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Effectiveness of lecture method and video assisted teaching on knowledge regarding polycystic ovarian disease (PCOD) and its management among adolescent girls of selected PU colleges at Hubballi

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Abstract

A study was conducted to assess the effectiveness of lecture method and video assisted teaching on knowledge regarding Polycystic Ovarian Disease (PCOD) and its management among 60 adolescent girls of selected PU colleges of Hubballi, who were divided into two groups (Group I with lecture method & group II with video assisted teaching). The research design used for the study was quasi-experimental; two group concurrent pre-test, post-test design. The demographic Proforma were collected from the adolescent girls by using structured knowledge questionnaire. Data obtained in these areas were analysed using descriptive and inferential statistics. The results showed that, In Group I Majority of subjects 21(70%) had average knowledge, 7 (23%) had poor knowledge and 2 (7%) had good knowledge in the pre-test, where as in post test 30 (100%) of them had good knowledge. In Group II Majority of subjects 18(60%) had average knowledge, 7(23%) had good knowledge and 5(17%) had poor knowledge score in the pre-test, where as in post test 30(100%) of them had good knowledge score. One way analysis of variance revealed that the 'F_{cal}' value (73.12*) was greater than the F_{tab} value (4.03). This indicated that the mean gain in knowledge scores of adolescent girls in Group II who were exposed to Video Assisted Teaching was higher than those in the Group I who were exposed to lecture method regarding Polycystic Ovarian Disease and its management. Therefore, the study concluded that video assisted teaching method was more effective than the lecture method for adolescent girls to increase and update their knowledge regarding PCOD and its management.

Keywords: PCOD (Poly cystic ovarian disease), knowledge, adolescent girls, lecture method

Introduction

Adolescence, an age of opportunity. An adolescent is defined as an individual aged between 10-19 years by the UN.¹ Adolescent period is unique period where there is physiological, psychological, social, emotional, adaptation^[1]. They are developing rapidly and having an extreme degree of pressure from peers, from parents, from society, and self. They lack knowledge and skill to cope up with pressure^[2].

Adolescent girls' growth and development plays vital role in the life stage. It is a stressful developmental period filled with major changes in physical maturity and sexuality, cognitive processes (ways of thinking and thought content), emotional feelings, and relationships with others^[3]. In these stages, the onset of menstruation in adolescence is a phenomenon that signals reproductive maturity and will not be seen as an abnormal condition or disease^[4]. Among the above matter menstrual disorders are common presentation.

By the late adolescence, 75% of girls experience common problems associated with menstruation. Which include irregular, heavy bleeding, delayed, painful, or menstruation does not occur at all^[5]. Among these the painful menstruation is the most common and reports says that 60-90% of adolescents are experiencing it^[6]. These menstrual disorders leads to gynecological problems and also significant source of morbidity such as polycystic ovarian disease, ovarian cancer, infertility and many other complications such as osteoporosis, anemia, severe depression^[7].

Polycystic ovarian disease (PCOD) is one of the most common endocrine disorders among females. PCOD is a complex, heterogeneous disorder of uncertain etiology, but there is a strong evidence that it can, to a large degree, be classified as genetic disease^[8]. PCOD is an extremely common disorder affecting 4% to 12% of women of reproductive age, despite of being heterogeneous in nature, the hall marks of the disease are hyperandrogenism and chronic anovulation^[9].

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A study results revealed that out of 1430 girls, 90 girls were diagnosed with PCOD were found to have acne (31.3%), frontal hair loss (3.1%), dyslipidemia (70%) and obesity (45%) and there was greater need for adolescent girls for developing gestational diabetes, preeclampsia, preterm labor and prenatal mortality. The study highlights that adolescents have early manifestations of PCOS, therefore it is important to provide education about a change in lifestyle and physical activity at school and colleges which might results in a decrease in future advance outcomes of the syndrome, both at the family and social support ^[10].

Addressing the healthcare needs of this age group requires not only addressing identified health concerns, but also considering the complicated interactions of developmental changes on healthcare needs, the effectiveness of treatment, health education, and health promotion.¹¹Health education can be given in many ways like demonstration, lecture method, video assisted teaching and other innovative teaching methods.

Objectives of the study

1. To assess the knowledge regarding polycystic ovarian disease and its management among adolescent girls who will be exposed to lecture method and video assisted teaching.
2. To evaluate the effectiveness of lecture method regarding PCOD (Polycystic ovarian disease) and its management among adolescent girls in terms of gain in knowledge scores.
3. To evaluate the effectiveness of video assisted teaching regarding Polycystic ovarian disease and its management among adolescent girls in terms of gain in knowledge scores.
4. To compare the effectiveness of lecture method and video assisted teaching regarding Polycystic ovarian disease and its management among adolescent girls in terms of gain in knowledge scores.
5. To find out an association between pretest knowledge scores of adolescent girls and their selected sociodemographic variables who will be exposed to

lecture method.

6. To find out an association between pretest knowledge scores of adolescent girls and their selected sociodemographic variables who will be exposed to video assisted teaching.

Materials and Methods

An evaluative approach was adopted. Quasi-experimental; two group concurrent pretest posttest was selected for this study. Settings of the study were two pre-university colleges. Population comprised of adolescent girls studying in PU colleges in Hubballi. The sample for the present study was 60 adolescent girls with 30 in group I wherein lecture method was conducted and 30 in group II wherein video assisted teaching was conducted. Prior to data collection official permission was obtained. Informed consent was obtained from the adolescent girls. Pre-test was given to all the samples (Experimental group I & Experimental group II) using structured knowledge questionnaire on day one. Thereafter after lecture method was conducted to experimental group I and video assisted teaching was given to experimental group II. After 7 days post test was conducted to both the groups. The data were tabulated and analyzed manually.

Results

I: Level of knowledge of adolescent girls

The results showed that there was significant difference between the pretest and posttest knowledge scores of experimental group I and experimental group II.

In Experimental Group I: Majority of subjects 21(70%) had average knowledge, 7 (23%) had poor knowledge and 2 (7%) had good knowledge in the pre-test, where as in post test 30 (100%) of them had good knowledge.

In Experimental Group II: Majority of subjects 18 (60%) had average knowledge, 7 (23%) had good knowledge and 5(17%) had poor knowledge score in the pre-test, where as in post test 30 (100%) of them had good knowledge score. (Figure 1 & 2).

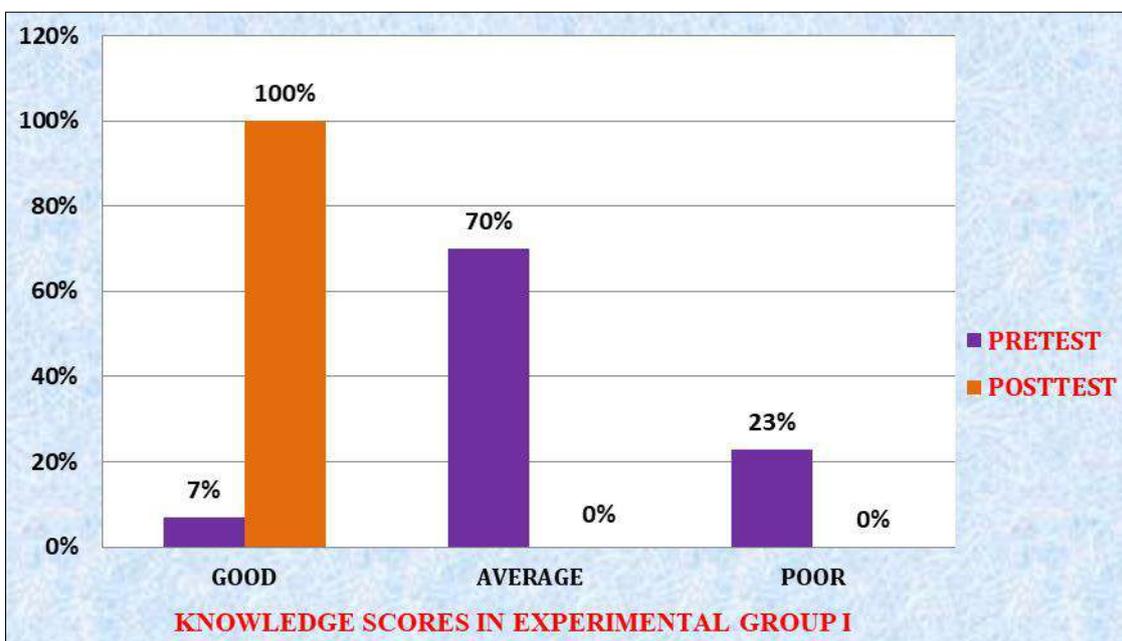


Fig 1: The cylindrical graph represents the distribution of the subjects according to their level of knowledge scores in Experimental Group I.

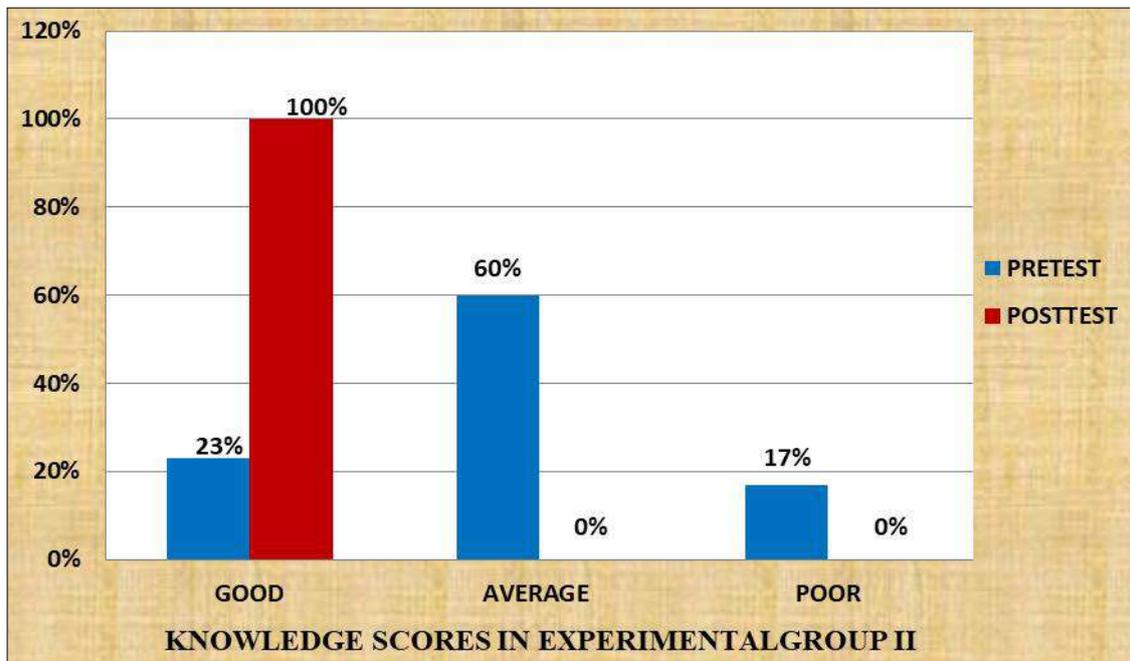


Fig 2: The pyramidal graph represents the distribution of the subjects according their level of knowledge scores in Experimental Group II.

II: Knowledge scores of adolescent girls who have undergone lecture method and video assisted teaching regarding PCOD and its management among both the groups

The findings revealed that there was a significant difference between the pretest and posttest knowledge a core of experimental group I and experimental group II. In experimental group I, the calculated paired ‘t’ value ($t_{cal}=65.20$) was greater than the table value ($t_{tab}=2.00$), at

0.05 level of significance. In experimental group II also the calculated paired ‘t’ value ($t_{cal}=56.05$) was greater than the table value ($t_{tab}=1.67$), at 0.05 level of significance. This indicates that the gain in knowledge score was statistically significant at $p<0.05$ levels. Therefore, both the lecture method and video assisted teaching on PCOD and its management were effective among the subjects of both the groups in terms of gain knowledge scores. (Table 1).

Table 1: Mean, standard deviation, mean difference and paired ‘t’ values of knowledge scores of subjects regarding PCOD and its management in both the Group I and Group II. $n_1+n_2=60$

Area of analysis	Groups	Mean	Standard deviation	Mean difference (\bar{d})	Paired ‘t’ values
Pre test	Group I	14	2.9	14	65.20
	Group II	21.1	1.92		
Post test	Group I	28	2.7	14.2	56.05
	Group II	35.3	1.89		

*significant at 0.05 level

III: Post test knowledge scores of adolescent girls who have undergone lecture method and video assisted teaching regarding PCOD and its management among both the groups.

The results showed that the calculated ‘F’ value using one way analysis of variance ($F_{cal}=73.12$) was higher than the table value ($F_{tab}=4.03$). The mean post test knowledge scores ($M=88.25$) of the adolescent girls exposed to video assisted teaching was higher than the mean post-test knowledge scores ($m=70$) of adolescent girls exposed to lecture method at 0.05 level of significance. (Table 2)

Table 2: Mean, standard deviation, and f-value of post test knowledge scores of subjects $n_1+n_2=60$

Area of analysis	Groups	Mean	F-value
Pre test	Group I	14	73.12
	Group II	21.1	
Post test	Group I	28	
	Group II	35.3	

*significant at 0.05 level

IV: Association of the level of knowledge of adolescent girls regarding PCOD and its management with their selected socio demographic variables

The computed chi square test for experimental group –I and experimental group-II revealed there was statistical association between the level of knowledge and their habitat in group I, source of information in group II.

Discussion

The overall pretest knowledge scores of the adolescent girls revealed that in Group I majority of subjects 21(70%) had average knowledge, 7 (23%) had poor knowledge and 2 (7%) had good knowledge in the pre-test, where as in post test 30 (100%) of them had good knowledge. In Group II majority of subjects 18(60%) had average knowledge, 7(23%) had good knowledge and 5(17%) had poor knowledge score in the pre-test, where as in post test 30(100%) of them had good knowledge score regarding PCOD and its management. These findings were congruent with the study conducted by Mohammed A who observed that most of the adolescent girls 81(84.4%) had poor

knowledge, 15 (15.6%) had average knowledge and none of them had good knowledge regarding Polycystic Ovarian Syndrome in pretest, where as in posttest, majority 89 (92.7%) of the students had good knowledge, 6(6.25%) had average knowledge and only 1(1.04%) had poor knowledge [12].

In the post test the calculated 'F' value (73.12*) was greater than the tabulated 'F' value (4.03). This indicates that gain in knowledge score is statistically significant at $p < 0.05$ levels of significance. Therefore, the mean gain in knowledge score of adolescent girls in Group II who were exposed to Video Assisted Teaching was higher than those adolescent girls in Group I who were exposed to lecture method.

Conclusion

The findings of the pretest revealed that the adolescent girls had inadequate knowledge on PCOD and its management. Both lecture method and video assisted teaching were effective in terms of gain in knowledge but video assisted teaching was more effective in enhancing and upgrading the knowledge of adolescent girls regarding PCOD and its management.

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