



Effectiveness Of Planned Teaching Programme On Knowledge Regarding Polycystic Ovarian Syndrome Among Adolescent Girls

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Abstract: Polycystic ovarian syndrome (PCOD) is one of the most common endocrine and metabolic disorders in women of reproductive age. A pre experimental study was conducted in 2023, to assess the effectiveness of planned teaching programme on knowledge regarding PCOD among adolescent girls at St. Mary's Higher Secondary School, Irinjalakuda. One group pre test- post test research design was used for the study and thirty samples were selected by using convenient sampling technique. The data was collected by using structured knowledge questionnaire. The study findings revealed that, before the planned teaching programme, only 3.4% adolescents had good knowledge, 60% had average knowledge and the remaining 36.6% had below average knowledge and after the planned teaching programme 6.6% had excellent knowledge and the remaining 93.4% had good knowledge. The mean post test knowledge score 84.6% with standard deviation 1.73 is higher than mean pre-test knowledge score 70% with standard deviation 2.3. The paired t test results showed that, the calculated t value 5.130 is higher than tabulated t value 2.05 at 0.05 level of significance with 29 df, so the research hypothesis H_1 is accepted. The chi- square test revealed that there was no significant association between the pre-test knowledge and the selected demographic variables among the adolescent girls.

Key Words: Polycystic ovarian syndrome, Adolescent girls.

INTRODUCTION

Polycystic ovarian syndrome is one of the most common endocrine and metabolic disorders in women of reproductive age. Prevalence of PCOS in India ranges from 3.7 to 22.5% and in the world 6 to 26% depending on the population studied and the criteria used for diagnosis. Clients with polycystic ovarian syndrome, often present with anovulation, infertility, insulin resistance, obesity, hyperandrogenism acanthosis nigricans etc. Knowledge of adolescents is a very powerful tool, and the best way to prevent polycystic ovarian syndrome in future.

MATERIALS & METHODS

Statement of the problem

A study to assess the effectiveness of planned teaching programme on knowledge regarding polycystic ovarian syndrome among adolescent girls in a selected higher secondary school at Irinjalakuda

Objectives

1. Assess the pretest knowledge score regarding polycystic ovarian syndrome among adolescent girls in the selected higher secondary school at Irinjalakuda.
2. Assess the posttest knowledge score regarding polycystic ovarian syndrome among adolescent girls in the selected higher secondary school at Irinjalakuda
3. Evaluate the effectiveness of a planned teaching programme regarding polycystic ovarian syndrome among adolescent girls in the selected higher secondary school at Irinjalakuda.
4. Find the association between pre test knowledge score regarding polycystic ovarian syndrome among adolescent girls and the selected demographic variables.

Hypotheses

H₁ : There is a significant difference in mean post test knowledge score and mean pre test knowledge score.

H₂ : There is a significant association between knowledge regarding polycystic ovarian syndrome among adolescent girls and the selected demographic variables

REVIEW OF LITERATURE

A study by Sharma et al. (2021) revealed that a large proportion of adolescent girls had inadequate knowledge regarding PCOS and its symptoms. Lack of awareness often led to delayed diagnosis and management.

Nidhi et al. (2018) conducted a cross-sectional study among school-going girls and reported that more than 65% of participants were unaware of PCOS, highlighting the need for targeted health education interventions in schools.

Thomas & Varghese (2020) conducted a quasi-experimental study and found that planned teaching significantly improved knowledge scores among adolescents regarding PCOS. Pre-test knowledge scores were low (mean score 9.2), while post-test scores increased significantly (mean 18.5, $p < 0.05$).

A study by Rajan et al. (2019) also confirmed the effectiveness of educational interventions, where knowledge improved from 35% to 78% following a structured teaching session.

Kumar and Joseph (2017) emphasized that school-based health education programs are vital in promoting awareness on reproductive health issues including PCOS. Students who participated in regular school health programs showed better awareness and positive health behaviors.

METHODOLOGY

Research design: Pre-experimental: one group pre test- post test design

Setting of the study: St.Mary's higher secondary school, Irinjalakuda.

Sample & sampling techniques

Samples of the present study was 30 Adolescent girls (15-17 years) were selected by Convenient sampling technique

Data collection tool: The instrument used for the study was structured knowledge questionnaire. It consists of part A: Demographic variables and part B: knowledge questionnaire

Method of data collection:

After obtaining permission from the respective authority, participants was informed about the purpose, taken consent, pretest knowledge assessed by structured knowledge questionnaire, after that PTP was given for 20 mins and the posttest was done after 8 days.

Data analysis:

Data was analyzed by using descriptive statistics such as mean, frequency & percentage and inferential statistics such as Paired t test to find effectiveness of STP and Chi –square test for checking association.

RESULTS

The study findings revealed that, before the planned teaching programme, only 3.4% samples had good knowledge, 60% had average knowledge and the remaining 36.6% had below average knowledge and after the planned teaching programme 6.6% had excellent knowledge and the remaining 93.4% had good knowledge.

- The mean post test knowledge score 84.6% was higher than mean pre-test knowledge score 70%.
- The paired t test results showed that, the calculated t value 5.130 was higher than tabulated t value 2.05 at 0.05 level of significance, so the research hypothesis H_1 was accepted.

The chi- square test revealed that there was no significant association between the pre-test knowledge and the selected demographic variables among the adolescent girls; thereby the research hypothesis H_2 was rejected.

TABLE 1: Distribution of adolescent girls according to demographic characteristic

n = 30

| Demographic variables | FREQUENCY | PERCENTAGE (%) |
|-----------------------|-----------|----------------|
| Age in year: | | |
| 15 | 1 | 3.33% |
| 16 | 22 | 73.33% |
| 17 | 7 | 23.34% |
| Type of family: | | |
| Nuclear | 21 | 70% |
| Joint | 9 | 30% |
| Extended | 0 | 0 |
| Residence | | |
| Rural | 16 | 53.33% |
| Urban | 14 | 46.67% |
| Religion | | |
| Hindu | 6 | 20% |
| Muslim | 4 | 13.36% |
| Christian | 20 | 66.64% |
| others | 0 | 0 |
| Family history | | |
| Yes | 0 | 0 |
| No | 30 | 100% |
| Source | | |
| Yes | 6 | 20% |
| No | 24 | 80% |
| If yes, | | |
| Social media | 2 | 33.33% |
| Self experience | 2 | 33.33% |
| Family and relatives | 2 | 33.34% |
| Through class | 0 | 0 |
| Heath professional | 0 | 0 |

Table 2 : Distribution of knowledge score of adolescent girls on polycystic ovarian syndrome.

n = 30

| KNOWLEDGE | PRE-TEST | | POST-TEST | |
|---------------|-----------|-------------------|-----------|-------------------|
| RANGE | FREQUENCY | PERCENTAGE (%) | FREQUENCY | PERCENTAGE (%) |
| EXCELLENT | 0 | 0 | 2 | 6.66% |
| GOOD | 1 | 3.3% | 28 | 93.33% |
| AVERAGE | 18 | 60% | 0 | 0 |
| BELOW AVERAGE | 11 | 36.6% | 0 | 0 |
| POOR | 0 | 0 | 0 | 0 |

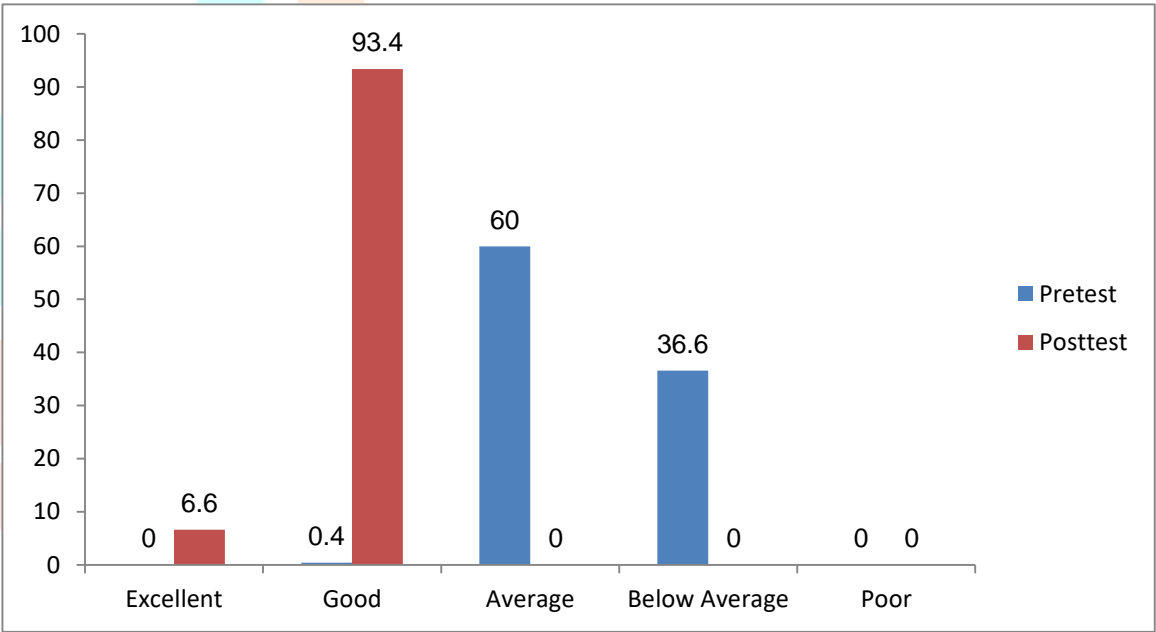


Figure 1: Distribution of adolescent girls according to pretest and post- test knowledge score

TABLE 3: Difference between mean pretest and posttest score

| SCORE | MEAN % | MEAN DIFFERENCE | STANDARD DEVIATION | T VALUE | INFERENCE |
|-----------|--------|--------------------|-----------------------|---------|-------------|
| PRE- TEST | 16.2% | 4.4% | 2.3 | 8.06 | SIGNIFICANT |
| POST-TEST | 20.6% | | 1.73 | | |

$K_{29} = 2.05, P < 0.05$

DISCUSSION

Before the intervention, the findings showed that only 3.4% had good knowledge, 60% had average knowledge, and 36.6% had below-average knowledge. This suggests a general lack of awareness among adolescent girls about PCOS, which is consistent with findings from Sharma et al. (2021) and Nidhi et al. (2018). After implementation of the PTP, 6.6% of students had excellent knowledge, and 93.4% had good knowledge. This significant improvement supports findings from Thomas & Varghese (2020) and Rajan et al. (2019), where structured teaching interventions effectively increased knowledge levels among adolescents. The mean post-test score (84.6%) was significantly higher than the mean pre-test score (70%). The calculated t value (5.130) exceeded the tabulated value (2.05) at a 0.05 level of significance, confirming the effectiveness of the PTP. These results align with similar studies emphasizing the positive impact of school-based health education on adolescent reproductive health knowledge.

The chi-square analysis indicated no significant association between the pre-test knowledge scores and selected demographic variables. This suggests that lack of awareness about PCOS is prevalent across different subgroups, a trend also noted by Kumar & Joseph (2017), emphasizing the universal need for reproductive health education.

CONCLUSIONS

Study concluded that the post test knowledge scores showed significant increase in the level of knowledge of adolescent girls. Hence the planned teaching programme regarding polycystic ovarian syndrome was an effective teaching strategy for providing information and improving the knowledge of adolescent girls.

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