Level of Knowledge Regarding Polycystic Ovarian Syndrome among Women's College at Puducherry

Nithiya B[1], Harisudha V[2], Kalki K[3], Kamali K[4], Kanchana V[5]

[1]Tutor cum junior Ward Incharge, Department of Medical Surgical Nursing, Vinayaka Missions College of Nursing, Kirumampakkam, Puducherry, India.

[2]UG Students, Vinayaka Missions College of Nursing, Kirumampakkam, Puducherry, India.

ABSTRACT

A quantitative study to assess the level of knowledge regarding polycystic ovarian syndrome among women's college at Puducherry with the objective to associate the level of knowledge regarding polycystic ovarian syndrome. This sample size was 120 were selected by using the convenience sampling technique. The sample was taken by one group of students in women's college. The questionnaire method given to the samples for 7 days post test was conducted by using the 1-point rating scale. Data was analyzed using descriptive and inferential statistics. The result reveals that 69 (57.5%) has moderately adequate knowledge 37(30.8%) has inadequate knowledge 14 (11.7%) has adequate knowledge. The present study finding is consistent with the study conducted by Sunanda B Sabitha Nayak (2016). Regarding the association of level of knowledge with selected demographic variables such as the participants, source of getting be-health information (x2= 8.297, p = 0.016) had statistically significant association with level of knowledge regarding poly cystic ovarian syndrome among women's at p<0.05.

KEYWORDS: Level of Knowledge, Polycystic ovarian syndrome, women's college

INTRODUCTION

Human life completes, its journey through various stages and one of the most vital stages is adolescence. Adolescence is the period of transition from childhood to adulthood and pro-social/antisocial adult. All of us undergo this stage which poses many challenges and is full of excitement. At the same time, it demands adjustment. When we come to this world we are completely dependent upon others and learn gradually to be independent. In India adolescents do most of the work themselves but the final decision regarding various domains of life is taken by their parents.

Global women's health issues include high rates of maternal mortality, obstetric fistulas, female genital cutting, HIV/AIDS, Malaria pregnancy and cervical cancer. In India, 30% of women experience gender-based violence and A risk of having anxiety and depressive disorders. In Puducherry 44% received 4ANV check-up, (Annexure 1.4) as per the NTHS 5 (Annexure 3) Karaikal reported good ANC coverage.

Polycystic ovarian syndrome is a relatively common endocrine disorder in women of reproductive age group. It is found in around 70% of women who have ovulation difficulties leading to subfertility. Fertility problems experienced by women with polycystic ovarian syndrome may be related to elevated hormone, insulin or glucose levels, all of which can interfere with implantation as well as the development of the embryo.

Polycystic ovarian syndrome is a relatively common endocrine disorder in women of reproductive age group. It is found in around 70% of women who have ovulation difficulties leading to subfertility. Fertility problems experienced by women with polycystic ovarian syndrome may be related to elevated hormone, insulin or glucose levels, all of which can interfere with implantation as well as the development of the embryo.

Gynaecology problems of adolescents occupy a special in the spectrum of gynaecology of all ages. Menstrual abnormalities are a common problem in adolescents.

Polycystic ovarian syndrome (PCOS) is the common cause of adulatory infertility. As there are no well -accepted criteria for diagnosis the incidence of PCOS is not known. However, it is postulated to be about 20-30 % in the general population. Based on symptomatically incidence varies between **4-5% to 21%** (menstrual abnormalities) and **3.5 to 9%**(hyperandrogenism). It is important to remember that,40% of women with oligomenorrhea, **84 %** of women with hirsutism and **100 %** of women presenting with severe acne, have PCOS as their aetiologias.

Polycystic ovarian syndrome (PCOS) is a condition which can affect a woman's menstrual cycle, fertility, hormones and aspect of her appearance. Polycystic ovaries are slightly larger than normal ovaries and have twice the number of follicles (smell cysts). polycystic ovaries are very common affecting 20 in 100 **(20 %)** of women.

Objectives of the study:

✓ To assess the level of knowledge polycystic ovarian syndrome among women's college at, Puducherry.

✓ To associate the level of knowledge regarding polycystic ovarian syndrome with selected demographic variables.

MATERIALS AND METHODS:

The research approach and design selected for this study was quantitative approach and cross-sectional descriptive survey design respectively. The study setting was selected women's colleges in Puducherry. The sample size was 120 which was selected by adopting convenience sampling technique. The data was collected for 7 days from (25.07.2023) to (02.08.2023). The data was collected by using interview cum self-administered method data collection. Each day data was collected from 10 samples. The data was collected up to the sample size. Data was analyzed using descriptive and inferential statistics. Demographic variables reveal the knowledge about the students.

Data analysis

Descriptive statistics like frequency and percentage were used for demographic and level of knowledge. Chi-square was used to associate the level of knowledge with the selected demographic variables.

RESULT

Table 1: Frequency and percentage distribution of demographic variables of women.

N = 120

Demographic Variables	No.	%
Age in years		
18 – 19	113	94.2
20 – 21	5	4.2
21 – 22	2	1.6
Education status		
Undergraduate	110	91.7
Post graduate	10	8.3
4.1 Religion		
Hindu	102	85.0
Muslim	11	9.2
Christian	7	5.8
Others	-	-
Occupation status of father		
Employed	93	77.5
Unemployed	27	22.5
Types of family		
Joint family	31	25.8
Nuclear family	89	74.2
Family income		
Above 10,000 – 20,000	94	78.4
Above 20,000 – 30,000	9	7.5

Demographic Variables	No.	%
Above 30,000 – 40,000	7	5.8
Above 50,000 – 60,000	10	8.3
4.2 Source of getting health information		
Mass media	36	30.0
Friends	41	34.2
Relatives	18	15.0
Health teaching member	25	20.8
Area of residence		
Urban	79	65.8
Rural	41	34.2
Menstrual history		
Regular	104	86.7
Irregular	16	13.3
4.3 Food habit		
Vegetarian	27	22.5
Non-vegetarian	93	77.5

The table 1 shows that, most of the women, **113(94.2%)** were aged between 18 – 19 years, **110(91.7%)** were undergraduates, **102(85%)** were Hindus, **93(77.5%)** of fathers were employed, **89(74.2%)** belonged to nuclear family, **94(78.4%)** had family income of above 10,000 – 20,000, **41(34.2%)** had friends as source of getting health information, **79(65.8%)** were residing in urban area, 104(86.7%) had regular menstrual history and **93(77.5%)** were non-vegetarian.

Table 2: Frequency and percentage distribution of level of knowledge regarding polycystic ovarian syndrome among women.

N = 120

Level of Knowledge	Frequency	Percentage (%)
Inadequate (0 – 10)	37	30.8
Moderately adequate (11 – 20)	69	57.5
Adequate (21 – 30)	14	11.7

The table 2 shows that among women, **69(57.5%)** had moderately adequate regarding polycystic ovarian syndrome, **37(30.8%)** had inadequate knowledge and **14(11.7%)** had adequate knowledge.

Table 3: Assessment of mean and standard deviation of knowledge regarding polycystic ovarian syndrome among women.

N = 120

Knowledge	Score
Minimum	4.0
Maximum	23.0
Median	13.0
Mean	13.16
S.D	4.80

The table 3 shows that the mean score of knowledge was 13.16±4.80. The minimum score was 4.0 and the maximum score of 23.0. The median score was 13.0.

Table 4: Association of level of knowledge regarding polycystic ovarian syndrome among women with their selected demographic variables.

N = 120

Demographic Variables	Inadequate		Moderately Adequate		Adequate		Chi-Square Value
	No.	%	No.	%	No.	%	
4.1 Age in years							χ^2=1.771 d.f=4 p = 0.778 N.S
18 – 19	35	29.2	64	53.3	14	11.7	
20 – 21	1	0.8	4	3.3	0	0	
21 – 22	1	0.8	1	0.8	0	0	
Education status							χ^2=2.648 d.f=2
Undergraduate	35	29.2	61	50.8	14	11.7	
Post graduate	2	1.7	8	6.7	0	0	p = 0.266 N.S
Religion							χ^2=4.800 d.f=4
Hindu	35	29.2	56	46.7	11	9.2	
Muslim	2	1.7	7	5.8	2	1.7	p = 0.308 N.S
Christian	0	0	6	5.0	1	0.8	
Others	-	-	-	-	-	-	
4.2 Occupation status of father							χ^2=4.644 d.f=2
Employed	28	23.3	51	42.5	14	11.7	
Unemployed	9	7.5	18	15.0	0	0	p = 0.098
							N.S
Types of family							χ^2=0.486 d.f=2
Joint family	11	9.2	17	14.2	3	2.5	
Nuclear family	26	21.7	52	43.3	11	9.2	p = 0.784 N.S
Family income							χ^2=11.553 d.f=6
Above 10,000 – 20,000	32	26.7	52	43.3	10	8.3	
Above 20,000 – 30,000	1	0.8	7	5.8	1	0.8	p = 0.073 N.S
Above 30,000 – 40,000	2	1.7	2	1.7	3	2.5	
Above 50,000 – 60,000	2	1.7	8	6.7	0	0	
Source of getting health information							χ^2=14.838 d.f=6
Mass media	9	7.5	18	15.0	9	7.5	
Friends	12	10.0	29	24.2	0	0	p = 0.022 S*
Relatives	5	4.2	10	8.3	3	2.5	
Health teaching member	11	9.2	12	10.0	2	1.7	
4.3 Area of residence							χ^2=1.700 d.f=2
Urban	22	18.3	46	38.3	11	9.2	
Rural	15	12.5	23	19.2	3	2.5	p = 0.428 N.S
Menstrual history							χ^2=8.297 d.f=2
Regular	37	30.8	56	46.7	11	9.2	
Irregular	0	0	13	10.8	3	2.5	p = 0.016 S*
Food habit							χ^2=0.999 d.f=2
Vegetarian	10	8.3	15	12.5	2	1.7	
Non-vegetarian	27	22.5	54	45.0	12	10.0	p = 0.607 N.S

*p<0.05, S – Significant, N.S – Not Significant

The table 4 shows that the demographic variables source of getting health information (χ^2=**14.838, p=0.022**) and menstrual history (χ^2=**8.297, p=0.016**) had statistically significant association with level of knowledge regarding polycystic ovarian syndrome among women at p<0.05 level and the other demographic variables did not show statistically significant association with level of knowledge regarding polycystic ovarian syndrome among women.

Discussion

The results of the present study showed that the level of knowledge 69(57.5%) has moderately adequate knowledge, 37(30.8%) has inadequate knowledge 14(11.7%) has adequate knowledge. This present study finding is consistent with the study consistent with the study conducted by Sunanda.B, Sabitha nayak (2016) which stated that most of the students (114) had average knowledge (76%).

Regarding the association of level of knowledge with selected demographic variables such as the participants, source of getting be-health information (x2= **8.297, p = 0.016**) had statistically significant association with level of knowledge regarding poly cystic ovarian syndrome among women's at p<0.05.

The present study was supported with the study conducted by **R. Sasikala, Deepa Shanmugham, Jessy Varghese Deepak Kannan Saravanan et, al (2021)** Conducted an Cross sectional study, a study of knowledge and awareness on Polycystic ovarian syndrome among nursing students. The data was collected from 88 samples by using a Simple random sampling technique. The data was collected by using the semi - structured questionnaire on PCOS which consists of 15 items. The result of the study is reveal that, regarding the knowledge about the risk factors, 83 students were aware of Obesity as the risk factor. Given knowledge of long term complications, 62 students (70.45%) were aware of metabolic syndrome, 51 students (57.95%) about hypertension. 50 participants (56.81) about being prone to diabetics mellitus, 60 students (68.18%) about the risk of endometrial cancer.

The findings of the study supported by **Saba Kiran, Hajra Sarwar, Sarfraz Masih et, al. (2023)** Conducted a Descriptive Cross-sectional study to assess the Knowledge and Awareness of Polycystic ovarian syndrome among Lady health Nursing School. The data was collected from 141 samples in a public health Nursing School in Lahore by using a Simple random sampling technique. The data was collected by using the structured knowledge questionnaire on PCOS which consists of 20 items. The study result reveals that the data was normally distributed as P-value is <0.05. Results indicated that the total knowledge score of participants regarding PCOS was poor.

The present study was supported with the study conducted by **Jia Ena Goh, Muhammad Junaid Farrukh, Fazlollah Keshavarzi, Chuan Sheng Yap, Zikria Saleem, Muhammad Salman et, al. (2022)** Conducted a descriptive cross- sectional study, Assessment of prevalence, knowledge of polycystic ovary syndrome and health related practices women in Klang valley. The data was collected from the 410 women in Klang valley by using a convenience sampling technique. The data was collected by using a structured questionnaire on PCOS which consists of 20 items. The results reveal that Respondents with healthcare related educational background demonstrated good knowledge (P< 0.01).

Recommendation

Based on the finding of the present students the following recommendation are male,

- A comparative study may be conducted to evaluate the effectiveness of self - instructional module.

- A similar study can be conducted on large sample to assess the knowledge and altitude regarding polycystic ovarian syndrome.

- A study can be conducted in assessing knowledge and practice of polycystic ovarian syndrome.

REFERENCES

1) **Sr Sheelamma** Effectiveness of Structured Teaching Programme on Knowledge regarding Polycystic Ovarian Syndrome among Nursing Students) Volume 7 Issue 7, July 2018 International Journal of Science and Research (IJSR) I (2016)79.57 Impact Factor (2017): 7.296ISSN(Online): 2319-7064 Paper IDART2019216 DOI10.21275/ART2019216 www.ijsr.net

2) **Minerva Ginecol** Effectiveness of structured teaching programme regarding polycystic Ovarian syndrome among adolescent girls) International Journal of Reproduction, Contraception, Obstetrics and Gynecology John S. Int J Reprod Contracept Obstet Gynecol. 2021 Jul; 10(7) :2818-282 guidelines. 2004; 56(1) :1-6.www.jjrcog.orgDOI:https://dx.doi.org/10.18203/2320-1770.ijrcog20212674

3)**Mahesh Gupta er al** To assess the effectiveness of structured teaching programme on knowledge regarding polycystic ovarian syndrome (PCOS) among nursing students of college of nursing) A Study to Assess the Prevalence of Polycystic Ovarian Disease

among Girls Aged 15-21 Years from Selected Schools and Colleges in Bhopal City, Ind J YouthAdolHealth2017:403)2-5 URLhttp://dx.doi.org/10.5430jnepv6n10p80DOI:https://doi.org/10.33545/gynae2021v55a1005http://www.gynaecologyjournal.cm

4) **Asha K Varughese, Veena Greetta Tauro** (Effectiveness of Structured Teaching Programme (STP) on Knowledge regarding Poly cystic Ovarian Syndrome (PCOS) among Adolescent Girls, Kollam) Effectiveness of Educational Intervention on Knowledge Regarding Polycystic Ovarian Syndrome Among Nursing StudentsDOI: 10.5958/2454-2660.2018.00087.Xg Published In: Volume-6,Issue-4, Year – 2018Email(s): ashakvarughese@gmail.com.

5)**NZESYLVA . S** EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE OF POLYCYSTIC OVARIAN SYNDROME AMONG ADOLESCENT GIRLS) The problem of adolescence. August 25, 2008. Adolescence NUSVOL1N3September201383%2245-7110:Availablefrom http://natywa.wordpress.com/2008/08/25/the-problem-of-

6)**Rajni** Effectiveness of Informational Module regarding Polycystic Ovarian Syndrome on Knowledge among Young Women of Selected College at Lucknow) International Journal of Science and Research (LJSR)ISSN: 2319-7064 Research Gate Impact Factor (2018): 0.28 SJIF (2019):7,583Volume 9 Issue 9, September 2020 Licensed under Creative Commons Attribution CC BY PaperID:SR20915150549DOI: 10.21275/SR20815150549 www.ijsr.net.

7)**Sasikala** A study of knowledge and awareness on polycystic ovarian syndrome among nursing students in a tertiary centre in South India) ISSN Print-2454-2334 ISSN Online-2454-2342 DOE-10.21276/obgyn.2021 81.23 (A study of knowledge and awareness Polycystic Ovary Syndrome: Diagnosis and Treatment The American Journal of Medicine 2007,120(2): 128-32.

8)**Dutta DC** A STUDY TO ASSESS THE EFFECTIVENESS OF INFORMATION EDUCATION COMMUNICATION ON KNOWLEDGE REGARDING POLYCYSTIC OVARIAN SYNDROME AMONG ADOLESCENT GIRLS AT SELECTED SCHOOLS OF MANDI GOBINDGARH, PUNJAB) ISSN (Online): 2455-3662EPRA International Journal Volume: 9 Issue: 41 April 2023|| Journal DOI: 10.36713/epra2013 || SIF Impact Factor 2023: 8.224 || ISI Value: 1.180 Text book of gecology edmon New Central Book agency publication 2007, sep: 268-282 .

9)**Bozdag G, Mumusoglu S, Zengin D, Karabulut E, Yildiz BO.** Adolescent polycystic ovary syndrome according to the international evidence-based guideline)BMC Med. 2020; 18: 72. Published online 2020 Mar 24. Doi: 10.1186/s12916-020-01516-x PMCID: PMC7092491 | PMID: 32204714systematic review and meta-analysis. Hum Reprod. 2016;31(12):2841- 2855. [PubMed] [Google Scholar].

10)**Elina Abraham** Effectiveness of Educational Intervention on Knowledge Regarding Polycystic Ovarian Syndrome Among Nursing Students. ISSN2249-9571.   DOI:https://doi.org/10.52403/jsr.20220718. International Journal of Health Sciences and Research Vol.12, Issue 7. July 202. Chainani, E. Awareness of polycystic ovarian syndrome among young women 2019, 8(12). 4716-4720. Doi:http://dx.doi.org/10.18203/2320-IntJHealthSci Res.202212(7):123-129.questionnaire on as P Value is (P>0.05).

11) (Effect of Knowledge Intervention on Polycystic Ovarian Syndrome among the Students of PJTSAU) K. Santhi Sirisha", R.GeethaReddy²andT.V.Hymavathi'20220718.DOI:(www.ghsr.org)DOI:https://doi.org/10.52403/hsr.

11) **SowmyaMA,Fernandes.P** Effectiveness Of structured teaching programme on Knowledge of polycystic ovarian syndrome Among adolescent girls. Nitte University Journal of Health Science. history/55475 Published 15 October 2020 2013;33) 54-589734/CJAST/2020/3913130992 http://www.adiarticle4.com.

12) **Nazir, F., Tasleem, H.. Tasleem, S., Sher, Z.,** Prevalence and Knowledge of Polycystic Ovary Syndrome (PCOS) Among Female Science Students of Different Public Universities of Quetta, Pakistan). &Association, 61(10), 960.Nursing Didactics, 5(8), 05-11. Waheed, K. (2011). Polycystic ovaries in adolescent girls from Rawalpindi. JPMA-Journal of the Pakistan Medical Association, 61(10), 960. (IJIR) Vol-3, Issue-6, 2017 ISSN: 2454-1362http://www.onlinejournal.in,.

13) **Sunanda B. Nayak S. (2006):** A Study to Assess the Knowledge Regarding PCOS (Polycystic Ovarian Syndrome) among Nursing Students at NUINS, Nitte University Journal of Health Science.10.31364/SCIRI/V9.10.2021P1021890 P1021890Scientific Research Journal (SCIR, Volume IX, Issue X. October 2021 ISSN 22011-2796 NUHS. 6(3):24-26, http://dx.doi.org/10.31364/SCIR3/v9.10.2021 .

14) **Broekmans, F. J. Knauff, E. A., Valkenburg, O, Laven, J. S., Eijkemans, M. J., & Fauser, B. C. (2006)** A Study to Measure the Health Awareness of Poly cystic Ovarian Syndrome in Saudi Arabia) Online Published: June 15, 2017 doi:10.5539/ghs.v9n8p130UR: J(e)-ISSN:2250-3013,(p)-ISSN:2319-4219 Volume 13,Issue1Series.I(January2023),PP.13-20 https://doi.org/10.5539/gis.v9n8p130 Global .

15) **Tabassum F. Jyoti C. Sinha HH. Dhar K Akhtar MS (2021)** AN EXPLORATORY STUDY TO ASSESS THE KNOWLEDGE REGARDING POLYCYSTIC OVARIAN SYNDROME AMONG ADOLESCENT GIRLS IN SELECTED JUNIOR COLLEGES OF PUNE CITY). DOI: 10.47750/pm 2022, 13.504.290. | Volume 13 | Special Ismo 4 | 2022. Impact of polycystic ovary syndrome on quality of life of women in Correlation to age, baad metabolic index, education and marriage. PLoS ONE 163-00247486 https:// doi.org/ 10.1371/ journal. pone .012.

Conflict of Interest Statement: All authors have nothing else to disclose.