Original Article

ADOLESCENT AWARENESS OF PREMENSTRUAL SYNDROME: CHALLENGES AND OPPORTUNITIES FOR EDUCATION

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Abstract: Premenstrual syndrome is all the symptoms occurring before the menstruation start. Epidemiological surveys have estimated that as many as 80% of women of adolescent girls experience some symptoms attributed to the premenstrual phase of the menstrual cycle. The previous studies in India reported prevalence of PMS to be 20% in general population and severe symptoms in 8%. This study was aimed to assess the knowledge level of premenstrual syndrome with the view to develop an information booklet and find out association with the selected demographic variables among adolescent girls of Dayananda polytechnic college, Bangalore. The study is descriptive in nature which was conducted in Dayananda sagar Polytechnic College, Bangalore, Karnataka State, India. Thirty samples were selected by non-probability purposive sampling technique and a structured questionnaire was provided to collect data regarding knowledge related to premenstrual syndrome. The findings of the study which revealed that, 14(46.6%) respondents had inadequate knowledge, 10(33.3%) respondents had moderate knowledge and 6(20%) respondents had adequate knowledge on premenstrual syndrome.

Keywords: Assess, knowledge, adolescent, premenstrual syndrome, information booklet.

I. INTRODUCTION

Premenstrual syndrome is a combination of physical and emotional disturbances that occur after a woman ovulates and ends with menstruation [1].

According (WHO) World Health Organization, sadness loss of confidence, low self-esteem and less energy are more common among females [2]. In India, about one –fourth (27%) of the female population falls in the 15-29 years of age group [3]. This age is a transition phase of life associated with spurt of physical, mental, emotional and social development.

Some degree of premenstrual problems is experienced especially in the initial of years of reproductive life by majority of young women. Epidemiological surveys have estimated that as many as 80% of women of reproductive age experience some symptoms attributed to the premenstrual phase of the menstrual cycle [4].

The morbidity associated with PMS is because of severity of symptoms, chronicity, the resulting emotional distress or impairment in work, relationships and activities. The level of impairment of PMS is significantly higher than community norms on assessment by standard measures and similar to that of major depression. Women with PMS report significant impairment in personal relationships compromised work level and increased absent from work, school or college [5]. There are very few studies assessing PMS in young girls [6].

In India reported prevalence of PMS to be 20% in general population and severe symptoms in 8%. The study which was conducted by WHO on premenstrual syndrome [7]. Considering all the factors above and going through various studies, investigator felt that there is a need to assess knowledge on premenstrual syndrome and this will help to know more about the risk population of reproductive age group, the socio-demographic factors responsible for poor knowledge level.

II. MATERIALS AND METHODS

A. Design, Setting and Sampling Technique

A descriptive study was conducted to assess the adolescent's knowledge regarding premenstrual syndrome in Dayananda Polytechnic College, Bangalore, and Karnataka State, India.

This study consists of a sample of 30 students studying in 1st year selected by non-probability purposive sampling technique. Age, types of residence, types of family, religion, family income per month, dietary pattern and age of puberty were demographic variables of the study which were independent variables whereas level of knowledge related to premenstrual syndrome was the dependent variable respectively.

B. Data Collection Method

Data collection was done by using structured knowledge questionnaire that was written in English. After permission and verbal consent of participants, it ensures that the study is ethically conducted, objectives and benefits of the study were explained and confidentiality of the information was strictly ensured. The data was collected in a time period of 2 days.

C. Data Analysis

The data analysis was carried out through descriptive and inferential statistics. The basic statistical techniques such as mean, frequency, percentage of described demographic variables were computed and interpreted suitably. Chi square test was used to find out association between the knowledge and selected demographic variables.

D. Ethical Consideration

Permission was obtained from the ethical review committee of Dayananda Sagar University and authorities of the Dayananda Polytechnic College. Verbal and written consent also was provided to the study subjects. Subjects were instructed to write their age only which was left blanked in the questionnaire as per their choice and subject don't have to write their name in the questionnaire.

III. RESULTS

A. Socio-Demographic Characteristics of the Study Participants

The socio demographic characteristics of the respondents is presented in table I. The majority of the adolescent girls 19(36.6%) belong to age group of 18-19 years and only 11(36.6%) belong to age group of 16-17 years. Majority 17(56.6%) of adolescent girls were residing in urban area, 8 (26.6%) was residing in rural area and only 5(16.6%) were residing in semi-urban area. Majority 16(53.3%) were living in nuclear family while 7(23.3%) were living with joint family and 7(23.3%) were living with others. Regarding religion 15(50%) were Hindu, 7(23.3%) were Christian, 5(16.6%) were following other religion and only 3(23.3%) were Muslim. Regarding

family income per month, 5(16.6%) adolescent family income ranges from 5000-10000, 11(36.6%) from 10001-15000, 10(33.3%) from 15001-20000 and 4(13.3%) adolescent girls family income is more than 20001. Regarding dietary pattern, 10(33.3%) were vegetarian and 20(66.6%) were non-vegetarian. Majority 14(46.6%) adolescent girls attended their puberty at the age group of 13-15 years, 9(30%) at 16-18years and only 7(23.3%) at 10-12 years. Majority 21(70%) adolescent girls have family history of Premenstrual syndrome and only 9(30%) do not have family history of Premenstrual syndrome.

TABLE I: DISTRIBUTION OF DEMOGRAPHIC VARIABLES AMONG THE RESPONDENT (n=30)

Sl.no	Items	Frequency	%
1.	**Age**		
	16-17 Years	11 19	36.6
	18-19 Years	30	63.3
	Total		100
2.	**Type of residence**		
	Urban	17	56.6 26.6
	Rural	8 5	16.6
	Semi-Urban	30	100
	Total		
3.	**Type of family**		
	Joint	7	23.3 53.3
	Nuclear	16	23.3
	Others	7	100
	Total	30	
4.	**Religion**		
	Hindu	15	50
	Christian	7	23.3
	Muslim	3 5	10
	Others	30	16.6
	Total		100
5.	**Family income per month**		
	5000-10000	5	16.6 36.6 33.3
	10001-15000	11	13.3
	15001-20000	10	100
	>20001	4	
	Total	30	
6.	**Dietary pattern**		
	Vegetarian	10	33.3
	Non-vegetarian	20	66.6
	Total	30	100

7.	**Age of puberty** 10-12 Years 13-15 Years 16-18 Years Total	 7 14 9 30	 23.3 46.6 30 100
8	**Is there any family history of PMS?** **Yes** **No** Total	 21 9 30	 70 30 100

B. Knowledge on Premenstrual Syndrome

Majority subjects 14(46.6%) have inadequate knowledge, 10(33.3%) have moderate knowledge and 6(20%) have adequate knowledge regarding premenstrual syndrome.

TABLE II: FREQUENCY AND PERCENTAGE DISTRIBUTION OF RESPONDENT REGARDING PREMENSTRUAL SYNDROME (N=30)

Knowledge	Category	Frequency	Percentage
Inadequate	<50% score	14	46.6
Moderate	50-70% score	10	33.3
Adequate	>70% score	6	20
Total		30	100%

C. Analysis of the Knowledge Score and Its Association

The analysis of the knowledge score and its association between the selected demographic variables (Table III) reveals that, the obtain chi-square value of age, types of residence, types of family, religion, family income per month, dietary pattern, age of puberty and family history of premenstrual syndrome from the source (2.76, 3.34, 12.33, 3.95, 4.69, 1.06, 4.75, 5.70) are found to be less than the table values at the level of P <0.05 and hence there was no significant association between knowledge scores and demographic variables.

TABLE III: ASSOCIATION BETWEEN KNOWLEDGE AND SELECTED DEMOGRAHIC VARIABLES

Sn.	**Demographic variables**	**Categories**	**knowledge score**			**chi square value**	**table value**	**df**	***P*value**	**inference**
			<50	50-70	>70					
1.	Age	16-17 years	3	5	3	2.76	5.99	2	>0.05	ns
		18-19 years	11	5	3					
2.	Types of residence	Urban	10	5	2	3.34	9.46	4	>0.05	ns
		Rural	2	3	3					
		Semi-urban	2	2	1					
3.	Types of family	Joint	4	1	2	12.33	18.55	4	>0.05	ns
		Nuclear	10	3	3					

		Others	0	6	1					
4.	Religion	Hindu	7	5	3	3.95	12.59	6	>0.05	ns
		Christian	3	2	2					
		Muslim	2	0	1					
		Others	2	3	0					
5.	Family income per month	5000-10000	2	3	0	4.69	12.59	6	>0.05	ns
		10001-15000	2	3	2					
		15001-20000	5	2	3					
		>20001	1	2	1					
6.	Dietary pattern	Vegetarian	4	5	1	1.06	5.99	4	>0.05	ns
		Non-vegetarian	10	5	5					
7.	Age of puberty	10-12 years	4	3	0	4.75	9.49	2	>0.05	ns
		13-15 years	5	6	3					
		16-18 years	5	1	3					
8.	Is there any family history of premenstrual syndrome?	Yes	7	8	6	5.70	7.82	3	>0.05	ns
		No	7	2	0					

ns- Non significant

IV. DISCUSSION

The analysis of the data collected revealed that majority of the adolescent girls 19(36.6%) belong to age group of 18-19 years and only 11(36.6%) belong to age group of 16-17 years. Majority 17(56.6%) of adolescent girls were residing in urban area, 8 (26.6%) was residing in rural area and only 5(16.6%) were residing in semi-urban area. Majority 16(53.3%) were living in nuclear family while 7(23.3%) were living with joint family and 7(23.3%) were living with others.

Regarding religion 15(50%) were Hindu, 7(23.3%) were Christian, 5(16.6%) were following other religion and only

3(23.3%) were Muslim. Regarding family income per month, 5(16.6%) adolescent family income ranges from 500010000, 11(36.6%) from 10001-15000, 10(33.3%) from 15001-20000 and 4(13.3%) adolescent girls family income is more than 20001. Regarding dietary pattern, 10(33.3%) were vegetarian and 20(66.6%) were non-vegetarian. Majority 14(46.6%) adolescent girls attended their puberty at the age group of 13-15 years, 9(30%) at 16-18years and only 7(23.3%) at 10-12 years. Majority 21(70%) adolescent girls have family history of PMS and only 9(30%) do not have family history of PMS.

According to analysis, it was found that majority subjects 14(46.6%) have inadequate knowledge, 10(33.3%) have moderate knowledge and 6(20%) have adequate knowledge regarding premenstrual syndrome. In contrast

the study was conducted to assess the existence, knowledge and attitude regarding premenstrual syndrome among 448 female university students in Karachi the study findings reveal that the majority (96.4%) of female students were aware of PMS, while only 19% females unaware about premenstrual disorder.

The analysis of the obtain chi-square value of age, types of residence, types of family, religion, family income per month, dietary pattern, age of puberty and family history of premenstrual syndrome from the source (2.76, 3.34, 12.33, 3.95, 4.69, 1.06, 4.75, 5.70) are found to be less than the table values at the level of $P < 0.05$ and hence there was no significant association between knowledge scores and demographic variables.

V. CONCLUSION

Conclusions were drawn on the basis of the findings of the study which revealed that, 14(46.6%) respondents had inadequate knowledge, 10(33.3%) respondents had moderate knowledge and 6(20%) respondents had adequate knowledge regarding premenstrual syndrome.

The present study reveals that there is no association between selected demographic variables like age, type of residence, types of family, religion, family income per month, dietary pattern, and age of puberty and any family history of premenstrual syndrome.

Hence majority of the subjects had inadequate knowledge there was a need to improve their knowledge so the investigator developed an information booklet regarding premenstrual syndrome and distributed to the study subjects.

VI. RECOMMENDATIONS

1. The study can be replicated on a larger sample, thereby findings can be generalized for a larger population.
2. A similar study can be conducted to determine the effectiveness of information booklet.
3. A study can be conducted to find out the attitudes of students and parents regarding premenstrual syndrome.
4. A similar study can be conducted in college in a rural area.
5. Educational Programme regarding premenstrual syndrome can be conducted by the community health sector.

VII. IMPLICATIONS OF STUDY

The following implications have been drawn from the study, which are vital concern for nursing practice, nursing administration, nursing education and recommendations for using research:

Nursing practice: As the nurse plays a vital role increasing awareness about premenstrual syndrome among young girls of the community. The awareness should begin from the base level of the society such as school and college which involves adolescent girls more. This will signify nurses to impart knowledge to young people regarding premenstrual syndrome and prevent risk of premenstrual dysphoric disorder (PMDD).

Nursing education: As a nurse educator, nurses can insist more about symptoms and home remedies of premenstrual syndrome to the adolescent girls of the society.

Nursing administration: As an administrator she can organize mass campaign programme to the various schools and colleges to disseminate or propagate the information regarding premenstrual syndrome**.**

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