Original article

EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE OF POLYCYSTIC OVARIAN SYNDROME AMONG ADOLESCENT GIRLS

Sowmya M.A[1] & Philomena Fernandes [2]

[1] II year M.Sc. (N) student, [2] Associate Professor & HOD, Department of OBG Nursing,
Nitte Usha Institute of Nursing Sciences, Nitte University, Mangalore - 575 018, India.

Correspondence :
Philomena Fernandes
Associate Professor & HOD, Department of OBG Nursing, Nitte Usha Institute of Nursing Sciences,
Nitte University, Mangalore - 575 018, India
Mobile: +91 94492 07845. E-mail : philferns7@gmail.com

Abstract:

The study was conducted to assess the effectiveness of structured teaching programme on knowledge of polycystic ovarian syndrome among adolescent girls. The study design adopted was pre experimental one group 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. A significant difference between pre test and post test knowledge was found ($t_{79=}2.0$ $p<0.05$).The study findings showed that the structured teaching programme was effective in improving knowledge of adolescent girls regarding polycystic ovarian syndrome. There was no significant association between the level of knowledge and demographic variables except the group in which they study (Science, Arts, Commerce)

Keywords: knowledge, structured teaching programme, PCOS

Introduction :

Adolescence is a period of transition between childhood and adulthood, a time of profound biological, intellectual, psychological, and economic changes. During this period individual reaches physical and sexual maturity, develop more sophisticated reasoning abilities. The changes of adolescence have important implications for understanding the kinds of health risks to which young people are exposed, the health enhancing and risk taking behaviours in which they engage, and the major opportunities for health promotion among this population[1.] This transition from childhood to adolescence is a journey with full of surprises, both for the parents and the children. There are many adolescent problems that stem up while passing through this phase. This is the time when they need guidance and care[2]. Gynaecological diseases are fairly common but most of the women ignore the symptoms or they are unaware, till the time the problem really worsens. One of them, now a day's faced by girls, is polycystic ovarian syndrome.[3]

Polycystic ovarian syndrome (PCOS) was formerly called Stein-Levinthal Syndrome. In 1935 Dr. Stein and Levinthal described a syndrome in which women suffered irregular and usually rare periods, hirsutism (hair growth), and varying degrees of infertility[4]. PCOS is a common health problem among teenage girls and young women. It affects 5% to 10% of women in their reproductive years.[5]

In girls with PCOS, the ovaries produce higher than normal amounts of androgens, and this can interfere with egg development and release. Clinical symptoms of PCOS include: menstrual irregularities, inability to get pregnant due to lack of ovulation, increased hair growth in a male distribution pattern (e.g., on face and chest), acne and obesity[6].

Although there is no cure for PCOS, there are several ways

that the condition can be treated and managed. If a girl is overweight or obese, Weight loss can be very effective in lessening many of the health conditions associated with PCOS, such as high blood pressure and diabetes. Sometimes weight loss alone can restore hormone levels to normal, causing many of the symptoms to disappear or become less severe. Healthy food habits and exercise is a great way to help combat the weight gain. Talking with other teens and women with PCOS is a great way to share information about treatment and get support[7].

Lack of knowledge and the negative lifestyle attitude towards polycystic ovarian disease among college girls and not taking any measures to improve their lifestyle pattern is felt by the investigator that these college girls can be helped by assessing their knowledge and with a view to change lifestyle by providing necessary information, so as to help them to get aware about the polycystic ovarian syndrome.

Review of Literature :

An experimental study was conducted to find out the Effectiveness of (PTP) on PCOS for adolescent girls in a selected pre-university college at Mangalore. 50 samples were selected by using simple random technique. The mean pretest knowledge score was 57% and after conducting structurred teaching programme the score (Post test) was 87%. A significant difference between pre-test and post-test knowledge was found. This indicates that structured teaching programme is effective in improving the knowledge of adolescent girls on PCOS[8].

Materials and Methods :

The research approach used in this study was evaluative approach. Research design used in this study was pre experimental- one group pre test post test design. Population comprised of 80 adolescent girls (16-19yrs) in a selected college at Mangalore. 80 sample were selected using simple random sampling technique.

Structured knowledge questionnaire was administered to collect the data from adolescent girls. The questionnaire consists of 30 items related to polycystic ovarian syndrome.

Apart from the questionnaire demographic proforma was also administered to the subjects.

Pre-test was administered to the participants using structured knowledge questionnaire. After pre test researcher conducted structured teaching programme on polycystic ovarian syndrome. After 7 days of intervention the investigator administered the post test to assess the level of knowledge of adolescent girls using the same structured knowledge questionnaire. The data collected were analysed using frequency percentage, paired t- test and Fishers exact test.

Results :

The findings are discussed under the following headings.

SECTION 1 : DESCRIPTION OF SAMPLE CHARACTERISTICS

Table1 : Distribution of adolescent girls according to the mographic characteristics.   n=80

SAMPLE CHARACTERISTICS	FREQUENCY	PERCENTAGE
Age in years		
16yr	32	40.0
17	43	53.8
18	5	6.2
19	0	0
Religion		
Hindu	42	52.5
Muslim	17	21.2
Christian	21	62.2
Group		
Arts	30	37.5
Science	30	37.5
Commerce	20	25
Education status of parents		
a) Education status of the father		
No formal education	1	1.2
Primary	32	40.0
Secondary	31	38.5
Pre –university	11	12.5
Graduation and above	6	7.5
b) Education status of the mother		
No formal education	2	2.5
Primary	18	22.5
Secondary	38	47.5
Pre –university	14	17.5
Graduation and above	8	10.5

SAMPLE CHARACTERISTICS	FREQUENCY	PERCENTAGE
a) Occupation of the father		
Ꙇ Daily wages	35	43.8
Ꙇ Employed	29	36.2
Ꙇ Self employed	15	18.8
Ꙇ Unemployed	1	1.2
b) Occupation of the mother		
Ꙇ Daily wages	7	8.8
Ꙇ Employed	18	22.5
Ꙇ Self employed	1	1.2
Ꙇ Unemployed	54	67.5
Monthly income of the family		
Ꙇ <3000	7	8.8
Ꙇ 3000-5000	27	33.8
Ꙇ 5000-8000	22	27.5
Ꙇ 8000-10000	16	20.0
Ꙇ >10000	8	10.0
Type of family		
Ꙇ nuclear	62	77.5
Ꙇ joint	14	17.5
Ꙇ extended	4	5.0
Previous information about PCOS		
Ꙇ health personnel	0	0
Ꙇ friends, parents, teachers	0	0
Ꙇ mass media	0	0
Ꙇ no information	80	100.0

Section 2: Knowledge of adolescent girls on PCOS

Table2: Distribution of pre-test and post test knowledge scores of the adolescent girls on PCOS   n=80

Level of knowledge	Pretest knowledge score		Post-test knowledge score	
	FREQUENCY (f)	PERCENTAGE (%)	FREQUENCY (f)	PERCENTAGE (%)
Poor	56	70.0	_	_
Average	23	28.8	3	3.8
Good	1	1.2	24	30.0
Very good	_	_	53	66.2

Table 3: Mean median and standard deviation of pre-test and post test knowledge scores   n=80

Knowledge scores	Max possible scores	Min score obtained	Max score obtained	Mean	Mean %	Median	SD
Pre-test knowledge score	30	4	18	1.3125	4.375	1.00	0.49283
Post-test knowledge score	30	17	30	3.6250	12.083	4.00	0.55972

Table 4: Area wise pretest –post test knowledge scores of adolescent girls

Areas	Maximum possible score	Pre test knowledge score		Post test knowledge score	
		mean +SD	mean %	mean +SD	mean %
Anatomy and physiology	6	2.5+ 1.36	8.33	5.11+ 0.94	17.03
Meaning &incidence	7	2.56+ 1.29	8.53	5.65+ 1.09	18.83
Cause and risk factor	2	0.6+ 0.58	2	1.71+ 0.45	5.7
Signs symptoms, complication	5	1.77+ 1.07	5.9	4.08+ 0.85	13.6
Prevention & management	6	2.85+ 1.32	9.5	8.2+ 1.31	27.33
Total	30		34.26		82.49

Section III: Evaluation of the Structured Teaching Programme on PCOS in terms of gain in post test knowledge scores

In order to find significant difference between mean pre-test knowledge scores paired "t" test was used. To test the significance, following hypothesis was stated.

H_1; There will be significant difference between the pretest and post level of knowledge about PCOS among adolescent girls

Table 5: mean, standard deviation, (SD) paired "t" test between pre-test and post-test knowledge scores of adolescent girls

Knowledge scores	Mean	Standard deviation	"t"value	p value
pre-test	1.3125	0.49283	65.205	.001 S
post –test	3.6250	0.55972		

$t_{79=2.00}$ p <0.05 level Significant   s-Significant

Section IV: Association between the pre-test knowledge score and selected demographic variables.

In order to find out the association between the pre-test knowledge scores and the selected demographic variables, Fisher's exact test was used. The significance level selected for testing the hypothesis was 0.05

H_2: there will be significant association between the pre-test knowledge scores and the selected demographic variables.

Table 6 : Association between pretest knowledge scores and demographic variables. n =80

	Poor	Average	Good	"p"value
Age				
16	27	5	0	0.64
17	27	15	1	p>0.05
18	2	3	0	NS
Group				
Arts	26	3	1	.001
Science	12	18	0	p<0.05
Commerce	18	2	0	S
Religion				
Hindu	28	14	0	.334
Muslim	11	5	1	p>0.05
Christian	17	4	0	NS
Education of the parents				
Father:				
no formal education	1	0	0	
primary	24	8	0	.325
secondary	20	11	0	p>0.05
pre university	8	2	0	NS
graduation and above	3	2	1	
Mother:				
no formal education	1	1	0	
primary	10	8	0	.427
secondary	29	8	1	p>0.05
pre university	9	5	0	NS
graduation and above	7	1	0	
Occupation of the parents:				
Father :				
Daily wages	25	10	0	0.1
Employed	25	4	0	p>0.05
Self employed	6	8	1	NS
Unemployed	0	1	0	
Mother :				
Daily wages	6	1	0	.608
Employed	12	6	0	p>0.05
Self employed	0	1	0	NS
Unemployed	38	15	1	
Income				
<3000	6	1	0	
3000-5000	19	8	0	.242
5000-8000	15	7	0	p>0.05
8000-10000	13	3	0	NS
>10000	3	4	1	
Type of family:				
Nuclear	4	18	0	.125
Joint	10	4	0	p>0.05
extended	2	1	1	NS

NS-Not significant

Discussion :

The present study result revealed that there was significant difference between the mean pre-test and post-test knowledge scores. The pre-test mean percentage (4.37%) scores regarding PCOS were found to be less than post-test mean percentage (12.08%)) scores. 't'value computed between pre-test and post-test knowledge scores (t_{79}=2.0 p<0.05) was statistically significant. Hence it was proved that the STP was effective in enhancing knowledge of adolescent girls.

The effectiveness of structured teaching programme was supported by the study which was conducted by Mamatha regarding effectiveness of planned teaching programme on Assisted reproductive technology (ART) among GNM students in a selected college at Mangalore. The study revealed that the mean Post test score was (X_2=30.50) and mean Pre test score (X_1 = 15.25) and the difference was significant (t_{49}=1.673, P<0.01) This indicated the effectiveness of PTP in enhancing knowledge on ART.

Recommendations :

1. A similar study can be replicated with a control group
2. A similar study can be conducted to the group of adult women.
3. The study can be replicated on a larger sample for generalizing the findings.
4. A comparative study can be conducted to find out the effectiveness of structured teaching programme and SIM on the same topic.

Conclusion :

PCOS is a condition which can lead to severe health related problems and affects the reproductive youth of the country if not treated properly. Teaching adolescent girls on PCOS helps them to gain knowledge, hence helps to early detect and prevent the PCOS. The present study assessed the knowledge of adolescent girls regarding polycystic ovarian syndrome before and after the structured teaching programme. The study results revealed that adolescents have lack in knowledge about PCOS & the knowledge level increased after the structured teaching programme. So the study concluded that structured teaching programme is effective in improving the knowledge of adolescent girls.

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