls with Polycystic ovary syndrome (PCOS): a qualitative study in Iran. BMC Pediatrics. 2020 Jun 4;20(1).

4. Ferrao WI, Fernandes VM, Thomas T, Baretto VR, Sequera SKL. Knowledge on PCOS among the Nursing Students of a Selected College, Mangaluru. Journal of Health and Allied Sciences NU. 2022 Dec 30;13:436-39

5. Zangeneh FZ, Jafarabadi M, Naghizadeh MM, Abedinia N, Haghollahi F. Psychological distress in women with polycystic ovary syndrome from imam khomeini hospital, tehran. Journal of reproduction & infertility [Internet]. 2012;13(2):111–5. Available from:

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3719335/#S 0004iitle

6. Selvaraj V, Vanitha J, Dhanaraj FM, Sekar P, Babu AR. Impact of yoga and exercises on polycystic ovarian syndrome risk among adolescent schoolgirls in South India. Health Science Reports [Internet]. 2020 Dec;3(4). Available from: https://dx.doi.org/10.1002%2Fhsr2.212