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EFFECTIVENESS OF EDUCATIONAL INTERVENTION ON KNOWLEDGE ABOUT POLYCYSTIC OVARIAN SYNDROME AMONG ADOLESCENT GIRLS

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ABSTRACT

Adolescence is the stage of development between childhood and adulthood. Symptomatic changes are a clear biological indicator of the start of adolescence. A quasi-experimental pretest-posttest approach was used to measure adolescent girls' knowledge of polycystic ovarian syndrome. The investigation was done at selected colleges. The data was gathered using a pre-designed questionnaire. Subjects received an educational intervention. The research reveals that the mean difference between pre and post tests was 5.90, with a p value of 0.001, suggesting that it is highly significant at the 1% level. The increased awareness of PCOS among adolescents after educational intervention.

KEYWORDS: Adolescent, Girls, Knowledge, PCOS.

INTRODUCTION

Adolescent is derived from the Latin word 'adolescere,' which means to grow. Adolescence is a time of rapid growth and transformation in virtually every element of a child's physical, mental, social, and emotional existence. Throughout adolescence, young ladies are preoccupied with establishing their identity and expressing who they are. They have a presence in the world. Health is a necessary component of a good, contented existence. Change enhances the beauty and worth of life provided one understands how to adapt to and overcome the obstacles offered by the circumstance. Girls undergo greater alterations than males; fast development and change in the physical structure occur during puberty.[1] Adolescence is a stage of female development that occurs between the ages of 10 and 15 years. Adolescence is the transitional stage between childhood and maturity. Adolescence is defined by the WHO as the period between the ages of 10 and 19.[2]

Polycystic ovarian syndrome (PCOS) is now recognized as a prevalent and frequent health condition among adolescent females and one of the major reasons of infertility. Polycystic disease is the most prevalent female endocrine condition, affecting between 4% and 18% of women of reproductive age globally.[3] This is among the most endocrine disorders with incidence of 5%-10% in majority community and 22% in general public. PCOS is a heterogeneous endocrine disease affecting one in 15 women globally.[4] PCOS is a disorder in which a woman's female sex hormones are out of balance.[5] Furthermore, early detection of polycystic ovarian syndrome is critical for minimizing the disease's unwanted consequences. There are several worrisome signs that raise suspicions of PCOS diagnosis. For example, amenorrhea increases the likelihood of having PCOS by 90%.[6] Developing PCOS means a higher chance of sterility, bleed with malfunction, endometrial carcinoma, overweight, type 2 diabetes (T2DM), dyslipidemia, hypertension, and perhaps heart disease. Menstrual abnormalities, sterility, hirsutism, thinning hair, weight gain, and acne are among clinical manifestations of PCOS.[7] PCOS has considerable psychological, interpersonal, financial, mood disorders, reduced sexual gratification and issues with female self-esteem and self-image.[8]

Education is an universally embraced health promotion strategy. Nurses can give appropriate measure to adolescents with PCOS. Nursing education should cover essential components of nursing practice. So, creating education campaign on polycystic ovarian syndrome among women, especially adolescent girls, is more important to detect the early indication of PCOS. So the researcher was inspired to perform the self-instruction module to enhance adolescent girls' knowledge of PCOS.

Hypotheses H_o-There is no significant difference between pretest and posttest knowledge score about polycystic ovarian syndrome among adolescent girls.

MATERIAL AND METHODS

The quantitative research approach was adopted with quasi-experimental pretest-posttest research design to assess knowledge about polycystic ovarian syndrome among adolescent girls. The study was conducted at selected colleges. A total of 50 adolescents' girls were enrolled using non-probability purposive sampling technique. The research tool was divided into two parts i.e. socio-demographic and pre designed questionnaire. The reliability of tool was estimated by Karl Pearson's coefficient of correlation and it was found to be 0.73. Ethical permission was obtained from ethical and research committee of Institution. After gaining approval, permission was taken from authorities. Data were collected through questionnaire to assess the knowledge. After pretest; educational intervention given to adolescents. Post test was conducted after seven days of educational intervention. The data were entered in excel. The IBM SPSS version 26 was used for data analysis and interpretation of data.

RESULTS

The study revealed that knowledge was 14.60 ± 2.185 on the pretest and 20.50 ± 4.478 on the posttest. The mean difference was 5.90. Thus, the paired 't'-test was applied appropriately. The computed t-value is 10.220, with a p value of 0.001, indicating that it is highly significant at the 1% level. As a result, the null hypothesis is rejected. This indicates that the educational intervention is helpful in enhancing adolescent girls' knowledge of PCOS. The independent t test and anova tests were used to determine the association between adolescent girls' knowledge of PCOS and selected sociodemographic variables. Only the education standard was shown to be highly significant (p=.001), whereas the remaining demographic variables were not.

Table 1: Socio-demographic Profile of Adolescents Girls. N=50

S. No.	Demographic Variable	f	%
1	**Age (years)**		
	17	11	22.0
	18	27	54.0
	19	12	24.0
2.	**Religion**		
	Hindu	30	60.0
	Sikh	16	32.0
	Christen	4	8.0
3.	**Educational standard**		
	First year	19	38.0
	Second year	14	28.0
	Final year	17	34.0
4.	**Educational stream**		
	Arts	16	32.0
	Commerce	13	26.0
	Science	21	42.0
5.	**Occupation of Father**		
	Govt. job	11	22.0
	Pvt. job	19	38.0
	Business	14	28.0
	Others	6	12.0
6.	**Occupation of Mother**		
	House wife	31	62.0
	Govt. job	4	8.0
	Pvt. job	7	14.0
	Others	8	16.0
7.	**Family income (Rs./month)**		
	<10000	10	20.0
	10000-20000	6	12.0
	20000-30000	17	34.0
	≥ 40000	17	34.0
8.	**Type of family**		
	Nuclear	30	60.0
	Joint	20	40.0
9.	**Habitat**		

	Rural	35	70.0
	Urban	15	30.0
10.	**Diet pattern**		
	Vegetarian	26	52.0
	Non-vegetarian	17	34.0
	Eggetarian	7	14.0

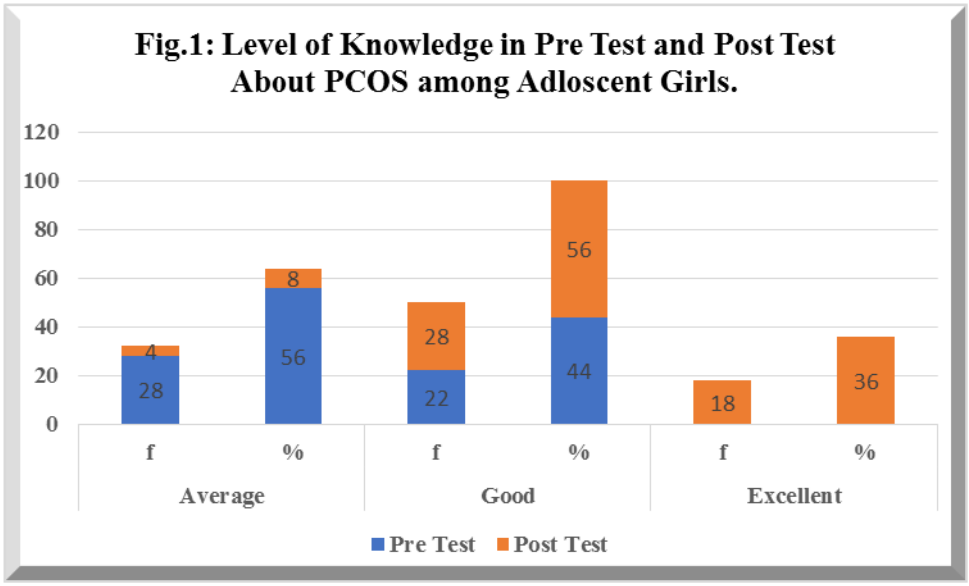

Table 2: Comparison of pre–test knowledge and post-test knowledge score about PCOS among adolescent Girls. N=50

Test	Mean	SD	Mean difference	t-value	df	*P-value*
Pretest	14.60	2.185	5.90	10.220	49	.001*
Post test	20.50	4.478				

NB: * = highly significant at level of 0.01

Table 3: Association between the knowledge about PCOS among adolescent girls with selected socio demographic variables. N=50

S. No.	Demographic Variable	Mean	SD	t/F value	df	*P value*
1	**Age (years)**					
	17	5.181	4.094	.801	2	.455^{NS}
	18	5.629	4.207			
	19	7.166	3.833			
2.	**Religion**					
	Hindu	7.000	3.965	2.939	2	.063^{NS}
	Sikh	4.250	3.678			
	Christen	4.250	4.716			
3.	**Educational standard**					
	First year	8.526	3.421	9.837	2	.001*
	Second year	3.214	3.378			
	Final year	5.176	3.678			
4.	**Educational stream**					
	Arts	6.125	3.739	3.064	2	.056^{NS}
	Commerce	3.692	3.301			
	Science	7.095	4.369			
5.	**Occupation of Father**					
	Govt. job	7.545	3.387	1.079	3	.367^{NS}
	Pvt. job	4.789	3.568			

	Business	6.071	4.269			
	Others	6.000	6.033			
6.	**Occupation of Mother**					
	House wife	6.193	4.245	.291	3	.832 ^{NS}
	Govt. job	5.750	5.188			
	Pvt. job	4.571	2.299			
	Others	6.000	4.598			
7.	**Family income (Rs./month)**					
	<10000	7.700	2.907	1.320	3	.279 ^{NS}
	10000-20000	4.666	3.723			
	20000-30000	4.823	4.304			
	≥ 40000	6.352	4.400			
8.	**Type of family**					
	Nuclear	5.400	3.829	-1.062	48	.293 ^{NS}
	Joint	6.650	4.428			
9.	**Habitat**					
	Rural	6.142	4.278	.639	48	.526 ^{NS}
	Urban	5.333	3.658			
10.	**Diet pattern**					
	Vegetarian	6.769	3.808	1.251	2	.296 ^{NS}
	Non-vegetarian	4.882	4.648			
	Eggetarian	5.142	3.338			

*NB: t= independent t test, F= anova test, df = degree of freedom, NS = non-significant, * = significant at 0.01 level.*

DISCUSSION

The present study revealed that more than half i.e. 54% adolescent girls belong 18 years age group. As per religion; 60% were belong to Hindu religion. Just more than half of them i.e., 52% were vegetarian. Support study **Sunanda B et al (2016)** revealed that 85% of the samples were in the age group of 21-25years, 75% of the samples were Christians, 82% of the samples were consuming mixed diet.[9]

The current showed that knowledge was 14.60 ± 2.185 on the pretest and 20.50 ± 4.478 on the posttest. The mean difference was 5.90. Thus, the paired 't'-test was applied appropriately. The computed t-value is 10.220, with a p value of 0.001, indicating that it is highly significant at the 1% level. Similar study supported by **Mohamed HA (2019);** mean scores of posttest were significantly higher after educational program compared to their values at pretest (p< .0001). **Sunanda B et al (2016)** found that most of the students (76%)had average Knowledge.[9] **Mohamed HA (2019)** revealed that statistically significant difference was found between demographic characteristics such as age of the students and family history with students' knowledge at pre-test (p<0.02 and p < .05) respectively.[10]

This study reveals that education standard was highly significant (p=.001), whereas the remaining demographic variables were not. **Sunanda B et al (2016)** has shown that source of information, consumption of junk food, dietary patterns of the students were associated with their level of knowledge on PCOS at 5% level of significance.[9]

CONCLUSION

Based on the outcomes of the present study; the researchers indicated that research hypotheses are supported, and adolescent girls showed better knowledge of PCOS after educational intervention.

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