



A Descriptive Study To Assess The Knowledge Of Adolescent Girls Regarding Premenstrual Syndrome In Selected Schools, Punjab, India.

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Abstract

Background: Premenstrual syndrome (PMS) encompasses a range of physical, psychological, emotional, and mood changes that typically occur following ovulation in women. Globally, approximately 47.8% of girls in the reproductive age group experience PMS, with the highest occurrence observed in developed nations.¹

Aims and objectives: The aim of this study was to assess the level of knowledge regarding PMS among adolescent girls and also to determine the association of knowledge with selected demographic variables among adolescent girls at selected schools, Punjab, India.

Materials and Methods: A quantitative approach employing a descriptive research design was utilized in this study. A sample of 180 adolescent girls was selected based on specific inclusion and exclusion criteria, employing a nonprobability purposive sampling technique from selected schools in Punjab. Data was collected using a structured knowledge questionnaire. The obtained data was then tabulated and analyzed according to the study's objectives using descriptive and inferential statistics.

Results: Findings revealed that majority of the adolescent girls (71.11%) had poor and (17.78%) had average knowledge level regarding PMS. A smaller portion of 11.11% demonstrated good knowledge, while none of the participants achieved an excellent level of knowledge regarding PMS. Overall adolescent girls were having average mean knowledge score. There was significant association of level of knowledge of adolescent girls regarding PMS with age and family history of PMS as statistically analyzed by χ^2 value (25.76, $P < 0.05$) and (32.53, $P < 0.05$) respectively at 0.05 level of significance among adolescent girls.

Keywords: Premenstrual Syndrome, knowledge, adolescent girls, schools

INTRODUCTION

PMS, or premenstrual syndrome, encompasses a spectrum of physical, emotional, and psychological symptoms experienced by many women during certain phases of their menstrual cycle. These symptoms typically manifest around 5–10 days before menstruation begins, alleviating as menstrual flow commences or shortly thereafter. PMS is closely tied to the hormonal fluctuations of the menstrual cycle, particularly involving estrogen, progesterone, and serotonin. In its more severe manifestation, it is referred as premenstrual dysphoric disorder (PMDD).¹

Premenstrual syndrome (PMS) comprises a spectrum of symptoms categorized into affective, physical, and those associated with water retention. Symptoms related to water retention manifest as abdominal bloating, breast tenderness, swelling of the extremities, and weight gain. Affective symptoms encompass irritability, depression, mood swings, forgetfulness, restlessness, tearfulness, anxiety, tension, confusion, and anger. Physical symptoms include increased appetite, headaches, fatigue, tiredness, and insomnia.²

While premenstrual syndrome (PMS) itself is not considered life-threatening, it can significantly disrupt the quality of life for adolescent girls, impacting their mental health, social interactions, and ability to carry out daily activities.³

The purpose of this study was to see how many adolescent girls going to school are aware of the risk factors, signs and symptoms, and different treatment options. PMS also affects the academic performance and social life of the students. Hence, after reviewing many studies, the researcher felt the need for assessing the knowledge of adolescent girls.

REVIEW OF LITERATURE

Bhuvanewari, Rabindran, and Bharadwaj (2019) conducted a cross-sectional study on 300 science stream students at a women's college in Puducherry to assess the prevalence of premenstrual syndrome (PMS) and its impact on quality of life. Findings revealed a 62.7% prevalence of PMS, with back, joint, and muscle aches being common symptoms. PMS was associated with poorer quality of life in all domains, and nearly half of the students experienced affective symptoms in the premenstrual phase. Dietary factors like sweets consumption and a lack of physical activity were linked to the presence of PMS.⁴

Aditya Prasad Sarkar, Ranjana Mandal, and Supriti Ghorai (2016) conducted a descriptive, cross-sectional study in Purba Medinipur district, West Bengal, from July to August 2014. They assessed the prevalence of Premenstrual Syndrome (PMS) among 244 adolescent rural school girls using a multistage random sampling method. Findings indicated that 61.5% of girls reported PMS, with high percentages for affective symptoms, including depression (62.7%), anger (70.5%), irritability (84.8%), anxiety (76.0%), and confusion (66.8%). Other symptoms such as breast pain, social rejection, headache, abdominal distension, and limb swelling were also reported.⁵

Pujari, Akshata; Revankar, Smeeta Sachin (2023) conducted a descriptive study for assessing the Knowledge of adolescent school girls regarding premenstrual syndrome in selected schools of Navi Mumbai. 171 adolescent girls were selected using nonprobability convenient sampling techniques. Results revealed that adolescent girls had average (56.5%) and good (37.1%) knowledge regarding PMS. There was no association found between the level of knowledge with age, type of family, information on PMS, and family history of PMS, whereas the association was found with age of onset of PMS and monthly family income. ⁶

OBJECTIVES

1. To assess the knowledge of adolescent girls regarding premenstrual syndrome in selected schools, Punjab, India.
2. To determine the association of premenstrual syndrome with selected sociodemographic demographic variables.

METHODOLOGY

Research Approach and design: Quantitative research approach and descriptive research design was used

Research setting: This study was conducted in selected Government higher secondary schools of Punjab.

Target population: The target population was adolescent school going girls in the age group of 13-18 years.

Sample and Sampling technique: The sample size for the present study was 180 adolescent girls selected by non-probability purposive sampling technique. Girls were selected on the basis of inclusion and exclusion criteria from selected schools of Punjab.

Criteria for sample selection

Inclusion criteria

Adolescent girls who

- were available at the time of data collection.
- were willing to participate in the study.
- adolescent girls those who had attained menarche.

Exclusion criteria

Adolescent girls who

- were not willing to participate in the study.
- were absent during the period of data collection.
- were chronically ill.
- had not attended menarche

Description of tool

The tool used consists of 2 sections as per following:

Section A: It included items related to Socio Demographic characteristics of sample like age, religion, socio economic status, place of residence, age of onset of first period family history of PMS, information about PMS etc.

Section B: Self-structured knowledge Questionnaire was used for assessing knowledge of adolescent regarding premenstrual syndrome. It consists of 25 multiple choice questions. Each correct response was awarded one mark, while incorrect or unanswered response was scored 0. Scores were interpreted as follows:

- 0-25%: Poor
- 25-50%: Average
- 50-75%: Good
- 75-100%: Excellent

Validity of the tool: The tool underwent validation by diverse experts, including doctors and nursing professionals in the relevant fields. They assessed its relevance, accuracy, and appropriateness. Their feedback guided modifications and rearrangements for enhancement.

Reliability of the tool: The reliability of the instrument was estimated by test-retest method by using Karl Pearson coefficient correlation. The reliability value of the knowledge tool was 0.82 and it was found statistically reliable for the study.

Data collection procedure: After obtaining permission from concerned school authorities, data collection was done in July 2021. Informed written consent was obtained from study subjects regarding their willingness to participate in the study. After explaining the basic details of the study, questionnaires were distributed to the sample and data collection was done.

Ethical consideration: Written permission was obtained from concerned school authorities. Then an approval to conduct the study was obtained from institutional ethical committee. Informed written consent was obtained from study sample.

DATA ANALYSIS AND INTERPRETATION**Table 1.** Frequency and Percentage distribution of adolescent girls according to Socio-Demographic Variables
N=180

S.No.	Socio-Demographic Variables	Frequency (f)	Percentage (%)
1.	Age (in Years)		
	a) 13-14	52	28.89
	b) 15-16	65	36.11
	c) 17-18	63	35
2.	Religion		
	a) Hindu	56	31.11
	b) Sikh	102	56.67
	c) Christian	16	8.89
	d) Any other	06	3.33
3.	Type of family		
	a) Nuclear	76	42.22
	b) Joint	94	52.22
	c) Extended	10	5.55
4.	Family monthly Income (in Rs/month)		
	a) Less than 15,000	45	25
	b) 15,000-30,000	85	47.22
	c) More than 30,000	50	27.78
5.	Place of Residence		
	a) Urban	42	23.33
	b) Sub-urban	26	14.44
	c) Rural	112	62.22
6.	Age of onset of first period (in Years)		
	a) 10-11	18	10
	b) 12-13	62	34.44
	c) 14-15	58	32.22
	d) 16-17	42	23.33
7.	Family history of PMS		
	a) Yes	52	28.89
	b) No	128	71.11
8.	Any information about PMS		
	a) No	120	66.67

	b) Yes	60	33.33
	if yes, then source of information		
	1) Health professionals	06	3.33
	2) Family members/ friends	20	11.11
	3) Internet/social media	32	17.78
	4) Newspaper/magazine	2	1.11

Table 1 provides insights into the socio-demographic characteristics of 180 adolescent girls surveyed. It includes information on age groups, religion, family type, monthly family income, place of residence, age of first period onset, family history of PMS, and sources of information about PMS.

The majority of participants fell into the age groups of 15-16 (36.11%) and 17-18 (35%). Sikh (56.67%) was the predominant religion, followed by Hindu (31.11%). Joint families were the most common type (52.22%), and the majority of families earned between 15,000 to 30,000 Rs per month (47.22%). Rural residences accounted for the largest portion (62.22%).

In terms of menstrual history, most girls experienced their first period at ages 12-13 (34.44%) and 14-15 (32.22%). A significant proportion had no family history of PMS (71.11%) and lacked information about PMS (66.67%). However, among those with information, the internet/social media (17.78%) served as the primary source, followed by family members/friends (11.11%) and health professionals (3.33%).

Table 2 Frequency and percentage distribution of adolescent girls according to level of knowledge regarding premenstrual syndrome N=180

Level of knowledge	Score	Frequency	Percentage
Poor	0-25%	128	71.11
Average	25-50%	32	17.78
Good	50-75%	20	11.11
Excellent	75-100%	00	00

Maximum Score=25

Minimum Score=0

Table 2 depicts the frequency and percentage distribution of adolescent girls based on their level of knowledge regarding premenstrual syndrome (PMS). Out of the total sample size of 180 girls, the majority (71.11%) scored Poor, 17.78% were Average, and 11.11% were Good. None scored excellent.

Hence, majority of the adolescent girls were having poor knowledge regarding premenstrual syndrome.

Table 3 Mean knowledge score of adolescent girls regarding premenstrual syndrome.

N=180

Sample	Total Knowledge Score	Mean knowledge Score	Standard Deviation
Adolescent Girls	25	8.84	5.43

Maximum Score:25

Minimum Score:0

Table 3 presents the mean knowledge score of 180 adolescent girls regarding premenstrual syndrome (PMS). The average knowledge score among the sample group is 8.84, with a standard deviation of 5.43.

Hence, overall adolescent girls were having average mean knowledge score regarding premenstrual syndrome.

Association of level of knowledge of adolescent girls regarding PMS with socio demographic variables

There was significant association of level of knowledge of adolescent girls regarding PMS with age and family history of PMS as statistically analyzed by a χ^2 value (25.76, $P < 0.05$) and (32.53, $P < 0.05$) respectively at 0.05 level of significance among adolescent girls.

RECOMMENDATIONS

The present study recommended that larger samples can be included in the study for the purpose of generalization. Correlation with knowledge, attitude, and practices of adolescent girls regarding PMS can be done. Interventional studies can be done.

NURSING IMPLICATIONS

This research can assist teenage girls in comprehending premenstrual syndrome. The study's results have significance for nursing administration, nursing services, nursing research, and nursing education.

Nursing Administration :The nurse administrator should actively engage in assessing existing knowledge about premenstrual syndrome among adolescent girls and translate it into effective nursing care strategies. By participating in policy development, they should ensure efficient resource allocation and tailor care services to meet the specific needs of this demographic. This proactive involvement should foster a supportive environment for both patients and nursing staff, ultimately enhancing the quality of care provided.

Nursing Services: As a counselor and educator, nurses should offer comprehensive counseling on the current understanding of premenstrual syndrome for adolescent girls. They should maintain a polite and approachable demeanour when communicating with others, fostering an environment conducive to open dialogue and learning.

Nursing Education : Adolescent girls should receive thorough education about premenstrual syndrome to empower them in managing their health effectively. Nurse educators should prioritize reinforcing evidence-

based nursing practices among undergraduate and postgraduate nursing students, ensuring the delivery of high-quality healthcare services.

Nursing Research : Nurses and nursing students should leverage the study's discoveries to propel further investigation. Replicating the study could unveil additional perspectives. It's imperative that future research evaluates the impact of educational interventions on adolescent girls' understanding of premenstrual syndrome. Researchers should consistently disseminate their findings to contribute to the collective pool of knowledge.

DISCUSSION

In the current study, the results revealed that majority of the adolescent girls (71.11%) had poor and while (17.78%) had average knowledge level regarding PMS. A smaller portion of 11.11% demonstrated good knowledge, while none of the participants achieved an excellent level of knowledge regarding PMS.

Similar findings were observed in a non experimental study conducted by Apollo James, Neethu Ros Thomas, Greeshma Varghese, and Swetha Lakshmi in Tamil Nadu in 2016 for assessing the knowledge about the different approaches of the management of PMS among 383 adolescent girls selected through nonprobability purposive sampling technique. The result findings revealed that the maximum number of adolescent girls (72%) had poor knowledge regarding the management of PMS, whereas 12% of adolescent girls had average knowledge regarding PMS.⁷

CONCLUSION: The study concludes that the majority of adolescent girls lack sufficient knowledge about premenstrual syndrome (PMS). Enhancing their understanding of PMS symptoms can empower them to manage and prevent these symptoms effectively. Educational campaigns must be implemented to raise awareness among adolescent girls for improving their ability to navigate this aspect of their health more confidently.

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