RESEARCH ARTICLE

KNOWLEDGE REGARDING POLYCYSTIC OVARY SYNDROME AMONG ADOLESCENT GIRLS

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ABSTRACT

INTRODUCTION: Polycystic ovary syndrome (PCOS) is a hormonal disorder common among women of reproductive age. Women with PCOS may have infrequent or prolonged menstrual periods or excess male hormone (androgen) levels. The ovaries may develop numerous small collections of fluid follicles and fail to regularly release eggs. A descriptive study was undertaken to assess the knowledge regarding Polycystic Ovary Syndrome among adolescent girls in selected school of Faridkot, Punjab.

AIM: To assess the knowledge regarding PCOS among adolescent girls and to distribute the pamphlets to the adolescent girls to improve their knowledge regarding PCOS.

MATERIAL AND METHODS: A quantitative research approach was used for a descriptive design. The 100 adolescent girls were selected through convenient method to collect data by using a self structured questionnaire regarding polycystic ovarian syndrome.

RESULTS: The result of the study revealed that majority of the adolescent girls 60% had average knowledge, which is followed by 39% adolescent girls who had poor knowledge and 1% adolescent girls had good knowledge regarding polycystic ovarian syndrome.

CONCLUSION: To reduce the risk of PCOS and to improve the knowledge of adolescent girls regarding its management, the pamphlets were distributed to adolescent girls.

KEYWORDS: Adolescent, polycystic ovarian syndrome, Knowledge

INTRODUCTION & BACKGROUND OF THE STUDY

Polycystic ovary syndrome (PCOS) is a hormonal disorder common among women of reproductive age. Women with PCOS may have infrequent or prolonged menstrual periods or excess male hormone (androgen) levels. The ovaries may develop numerous small collections of fluid follicles and fail to regularly release eggs. The exact cause of PCOS is unknown. Factors that might play a role include: excessive insulin level, low grade inflammation, heredity, excess androgen.[1]

The American gynecologist Irving F. Stein, Sr. and Michael L. Leventhal was discovered the term Polycystic Ovarian Syndrome in 1935. Polycystic ovary syndrome is also known as stein-leventhal syndrome.[2]

Polycystic ovary syndrome (PCOS) is affecting approximately 5%-10% of all females and 4-6% of adolescent girls and young women. It can be diagnosed in all phases of life-in girls as young as 8-9 years of age through post-menopausal females. Although PCOS is one of the leading cause of infertility, the reproductive aspects of the disorder are secondary. PCOS is not limited to women of reproductive age or potential. [3]

PCOS is characterized by irregular periods, infrequent or prolonged of menstrual cycle. Excessive androgen level results in excessive facial and body hair growth and occasionally severe acne and male pattern baldness. Apart from this, the signs and symptoms are typically more severe in obese. The diagnostic tests include pelvic examination to inspect any masses, abnormal growths and other abnormalities. The blood tests used to measure hormone levels (androgen, glucose tolerance and fasting cholesterol and triglyceride levels) as well as ultrasound to rule out the cyst in ovaries.[4]

As PCOS is among the most common during adolescence, there is always a need to investigate all new relevant data. Early recognition and prompt treatment of PCOS in adolescent is important to prevent long term sequel. More research is necessary in order to find answers too many clinical and theoretical aspect of the syndrome.

OBJECTIVES OF THE STUDY

1. To assess the knowledge regarding PCOS among adolescent girls.
2. To find out association between knowledge and selected sociodemographic variables.
3. To develop and distribute the pamphlet to adolescent girls regarding knowledge and PCOS.

MATERIAL AND METHODS

Research approach & design: A quantitative research approach

was used for a descriptive research design to assess the knowledge regarding PCOS among adolescent girls.

Sample and sampling technique: The total 100 adolescent girls were selected from govt. girl's senior secondary school, Faridkot by using convenient sampling technique to collect the data, who met with inclusion criteria.

Research tools: A structured knowledge questionnaire was used to collect data regarding PCOS from adolescent girls studying in Govt. senior secondary schools of Distt. Faridkot, Punjab. The tool was divided into two parts:

Part A: Socio demographic variables i.e. age, educational status, economical status, habitat, age of menarche, menstruation period, menstruation cycle days

Part B: The knowledge questionnaire contains 20 items regarding knowledge of PCOS and questions were regarding to general knowledge of PCOS among adolescents.

CRITERION MEASURE

LEVEL OF KNOWLEDGE	SCORE	%
Good knowledge	14-20	67-100
Average knowledge	7-13	35-66
Poor knowledge	0-6	0-34

ETHICAL CONSIDERATION

The permission to conduct study was taken from the ethical committee of University College of Nursing, BFUHS, and Faridkot. The permission was also taken from Principles of schools for data collection and a written informed consent was obtained from study subjects before collecting data

RESULTS

The socio demographic profile revealed that more than half 63% subjects were under age group of 15-16 years and maximum 82% were studying in 10+1 standard. The maximum subjects 45% were having menarche age at 14 years and 54% have 4-5 days menstruation period followed by 57% with 28-30 days of menstruation cycle. More than half subjects 55% experience Dysmenorrhea during menstruation while most of subjects 98% were having poor previous knowledge regarding PCOS.

Table 1
Frequency and percentage distribution of knowledge score

N=100

Level of knowledge	Score	Percentage	Frequency
Good Knowledge	14-20 (67-100%)	1%	1
Average Knowledge	7-13 (35-66%)	60%	60
Poor Knowledge	0-6 (0-34%)	39%	39

Maximum =20

Minimum=0

Table 1 shows that 60% had average knowledge, which is followed by 39%, had poor knowledge and 1% had good knowledge regarding polycystic ovarian syndrome.

Table 2

Association between knowledge score and selected demographic variables

N=100

Variables	Good f	Average f	Poor f	χ^2 df p
Age(in years)				
13-14	0	4	3	0.745
15-16	1	37	25	04
17-18	0	19	11	0.94^{NS}
Educational status				
9th	0	0	0	0.488
10th	0	1	1	4
10+1	1	50	31	0.975^{NS}
10+2	0	9	7	
Age at menarche (in years)				
<12 years	0	7	4	8.249
13 years	0	20	7	6
14 years	0	25	20	0.220^{NS}
>14 years	1	8	8	
Number of days of menstruation				
2-3 days	0	15	13	9.808
4-5 days	0	35	24	4
6-7 days	1	10	2	0.04^{**}
>7 days	0	0	0	
Interval of menstrual cycle				
<28 days	0	14	10	
28-30 days	0	34	23	6.224
31-33 days	1	9	5	6
>33 days	0	3	1	0.399^{NS}
Religion				
Hindu	1	12	8	7.009
Muslim	0	0	1	6
Sikh	0	48	29	0.320^{NS}
Christian	0	0	1	
Any other	0	0	0	
Area of residence				
Rural	0	37	18	3.533
Urban	1	23	21	2
				0.171^{NS}
Dysmenorrhea during menstruation				
Yes	0	32	21	1.538
No	1	28	23	2
				0.463^{NS}
Family monthly income(in rupee)				
<5000	1	38	26	3.077
5001-10,000	0	12	8	6
10,001-20,000	0	2	3	0.799^{NS}
>20,001	0	8	2	

Dietary habit Non-vegetarian Vegetarian Eggitarian	1 0 0	43 9 8	30 6 3	1.129 4 0.890^{NS}
Type of family Joint family Nuclear family Extended family	1 0 0	43 9 8	30 6 3	1.129 4 0.890^{NS}
Previous knowledge regarding Yes No	0 1	2 58	0 39	1.361 2 0.506^{NS}

NS = Non Significant , ** Significant at p<0.05

Table 2 shows the association with the knowledge score and selected demographic variables reveals that age (in years), educational status, age at menarche, number of days of menstruation, interval of menstrual cycle, religion, area of residence, dysmenorrhea during menstruation, family monthly income, dietary habit, type of family, and previous knowledge were not significant. But, only number of days of menstruation had found association with knowledge score.

DISCUSSION

The first findings of the present study revealed that majority of the study subjects 60% had average knowledge, which is followed by 39%, had poor knowledge and 1% had good knowledge regarding polycystic ovarian syndrome. The mean score was 8.34 with standard deviation of 2.74 and median was 8.0 with minimum score of 13 and maximum score of 15, but the range of data is 2. The overall mean percentage is 41.70. This finding was found consistent [11]another study conducted on 200 teenage girls from school of Mohali. The result shows that majority of girls 123 (61.5%) had fair knowledge and minority of girls i.e. (0.5%) had excellent level of knowledge. Only 35 (17.5%) girls had good level of knowledge. The mean score was 8.0 with standard deviation of 2.7 and median was 8.0 with minimum score of 3.0 and maximum score of 16.0.

The finding revealed that the association of the level of the knowledge regarding the polycystic ovarian syndrome with selected demographical variables was not significant. But, only number of days of menstruation had significant association. This finding was found similar with the [12]study to assess the knowledge of PCOS Sciences. 85% of the subject were in the age group of 21-25 years, 92% of them had regular menstrual cycle, 82% were consuming mixed diet 76% had average knowledge and 10.7% with good knowledge regarding polycystic ovarian syndrome. The study showed that consumption of junk food, dietary patterns of the students were influenced by their level of knowledge on PCOS.[12]

CONCLUSION

The study results revealed that majority of the adolescent girls had average knowledge regarding PCOS. There were no association found between the knowledge score and selected demographic variables except number of days of menstruation which was found to be significant with the knowledge score. So, the pamphlets were distributed to adolescent girls to increase their knowledge and prevent the disease as well as manage it accurately.

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