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Research Article

A Study to Assess the Effectiveness of Structured Teaching Program on Knowledge Regarding Polycystic Ovarian Disease among Adolescent Girls at Selected College, Thiruvallur District

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Abstract

Aims: The aim of the study is to assess the effectiveness of a structured teaching program on knowledge regarding polycystic ovarian disease among adolescent girls at a selected college, in the Tiruvallur district.

Materials and Methods: In this study research design adopted by researcher is the pre-experimental one-group pre-test and post-test design. The proposed study was carried out at colleges, Tiruvallur district. The sample size was comprised of 30 adolescent girls who met the inclusion criteria. A convenient sampling technique has been utilized for this study.

Results: The study shows that the post-test mean score (16.77) was high when compared to the pre-test (11.56). In standard deviation, the pre-test value is (1.85) and post-test value is (3.95) and the mean percentage is (38.53%) in the pre-test and (55.9) in the post-test. The result showed that a structured teaching program on polycystic ovarian disease (PCOD) was more effective among adolescent girls.

Conclusion: The conclusion drawn from the study was adequate, moderately adequate, and inadequate knowledge regarding PCOD among adolescent girls. The study shows that demographic variables have no association with post-test scores among adolescent girls at $P > 0.05$ level. And effective to gain more knowledge regarding PCOD.

Keywords: Adolescents, assess, effectiveness, polycystic ovarian disease, structured teaching program

Introduction

Adolescence, according to the World Health Organization, refers to individuals aged between 10 and 19 years.[1] Adolescence in females is acknowledged as a distinct phase in their life cycle that necessitates particular and focused care. This time is characterized by the commencement of menarche.[2]

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Menstruation faces psychological and religious difficulties because of a lack of understanding about its scientific process. Many females living in slums are uninformed about the processes of the menstrual cycle.[3]

Menstruation, a natural process, is associated with many attitudes and activities. Menstrual hygiene is an essential aspect of a woman's life. Physiological, pathological, and psychological factors of menstruation have been discovered to be linked to the health and well-being of women. Therefore, it is a significant concern regarding the sickness and death rates among the female population.[4,5] During this phase, a woman is considered most susceptible to reproductive system infections, urinary tract infections, and different sexually transmitted diseases.

Menstrual hygiene pertains to the specific health-care needs and demands of women during their monthly menstruation or

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menstrual cycle. Increased awareness of menstruation from a young age can improve safe practices and alleviate the suffering of many women.[3]

Menstrual hygiene management is essential in health care. The United Nations defines adequate menstrual hygiene management as women and adolescent girls using a clean menstrual management material to absorb or collect blood that can be changed in privacy as often as necessary during menstruation, washing the body with soap and water as needed, and having access to facilities for disposing of used menstrual management materials.[6] Especially in impoverished nations, females encounter significant obstacles in maintaining proper menstrual hygiene.[7]

Teachers have a significant impact and strongly influence the brains of children. Menstrual hygiene is rarely addressed in the school curriculum. It is also part of the Millennium Development Goals. Thus, analyzing the current menstrual hygiene behaviors of adolescent girls is crucial to comprehend the significance and outcomes, to strategize future interventions effectively.[8]

Aim

A study to assess the effectiveness of structured teaching program on knowledge regarding polycystic ovarian disease among adolescent girls at selected college, Tiruvallur district.

Objectives of the study

The objectives of the study are as follows:

- To assess the level of knowledge regarding polycystic ovarian disease (PCOD) among adolescent girls
- To provide effectiveness program for PCOD among adolescent girls
- To associate the post level of knowledge with selected demographic variable.

Hypothesis

- There will be a significant level of effectiveness of structured teaching program on PCOD among adolescent girls
- There is a significant difference in the level of knowledge regarding PCOD between pre-test and post-test scores.

Materials and Methods

Pre-experimental one-group pre-test and post-test design. Used for assessing knowledge regarding PCOD, the sample for the present study was adolescent girls during the data collection procedure, sample size was comprised of 30 adolescent girls in pre-experimental one-group pre- and post-test design. Convenient sampling technique used for selection. Selection of participants who met the purpose of the study on the basic inclusion and exclusion criteria. The data collection procedure was carried out for 4 weeks the study will be conducted after obtaining permission from the concerned authorities. A prior formal approval from the authority for collecting the required information. Informed consent was obtained from the sample and assured them regarding maintains privacy and confidentiality. A knowledge questionnaire was administered to assess the knowledge of PCOD of a pre-test. Structured teaching program was given on PCOD 20–30 min. knowledge questionnaire was administered to check the knowledge PCOD of post-test.

A self-prepared and validated structured questionnaire was used to collect data which comprised of Section-A and Section B. Section A consists of demographic variables and Section B knowledge questionnaires.

Results

Section: A demographic variables

It includes age, gender, religion,education, type of family, marital status, age at marriage, menstrual cycle, previous knowledge about of PCOD, family history of PCOD, and pain present during the menstrual cycle.

Table 1; Shows that the bulk of the adolescent girls, 14 (47%) of the study population, were between the ages of 16 and 18, with 12 (47%) falling between the ages of 13 and 15. In terms of gender, the majority of teenage girls are female (100%). Regarding the religion of the adolescent girls 21 (70%) Hinduism, Muslimism (13%), and Christianity (17%). In terms of education, the majority of teenage girls completed higher secondary 12 (40%). SSLC 18 (60%). In terms of family type, the majority of teenage girls were raised in mixed families (13%) and nuclear families (17%). In terms of marital status, the majority of adolescent girls married three (ten percent). Unmarried 27 (90%). In terms of marriage age, the majority of adolescent girls are under the age of 20 (10%). In terms of the menstruation cycle, the majority of them were regular 27 (90%) and irregular 3 (10%). In terms of past knowledge of PCOD, the majority of them answered yes 15 (50%) and no 15 (50%). When asked if they had a family history of PCOD, the majority of people said yes (10%) and no (20%). In terms of discomfort experienced during the menstrual cycle, the most were mild (19%), moderate (10%), and severe (3%).

Table 2 shows that depicts that, in the pre-test of knowledge majority (93%) of adolescent girls had inadequate knowledge, (7%) had moderately adequate knowledge (0%) had adequate knowledge. However, in the post-test majority (43%) had moderately adequate knowledge, (23%) had inadequate knowledge, and (34%) had adequate knowledge.

The above findings summarize that the structured teaching program had a significant beneficial effect on the level of knowledge regarding PCOD among adolescent girls.

Table 3 Shows that the above table describes the comparison of mean pre-test and post-test knowledge levels on PCOD. The post-test mean score (16.77) was high when compared to the pre-test mean (11.56). Based on the Standard Deviation the pre-test SD value is (1.85) and post-test SD value is (3.95) and the mean percentage is (38.53%) in the pre-test and (55.9%) in the post-test.

Association of pre-test level of knowledge with their selected demographic variables

Table 4 Shows that reveals the association between the pretest level of knowledge among adolescent girls with their demographic variables out of ten such as age, gender, religion, education, type of family, marital status, age at marriage, menstrual cycle, having previous knowledge regarding PCOD, family history of PCOD, pain present in during menstrual cycle demographic variables were associated with the level of knowledge among adolescent girls and it was found to be non-significant.

Table 1: Reveals, the frequency and percentage-wise distribution of demographic variables among 30 adolescent girls

S. No	Demographic variables	Frequency (n)	Percentage
1	Age (in years)		
	10–12 years	4	13
	13–15 years	12	40
	16–18 years	14	47
	Above 20 years	0	0
2	Gender		
	Male	0	0
	Female	30	100
3	Religion		
	Hindu	21	70
	Muslim	4	13
	Christian	5	17
	Others	0	0
4	Education		
	Undergraduate	0	0
	Postgraduate	0	0
	Higher Secondary	0	0
	SSLC	12	40
	Illiterate	18	60
5	Type of family		
	Joint family	13	43
	Nuclear family	18	57
6	Marital status		
	Married	3	10
	Unmarried	27	90
7	Age at marriage		
	Below 20 years	3	10
	20–25 years	0	0
	25–30 years	0	0
8	Menstrual cycle		
	Regular	27	90
	Irregular	3	10
9	Previous knowledge of PCOD		
	Yes	15	50
	No	15	50
10	Family history of PCOD		
	Yes	10	33
	No	20	67
11	Pain present during menstrual cycle		
	Mild	19	64
	Moderate	10	33
	Severe	1	3

Association of post-test level of knowledge with their selected demographic variables

Table 5 Shows that reveals the association between post-test level of knowledge among adolescent girls with their demographic variables in out of ten such as age, gender, religion, education, type of family, marital status, age at marriage, menstrual cycle, previous knowledge of PCOD, family history of PCOD, pain present during menstrual cycle, none of the demographic variables were associated with the level of knowledge among adolescent girls and it was found to be non-significant.

Discussion

- The first objective of the study is to assess the level of knowledge regarding PCOD among adolescent girls

In this study, In pre-test, the majority of the study population zero (0%) had adequate knowledge, two (7%) had moderately adequate knowledge, and 28 (93%) had inadequate knowledge. In post-test, the majority of the study population 10 (34%) had adequate knowledge, 13 (43%) had moderately adequate knowledge, and seven (23%) had inadequate knowledge.

- The second objective of the study is to provide effectiveness program for PCOD among adolescent girls

According to the study, the mean score of the post-test (16.77) was higher than that of the pre-test (11.56). The pre-test value is 1.85 in standard deviation, the post-test value is 3.95, and the mean percentage is 38.53% in the pre-test and 55.9% in the post-test. The outcome demonstrated that a systematic education program on PCOD was more successful in educating teenage girls.

According to a similar study, none of the subjects had adequate knowledge before STP, 10.0% had a moderate understanding, and 90.0% had inadequate knowledge. After STP, however, the majority of participants (80.0%) had acceptable knowledge, 20.0% had moderate understanding (12 people), and 0% had poor knowledge. The study discovered that participants' comprehension of polycystic ovarian syndrome was significantly enhanced by the structured instruction session.[9]

A similar study discovered that none of the participants had enough awareness of PCOD before STP. Of them, 51 (85%) had average knowledge, five (8.3%) had bad knowledge, and four (6.6%) had good knowledge. According to the post-test results, the majority of teenage girls, 46 (76.6%), had an average understanding of PCOD, while 14 (23.3%) had good knowledge. Furthermore, none of them lack knowledge; a

Table 2: Comparison of pre-test and post-test levels of knowledge among adolescent girls

Pre-test	Frequency	Percentage	Post-test	Frequency	Percentage
Inadequate knowledge	28	93	Inadequate Knowledge	7	23
Moderately adequate knowledge	2	7	Moderately adequate knowledge	13	43
Adequate knowledge	0	0	Adequate knowledge	10	34

well-designed education curriculum about PCOD can raise teenage girls' awareness and bring about positive changes in their daily lives.[10]

A similar study discovered that, both before and after STP, none of the participants had an adequate understanding of polycystic ovarian syndrome, with 10% having acceptable information, 68.3% having intermediate awareness, and 21.7% having inadequate knowledge. 38.3% of people have moderate knowledge, 10% have inadequate knowledge, and 51.7% have adequate knowledge. The study discovered that participants' comprehension of polycystic ovarian syndrome was significantly enhanced by the structured instruction session.[11]

Table 3: Comparison of mean scores of pre-test and post-test levels of knowledge among adolescent girls

Knowledge	Mean	Standard deviation
Pre-test	11.56	1.85
Post-test	16.77	3.95

- The third objective of the study is to associate the post-level of knowledge with selected demographic variables.

The study showed that, the association between pre-test and post-test levels of knowledge among PCOD with their demographic variables such as age, gender, religion, education, type of family, place, marital status, age at marriage, menstrual cycle, previous knowledge about of PCOD, family history of PCOD, pain present in during menstrual cycle, if yes source of information of the demographic variables were associated

Table 4: There is a significant association between the pre-test level of knowledge among adolescent girls with their selected demographic variables

		Pre-test					
S. No	Demographic variable	Adequate	Moderately adequate	Inadequate	Chi-square	"*P*"-value	DF
1	Age						
	10–12 years	0	0	4	0.3444	0.9868	4
	13–15 years	0	1	11			
	16–18 years	0	1	13			
	20 years above	0	0	0			
2	Gender						
	Male	0	0	0	13.2506	NA	0
	Female	0	2	28			
3	Religion						
	Hindu	0	2	19	NA	NA	4
	Muslim	0	0	4			
	Christian	0	0	5			
	Others	0	0	0			
4	Education						
	Undergraduate	0	0	0	12.8621	NA	2
	Postgraduate	0	0	0			
	Higher Secondary	1	7	4			
	SSLC	0	1	17			
	Illiterate	0	0	0			
5	Type of family						
	Joint family	0	1	12	0.0388	0.9808	2
	Nuclear family	0	1	16			
6	Marital status						
	Married	0	0	2	NA	NA	2
	Unmarried	0	2	26			
7	Age at marriage						
	Below 20 years	0	3	0	3.0	0.2	0
	20–25 years	0	0	0			
	25–30 years	0	0	0			
8	Menstrual cycle						
	Regular	0	1	26			
	Irregular	0	1	2	3.8095	0.1489	2
9	Having previous knowledge regarding PCOD						
	Yes	0	1	14	NA	NA	2
	No	0	1	14			
10	Family history of PCOD						
	Yes	0	0	10	NA	NA	2
	No	0	2	18			
11	Pain present during the menstrual cycle	0	0	19	12.2222	0.0158	
		0	2	8			
		0	1	0			

Table 5: There is a significant association between the post-test level of knowledge among adolescent girls with their selected demographic variables

		Post-test					
S. No	**Demographic variable**	**Adequate**	**Moderately adequate**	**Inadequate**	**Chi-square**	**"*P*"-value**	**D f**
1	Age						
	10–12 years	1	2	1	0.5219	0.95	04
	13–15 years	5	5	3			
	16–18 years	4	7	3			
4	Gender						
	Male	0	0	0	0.9318	0.6	0
	Female	10	16	4			
5	Religion						
	Hindu	4	10	6	7.0181	0.2	4
	Muslim	1	2	1			
	Christian	4	1	0			
	Others	0	0	0			
	Education						
	Undereducate	0	0	0	0.0347	0.98	2
	Postgraduate	0	0	0			
	Higher-secondary	4	5	3			
	SSLC	6	7	5			
	Illiterate	0	0	0			
6	Type of family						
	Joint family	6	6	1	5.5420	0.06	2
	Nuclear family	2	6	6			
7	Marital status						
	Married	2	1	0	1.9658	0.25	2
	Unmarried	8	12	7			
8	Age at marriage						
	Below 20 years	1	2	0	1.3333	0.6	0
	20–25 years	0	0	0			
	25–30 years	0	0	0			
9	Menstrual cycle						
	Regular	8	13	6	2.6984	0.25	2
	Irregular	2	0	1			
	Previous knowledge about PCOD						
	Yes	4	9	2	4.2953	0.2	2
	No	6	4	6			
10	Family history of PCOD						
	Yes	1	7	2	4.9830	0.05	2
	No	9	6	5			
11	Pain present during menstrual cycle						
	Mild	6	9	5	4.3011	0.3	4
	Moderate	4	4	1			
	Severe	0	0	1			

with the level of knowledge among adolescent girls and it was found to be non-significant.

Conclusion

The following are the conclusions based on the study findings. The study shows that there is adequate, moderate adequate, and inadequate knowledge regarding PCOD among adolescent girls. The study shows that demographic variables have no association with post-test scores among adolescent girls at $P > 0.05$ level.

Conflict of Interest

The author had no conflict of interest related to this publication.

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