



## EFFECTIVENESS OF VIDEO ASSISTED TEACHING ON KNOWLEDGE REGARDING MANAGEMENT OF POLYCYSTIC OVARIAN SYNDROME AMONG ADOLESCENT GIRLS

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### ABSTRACT

This study was intended to improve the knowledge level of adolescent girls regarding polycystic ovarian syndrome and its management. By using simple random sampling method 60 samples were selected. The demographic data was collected by using demographic variables. Pretest was conducted by using structured questionnaire and followed by administration of video assisted teaching. Posttest was conducted after one week by using same questionnaire. The calculated t value was 14.15 which were statistically significant at 0.05 level. Chi-square test was used to find out the association between pre-test level of knowledge with selected socio demographic variables regarding polycystic ovarian syndrome and selected socio-demographic variables. The mean score regarding level of knowledge before and after video assisted teaching was 13.25 and 23.16 respectively. The intervention was effective strategy in increasing level of knowledge regarding polycystic ovarian syndrome among adolescent girls.

**KEYWORDS :** Effectiveness; Video assisted teaching; knowledge regarding polycystic ovarian syndrome; adolescent girls.

### INTRODUCTION

Polycystic ovarian syndrome accounts for 80% of cases of anovulatory infertility. Anovulation in polycystic ovarian syndrome is one of the common cause for reproductive difficulty in otherwise fertile couples. Once successful ovulation is achieved, fertility is often restored in Polycystic ovarian syndrome patients. Polycystic ovarian syndrome is a common female endocrine disorder with prevalence ranging from 2.2% to 26%. Most reports have studied adult women with age ranged from 18-45years. Women with Polycystic ovarian syndrome have what is called insulin resistance. This means that cells in the body are resistant to the effect of a normal level of insulin. More insulin is then produced to keep the blood sugar normal. This raised level of insulin in the bloodstream is thought to be the main underlying reason why Polycystic ovarian syndrome develops.

Many adolescent girls with polycystic ovarian syndrome are overweight/obese, and have a heightened risk for comorbidities such as dysglycaemia, dyslipidaemia, fatty liver disease, sleep apnoea and cardiovascular disease. According to the National Health and Nutrition Examination Survey III, young women with polycystic ovarian syndrome were 4.5 times more likely to meet the criteria for metabolic syndrome. Therefore, early and accurate diagnosis is essential for implementation of appropriate treatment and management. Available treatments include lifestyle modifications, hormonal contraceptives and insulin sensitizers. However, there are limited data on the best treatment modalities in adolescents. The objective of this review is to describe the clinical manifestations of polycystic ovarian syndrome in adolescents and the appropriate diagnostic work-up.

A community based study to assess the prevalence of PCOS in women 18-25 years of age, conducted in college girls from Lucknow, North India. Sample size for the study was calculated as 1052. Girls from 3 different colleges were approached (n = 2150), 1520 (70.7%) agreed to participate. They were asked to fill up a questionnaire asking details of menstrual cycle and features of hyperandrogenism. Hirsutism was self-reported. Responses were verified by a trained research assistant. A probable case was defined as a girl with menstrual irregularity (MI) or hirsutism (H) or both. All the probable cases were invited for detailed examination, hormone estimation, and ovarian ultrasonography. Of the 1520 girls, 200 (13.1%) were labeled as probable cases; 175

(87.5%) had MI and 25 (12.5%) had both MI and H. Of the 200 cases, 75 (37.5%) had hormonal evaluation while 11 agreed for ultrasonography. Twenty seven girls had confirmed PCOS. The study concluded that calculated prevalence of PCOS in women between the ages of 18-25 years from Lucknow, north India, is 3.7%.

### Materials and Methods

The present study was intended to assess the effect of video assisted teaching on knowledge regarding polycystic ovarian syndrome among adolescent girls studied at selected setting. One group pre-test post-test design was used for this study. By using simple random sampling method 60 samples were selected. The demographic data was collected by using demographic variables. Pretest was conducted by using structured questionnaire and followed by administration of video assisted teaching. Posttest was conducted after one week by using same questionnaire. Prior permission was obtained from the concerned authority to conduct the study. Data collection was done for a week from 04.03.2016 to 10.03.2016. After the pretest video assisted teaching was given for all samples by using LCD around 25 min. Posttest was done on 7th day using same questionnaire.

### Results

#### α. Socio demographic data

A total 60 samples were selected using simple random sampling. The result indicates that majority 44 (77.4%) were belongs to 19yrs and remaining 16(26.6%) were belongs to 18yrs of age groups. Regarding the religion majority 37(61.7%) were belongs to Hindu, 16(26.7%) were belongs to Christian and remaining 7 (11.6%) were belongs to Muslim. For Area of residence majority 57(95%) are residing in rural areas remaining 3 (5%) are residing in urban areas. Regarding age of Menarche 26 (43.3%) were attained menarche at the age group of 13-14yrs, 25(41.6%) were attained menarche at age of 11- 12yrs, 7 girls (11.6%) attained menarche at 15-16yrs and remaining 2(3.4%) girls attained menarche at 9-10yrs of age group. Regarding education of father 31(51.7%) had secondary education, 16(26.7%) had higher secondary education, 10(16.6%) were graduated and remaining 3(5%) were post graduates. About education of sample s mother majority 23(38.4%) had secondary education, 18(30%) had secondary education, 14 (23.4%) were graduated and remaining 4(6.8%) were post graduated. Majority 57(95%) of sample s father works in non-medical

field, and remaining 3(5%) belongs to medical field. Regarding occupation of mother majority 58(96.6%) of sample s mother works in non-medical field and remaining 2(3.4%) in medical field. Majority 52(86.6%) did not have any menstrual irregularities and 8(13.4%) had menstrual irregularities mainly dysmenorrhoea. Regarding previous knowledge 27(45%) had knowledge regarding PCOS and 33(55%) had no knowledge regarding PCOS.

### **b. Effectiveness of video assisted teaching regarding polycystic ovarian syndrome**

The effectiveness of video assisted teaching regarding polycystic ovarian syndrome was analyzed by using t test. The t test statistics score obtained for level of knowledge was 14.15 and table value is 1.67. The calculated value was greater than the table value; it shows that increase in the level of knowledge regarding management of polycystic ovarian syndrome as a result of video assisted teaching which was statistically significant at 0.05 level.

### **c. Association between pre-test level knowledge with selected socio-demographic variables.**

Chi square test was used to find out the association between pre-test level knowledge regarding management of polycystic ovarian syndrome among adolescent girls with selected socio-demographic variables. It was found that there was significant association between the pretest level of knowledge regarding management of polycystic ovarian syndrome and demographic variable that is age ( $\chi^2=8.44^{**}$ ). There was no association between pretest level of knowledge regarding PCOS and demographic variables such as religion ( $\chi^2=0.417$ ), area of residence ( $\chi^2=0.42$ ), age of menarche ( $\chi^2=2.29$ ), education of father ( $\chi^2=6.78$ ), education of mother ( $\chi^2=3.5$ ), occupation of father ( $\chi^2=0.8$ ), occupation of mother ( $\chi^2=0.6$ ), menstrual irregularities ( $\chi^2=0.5$ ) and previous knowledge on PCOS ( $\chi^2=0.77$ ).

## **DISCUSSION**

Using structured questionnaire pre and post-test level of knowledge on polycystic ovarian syndrome and its management was assessed. Out of 60 samples 37(61.6%) samples had poor knowledge, 23(38.4%) of samples had average knowledge and no one had good knowledge. Whereas in posttest level of knowledge 32(53.3%) of samples had good knowledge, 26(43.4%) had average knowledge and 2(3.3%) had poor knowledge.

The result obtained were congruent with Study aim was to evaluate effect of educational sessions about polycystic ovarian syndrome for late adolescent girls. Subjects were consisted of 95 students at 2nd year. The findings of the study revealed that before educational sessions utilization the majority of students (87.4%) had inadequate knowledge regard polycystic ovarian syndrome. The overall pre test mean score was  $14 \pm 3.383$  with mean percentage 38.89%. While the overall post test mean score was  $32.86 \pm 2.079$  and the mean percentage 91.31. The overall score post test mean value (32.87) was higher than the overall score pre test (14.0). The knowledge score after educational sessions was higher than before, there was statistical significance difference of knowledge score between before and after educational sessions in all variables ( $p < 0.05$ .) There is a significant association between the pretest level of knowledge and one demographic variable; age ( $\chi^2=8.44^{**}$ ). But there was no association between pretest level of knowledge regarding polycystic ovarian syndrome and socio-demographic variables such as religion ( $\chi^2=0.417$ ), area of residence ( $\chi^2=0.42$ ), age of menarche ( $\chi^2=2.29$ ), education of father ( $\chi^2=6.78$ ), education of mother ( $\chi^2=3.5$ ), occupation of father ( $\chi^2=0.8$ ), occupation of mother ( $\chi^2=0.6$ ), menstrual irregularities ( $\chi^2=0.5$ ) and previous knowledge on PCOS ( $\chi^2=0.77$ ). The findings of the study congruent a retrospective

review to study the age at diagnosis of polycystic ovarian syndrome (PCOS) in a paediatric population. To compare risk factors involved in causing polycystic ovarian syndrome in preadolescent and adolescent girls.

Patients included 58 girls (age  $\leq 18$  yrs) with a diagnosis of polycystic ovarian syndrome based on the Rotterdam criteria. Girls were grouped as preadolescents ( $< 13$  yrs) or adolescents (13-18 yrs). Clinical and biochemical data were reviewed from the time of diagnosis. There were 26% (15/58) preadolescent girls (9-12 yrs) vs 74% (43/58) adolescents (13-18 yrs). There was no significant difference between the two groups in ethnicity, BMI z-score, family history of maternal polycystic ovarian syndrome, birth weight, hyperandrogenism, or insulin resistance. Preadolescents with polycystic ovarian syndrome had significantly earlier onset of pubarche and thelarche than adolescents with polycystic ovarian syndrome, by 1.9 and 1.5 yrs, respectively ( $P = 0.018, 0.030$ ). In addition to earlier puberty, polycystic ovarian syndrome developed 2.1 years sooner after thelarche in preadolescents than in adolescents. ( $P = 0.008$ ) Preadolescents were significantly taller for age than adolescents (72nd % vs 43rd %) ( $P = 0.005$ ). Increased awareness of polycystic ovarian syndrome in young females is needed. Polycystic ovarian syndrome may occur at a younger age in girls who develop early pubarche and thelarche. Therefore, the diagnosis and workup should be considered in young girls with risk factors suggestive of polycystic ovarian syndrome.

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