



A STUDY TO ASSESS THE KNOWLEDGE REGARDING POLYCYSTIC OVARIAN DISEASE AMONG COLLEGE GIRLS IN SELECTED GOVERNMENT COLLEGE, TIRUPATI.

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ABSTRACT:

The aim of the study is to assess the knowledge regarding polycystic ovarian disease among college girls in selected government college.

OBJECTIVES OF THE STUDY:

- To assess the knowledge regarding polycystic ovarian disease among college girls in selected Government College.
- To find the association between the knowledge regarding polycystic ovarian disease and its management among the college girls.
- To distribute information booklet regarding polycystic ovarian disease and its management.

Methodology:

Research methodology is the method of investigation to be adopted by the investigator. This section is an important and essential step in research. This chapter deals with the steps taken to conduct the present study in order “To assess the knowledge regarding polycystic ovarian disease among college girls in selected Government college Tirupati, Chittoor District”. It presents the choice of Research approach, design, population setting, sample size, sampling technique, Criteria for sample selection, pilot study, description of tool, data collection and data analysis.

Results:

Results shown that level of knowledge among college girls regarding polycystic ovarian disease 49(49%) of sample had moderate knowledge, 43(43%) of them had inadequate knowledge and only 8 (8%) of them had adequate knowledge on polycystic ovarian disease.

Conclusion:

In this study knowledge among college girls 49(49%) of sample had moderate knowledge, 43(43%) of them had inadequate knowledge and only 8 (8%) of them had adequate knowledge on polycystic ovarian disease. These findings suggested that extensive health education programmes were needed to bring awareness among college girls. So nurses need to encourage to improve knowledge among college girls on polycystic ovarian disease by organizing structured teaching programs in colleges to bring down the mortality and morbidity to make nation healthy.

Key terms:

Polycystic ovarian disease, polycystic ovarian disease management, knowledge on polycystic ovarian disease, college girls, polycystic ovarian disease and college girls

Introduction:**BACKGROUND OF THE STUDY**

Adolescent period is a unique period where there is a change from childhood to adulthood, a time of physiological, psychological, social and emotional adaptation. Adolescence is the age of 12 - 19 years are often considered as a healthy group. During this period individual attains physical and sexual maturity, whereas emotional maturity will be imbalanced. The changes in adolescent period have important implications to understand the health risks associated with polycystic ovarian disease.

In adolescent period the body changes and secondary sex characteristics will be developed. Any difference of secondary sexual characteristics can inversely affect the physical and emotional adaptation of the adolescent. 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.

It is important to minimize the complication in later adolescence by maintaining healthy lifestyle and early detection of health problems. Healthy lifestyle is one of the most important aspects in preventing polycystic ovarian disease. A healthy diet will ensure that the adolescent girls are getting an adequate intake of nutrients and minerals, healthy diet, avoiding junk foods and regular exercises aids to minimize the severity

of polycystic ovarian disease. It is a systematic complex disorder that needs to be actively managed by adolescence for the rest of their life.

The ovaries are paired sex glands or gonads in females. The principal function of ovary is production of an egg each month for ovulation and production of all hormones necessary for reproduction. When the ovary is failed to expel the mature egg, a small amount of fluid begins to accumulate inside the immature follicles to multiple cyst. Polycystic ovarian disease is a physiological disorder that causes many negative effects involving a many systems in the body such as endocrine, metabolic, physiologic and reproductive respectively.

Polycystic ovarian syndrome was originally described in 1935 by Stein and Leventhal. Polycystic ovarian syndrome is a condition that affects a woman's hormone levels that produces higher than normal amount of male hormones. This hormonal imbalance causes to skip menstrual periods and makes it harder for women to get pregnant. Birth control pills and diabetic drugs can help to fix the hormone imbalance and reduce the symptoms. The common symptoms of polycystic ovarian syndrome include menstrual irregularities, insulin resistance and obesity, excessive hair growth (hirsutism) – usually on the face, cheeks, back or buttocks, weight gain, thinning hair, hair loss, oily skin and acne.

Poly cystic ovarian disease is one of the most prevalent endocrine disorders in women affecting and estimated about 4-10% of females of reproductive age. Anovulation associated with polycystic ovarian disease is a leading cause of infertility. Sometimes weight loss alone can restore hormone levels to normal and causing many of the symptoms to disappear or become less severe. Healthy food habits and exercise is a great way to help combat the weight gain. 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 disease.

Need for the study:

Adolescence is the most pivotal period of life, yet one of the most vulnerable time for a physical ailments. Adolescence constitutes from a large section of population about 22.5% that is about 225 millions. It is the most common endocrine disorder in women of reproductive age, however even today there is a lack of awareness regarding the condition in India and is often remains undetected for years. This health condition is estimated to affect about 10 millions women globally.

Adolescent health plays an important role in a Nation's health condition. The global incidence of adolescent girls is about 1.2 billion (18%) in India 41% (20 years) 19.6% (15 - 24 years). The global incidence of polycystic ovarian syndrome was 1 in 10 women, among 10 ,6 are teenage girls. In India 22 - 25% polycystic ovarian disease in adolescent girls is 9.13%. In Andhra Pradesh 3.7% - 22.5% (72 girls / 460).

Adoption of an unhealthy eating habits and sedentary life style is two main reasons for increase of polycystic ovarian disease in India Older generations of Indian women eat traditional low calorie foods with less sugar⁶. Many young Indian girls today eat a steady diet of junk foods. Within the first two decades in

India began relying on westernized diets and lifestyle. It is predicted that they may see six fold increases in obesity prevalence in the next 10 years especially for India, who already has the highest rates of diabetes in the world WHO (2019).

Today we are living in a period of modernization. The effects of modernization and technological advancements reflect in everyday life. Our lifestyle also has changed a lot. Food intake is becoming more concentrated on sugar, fast food, soft drinks and less on healthy traditional fare. These unhealthy food habits and lack of exercise leads to many diseases in adolescence like polycystic ovarian syndrome. Studies on adolescent and college girls in India, shows higher percentage in college girls with polycystic ovarian syndrome and there was around 36% of increase in case of polycystic ovarian syndrome showing a fast increase of cases among college girls in an alarming rate.

Polycystic ovarian syndrome has drawn a lot of attention in recent years being the leading cause of infertility among women. The incidents of polycystic ovarian syndrome are more among adolescents suffering from physical and psychological morbidity. Lack of knowledge on lifestyle, attitude towards polycystic ovarian disease among college girls and not taking any measures to improve their lifestyle pattern is felt by the investigator that these college girls can be helped by assessing their knowledge and with a view to change lifestyle by providing necessary information so as to help them to get away about the polycystic ovarian syndrome. There is a need to upgrading the knowledge regarding polycystic ovarian disease will enhance the adolescent girls to modify their lifestyle and reduce the risk and avoid major cases of infertility problems in future.

During the clinical experience of the investigator found that many college girls diagnosed as polycystic ovarian disease and also unaware of the disease. Hence the investigator felt that there is a need to conduct this study among college girls regarding polycystic ovarian disease.

MATERIAL AND METHODOLOGY:

Research approach: Non experimental

Research design: Descriptive research design

Setting of the study: Sri Padmavathi Women's Junior College, Tirupati, Tirupati district, Andhra Pradesh.

Study sample: The sample of the present study includes college girls in the age group of 15 - 19 years from Sri Padmavathi Women's Junior College, Tirupati, Tirupati district, Andhra Pradesh.

Sample size: 100 college girls

Sampling technique: Simple random sampling technique was adopted to select the sample.

CRITERIA FOR SAMPLE SELECTION:**1. Inclusion criteria**

- College girls age group of 15 - 19 years.
- Willing to participate in the study.
- Available at the time of data collection

2. Exclusion criteria

- Those who have not studied in the college.
- Below 15 years and above 19 years of college girls.
- Who are not willing to participate in the study.
- College students who are not available at the time of data collection.
- College student who havenot taken treatment for polycystic ovarian disease.

DEVELOPMENT AND DESCRIPTION OF THE TOOL

The study was carried out by using a structured knowledge questionnaire on poly cystic ovarian disease. It was developed with the help of extensive review literature, books journals and consulting experts in the field of Medical and Nursing. Validity and reliability of the tool was obtained.

The questionnaire for the present study was divided into section-1 and section-II.

Section- I : It deals with demographic variables. It includes 13 items such as age in years, religion, class of study, educational level of mother, occupation of mother, occupation of father, monthly family income in Rupees, area of residence, type of family, age at menarche in years, duration of menstrual cycle in days, duration of menstrual flow and source of information.

Section -II : It includes questions related knowledge on polycystic ovarian disease. This section headed under following headings namely anatomy and physiology of reproductive system, meaning, causes, signs and symptoms, diagnostic findings and hazards and management and prevention. In anatomy and physiology of reproductive system includes 8 items, meaning consists of 3 items, causes includes 3 items, signs and symptoms includes 3 questions, diagnostic findings and hazards includes 10 items and management and prevention includes 13 questions.

SCORE INTERPRETATION FOR SECTION – II:

SCORE	MARKS	LEVEL OF KNOWLEDGE
<50 %	<20	Inadequate level of knowledge
51-75 %	21-30	Moderate level of knowledge
>75%	>31	Adequate level of knowledge

CONTENT VALIDITY:

Content validity refers to the degree to which the items in an instrument adequately represent the universe of the content being measured.

The tool was submitted to 5 experts in Department of Nursing specialized in Obstetrical and Gynaecological Nursing and 5 experts in Department of Obstetrics and Gynaecology. Based the suggestions given by the experts the necessary modifications of the tool were made and final draft was prepared and incorporated in pilot study.

RELIABILITY OF THE TOOL:

Reliability of the tool is defined as the expert to which the important fields the same results in repeated measures. It concerns with stability internal consistency and homogeneity.

To establish the reliability of Cronbach's Alpha Reliability method was used. Tool was administered to 10 members studying in Sri Padmavathi Women's Junior College, Tirupati. The reliability score was $r=0.96$ which means tool was highly reliable.

PILOT STUDY:

The pilot study is small version of traits runs done in preparation for major studies, formal permission was obtained from the school authority.

Pilot study was conducted on 10 college girls in Sri Padmavathi Women's Junior College, Tirupati, who fulfil the inclusion criteria were selected, obtained consent from them by establishing good rapport These 10 samples were not included in main study.

PROCEDURE FOR DATA COLLECTION:

The study was conducted from college girls studying in Sri Padmavathi Women's Junior College, Tirupati. The investigator initially establishes rapport with the study subjects, then the questionnaire was used to collect data from college girls. The time limit of 30 minutes was taken, by the investigator to each sample. The investigator maintained confidentiality and had no difficulty in collecting the data.

DATA ANALYSIS:

The study was planned to analyse based on the study objectives with the help of descriptive and inferential statistics.

DESCRIPTIVE STATISTICS

- Frequency and percentage distribution was used to assess demographic data among college girls.
- Percentage, mean distribution and standard deviation were used to estimate the level of knowledge among college girls.

INFERENCE STATISTICS

Chi square test were used to identify the association between knowledge regarding polycystic ovarian disease with their selected socio demographic variables among college girls.

Findings of the study:

FREQUENCY AND PERCENTAGE DISTRIBUTION OF LEVEL OF KNOWLEDGE REGARDING POLYCYSTIC OVARIAN DISEASE AMONG COLLEGE GIRLS

Table: 2

Knowledge Regarding PCOD	Level of Knowledge						Mean	SD
	Inadequate (<50%)		Moderate (51 -75 %)		Adequate (>75%)			
	n	%	n	%	n	%		
	43	43.0	49	49.0	8	8.0	21.47	4.633

The above table 2 explains that regarding level of knowledge among college girls out of 100, 49(49%) of sample had moderate knowledge, 43(43%) of them had inadequate knowledge and only 8 (8%) of them had adequate knowledge on polycystic ovarian disease. Increased awareness among students for easy and accurate diagnosis in managing polycystic ovarian syndrome.

ASSOCIATION OF KNOWLEDGE SCORES REGARDING POLYCYSTIC OVARIAN DISEASE WITH SELECTED DEMOGRAPHIC VARIABLES AMONG COLLEGE GIRLS

Table: 3

n = 100

S. No.	Demographic Variable	Level of Knowledge			df	Chi-Square	P Value	Sig
		Inadequate	Moderate	Adequate				
1	Age in years				8	5.55	0.697	NS
	15 years	2	1	0				
	16 years	21	16	4				
	17 years	18	27	3				
	18 years	1	4	1				
	19 years	1	1	0				
2	Religion				6	8.43	0.208	NS
	Hindu	37	42	5				
	Muslim	1	1	1				
	Christian	5	5	1				
	Other	0	1	1				

3	Class of study							
	Intermediate I year	18	25	3	2	1.03	0.597	NS
	Intermediate II year	25	24	5				
4	Educational level of mother							
	Primary education	2	10	5	4	15.04	0.005	0.01
	Secondary education	21	26	2				
	Collegiate education	20	13	1				
5	Occupation of mother							
	Home maker	11	24	1	8	10.60	0.225	NS
	Coolie	9	5	1				
	Self Employee	3	4	0				
	Govt. Employee	6	5	2				
	Private Employee	14	11	4				
6	Occupation of father							
	Coolie	7	18	1	6	14.83	0.022	0.05
	Self Employee	7	14	0				
	Govt. Employee	18	10	5				
	Private Employee	11	7	2				
7	Monthly family income in rupees							
	Rs. 3000/- - 5000/-	11	8	3	6	2.87	0.825	NS
	Rs. 5001/- - 10,000/-	11	16	2				
	Rs. 10,001/- - 15,000/-	17	19	2				
	Rs. Above 15,000/-	4	6	1				
8	Area of residence							
	Urban	3	13	3	4	17.37	0.008	0.01
	Rural	22	22	4				
	Urban slum	3	9	1				
	Tribal	15	5	0				
9	Type of family							
	Nuclear	32	40	4	6	7.80	0.253	NS
	Joint	5	7	2				
	Extended	1	1	1				
	Single parent	5	1	1				
10	Age at menarche in years							
	10-Dec	7	6	1	6	18.00	0.006	0.01
	13 - 15	20	38	7				
	16 - 18	4	4	0				
	>18	12	1	0				
11	Duration of menstrual cycle in days							
	15 - 21	4	7	0	6	18.27	0.006	0.01
	21 - 25	6	19	3				
	26 - 30	23	23	4				
	>30	10	0	1				
12	Duration of menstrual flow							
	1 - 5 days	36	41	5	6	7.44	0.282	NS
	6 - 8 days	6	3	2				
	9 - 11 days	0	3	1				
	Above 11 days	1	2	0				

Source of information								
13	Mass media	16	29	7	6	18.79	0.004	0.01
	Family members and relatives	7	13	1				
	Friends	3	3	0				
	Health personnel	17	4	0				

Note: * = Significant at 0.05 level

** = Significant at 0.01 level

NS = Not Significant

Table 3 describes that there was a significant association between few socio-demographic variables and level of knowledge regarding polycystic ovarian disease among college girls namely educational level of mother, area of residence, age at menarche in years, Duration of menstrual cycle in days and source of information significant at 0.01 level.

The selected demographic variable such as occupation of father had significant association with knowledge on polycystic ovarian disease at 0.05 level. Whereas the demographic variables like age in years, religion, class of study, occupation of mother, monthly family income in rupees, type of family and duration of menstrual flow had no significant association with knowledge on polycystic ovarian disease among college girls.

Discussion:

The purpose of the study was “To assess the knowledge regarding polycystic ovarian disease among college girls in selected government college Tirupati, Chittoor District”.

This is a non-experimental study to assess the knowledge regarding polycystic ovarian disease. A sample of 100 college girls were selected. The data was analysed using descriptive and inferential statistics. The results of the study were discussed according to the objectives.

The first objective of the study was “To assess level of knowledge on polycystic ovarian disease among college girls”. With regard to knowledge, out of 100 college girls majority 49(49%) of sample had moderate knowledge, 43(43%) of them had inadequate knowledge and only 8 (8%) of them had adequate knowledge on polycystic ovarian disease. Mean knowledge score was 21.47 and SD was 4.63.

This study is in line with the study conducted in Bhopal city by Gupta et al (2018) on A cross sectional study of polycystic ovarian syndrome among young women in Bhopal, Central India. The study results found that 21.6% girls were aware of PCOS¹⁶.

The second objective of the study was to find the association between knowledge scores with their selected socio demographic variables. There was a significant association between few socio-demographic variables and level of knowledge regarding polycystic ovarian disease among college girls namely educational level of mother, area of residence, age at menarche in years, Duration of menstrual cycle in days and source of information significant at 0.01 level.

The selected demographic variable such as occupation of father had significant association with knowledge on polycystic ovarian disease at 0.05 level. Whereas the demographic variables like age in years, religion, class of study, occupation of mother, monthly family income in rupees, type of family and duration of menstrual flow had no significant association with knowledge on polycystic ovarian disease among college girls.

The findings found moderate knowledge about PCOD. Hence hypothesis was not approved.

IMPLICATIONS:

The implications drawn from present study is of vital concern to health teams including nursing practice, nursing education, Nursing administration and so on.

Nursing practice:

- The results of the study would be helpful for the Nurses to enlighten their knowledge on health education regarding polycystic ovarian disease.
- The nurses focuses on all aspects of polycystic ovarian disease causes, risk factors, signs and symptoms, diagnosis, treatment and prevention.
- In gynaecological O.P Nurses should have good knowledge and attitude to motivate the college girls to cope up with polycystic ovarian disease.
- In- service and continuing education on various aspects of polycystic ovarian disease is needed.

Nursing education:

- The nursing curriculum should emphasize on importance regarding health education to all the individuals using different teaching methods.
- During basic Nursing education courses, students may be given clinical assignments, and activities which may involve and plan and implement various
- Health awareness campaigns.
- Nursing education is aimed at preparing nurses who will be able to plan and provide holistic and family centered care to individuals and families after completion of educational program.

Nursing administration:

- Nurse administrator should plan and organize to continue nursing educational programs for the nursing personnel and motivate them in conducting education programs on poly cystic ovarian disease that are beneficial to the college girls.
- Administrator can plan awareness programs and publish materials which should be available to the public.
- Community health nurse administrator should recommend school and college of nursing authorities to adopt colleges as part of the curriculum to develop professional skills and spread awareness on polycystic ovarian disease.

Nursing research:

- More research is needed on different aspects of polycystic ovarian disease.
- Nurse must provide additional knowledge about polycystic ovarian disease that will be beneficial for the public.
- Nurses and nursing students should be encouraged to do research in the field of polycystic ovarian disease.

Limitations:

- Study is limited to college students.
- Study is confined to Sri Padmavathi Women's Junior College, Tirupati, Tirupati district, Andhra Pradesh.
- Study is limited to college girls in the age group of 15 - 19 years.

RECOMMENDATIONS:

- A similar study may be done with large sample for better generalization.
- Educational programs regarding polycystic ovarian disease to be continued for the college girls and also for the wide area of community.
- A longitudinal study could be conducted using the after 1 month, 6 months and 1 year to see the knowledge and practice of college girls.
- A similar study can be conducted using experimental and control group.
- A comparative study can be done in urban and rural areas.

CONCLUSION:

In this study knowledge among college girls 49(49%) of sample had moderate knowledge, 43(43%) of them had inadequate knowledge and only 8 (8%) of them had adequate knowledge on polycystic ovarian disease.

These findings suggested that extensive health education programmes were needed to bring awareness among college girls. So nurses need to encourage to improve knowledge among college girls on polycystic ovarian disease by organizing structured teaching programs in colleges to bring down the mortality and morbidity to make nation healthy.

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