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Impact Of PCOD Awareness Program On College Going Students

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ABSTRACT:

Adolescence is a transitional stage of physical and mental development generally occurring between puberty and legal adulthood, but largely characterized as beginning and ending with the teenage stage. Many serious diseases in adulthood have their roots in adolescence. Polycystic Ovarian Disease is the most common endocrine disorder among women between the ages of 18-44. It affects approximately 2% to 20% of this age group. It is one the leading endocrine disease which affects one in 15 women in worldwide. Proper education is absolutely necessary in order to improve the adolescents' knowledge. Early detection of Polycystic Ovarian Disease to decrease the chances of complications. The aim of this research was to determine the effectiveness of an awareness program among college going students on polycystic ovarian Disease in selected college, Durgapur. A quantitative approach using pre-experimental one group pre-test post-test design was adopted for the present study. The sample consisted of 80 college students. The sample was selected using Convenience sampling technique. The data was collected prior to and after administration of the awareness program on polycystic ovarian disease. Descriptive and inferential statistics were used to analyse the data. Findings revealed that the mean pre-test knowledge score was 43.6 % and SD 8.8 post-test mean 80.1% and SD 6.1. The difference between pre-test and post-test knowledge score showing an effectiveness of 36.50% with mean ± SD 2.7. Paired 't' test was used to analyse the effectiveness of awareness program which shows that the gain in knowledge was significant ($t=33.26, df=79, p<0.05$). The study findings had shown that there was a significant increase in the post-test knowledge scores compared to pre-test knowledge scores. Therefore, it is concluded that the awareness program is highly effective in increasing the knowledge of college going students on polycystic ovarian disease.

KEY WORDS: Effectiveness; Awareness program; Polycystic Ovarian Disease; Knowledge; College students.

INTRODUCTION

The ovaries are paired reproductive organs in females responsible for the maturation, storage, and release of germ cells (eggs) and the production of hormones. They play a crucial role in reproductive health and menstrual cycles. Ovarian cysts are fluid-filled sacs that form on the ovaries. They typically arise from reproductive cells and are common among teenagers and young women, often affecting one ovary. Polycystic ovarian disease or polycystic ovarian syndrome is a prevalent endocrine disorder that affects 2-8% of women of reproductive age. It is characterized by elevated androgen levels and irregular ovulation. First described by Irving Stein and Michael Leventhal in 1935, PCOD is also known as Stein-Leventhal Syndrome or Hyperandrogenic Anovulation. PCOD and ovarian cysts present significant health issues, particularly among young women. Addressing these conditions through increased awareness, early diagnosis, and proactive management can help mitigate long-term health effects and improve quality of life. Risk Factors of PCOD are, family history of PCOD, cardiovascular disease or diabetes, long-term use of valproate (seizure medication), low birth weight, hypertension, hormonal imbalances, genetic predispositions, and environmental factors. PCOD cannot be prevented, but early diagnosis and treatment can help prevent complications such as infertility, metabolic syndrome, obesity, diabetes, and heart disease. At present the emphasis is placed on preventive care rather than curative measures. Healthcare professionals play a key role in educating patients about PCOD. Providing comprehensive information and communication packages to college going students can improve awareness and facilitate lifestyle changes to manage PCOD effectively.

NEED FOR THE STUDY

Benign tumours are commonly observed in individuals aged 15-40 years, with germ cell tumours being the most frequent. Many cases are diagnosed at advanced stages, which limits survival. Early detection and treatment are crucial for reducing mortality. In India, adolescents constitute approximately 22.5% of the population. The incidence rate of ovarian disease in India is about 10 per 100,000, with the highest rates reported in Delhi and Pune (14%). In Karnataka, around 5% of women reported a history of ovarian disease. Whereas globally, the incidence of ovarian disease is higher in developed countries (approximately 10 per 100,000) compared to developing countries (less than 5 per 100,000). A study showed that overt and occult PCOD account for 90% of cases with oligomenorrhea and 37% with amenorrhea. These conditions also contribute to 21% of infertility cases. The annual incidence of infertility due to PCOD is 180 per million, with 41 cases due to overt PCOD and 139 due to occult PCOD. Clomiphene was effective for 78% of patients, while 22% required alternative treatments. Recent studies show a 36% increase in PCOD cases among college girls from 2007-08, highlighting a rapid rise in cases among individuals aged 15 to 25. Research from AIIMS indicates that 20-25% of Indian women of childbearing age have PCOD. Among these, 60% are obese, 35-50% have a fatty liver, 70% have insulin resistance, 60-70% have elevated androgen levels, and 40-60% have glucose intolerance. A study in Trivandrum involving 3,443 adolescent girls (ages 15-18) found that 339 exhibited symptoms of PCOD. These girls were categorized as under-nourished (37.6%), normal weight (51.2%), overweight (8.6%), and

obese (2.6%). Hence the researcher felt that information education and communication package will be an effective teaching strategy to impart knowledge regarding the symptoms, complications and modification of polycystic ovarian disease among college students.

OBJECTIVES:

- To identify the college going students with increased risk for polycystic ovarian disease in selected college, Durgapur.
- To find out the effectiveness of PCOD awareness program among college going students of selected college, Durgapur.

ASSUMPTION:

- College going students will have some knowledge regarding polycystic ovarian disease.
- Awareness program will increase the knowledge score of college going students regarding polycystic ovarian disease.

HYPOTHESIS:

The study attempted to examine the hypothesis at 0.05 level of significance.

H1: The mean post-test knowledge score of college students on polycystic ovarian disease will be significantly higher than the mean pre-test knowledge score.

OVERVIEW OF THEORETICAL CONCEPTS

Theory is a set of concepts, definitions, and propositions that project a systematic view of phenomenon by designing specific interrelationships among concepts for the purpose of describing, explaining, predicting, controlling or prescribing the phenomenon. The present study aims to evaluate the effectiveness of awareness program of polycystic ovarian disease. The conceptual framework of the present study was adopted by the investigator based on Imogene King's Goal Attainment Model. This model focuses on interpersonal relationship between the client and the nurse, in which interaction takes place between the nurse and the client and is influenced by the perception of both the nurse and the client. This interaction leads to mutual goal settings that are to be achieved by the client. In the present study the interaction takes place between the investigator and the college going students.

RESEARCH METHODOLOGY

STUDY VARIABLES

Independent variable:

PCOD Awareness program.

Dependent variables:

Knowledge of college going students regarding PCOD.

Demographic variables:

age in years, religion, educational status, type of family, body mass index (BMI), age at menarche, duration of menstrual flows, menstrual cycle (in days), any disease in family, and any symptoms of PCOD of college students.

POPULATION

Accessible population:

The accessible population included college going students of age group 17 - 22 years.

SAMPLE SIZE

The sample size will be 80 college going students.

SAMPLING TECHNIQUE

Non-probability Convenience sampling technique was used to select the samples for the present study.

CRITERIA FOR SELECTING SAMPLES

Inclusion criteria:

- College going students in the age group of 17 - 22 years.
- College going students willing to participate in the study.
- College going students who are present at the time of data collection.
- College going students those who don't have any language barrier.

Exclusion criteria:

- College going students who are already exposed to teaching regarding polycystic ovarian disease
- College going students who are absent at the time of data collection.

DATA COLLECTION TOOL

The tool was constructed in two parts.

Part I consists of demographic variables.

Part II consists of structured knowledge questionnaire.

Development of criteria checklist for validating the tool

Criteria checklist was developed to validate the tool regarding accuracy, relevance and appropriateness of the tool. Criteria checklist consists of three columns namely agree, disagree and remarks column. Experts were requested to give their valuable opinion and suggestions.

Reliability

Reliability of an instrument is the degree of consistency with which it ensures the attribute it is supposed to be measure. The reliability of a measuring tool can be assessed in the aspect of stability, internal consistency and equivalence depending on the nature of the instrument. In the present study reliability of the tool was tested by administering it on eight college going students. In order to ascertain reliability of structured knowledge questionnaire split half method was used. The test was divided into two equivalent halves and correlation for the half test was calculated, using Karl Pearson Correlation Coefficient.

DATA COLLECTION PROCESS

Prior permission was obtained from the Principal of Maa Sarada Institute of Nursing, Durgapur. Keeping in mind the ethical aspect of research data was collected after obtaining informed consent from the sample. The respondents were assured of the anonymity and confidentiality of the information provided by

them. The researcher has collected data from 80 samples. Data was collected in the month of August 2024. Pre-test was conducted followed by the awareness programme. Lecture cum discussion was the method of instruction. The duration of the session was one hour. After which the post-test was conducted using the same knowledge questionnaire to evaluate the effectiveness of planned teaching program. The total duration of the research project was 8 weeks.

This study utilizes quantitative techniques for statistical analysis. Quantitative data analysis involves coding and categorizing the data and knowledge has been assessed from questionnaire. Quantitative data analysis analyses the survey data to find out demographic variables such as age in years, educational qualification, type of family, any disease in family; BMI and symptoms of PCOD, and statistical significance using statistical tools like descriptive statistics and inferential statistic.

RESULTS:

Table 1: Classification of Respondents by demographic characteristics. (n= 80)

Sl. No.	Characteristics	Category	Respondents	
			frequency	percentage
1.	Age in years	a. 18 years	36	45
		b. 19 years	44	55
2.	Religion	a. Hindu	49	61.7
		b. Christian	15	18.3
		c. Muslim	16	20
3.	Educational status	a. +2 Science	40	50
		b. +2 commerce	23	28.3
		c. +2 arts	17	21.7
4.	Type of family	a. Nuclear	47	58.3
		b. Joint	33	41.7
5.	Body mass index	a. Normal	33	41.7
		b. Over weight	25	31.7
		c. Obese	22	26.6
6.	Age at menarche	a. ≤ 12 years	29	36.7
		b. 13 years	51	63.3
7.	Duration of menstrual flows in days	a. 1-2 days	47	58.3
		b. 3-4 days	33	41.7
8.	Menstrual cycle (in days)	a. 28 to 30 days	8	10
		b. 31 to 35 days	36	45
		c. > 35 days	36	45
9.	Disease in family	a. DM	39	48.3
		b. PCOD	9	11.7

		c. Menstrual disorders	24	30
		d. Breast Cancer	8	10
10	Following symptoms	a. Hirsutism	24	30
		b. Acne	19	23.3
		c. Severe Hair fall	20	25
		d. Dark patches	17	21.7

Distribution of college students according to their age shows that highest percentage of girls (55%) were in the age group of 19 years, 45 % belongs to 18years .Religion according to their shows that highest percentage of Hindu (61.7 %), Muslim (20%) and Christian (18.3%). according to 46 their educational status shows that percentage (50 %) +2 science,+2commerce(28.3%) and +2 arts (21.7%) .Their type of family shows that majority of the girls 58.3 % belongs to nuclear family, 41.7% are from joint family. Body mass index of college students shows that majority girls are normal 41.7 %, overweight of girl is 31.7% and obese 26.6%. Adolescent girls Age at menarche 12 years occurs 36.7% and 13 years 63.3%. Duration of menstrual flows in day 1-2days 58.3%, 3-4 days on 41.7%. Menstrual cycle loest28-30days 10%and 31-35days 45% and more than 35 days 45%. Disease history in family shows that majority family diabetes mellitus 48.3% , menstrual disorder 30% , polycystic ovarian syndrome 11.7% and breast cancer 10 % symptoms like hair growth on face 30% , acne 23.3 %, severe hair fall 25 %, dark patches on skin 21.7% information about demographic characteristics of college students.

TABLE 2: Pre-test Knowledge level on PCOD (N=80)

Knowledge Level	Category	Respondents	
		Number	Percent
Inadequate	≤ 50 % Score	59	73.3
Moderate	51-75 % Score	21	26.7
Adequate	> 75 % Score	00	00

In Pre-test, most of the college students have inadequate knowledge (below fifty percentage) regarding PCOD that is 73.3 percentage knowledge score. 26.7 percentage have moderate knowledge (51 - 75 percentage) and no one has adequate knowledge (above 75 percentage score).

TABLE 3: Post-test Knowledge level on PCOD **(N=80)**

Knowledge Level	Category	Respondents	
		Number	Percent
Inadequate	≤ 50 % Score	00	00
Moderate	51-75 % Score	24	30
Adequate	> 75 % Score	56	70

In Post-test, most of the college students have adequate knowledge (above 75 percentage score) regarding PCOD that is 30 percentage knowledge score. 70 percentage have moderate knowledge (51 - 75 percentage) and no one has inadequate knowledge (below fifty percentage).

TABLE 4: Overall Pre-test and Post-test Mean Knowledge scores on PCOD.
(N=80)

Aspects	Max. Score	Knowledge Scores				Paired 't' Test
		Mean	SD	Mean (%)	SD (%)	
Pre test	24	10.46	2.12	43.60	8.80	33.26*
Post test	24	19.22	1.45	80.10	6.10	
Enhancement	00	8.76	0.67	36.5	2.7	

* Significant at 5% level, t (0.05, 79 df) = 1.96

Findings of table 4 reveals that the calculated 't' value, ($t=33.26$, $p<0.05$) is greater than the table value at 0.05 level in all the sessions. Therefore the pre-test and post-test knowledge scores are indicating that there is gain in knowledge among college students regarding PCOD.

CONCLUSION

The overall aim of the study was to test study to assess the effectiveness of an awareness program among college students on PCOD by comparing their pre-test and post-test knowledge scores. PCOD is a type of ovarian neoplasm principally affecting young women. The causes of germ cell tumours are not well understood, few identified risk factors exist, thus provide little information on the possibility of preventing ovarian syndrome. However, there are ways of improving prognosis with of PCOD. The symptoms are difficult to catch in early stages; regular gynaecological check-ups are the only way to identify the disease condition. Several studies have shown that there is lack of knowledge for adolescents regarding PCOD. Researchers have adopted various strategies to improve the knowledge and ability of adolescent girls to lead a healthy reproductive life. This study made use of awareness program to increase the knowledge on of PCOD.

REFERENCES

1. Packer R J, Cohen B H, Cooney K, "Germ cell ovarian tumors".2004, Oncologist 5(4):312-20.en.wikipedia.org/wiki/Germ cell tumor.

2. Talerman A. Germ cell tumours of the ovary. In: Blaustein's Pathology of the Female Genital Tract, Kurman R J, Springer Verlag, New York 2005. p.849

3. Segelov E, Campbell J, Ng M, et al. Ovarian germ cell tumor: the Australian experience. J Clin Oncol 12 (2): 378-84, 2005. www.webmd.com/ovarian cancer/.../germ-cell-tumors-ovarian-treat.

4. Disaia P J, Creasman W T.Germ cell stromal and other ovarian tumors. In: Clinical Gynecologic Oncology, 7th, Mosby-Elsevier, 2007. p.381

5. Isachenko V, Lapidus I, Isachenko E, et al Langman's Medical Embryology, Lippincott Williams & Wilkins, 10th ed, 2006 . en.wikipedia.org/wiki/Ovary

6. Aure J C, Hoeg K, Kolstad P. Tumor of the ovary and endometriosis. Acta Obstet Gynecol Scand. 2007; 50(1):63–67. [PubMed]

7. Jenson, Norris HJ.Ovarian germ cell tumors of the ovary,occurance in children and adolescents less than 20 years of age:Arch Pathol. 2009, 94:29

8. Kurman RJ, Norris HJ. Ovarian germ cell tumors: a clinical and pathologic analysis. ObstetGynecol 2005; 48: 579589. | PubMed | www.ncbi.nlm.nih.gov/pub med/19961281

9. Jacobsen GK, Barlebo H, Olsen J, et al. Ovarian germ cell tumours in Greece . Pathology and distribution. Acta Radiol Oncol 2005; 23:239–247. 84

10. Koonings PP, Campbell K, Mishell Jr DR, et al. Relative histological pattern and distribution of ovarian neoplasms: Obstet Gynecol 2007;74:921–926. emedicine.medscape.com/article/1627984-overview.

11. Annual Review of Pathology:Mechanism of disease 2009, vol.4 -287-313 www.annualreviews.org/doi/pdf/.../annurev.pathol.4.110807.09224.

12. Surjadi FF, Lorenz FO, Wickrama KAS, Conger RD.Ovarian germ cell tumor treatment and prevention in adolescents : Journal of Adolescence 2010, Nov 1.

13. Geissbuehler V, Stein S, Eberhard J.Ovarian germ cell and its compications. Journal of Perinatal Medicine 2004; 32(4):308.

14. Cluett ER, Burns E Cochrane Database Syst Rev. Ovarian germ cell tumor in adolecents, Hants, UK, 2009 Apr 15;(2)Biol Res Nurs. Jul; 12(1):28-36. Epub 2010, May 7.

15. Rolley JX, Davidson PM, Salamonson Y, Fernandez R, Dennison CR. Review ofovarian germ cell tumor and dysgerminomas: a patient journey approach. J Clin Nurs 2009, Sep; 18(17): 2394-2405

16. Dysgerminomas and nondysgerminomas. [Cited Nov 24, 2009]. Available from Webarchive.nationalarchives.gov.uk.htm.

17. Partridge SA.ovarian germ cell tumor and management. Obst and Gynic 2002, Nov-Dec; 11(6):505-511.

18. Rolley JX, Davidson PM, Salamonson Y, Fernandez R, Dennison CR. Review of nursing care for

patients undergoing ovarian surgeries: a patient journey approach. J Clin Nurs 2009, Sep; 18(17):2394-2405.

19. Basvanthappa BT. Nursing research. 2nd Ed. New Delhi: Jaypee publishers.2007. 85

20. George JB. Nursing theories: The base for professional nursing practice.2nd ed. Newbury; 2007.

21. Julia BG. Nursing theories.4th ed. Connecticut: Appleton & Lange; 2005.

22. Annual Review of Pathology: Mechanism of disease 2009, vol.4 -287-313 www.annualreviews.org/doi/pdf/.../annurev.pathol.4.110807.09224

23. Sah SP, Uprety P, Rani S. Germ cell tumours of the ovary: a clinicopathologic study cases from Nepal. J Obstet Gynaecol Res 2004; 30: 303-8.

24. Koonings PP,Campbell K, Mishell DR , Grimes DA.Relative incidence of primaryovarianneoplasms.ObstetGynaecol2004;74:921-26.

www.nmcth.edu/images/gallery/Editorial/sKcrLs_kayastha.pdf

25. Storeide O, Veholmen M, Eide M, Bergsjo P, Sandvei R. The incidence of ovarian germ cell tumor. Acta Obstetricia et Gynecologia Scandinavica 2007, Apr; 76(4):345-349.

26. Negri E, Franceshi S, Tronou A, et al: I, Reproductive factors and risk of ovarian tumor. Int J Cancer; 49: 50-56.

27. Claudic BS,Christian M,Mark H G.Review of familial ovarian germ cell tumor .Br J Cancer. 2007. www.ncbi.nlm.nih.gov › Journal List › NIHPA Author Manuscripts