The Journal of Nursing Trendz
Vol. 10, Issue 2, May - August 2019, pp-09-13

IndianJournals.com
DOI: 10.5958/2249-3190.2019.00012.9

POLYCYSTIC OVARIAN SYNDROME AND ITS MENACE

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Abstract

The aim of the study was to assess common problems experienced by women diagnosed with Polycystic Ovarian Syndrome (PCOS) and its association with age and menstrual related variables. An exploratory survey was conducted and a convenient sampling technique was used to select 30 samples. Structured questionnaire was used to collect the data from 30 women in the age group of 15 to 22 years with PCOS and the data was analyzed using descriptive and inferential statistics. The findings revealed that majority of the women 14(46.7%) were in the age of 21-22 years, 20 (66.7%) had the family history of PCOS, 11(36.7%) were underweight and overweight respectively, 19(63.3%) samples had acne,10(33.3%) had hirsutism, 16(53.3%) had thinning of hair, 2(6.7%) had bald spots,9(30%) had dark patches,15(50%) had anxiety/depression and 12(40%) had the pelvic pain etc. There is a statistically significant association found on selected demographic variables with age in years at 0.05 level of significance.

Keywords: *Hirsutism, insulin resistance, irregular menses, oligomenorrhea, polycystic ovary syndrome.*

Introduction

Poly Cystic Ovary Syndrome (PCOS) is the most common endocrine disorder in women of reproductive age and is the most common cause of infertility due to anovulation. It appears that several factors may be involved in its development. Perhaps the disease exists as a genetic predisposition in the person and its symptoms are exacerbated by environmental factors and lifestyle (Asgharnia M et al., 2011). PCOS symptoms involve both endocrine and gynecologic system; as amenorrhea or oligo amenorrhoea, hirsutism, obesity, acne, androgenic alopecia and reproductive disorders (Arshad M et al.,2012). PCOS is not a disease exclusive to fertility and adolescence period; rather it can be associated with varying effects on a person's life. The main complications of the disease in adolescence are the incidence of amenorrhea, oligo menorrhea, hirsutism, obesity, and acne. In fertility age, the patient's chief complaint is infertility and irregular ovulation. The complications of adolescence age still exist in this period. In pre-menopausal and postmenopausal ages, this syndrome can increase the risk of type 2 diabetes, hypertension, dyslipidemia, cardiovascular diseases and even endometrial cancer and possibly breast cancer. Patients with PCOS are at risk for a group of metabolic disorders including insulin resistance, intolerance impairment, diabetes, hypertension, lipid disorders, cardiovascular disease, and increased risk of endometrial, uterine, and breast cancers. Most patients with PCOS may only show one or two clinical symptoms. The most common clinical finding is menstrual disorders which is usually started from menarche, or immediately after it and may appear in the form of oligo menorrhea, amenorrhea or poly menorrhea and might even be normal menstrual cycle (Arefi S. et al., 2000).

PCOS is usually associated with hormonal abnormalities through changes in the concentrations of luteinizing hormone (LH), prolactin, estrogen and serum androgens (testosterone and androstenedione). It seems that the prevalence of polycystic ovaries is higher among women younger than 35 years (Aali Bet et al., 2004). PCOS prevalence has been reported between 2.2% to 26% in India, 9.13% of South *Indian adolescent* girls are estimated to suffer from *PCOS in 2018.* Therefore, given the impact of PCOS on the incidence of many disorders, the present study aims to

assess the associated symptoms experienced by women.

Statement of the problem

A study to assess the common problems experienced by women diagnosed with PCOS residing at a selected community area.

Objectives

- To assess the common problems experienced by women diagnosed with PCOS.
- To find the association between age and selected problems.

Methodology

An exploratory survey was conducted. Thirty samples in the age group of 15 to 22 years residing at Kannaki Nagar and China Neelankarai community area were selected as samples using convenient sampling technique. A self report was obtained and a structured questionnaire was used to collect data. The tool consisted of demographic variables of women and questions related to age at menarche, family history of PCOS, eating habits, activity level, weight, presence of acne, bald spots, thinning hair, hirsutism, menstrual disorders and dark patches etc were included. Informed consent was obtained from the parents.

Results

Demographic variables of women revealed that out of 30 samples, 14(46.7%) were in the age of 21-22 years, 9 (30%) were 15-17 years and 7 (23.3%) were 18-20 years. Regarding religion, 16 (53.3%) were Hindu and 11(36.7%) were Christians. Twenty six (86.7%) samples were non vegetarian. Twenty (66.7%) samples were having the family history of PCOS and 14 (46.7%) samples were having the moderate level of activity. Nine (30%) samples were active with regard to their life style and 7 (23.3%) were having the sedentary level of activity. Thirteen (43.3%) samples were under graduates, 24 (80%) of them were students and 4 (13.3%) were not working.

Table 1

Frequency and percentage distribution of common problems experienced by women diagnosed with PCOS. (N=30)

Variables	Frequency	Percentage
Weight		
Underweight	11	36.7
Overweight	11	36.7
Obesity	6	20.0
Normal	2	6.7
Total	30	100.0
Presence of Ache		
Yes	19	63.3
No	11	36.7
Total	30	100.0
Hirsutism		
Yes	10	33.3
No	20	66.7
Total	30	100.0

Thinning hair		
Yes	16	53.3
No	14	46.7
Total	30	100.0
Bold spots		
Yes	16	53.3
No	14	46.7
Total	30	100.0
Anxiety / Depression		
Yes	15	50.0
No	15	50.0
Total	30	100.0
Pelvic Pain		
Yes	12	40.0
No	18	60.0
Total	30	100.0

Table 1 depicts that out of 30 samples, 11(36.7%) were underweight and overweight respectively, 6 (20%) were obese, 19 (63.3%) had acne, 10 (33.3%) had hirsutism, 16 (53.3%) had thinning of hair, 2 (6.7%) had bald spots, 9 (30%) had dark patches, 15 (50%) had anxiety/depression and 12 (40%) had pelvic pain. The study findings were supported by Tehrani F. R. et al.,(2015) who reported that Mean ± SD of Over weight is 4.36± 2.43 & Anxiety/Depression is 5.50 ± 1.88 respectively.

Table 2

Frequency and percentage distribution of common menstruation related problems experienced by women diagnosed with PCOS. (N=30)

Variables	Frequency	Percentage
Age at Menarche		
11-12 years	13	43.3
13-14 years	11	36.7
15-16 years	5	16.7
17 years and above	1	3.3
Total	30	100.0
Menstrual cycle last for		
2-3 days	2	6.7
4-5 days	13	43.3
6-8 days	12	40.0
9 & above days	3	10.0
Total	30	100.0

Menstrual cycle in a year		
6 and less cycle	6	20.0
7-9 cycle	9	30.0
10-12 cycles	15	50.0
Total	30	100.0
Menstrual cycle disorder		
Yes	13	43.3
No	17	56.7
Total	30	100.0
Presence of blood clots		
Yes	13	43.3
No	17	56.7
Total	30	100.0
Painful menstruation		
Yes	20	66.7
No	10	33.3
Total	30	100.0

Table 2 depicts that that out of 30 samples, 13 (43.3%) of them attained menarche at 11-12 years of age, 11 (36.7%) of them were at 13-14 years of age and 5 (16.7%) of them were at 15-16 years of age. For 13 (43.3%) women the menstrual cycle had lasted for 4-5days, for 12 (40%) of them, it had last for 6-8 days and for 3 (10%) women, the menstrual cycle had lasted for 9 & above days. Regarding number of cycles in a year, 15 (50%) women had 10-12 menstrual cycle in a year, 9 (30%) women had 7-9 menstrual cycle in a year and 6 (20%) women had 6 and less menstrual cycle in a year. Twenty (66.7%) women reported having painful menstruation, 13 (43.3%) women reported having menstrual cycle disorder & presence of blood clots during menstruation. The study findings were supported by Khomami M. B. et al. (2015) who reported that Mean ± SD of Menstrual cycle disorder is 3.84 ± 2.44 & Painful menstruation is 4.35 ± 2.19 respectively.

Conclusion

The findings of the present study denotes that PCOS is an emerging disorder during adolescence and screening could provide opportunity to target the group for promoting healthy lifestyles and early intervention to prevent future morbidities. This study confirms that all of them have few associated symptoms. Menstrual irregularities affect the woman of reproductive age group and associated infertility is a major concern. Woman with PCOS have self image disturbance because of baldness, hirsutism, overweight and obesity. This compounded with anxiety/depression further aggravates their problem which ultimately results in less productivity, quality of life and poses a challenge in conception and weight maintenance. Nurses must have awareness about their problems and timely intervention and counselling will help them to overcome their health issues.

Recommendations

- Health professionals and women should be aware of the adverse impact of PCOS on quality of life.
- Healthy lifestyle behaviours encompassing healthy eating and regular physical activity should be recommended in all women with PCOS to achieve and maintain healthy weight, improve hormonal outcomes,

general health, and quality of life across the life course. Lifestyle intervention (preferably multi component including diet, exercise and behavioural intervention) should be recommended in women with PCOS and excess weight for reductions in weight, central obesity and insulin resistance.

- Improving physical activity is a mandate which includes leisure time physical activity, transportation such as walking or cycling, occupational work, household chores, games, sports or planned exercise, in the context of daily, family and community activities. World Health Organization recommended a minimum of 8000 steps per day being ideal, including activities of daily living plus 30 minutes of structured physical activity or around 3000 steps. Structuring of recommended activities around women's and family preferences and cultural considerations is recommended.
- Creating awareness on PCOS and its associated problems among target groups is vital.

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Weight fluctuations predict poor prognosis in type 2 diabetes patients.

A post-hoc analysis of the Action to Control Cardiovascular Risk in Diabetes (ACCORD) trial has shown that fluctuating body weight is a predictor of poor prognosis in patients with type 2 diabetes, independent of cardiac risk factors and body mass index. The findings are published in the February 2019 issue of the American Journal of Cardiology.

(eMediNexus, 02 February 2019.)