ORIGINAL RESEARCH PAPER

Volume-8 | Issue-1 | January-2019 | PRINT ISSN No 2277 - 8179

INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

ARE ADOLESCENTS GIRLS AWARE OF THE MOST COMMON SILENT DISORDER, PCOS (POLYCYSTIC OVARY SYNDROME) AMONG THEM ? A STUDY TO EDUCATE THE GIRLS ABOUT PCOS .

Nursing

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ABSTRACT

Introduction: PCOS is the most common endocrinopathy affecting 6-20 % of female reproductive population. The diagnosis of PCOS requires atleast two of the following criteria : oligo/amennorrhea, clinical hyperandrogenism and morphology of polycystic ovaries. The mainstay of treating PCOS includes weight loss of more than 5 -7.5 % of previous weight and lifestyle modifications which helps in restoring the hormonal milieu to some extent. Treatment options for infertility include clomiphene, laparoscopic ovarian drilling, gonadotropins, and assisted reproductive technology.

Methods: The study was conducted to assess the efficacy of structured teaching programme on the knowledge regarding polycystic ovarian syndrome among girls studying in a senior secondary classes of a selected school in an urban community. The study design adopted was pre experimental one group pre-test and post-test design. Structured questionnaire was used to collect data from the participants which included both demographic proforma and structured knowledge questionnaire on PCOS.

Results: After the structured teaching programme majority (60%) of students had very good knowledge while average knowledge was observed only in 2% of students. None of the student had poor knowledge after the administration of structured teaching programme. The mean post-test score (15.9 ± 2.9) was significantly higher than the overall mean pre-test score (5.98 ± 2.66). This shows a significant difference between pre-test and post-test knowledge ($Z = 6.17$; $p < 0.001$). No significant association was found between the level of knowledge and demographic variables except the educational stream of subjects that is commerce, science with maths/ biology, arts.

Conclusion and recommendations: Based on the results of the present study it can be concluded that before administration of structured teaching programme, most of the students had poor (52%) knowledge regard PCOS. After the structured teaching programme there was an enhancement of knowledge score on PCOS. So it can be concluded that structured teaching programme is effective in improving the knowledge of students. Based on the results the study recommended that more educative sessions regarding PCOS should be conducted in different settings comprising women of reproductive age group. Also it should be included along with sex education and reproductive health sessions at school level & ARSH clinics.

KEYWORDS

Knowledge, PCOS, Structured Teaching Programme, Senior secondary classes

INTRODUCTION

Adolescence is the most pivotal period of life, yet one of the most vulnerable time for physical ailments. It is important for both teen and for their family to understand what is happening to the teen physically, cognitively, and socially and what support resources are available. Polycystic ovary syndrome (PCOS) is a common endocrine disorder affecting about 6% of women of reproductive age, characterized by gynaecologic and endocrine symptoms including chronic anovulation, infertility and hyperandrogenism.

In PCOS, the ovaries usually produce higher amounts of androgens more than normal which interfere with ovum development. Irregular menstruation, infertility, increased hair growth in a male distribution pattern (e.g., on face and chest), acne and obesity are the most common symptoms of PCOS. Women with PCOS are at risk of mental health disorders such as depression, anxiety, eating disorders, poor self-esteem, and reduced quality of life.

The prevalence of PCOS in the general population has been estimated to be 5-10% of women of reproductive age. In India 26,626,765 population is affected with polycystic ovarian disease. Even in developed country like USA, PCOS is a common problem and is one of the most prevalent endocrine system diseases, affecting as many as 7 to 10 out of 100 (or 7 to 10 percent) of women of childbearing age (15 to 45 years). World Health Organization (WHO) indicated that PCOS affected 116 million (3.4%) of women worldwide in 2012. Unfortunately, this disorder often goes undiagnosed because of its many baffling and seemingly unrelated symptoms. The highest reported prevalence of PCOS is 52% among South Asian Women.

As research in PCOS is rapidly advancing, it is vital that research evidence is translated to knowledge and action among women, healthcare professionals and policy makers. Management should focus on support, education, addressing psychological factors and strongly emphasizing healthy lifestyle with targeted medical therapy as required. Treatment for the large majority is lifestyle focused, and an aggressive lifestyle-based multidisciplinary approach is optimal in most cases to manage the features of PCOS and prevent long-term complications

Nurses are in a critical position to provide comprehensive care to adolescents afflicted with the syndrome. Regardless of the setting or role, essential elements of nursing practice should always include education and emotional support. Though a wide scope of treatment is available for PCOS women in our society, they approach medical care only when they end-up with complication or the health problem interrupts their physical and psychological well being. “Prevention is better than cure”. Therefore as a nurse, the researcher has a pivotal role in creating awareness among adolescents about the modification of lifestyle and prevention of future complications, which can help to improve the quality of life by providing education and support.

Aim of the study: It was to evaluate the efficacy of structured teaching program on the level of knowledge regarding PCOS among adolescent girls.

Research hypothesis: Structured teaching programme will be effective in increasing the knowledge level of adolescent girls about PCOS.

SUBJECTS & METHODS

Research Design & Setting

One group pre-test post-test design was used in the present study which is suitable for the nature of existing research problem. Current study was conducted at Kendriya Viidyalaya, Pune Camp.

Subjects

50 girls studying in senior secondary classes of the school were selected using simple random sampling according to the inclusion criteria : Adolescent girls who are available at the time of data

collection and willing to participate.

Tools of data collection

Section I : Section I of the tool consisted 8 questions on socio-demographic characteristics of the subjects like age, religion, place of residence, type of educational stream, father's & mother's education, previous information on PCOS and their source of information.

Section II : Section II of the tool consisted 20 questions on knowledge of PCOS.

Ethical consideration :

Ethical clearance to conduct the study was obtained from the ethical committee of Armed Forces Medical College, Pune. Written and informed consent and ascent was obtained from the subjects and their parents. Permission to conduct research study was obtained from the concerned authority of the school.

DATA COLLECTION

Pre-test of the subjects was conducted on 12 Dec 2017 followed by structured teaching programme. Post-test was conducted after 7 days period to assess the gain in knowledge after administration of structured teaching programme. The investigator familiarized herself with the participants and explained the purpose of the study to them. After giving necessary instructions to the subjects, the socio-demographic data was collected. Pre-test knowledge level was assessed by using Structured Knowledge Questionnaire. Time taken for the Pre-test was 20 minutes. Immediately after the pre-test, STP on PCOS was administered to the subjects. Post-test was conducted on the 7th day using the same Structured Knowledge Questionnaire.

STATISTICALANALYSIS

Descriptive statistics in the form of frequencies and percentages was used for qualitative data, while means and standard deviations were used for quantitative data. Pearson's correlation coefficient was used to test the reliability of the tools through their internal consistency. Qualitative variables categorical were compared using ANOVA.. Quantitative continuous data were compared using Wilcoxon Sign test. A significant difference in knowledge was considered at *p* value less than 0.05 and it was considered highly significant at *p* value less than or equal to 0.01.

RESULTS

Main findings of the study are discussed under the following headings

Socio-demographic data of the subjects

Table.1 Frequency and percentage distribution of subjects according to their socio-demographic variables

Socio-demographic variable		f	%
Age (Yrs)	15 16 17	11 35 4	22 70 8
Religion	Hindu Muslim Sikh	48 1 1	96 2 2
Type of educational stream	Science with Biology Science with Maths Commerce Art	9 14 18 9	18 28 36 18
Educational status of father	Graduate & above High school Primary Education No formal Education	16 24 7 3	32 48 14 6
Educational status of mother	Graduate & above High school Primary Education No formal Education	13 16 16 5	26 32 32 10
Residence of student	Town Village City	5 18 27	10 36 54
Do you have any information about PCOS	Yes No	4 46	8 92
If yes, source (n=4)	Family member Friend Mass media	1 2 1	25 50 25

Table 2: Distribution Of subjects according to the grading of pre-test and post-test knowledge score regarding PCOS

n=50

Category	Range of knowledge score	Pre-test		Post –test	
		f	%	f	%
Very good	16-20	0	0	30	60
Good	11-15	4	8	19	38
Average	6-10	20	40	1	2
Poor	1-5	26	52	0	0

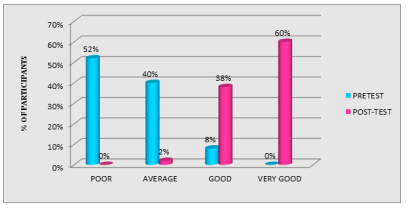

Fig. 1: Pre-test and Post–test knowledge

Table 2 shows that in pre-test 52% of the subjects had poor knowledge whereas in post-test none of them had poor knowledge. Also the percentage of subjects with good scores increased in post-test from 8% to 38%. In post-test maximum subjects (60%) scored very good score whereas none of them could score very good score in pre-test.

Table 3: Comparison of mean pre-test and post-test knowledge scores regarding PCOS

Parameter	Pre test		Post test		Wilcoxon z Value	P Value
	Mean	SD	Mean	SD		
Knowledge score	5.98	2.966	15.90	2.558	6.17	<0.0001

Table value: 1.96; p<0.05

Table 3 shows that mean scores increased from 5.98 to 15.90 in pre-test & post-test respectively. Hence it shows the efficacy of structured teaching programme statistically.

n=50

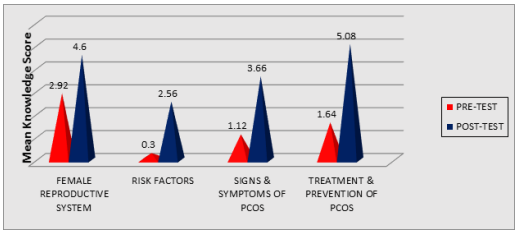

Fig. 2: Area wise effectiveness of structured teaching programme on

Fig.2 depicts effectiveness of structured teaching programme in each area of PCOS. There is a significant gain in knowledge in each area of PCOS as evidenced by the difference in mean scores of pre-test & post-test.

The study also proves that there is no significant association between the pre-test knowledge scores and the selected demographic variables of age, religion, area of residence, parental educational qualification and previous information of the subjects on the topic. Although there is a significant association of pre-test knowledge with the educational stream of the subjects. Table 4 shows the association of pre-test knowledge scores and educational stream of the subjects.

Table 4: Association of pre-test knowledge with to educational stream of subjects

Type of educational stream	f	Pre test knowledge score	
		Mean	SD
Science with biology	9	6.00	2.398
Science with maths	14	8.07	3.174
Commerce	18	4.22	1.865
Art	9	6.22	3.114
F Value		5.74	
P Value		0.002	

Table value: F(3,46)= 2.79, p<0.05

Table 4 describes the association between pre-test knowledge score on PCOS and educational stream of the subjects. The calculated F value (5.74) is more than the table value at 0.05 level of significance. Hence it signifies that there is a statistically significant association between pre-test knowledge on PCOS and educational stream of subjects (science with maths) of study participants.

DISCUSSION

The aim of the study was to assess the efficacy of a structured teaching programme to improve the knowledge of adolescent girls on PCOS. The study findings revealed that the STP is an effective strategy to improve the knowledge of people. A similar study conducted by Sonia Rawat et al in Dehradun, India shows that there was a difference of 11.42 between mean post-test and mean pre-test knowledge scores. The study concluded that structured teaching programme had a great potentiality to increase awareness on PCOS. The study also has following findings, there is no association found between the pre-test knowledge score and baseline variable other than the educational stream of the subjects. The calculated ANOVA values were 0.98, 0.24, 0.41, 1.73, which is less than the table value (=3.18, =5.99) at 0.05 level. Only the calculated ANOVA value in educational stream is 5.74 which is more than the table value. Thus it is inferred that 9.92 gain in knowledge score was due to the administration of STP and the pre-test knowledge was significantly associated with educational stream of the subjects.

CONCLUSION

India is the second most populated country in the world with total population of over 1081 million. Adolescents (10-19 years) are living in diverse circumstances and have diverse health needs. Absence of friendly staff, working hours that are inconvenient to adolescents and lack of privacy and confidentiality have been identified as important barriers in accessing health services by adolescents and young people.

The health sector needs to respond by offering services to adolescents in a friendly manner and in a non-threatening environment. The present study was done to evaluate the effectiveness of STP on PCOS among adolescent girls studying in senior secondary classes of a Kendriya Vidyalya in Pune. After the administration of STP the post-test measures showed that there was an overall gain in knowledge score, and significant increase in knowledge in all the areas. Indeed it can be conclude that the STP is effective strategy to improve the knowledge of the people

Providing a structured teaching programme regarding PCOS will help in promoting knowledge of the disease among girls , early identification and initiation of healthy lifestyle to prevent it.

The study also recommends inculcation of this topic into the school curriculum along with reproductive and sexual health education sessions so that the adolescents can identify the signs and symptoms at an early age, take necessary steps and prevent the future co-morbidities.

CONFLICTS OF INTEREST DISCLOSURE

The author has no potential conflicts of interest, financial or otherwise, to disclose. No funding has been received to conduct this study.

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