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A descriptive study to assess the effectiveness of planned teaching programme on knowledge related to polycystic ovarian disorder among adolescent girls of SGRR nursing college Patel Nagar, Dehradun

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ABSTRACT

Background of the Study: One of the primary reasons why infertility is on the rise is Polycystic Ovarian Disorder or PCOD. It is a chronic disorder in which many benign cysts form on the ovaries. It affects about 3%-7% of women of reproductive age. It most commonly in women under 30 years old and is a commonest cause of anovulation and a leading cause of infertility. Although the precise origin of PCOD is yet unclear, genetics and hormone abnormalities are thought to have a role. In some cases, it can even run-in families. Now a days most of the adolescent girls are found suffering from PCOD due to bad food habits, sedentary lifestyle and also stress and it will affect their quality of life. Hence the researcher selected this topic for the study.

Objectives of the Study: The aim of the study was to assess the effectiveness of structured teaching programme on knowledge regarding polycystic ovarian disorder among adolescent girls studying in SGRR College of nursing Patel Nagar, Dehradun.

Research Methodology: One group pretest post-test design was adopted to evaluate the effectiveness of planned teaching program on PCOD. The sample was collected using convenient sampling technique. 60 adolescent girls of age 18-21 years were selected, [sample size was calculated with the help of Yamane's formula $n = N / (1 + Ne^2)$] out of which 57 girls were taken from Basic B.Sc. Nursing 1st year and 3 girls from GNM 1st year. A self-developed knowledge questionnaire consisting of 30 multiple choice questions regarding PCOD was used to collect data.

Results and Conclusion: The pre-test showed that 66.7% of girls had inadequate knowledge whereas after the structured teaching programme 18.4% had inadequate knowledge. In pre-test 28.34% of girls had moderate knowledge whereas 40% girls had moderate knowledge after exposure to planned teaching programme. Before the planned teaching programme very few 5% girls were having adequate level of knowledge whereas after exposure to structured teaching programme, 41.6% girls attained adequate level of knowledge. Thus, the study concluded that most of the students attained adequate knowledge after the structured teaching program which was found statistically significant (at the level of $p < 0.05$).

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1. Introduction

Adolescents - young people between the age of 12 and 19 years are often thought of as healthy group. It is the transition stage between childhood and adolescent. The

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impact of modernization and technological ascertainment reflects in daily life. The unhealthy eating habits and lack of exercise leads to many diseases in adolescents as polycystic ovarian syndrome.¹ Polycystic ovarian disease (PCOD) is a condition which is now a days increasing among the teenage girls and young women those who are in their reproductive years. Another name of PCOD is Polycystic Ovary Syndrome (PCOS). It is a hormonal disorder in which small cysts form on the outer edges of the ovaries causing its enlargement. Polycystic ovarian syndrome (PCOS) was originally described in 1935 by Stein and Leventhal.² It affects about 7% of women of reproductive age.³ It is most commonly seen in women under 30 years old and is a cause of infertility. Most common cause is excess oestrogen production. PCOD is responsible for over 20% of all cases of amenorrhea and PCOD is responsible for up to 75 to 80% of all cases of an ovulatory infertility.⁴ In 2012, it was estimated by WHO that 116 million women (3.4%) gets affected by PCOD worldwide.⁵ In India, the prevalence of PCOD ranges between 9.13-36% in women of reproductive age.^{6,7} The prevalence in Uttarakhand of PCOD in women of reproductive age ranges between 20%-25%.

The main risk factor of PCOD is a family history. If there is a family history of diabetes, it may increase the risk of PCOD because of the strong relationship between the two. Also, the long-term use of the seizure medication "valporate" has also been found linked to an increase risk of occurrence of PCOD.⁸ The symptoms usually start during adolescent period but it may vary over time. The symptoms are menstrual irregularities, acne, excessive facial and body hair, obesity and pelvic pain.⁹ Irregular periods along with lack of or absence of ovulation (anovulation) can make it difficult for a woman to become pregnant. This makes PCOD a leading cause of infertility. It is therefore a very disturbing situation for a woman suffering with this chronic condition for which there is no cure. However, some symptoms of PCOD can be improved through the use of medications, by bringing change in lifestyle and with the help of fertility treatments. Now a days most of the adolescent girls are suffering from PCOD in urban areas of Dehradun due to bad food habits, sedentary lifestyle, stress and many more reasons. It affects their quality of life due to lack of knowledge regarding PCOD, its symptoms, prevention and treatment. Therefore, the researcher felt the need of assessing the knowledge regarding PCOD among adolescent girls and by giving structured teaching programme which can help to improve their knowledge regarding PCOD.

2. Objectives

1. To assess the level of knowledge related to polycystic ovarian disorder among the adolescent girls of SGRR Nursing College Patel Nagar Dehradun.

2. To assess the effectiveness of planned teaching programme on knowledge related to polycystic ovarian disorder among the girls of adolescent period of SGRR Nursing College Patel Nagar Dehradun.
3. To find out the association of post-test knowledge scores with the selected demographic variables.

2.1. Null hypothesis

H₀- There would be no significant difference between the level of knowledge scores before and after the planned teaching programme related to PCOD.

H₁- There would be no significant difference between the level of knowledge scores before and after the planned teaching programme related to PCOD.

3. Research Methodology

One group pretest - post design was adopted for the study. Convenient sampling technique was used to collect 60 adolescent girls of age 18-21 years [sample size was calculated with the help of Yamane's formula¹⁰ $n = \frac{N}{1 + Ne^2}$] out of which 57 girls were taken from Basic B.Sc. Nursing 1st year and 3 girls from GNM 1st year. As there were only 57 girls in first year of Basic B.Sc. Nursing 1st year and 3 more girls were needed according to the sample size calculated. Hence the researcher decided to take 3 adolescent girls from GNM 1st year.

3.1. Instruments

The data was collected using demographic variable and self-developed knowledge questionnaire.¹¹ Demographic variable consisted of age, religion, type of family, food habits, and sources of information whereas Self Developed knowledge Questionnaire consisted of 30 questions on PCOD. Each correct answer is given "1" score and each incorrect answer is given "0" score. The total score of the questionnaire is 30.

| Scale | Scoring |
|-------------------------------|---------|
| Inadequate level of knowledge | <10 |
| Moderate level of knowledge | 11 - 20 |
| Adequate level of knowledge | 21 - 30 |

3.2. Validity

Content validity for the Self developed knowledge questionnaire was established by the experts from the field of Obstetrics and gynaecological nursing.

3.3. Pre-testing of the tool (Pilot study)

Pre-testing the knowledge questionnaire regarding PCOD was done to check the clarity of the items, their feasibility

and practicability.¹² The prepared tool was administered to 6 adolescent girls from State college of Nursing, Dehradun. The researcher found that the language of the tool was simple and practicable. The average time taken to complete the questionnaire was 25-30 minutes. The tool after validation was subjected to test for its reliability.

3.4. Reliability

The reliability of knowledge questionnaire was established using Split-half method¹³ and it was found to be $r=0.84$ which indicated that the tool was reliable.

3.5. Human ethical clearance/permission¹⁴

As the study was concerned only with the knowledge assessment of the adolescent girls and not any kind of intervention, hence there was no need for ethical clearance. However, the researcher conducted the study only after taking the written permission from the Dean of SGRR Nursing College Patel Nagar Dehradun, Uttarakhand.

3.6. Procedure of data collection

The data was collected after obtaining the written permission from the Dean of SGRR Nursing College Patel Nagar Dehradun, Uttarakhand. The data collection was done from 60 students who fulfilled the inclusion criteria. The purpose of the study was well explained to them and the data was collected. In this process of data collection, the informed consent was taken from each subject before distributing the research tool. The data collection was done through self-administration method and duration of 30 minute was given to answer the question.

4. Results and Discussion

About 65% of students were between 18-19 years of age and the rest 35% were between 20 and 21 years of age. 60 students were taken out of which 57 students were from B.Sc. Nursing 1st year and 3 students were from GNM 1st year.

The pre-test score in this study revealed that 40 (66.7%) of the students had inadequate knowledge regarding PCOD. Only 3 students (5%) had adequate knowledge as defined by the scoring in this study. The level of knowledge before and after the planned teaching programme are described in Figure 1 in terms of percentages.

To assess the effectiveness of the planned teaching programme and to check whether there is any difference between the pretest and post-test, t test was used.¹⁵ The results are shown in the Table 1.

The Table 1 shows the mean difference between the level of knowledge scores before and after the planned teaching programme. It shows that there is increase in the knowledge level after the planned teaching programme

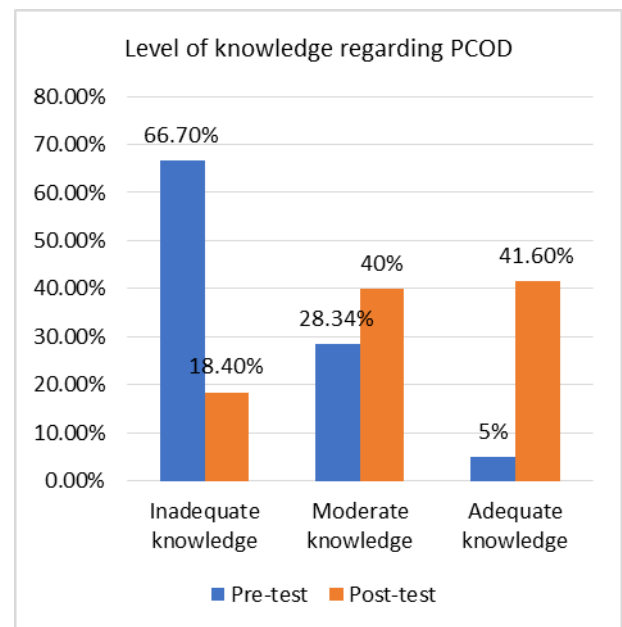


Figure 1: Percentages of level of knowledge before and after the planned teaching programme related to PCOD

Table 1: Assessing the effectiveness of planned teaching programme on knowledge related to polycystic ovarian disease among the adolescent girls (N=60)

| Knowledge regarding PCOD among adolescent girls | Mean \pm Standard Deviation | T _{cal} | Level of sig. (p) |
|---|-------------------------------|------------------|-------------------|
| Pretest | 10.76 \pm 24.44 | 4.188 | 0.000* |
| Post test | 35.2 \pm 24.44 | | |

Paired t-test, $t_{tab} = 2.021$, *Sig. Level(p) < 0.05

related to polycystic ovarian disease (PCOD) which was found highly significant as the t value (calculated) was found higher than the table value of t. Hence the researcher rejects the null hypothesis (H_0) and accepts the research hypothesis (H_1).

A similar study was conducted by Sr. Anto Suji, Mrs. Reeta Jeba Kumari, Dr. Nalini Jeyavanthan in 2016. In this study pre-experimental non-equivalent control group pretest- post-test design was used to assess the effectiveness of VAT (video assisted teaching) programme related to PCOS. Out of 100, 34 adolescent girls age group were taken between 15-18 years in Madurai, Tamil Nadu. After receiving video assisted teaching programme 60% of adolescent girls in experimental group gained adequate knowledge. Thus, it can be concluded that it was because of the teaching programme which improved the knowledge of adolescent girls related to PCOS.⁷

Hence the conclusion of the study can be made that the student nurses should be educated about Polycystic Ovary Syndrome. The nurse plays a very important role of an

advocate in helping the patient and their family members. She always stands up for their patient's safety and make them understand the complexities of treatment decisions, manages the side effects of medications and complications associated with PCOS. If only the nurse is well-informed about the disease condition, then she can also empower the patients with enough knowledge about their disease and its treatment modalities.

5. Conclusion

The conclusion of the study can be made that the student nurses should be educated about Polycystic Ovary Syndrome. The nurse plays a very important role of an advocate in helping the patient and their family members. She always stands up for their patient's safety and make them understand the complexities of treatment decisions, manages the side effects of medications and complications associated with PCOS. If only the nurse is well-informed about the disease condition, then she can also empower the patients with enough knowledge about their disease and its treatment modalities.

6. Source of Funding

None.


7. Conflicts of Interest

None.

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