



**A STUDY TO ASSESS THE KNOWLEDGE REGARDING IMPORTANCE OF
LIFESTYLE MODIFICATIONS TO PREVENT POLYCYSTIC OVARIAN SYNDROME
AMONG ADOLESCENT GIRLS IN PALLITHOTTAM COASTAL COMMUNITY AREA,
KOLLAM**

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ABSTRACT

The Community Health Nursing project undertaken was “A study to assess the knowledge regarding importance of lifestyle modifications to prevent polycystic ovarian syndrome among adolescent girls in Pallithottam coastal community area, Kollam”. The objectives of the study was to assess the knowledge regarding importance of lifestyle modifications to prevent Polycystic Ovarian Syndrome among adolescent girls and to find association between knowledge regarding importance of lifestyle modifications to prevent Polycystic Ovarian Syndrome among adolescent girls and selected socio-demographic variables such as age, religion, education, income, dietary pattern and menarche age. Non-experimental research design was adopted for this study in order to assess the knowledge regarding importance of lifestyle modifications to prevent Polycystic Ovarian Syndrome among adolescent girls. The study sample was selected by convenience sampling technique. The tool used for the data collection consisted of demographic proforma and structured knowledge questionnaire. Basic introduction of the study was given to the subjects and data was collected from 60 samples using self administrated tool. The analysis of the data was based on the objectives of the study using descriptive and inferential statistics. The present study revealed that out of 60 samples 23.3% of adolescent girls had good knowledge, 33.4% had average knowledge, 43.3% had poor knowledge regarding the importance of lifestyle modifications to prevent Polycystic Ovarian Syndrome. The study found that there was significant association between knowledge and demographic variables such as age of adolescent girls, religion, education, income and menarche age. No significant association was found between knowledge and demographic variable like dietary pattern. Based on the findings of the study, it is recommended that a similar kind of study can be conducted for a large group. An awareness programme regarding prevention of Polycystic Ovarian Syndrome can be conducted for adolescent girls.

KEYWORDS: Knowledge, Polycystic Ovarian Syndrome, adolescent girls, lifestyle modifications.

INTRODUCTION

Polycystic ovarian syndrome is a condition in which woman has an imbalance of female sex hormones. This may lead to changes in the menstrual cycle, cyst in the ovary, failure to conceive and other health problems. It is a common health problem among teenagers and young women. It affects 5% to 10% of women in their reproductive years. These problems causes infertility. Although there is no cure for polycystic ovarian syndrome, there are several ways to treat and manage the condition. If a girl is overweight, Weight loss can be very effective in lessening many of the health conditions associated with polycystic ovarian syndrome. Sometimes weight loss alone can restore hormone level to normal,

causes many of the symptoms to disappear or become less severe. Healthy food habits and exercise helps to combat the weight gain. Research has suggested that polycystic ovarian syndrome may be related to increased insulin production.^[4] The main risk factor for polycystic ovary syndrome is a family history of it. A family history of diabetes may increase the risk for polycystic ovarian syndrome because of the strong relationship between diabetes and polycystic ovarian syndrome.^[5] Long-term use of the seizure medicine valproate has been linked to an increased risk of polycystic ovarian syndrome. Girls with low birth weight as well as a family history of diabetes mellitus, premature birth, cardiovascular disease, hypertension, hormonal imbalance, genetic

problem, endocrine disease, weekend immune system, environmental factors, toxin effect are at risk for developing Polycystic Ovarian Syndrome.^[6] Polycystic ovarian syndrome seems to run in families, too, so if someone in the family has it, they might be more likely to develop it. India has witnessed about 30% rise in polycystic ovarian syndrome (PCOS) cases in the last couple of years. Lack of knowledge and lifestyle changes are considered to be the major factor leading to this phenomenon. There is a need to increase awareness among women so as to avoid major cases of fertility problems in the future.^[7] A Nurse holds a critical role in health care that goes beyond the day to day duties. Nurses are in a position to provide comprehensive care to adolescent afflicted with the syndrome. Essential elements of nursing practice should be included in the nursing education. So upgrading the knowledge regarding polycystic ovarian syndrome to nursing students will enhance the adolescent girls to modify their lifestyle and reduce the risk.^[8] Gynecological problems of adolescents occupy a special space in the spectrum of gynecological disorders of all ages. This is because of the physical nature of the problems which are so unique, special, and specific for the age group, and also because of the associated and psychological factors which are very important in the growth and psychological remodeling of someone in the transition between childhood and womanhood. Although polycystic ovarian syndrome is a common disorder, the diagnosis may be overlooked during adolescence, as irregular menses with anovulatory cycles, obesity, and acne are frequent in adolescent women.^[9] The incidence of polycystic ovarian syndrome among adolescents is estimated to be between 11% and 26% and about 50% are overweight.^[10]

Statement of the problem

A study to assess the knowledge regarding importance of lifestyle modifications to prevent polycystic ovarian

syndrome among adolescent girls in Pallithottam coastal community area, Kollam.

Objectives

- To assess the knowledge regarding importance of lifestyle modifications to prevent Polycystic ovarian syndrome among adolescent girls.
- To find out the association between knowledge regarding importance of lifestyle modifications to prevent Polycystic ovarian syndrome among adolescent girls and selected socio-demographic variables.

Operational definition

- **Assess:** In this study assess refers to determine the knowledge regarding importance of life style modifications to prevent polycystic ovarian syndrome among adolescent girls.
- **Knowledge:** In this study knowledge refers to the score obtained by the respondent to the items in knowledge questionnaire regarding importance of life style modifications to prevent polycystic ovarian syndrome among adolescent girls.
- **Adolescent girl:** In this study adolescent girl refers to a female who has attained her puberty and is in the age group of 12 -19 years.
- **Life style modifications:** In this study lifestyle modifications refers to modify nutrition, daily lifestyle and exercise pattern to prevent polycystic ovarian syndrome.
- **Polycystic ovarian syndrome:** In this study Polycystic Ovarian Syndrome refers to the hormonal imbalance which causes irregular menstrual periods, obesity, unwanted or excess hair growth and acne.

RESEARCH METHODOLOGY

Research approach	:Quantitative research
Research design	:Descriptive research design
Variables	:Dependent variable: Knowledge regarding importance of lifestyle modifications to prevent polycystic ovarian syndrome among adolescent girls :Demographic variables: In this study demographic variables are age, religion, educational, income, dietary pattern, menarche age.
Setting of the study	:The setting of the study was at Don Bosco Nagar, Anjaly Nagar, Anugraha Nagar and Snehatheeram Nagar in Pallithottam coastal community area, Kollam.
Population	: In the study the population consists of adolescent girls.
Sample	:In this study the sample size was 60 adolescent girls in Pallithottam coastal community area, Kollam who was available during the period of study.
Sample Size	:60 adolescent girls in Pallithottam coastal community area, Kollam
Sampling Technique	: Convenience sampling technique

RESULTS AND DISCUSSION

Table 1: Age.

SL NO	AGE	KNOWLEDGE		
		ADEQUATE	MODERATE	INADEQUATE
1	12 - 13 yrs	0	4	9
2	14 - 16yrs	1	11	12
3	17 - 19yrs	13	5	5

The table of data regarding age shows that adolescent girls who were in the age group of 12 - 13 years, no one of them had adequate knowledge, 4 had moderate and 9 of them have inadequate knowledge regarding importance of lifestyle modifications to prevent polycystic ovarian syndrome. Adolescent girls who were in the age group of 14 - 16years, 1 of them had adequate

knowledge, 11 had moderate and 12 had inadequate know. Adolescent girls who were in the age group of 17-19 years, 13 of them had adequate knowledge, 5 had moderate and 5 had inadequate knowledge regarding importance of lifestyle modifications to prevent polycystic ovarian syndrome.

Table 2: Religion.

SL NO	RELIGION	KNOWLEDGE		
		ADEQUATE	MODERATE	INADEQUATE
1	Christian	13	14	19
2	Muslim	1	0	5
3	Hindu	0	6	2

The data regarding religion shows that 13 had adequate knowledge, 14 had moderate knowledge and 19 had inadequate knowledge in the Christian community. In the Muslim community, 1 had adequate knowledge and 5

had inadequate knowledge. In the Hindu community 6 had moderate knowledge and 2 had inadequate knowledge.

Table 3: Education.

SL NO	EDUCATION	KNOWLEDGE		
		ADEQUATE	MODERATE	INADEQUATE
1	7 – 10 std	0	12	20
2	11- 12 std	9	7	5
3	Degree	5	1	1

The data regarding education shows that the adolescent girls has 7-10 std education, 12 had moderate knowledge and 20 had inadequate knowledge. Adolescent girls who has 11-12 std, 9 had adequate knowledge, 7 had

moderate knowledge and 5 had inadequate knowledge. Adolescent girls who have degree, 5 had adequate knowledge, 1 had moderate knowledge and 1 had inadequate knowledge.

Table 4: Income.

SL NO	INCOME	KNOWLEDGE		
		ADEQUATE	MODERATE	INADEQUATE
1	<10,000	2	7	15
2	10,0001-20,000	4	7	6
3	20,0001- 30,000	3	5	3
4	>30,000	5	1	2

The data regarding income shows that among adolescent girls who have an family income of 10,000 and below, 2 had adequate knowledge, 7 had moderate knowledge and 15 had inadequate knowledge. Adolescent girl who have family income of 10,0001-20,000, 4 had adequate knowledge, 7 had moderate knowledge and 6 had inadequate knowledge. Among adolescent girl who have family income of 20,0001- 30,000, 3 had adequate knowledge, 5 had moderate knowledge and 3 had inadequate knowledge. Adolescent girl who have family

income >30,000 of 5 had adequate knowledge, 1 had moderate knowledge and 2 had inadequate knowledge.

Table 5: Dietary Pattern.

SL NO	DIETARY PATTERN	KNOWLEDGE		
		ADEQUATE	MODERATE	INADEQUATE
1	Vegetarian	0	2	2
2	Non vegetarian	14	18	24

The data regarding dietary pattern shows that in vegetarian, 2 had moderate knowledge and 2 had inadequate knowledge. In non vegetarian, 14 had

adequate knowledge, 18 had moderate knowledge and 24 had inadequate knowledge.

Table 6: Menarche age.

SL NO	MENARCHE AGE	KNOWLEDGE		
		ADEQUATE	MODERATE	INADEQUATE
1	12	6	6	13
2	13	5	9	6
3	> 14	0	5	0

The data regarding menarche age shows that the adolescent girls who attain menarche at the age of 12, 6 had adequate knowledge 6 had moderate knowledge and 13 had inadequate knowledge. Adolescent girls who attain menarche at the age of 13, 5 had adequate

knowledge, 9 had moderate knowledge and 6 had inadequate knowledge. Adolescent girls who attain menarche at the age of 14 and above, 5 had moderate knowledge regarding importance of lifestyle modifications to prevent polycystic ovarian syndrome.

Table 3: Association between knowledge regarding importance of lifestyle modifications to prevent polycystic ovarian syndrome among adolescent girls and selected demographic variables.

Sl.No	Variables	Knowledge			df	Chi square value	Table value	Inf
		Adequate	Moderate	Inadequate				
1	Age in years							
	10 - 13 yrs	0	4	9	4	24.46	9.49	NS
	14 - 16yrs	1	11	12				
	17 - 19yrs	13	5	5				
2	Religion							
	Christian	13	14	19	4	11.59	9.49	NS
	Muslim	1	0	5				
	Hindu	0	6	2				
3	Education							
	7-10 std	0	12	20	6	25.62	12.59	S
	11-12 std	9	7	5				
	Degree	5	1	1				
4	Income							
	<10,000	2	7	15	6	13.14	12.59	S
	10,001-20,000	4	7	6				
	20,001-30,000	3	5	3				
5	Dietary pattern							
	vegetarian	0	2	2	2	1.39	5.99	NS
	Non vegetarian	14	18	24				
6	Menarche age							
	12	6	6	13	6	20	12.59	NS
	13	5	9	6				
	≥ 14	0	5	0				

Significant at 0.05 level, S-Significant, NS-Not significant

From the above statistical data, it was clear that there is significant association between knowledge and demographic variables like income and there is no association found between knowledge and demographic

variables like like age, religion, education, menarache age and dietary patter

DISCUSSION

The present study was conducted to assess the knowledge among adolescent girls regarding importance of lifestyle modifications to prevent polycystic ovarian syndrome in Pallithottam coastal community area, Kollam. The data was collected from 60 adolescent girls who met the criteria of study. The findings of the study had been discussed in relation to objectives and other similar studies.

The objectives of the study

The objectives of the study were to:

1. To assess the knowledge of adolescent girls regarding importance of lifestyle modifications to prevent Polycystic ovarian syndrome.
2. To find out the association between knowledge regarding importance of lifestyle modifications to prevent Polycystic ovarian syndrome among adolescent girls and selected socio- demographic variables.

Discussion of findings with other studies based on objectives

- **To assess the knowledge of adolescent girls regarding importance of lifestyle modifications to prevent Polycystic ovarian syndrome**

The present study revealed that out of 60 samples 23.3% of adolescent girls had good knowledge, 33.4% had average knowledge, 43.3% had poor knowledge regarding the importance of lifestyle modifications to prevent polycystic Ovarian Syndrome.

The above findings are supported by a descriptive study conducted to assess the knowledge regarding polycystic ovary syndrome among nursing students. The study has used quantitative research approach and descriptive research design. A total 60 nursing students who were studying in Diploma in general nursing and midwifery 3rd year and B.Sc. Hons Nursing 4th year participated in the study. Data was gathered using demographic sheet and structured questionnaire which was administered through online mode after formal permission. Descriptive statistics such as frequency, percentage, means and median and standard deviation were used to describe the demographic profile and level of knowledge regarding Polycystic Ovarian Syndrome. The study found that majority of Nursing Students (60%) have average knowledge, 38.33% have Good knowledge and 1.66% have poor knowledge regarding Polycystic Ovarian Syndrome. The finding of the study indicates that the majority of the Nursing students had average knowledge regarding Polycystic Ovary Syndrome (PCOS).

- **To find association between knowledge regarding importance of lifestyle modifications to prevent Polycystic ovarian syndrome and selected socio-demographic variables among adolescent girls**

In the present study significant association was found between knowledge among adolescent girls regarding

importance of lifestyle modifications to prevent Polycystic Ovarian Syndrome and demographic variable like income. No significant association was found between knowledge regarding importance of lifestyle modifications to prevent Polycystic Ovarian Syndrome and demographic variables such as age, religion, education, dietary pattern and menarche age of adolescent girls.

The above study was supported by a descriptive study conducted to assess the level of knowledge regarding polycystic ovarian syndrome among teenage girls in 2016. The objectives of the study was to assess the level of knowledge regarding polycystic ovarian syndrome among the teenage girls and to find out the association between the research findings and selected socio – demographic variables. On experimental, descriptive design was used to assess the knowledge regarding polycystic Ovarian Syndrome among the teenage girls. The target population of the study are the adolescent girls of selected schools of Mohali. Adolescent girls were selected by convenient Sampling Technique and Sample size was 200. Using selected structured questionnaire in schools at Mohali, researcher assessed the level of knowledge of adolescent girls regarding Polycystic Ovarian Syndrome. The results shows that majority of girls 123 (61.5%) had fair knowledge and minority of girls i.e. 1 (0.5%) had excellent level of knowledge. Only 35 (17.5%) girls had good level of knowledge. The study revealed that there was significant association between knowledge scores and selected socio-demographic variables like age, religion, type of family and monthly family income.

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