

# A Study to Assess the Effectiveness of Information Education Communication Package on Knowledge Regarding Polycystic Ovarian Syndrome Among Adolescent Girls in a Selected College at Bhilai (C.G.)

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**Abstract:** Adolescence, transitional phase of growth and development between childhood and adulthood. The World Health Organization (WHO) defines an adolescent as any person between ages 10 and 19. Adolescents are a group of apparently healthy individuals. Adolescence is a period of transition between childhood and adulthood, a time of profound biological, intellectual, psychological and economic changes. During this period individual reaches physical, sexual maturity and develop more sophisticated reasoning abilities. Polycystic Ovarian Syndrome is the most common endocrine disorder among women between the age between 18-44. It affects approximately 2% to 20% of this age group. It is one the leading endocrine disease and which affects 1 in 15 women worldwide. The incidence of PCOS among adolescents is estimated to be between 11 and 26% and about 50% are overweight. **Objectives:** 1. To assess the socio-demographic variables of adolescent girls in a selected college at Bhilai (C.G.), 2. To assess the pre-test and post-test knowledge scores regarding polycystic ovarian syndrome among adolescent girls in a selected college at Bhilai (C.G.), 3. To evaluate the effectiveness of administration of an information education communication package on knowledge regarding polycystic ovarian syndrome among adolescent girls in a selected college at Bhilai (C.G.), 4. To find out association between pre-test knowledge scores regarding polycystic ovarian syndrome with selected socio-demographic variables among adolescent girls in a selected college at Bhilai (C.G.). **Setting and Design:** A quantitative evaluative research approach and pre-experimental one group pre-test and post-test design was used for the main study. **Material and Methods:** A non-probability convenient sampling was used to select 60 students of B.Sc. Nursing 2nd year from P.G. College of Nursing, Bhilai, (C.G.) for main study. The data collected was analysed using descriptive and inferential statistics.

**Keywords:** knowledge, adolescents, effectiveness, polycystic ovarian syndrome.

## 1. Introduction

Polycystic Ovary Syndrome is a set of symptoms due to elevated androgens in women. Signs and Symptoms of Polycystic Ovarian Syndrome include irregular or no menstrual periods, heavy periods, excess body and facial hair, acne pelvic pain, difficulty getting pregnant, and patches of thick darker, Velvety skin. Associated conditions include type 2 diabetes, obesity, obstructive sleep apnea, heart disease, mood disorders, endometrial cancer, hypertension, dyslipidaemia, hyperinsulinemia, and infertility. Polycystic ovary syndrome cannot be prevented. But early diagnosis and treatment helps prevent long-term complications, such as infertility, metabolic syndrome, obesity, diabetes, and heart disease.

## 2. Material and Methods

A quantitative evaluative research approach and pre-experimental one group pre-test and post-test design was used for the main study. Samples were selected with the following predetermined set criteria's.

**Inclusion criteria:** Adolescent girls who were aged between 17-19 years. Adolescent girls who were willing to participate in the study. Adolescent girls who were present during the data collection period.

**Exclusion criteria:** The study is delimited to selected college in Bhilai. The study is delimited to the adolescent girls. Adolescent girls who were not willing to participate in the study. Adolescent girls who were not available during the time of data collection. The tool has two sections: Section A was socio-demographic profile 15 questions; Section B was self-structured knowledge questionnaire 25 questions to assess the effectiveness of information education communication package on knowledge regarding polycystic ovarian syndrome among adolescent girls. The validation of the tool was done by five

experts. The reliability of the tool was established by Karl Pearsons coefficient of correlation. A non-probability convenient sampling was used to select 60 students of B.Sc. Nursing 2<sup>nd</sup> year from P.G. College of Nursing, Bhilai, (C.G.) for main study. The data collected was analysed using descriptive and inferential statistics.

### 3. Result and Discussion

#### Section-A:

##### *Distribution of subjects according to the socio-demographic variables*

The major findings are 50(83.33%) were Hindus, 9(15%) were Christians and only 1 (1.67%) was Muslim, 33(55%) girls were from nuclear families, 26(43.33%) were from joint families and only 1(1.67%) girl was extended family, 56 (93.33%) fathers were literate whereas only 4(6.67%) were illiterate, 23 (38.33%) fathers were self-employed, 19(31.67%) were private employed, 14(23.33%) were government employed and 4(6.67%) were unemployed, 49(81.67%) mothers were literate whereas only 11(18.33%) were illiterate, 42(70%) mothers were housewife, 2(3.33%) were self-employed, 8 (13.33 %) were government and private employed respectively, 30(50%) were having family income >Rs 15,000, 23(38.33%) were having family income Rs 10001-15000, 7 (11.67%) were having family income Rs. < 10000, 40 (66.67%) were non-vegetarian and 20 (33.33%) were vegetarian, 45 (66.67%) having regular cycle whereas only 15(25%) were having irregular cycle, 52 (86.67%) liked junk foods whereas only 8(13.33%) girls didn't like junk foods, 54 (90%) were not having menstrual disorder whereas only 6(10%) girls having menstrual disorder, 31(51.67%) girls had no previous knowledge whereas only 29 (48.33%) girls had some knowledge regarding polycystic ovarian syndrome, 24(40%) girls had knowledge from teachers/workshops, 19 (31.66%) had knowledge from internet, 12(20%) had knowledge from friends and only 5(8.33%) had knowledge from mass media regarding polycystic ovarian syndrome.

#### Section-B:

The Findings related to assess the pre-test and post-test knowledge regarding polycystic ovarian syndrome among adolescent girls

##### *Part – I:*

Item wise analysis of pretest and post test score among adolescent girl. In Pre-test the scores were in the areas i.e., shape of normal ovary 47(78.33 %), female reproductive hormone 58(96.66%), PCOS is 54(90%). In PCOS which of the following is formed 43 (71.66%), The percentage of women affected by PCOS 18(30%), women's are affected by PCOS during the age group of 43 (71.66%). The common features of patient with PCOS 28(46.66%), common symptoms of PCOS 20 (33.33%), women with PCOD have these symptoms 23( 38.33%), PCOS can be confirmed by 55 (91.66%), specialist in treating women related disorder 51(91.66%), patient with PCOS have elevated level of 49(81.66%), The appearance of polycystic ovarian follicle is 26(43.33%), up on ultrasound evaluation a women with PCOS 43(71.66%), the food to avoid for PCOS women's 37 (61.66%), the recommended food item

for women's with PCOS 50(83.33%), the first drug of choice for women with PCOS 27(45%), PCOS cause 27(45%), the following is not linked with PCOS 30(50%), women with PCOS have a high rate of 23(38.33), women with PCOS have a high risk of which one of the following 6(10%), the treatment for PCOS include which of the following 13 (21.66%), in women with PCOS the hormonal imbalances interferes with the 45(75%), PCOS may causes secondary ammenorhea due to 13 (21.66%), main complication of PCOS 32(53.33%) .

Whereas after imparting information education communication package , In Post – test the scores improved to 57(95%), 58(96.66%), 57(95%), 57(95%), 25(41.66%), 45 (75%), 43(71.66%), 24 (40%), 36 (60%), 54 (90%), 57(95%), 59(98.33%), 48 (80%), 51 (85%), 54 (90%), 58(96.66%), 55 (91.66%), 49(81.66), 45(75%), 37(61.66%), 30(50%), 48 (80%), 57(85%), 36(60%), 42(70%) in the above areas respectively.

It shows that there is significant increase in knowledge regarding polycystic ovarian syndrome among adolescent girls in the post test.

##### *Part-II:*

Overall analysis of pre test and post test scores of knowledge regarding polycystic ovarian syndrome among adolescent girls, In pre test the maximum 46 (76.67%) girls had average knowledge and 14 (23.33%) had poor knowledge regarding polycystic ovarian syndrome. In post test the maximum 39 (65%) girls had average knowledge and 21 (35%) girls had good knowledge regarding polycystic ovarian syndrome.

It indicates that there is an overall increase in post test score of knowledge regarding polycystic ovarian syndrome among adolescent girls.

In order to test significant of hypothesis the overall pre-test and post test knowledge score shown that there is significant difference between pre-test and post test knowledge score, hence hypothesis (H1) is accepted.

Table 1

Overall analysis	Pre-test knowledge score		Post-test knowledge score	
	Frequency	Percentage	Frequency	Percentage
Poor (0-9)	14	23.33	0	0
Average (10-17)	46	76.67	39	65
Good (18-25)	0	0	21	35
Total	60	100	60	100

#### Section-C:

The findings related to effectiveness of an administration of information education and communication package on knowledge regarding polycystic ovarian syndrome among adolescent girls , reveals that there was significant difference in pre-test and posttest knowledge score among adolescent girls regarding polycystic ovarian syndrome as calculated “t” value (14.66) was greater than table value (4.17) at p<0.0001 level of significance .Thus data signifies that administration of information education and communication package was effective in improving the knowledge of adolescent girls regarding polycystic ovarian syndrome. .

#### Section-D:

The findings related to the association between pre test knowledge score and socio demographic variable regarding polycystic ovarian syndrome among adolescent girls revealed that there was significant association pre-test knowledge scores of with selected socio-demographic variables i.e., monthly income, dietary pattern and previous knowledge as the chi-square values 6.15, 11.92, 5.29 was greater than the table value 5.99, 10.82, 3.84 at 0.05 level of significance respectively. Hence hypothesis (H2) was accepted in regards to variables i.e., monthly income, dietary pattern and previous knowledge.

Whereas hypothesis (H2) was rejected in regards to variables i.e., religion, family type, father's education, father's occupation, mother's education, mother's occupation, menstrual cycle, junk foods, menstrual disorder and source of knowledge as the chi-square values 3.65, 3.89, 1.30, 3.64, 0.11, 2.30, 0.12, 3.66, 0.37 and 0.20 were lesser than table values 3.84, 5.99, 5.99, 3.84, 7.82, 3.84, 7.82, 3.84, 3.84, 3.84 and 7.82 at 0.05 level of significance respectively.

#### 4. Conclusion

This paper presented a study to assess the effectiveness of information education communication package on knowledge regarding polycystic ovarian syndrome among adolescent girls in a selected college at Bhilai (C.G.).

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