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PREVALENCE OF PREMENSTRUAL SYNDROME AMONG PARAMEDICAL STUDENTS: A CROSS-SECTIONAL DESCRIPTIVE STUDY

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ABSTRACT

Background: Premenstrual Syndrome (PMS) is a common condition characterized by physical, emotional, and behavioural symptoms occurring during the luteal phase of the menstrual cycle. These symptoms can adversely affect academic performance, interpersonal relationships and psychological well-being among young women. **Objective:** The study aimed to assess the prevalence of premenstrual syndrome among paramedical students and to determine the severity of symptoms along with their association with selected demographic variables. **Methods:** A quantitative cross-sectional descriptive study was conducted among 50 paramedical students at Ultra Trust, Madurai. Participants were assessed using a structured questionnaire based on the Premenstrual Symptom Screening Tool. Data were analyzed using descriptive statistics and chi-square tests to determine associations between PMS prevalence and demographic variables. **Results:** Among participants, 14% reported mild symptoms, 66% moderate symptoms, and 20% severe PMS symptoms. Significant associations were observed between PMS prevalence and type of family, duration of menstruation and source of information ($p < 0.05$). No significant association was identified with age, place of living, place of stay, or mother's education. **Conclusion:** PMS is highly prevalent among paramedical students, with the majority experiencing moderate symptoms. Early identification, education and supportive interventions are essential to improve coping and academic functioning.

KEYWORDS

Premenstrual syndrome, Menstrual health, Nursing students, Prevalence study and Reproductive health.

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INTRODUCTION

Premenstrual Syndrome (PMS) refers to a constellation of recurrent physical, emotional, and behavioural symptoms that occur during the late luteal phase of the menstrual cycle and resolve shortly after menstruation begins. Common symptoms include irritability, mood swings, anxiety, depression, fatigue, abdominal bloating, breast tenderness and sleep disturbances. These symptoms

may significantly impair social functioning and academic productivity.

Globally, nearly 75% of women of reproductive age experience at least one premenstrual symptom, while approximately 3–8% suffer from severe symptoms affecting daily functioning. Hormonal fluctuations, neurotransmitter changes, nutritional factors, and psychosocial stressors have been implicated in the aetiology of PMS.

Healthcare students are particularly vulnerable due to academic stress, irregular lifestyle patterns, and increased psychological demands. Assessing PMS prevalence among paramedical students is therefore important to promote reproductive health awareness and early intervention strategies.

Objectives

To assess the prevalence of premenstrual syndrome among paramedical students.

To determine the association between PMS prevalence and selected demographic variables.

Hypothesis

H_0

There is no significant association between the severity of premenstrual syndrome and selected demographic variables among paramedical students.

H_1

There is a significant association between the severity of premenstrual syndrome and selected demographic variables among paramedical students.

MATERIAL AND METHODS

Study Design and Approach

A quantitative cross-sectional descriptive survey design was adopted.

Study Setting

Ultra College of Pharmacy, Ultra Trust, Madurai, Tamil Nadu, India.

Study Population and Sample

The study included female paramedical students meeting the inclusion criteria. A total of 50 participants were recruited using convenience sampling.

Inclusion Criteria

Female paramedical students

Willing to participate

Exclusion Criteria

Male students

Students unwilling to participate

Data Collection Tool

The instrument consisted of two sections:

Part A: Demographic variables (age, residence, family type, menstrual characteristics, source of information).

Part B: PMS symptom checklist scored as Mild (1), Moderate (2), and Severe (3).

Validity and Reliability

Content validity was established through expert review in nursing, medicine, and statistics. Reliability assessed using the test–retest method demonstrated strong consistency ($r = 0.9$).

Data Collection Procedure

Participants were informed about the study purpose and consent was obtained. Questionnaires were completed within 20–30 minutes.

Statistical Analysis

Data were analyzed using descriptive statistics (frequency and percentage) and inferential statistics (chi-square test). Statistical significance was set at $p < 0.05$.

Ethical Considerations

Institutional permission was obtained prior to data collection. Participation was voluntary, and confidentiality and anonymity were maintained throughout the study.

RESULTS AND DISCUSSION

Demographic Characteristics

Most participants (64%) were aged 17–19 years. The majority belonged to nuclear families (62%) and stayed at home (70%). Menstrual duration of 3–6 days was reported by 66% of participants. Mother or sister was the primary source of information regarding PMS (64%).

Association with Demographic Variable

Statistically significant associations were found between PMS prevalence and:

Type of family

Duration of menstruation

Source of information

No significant association was observed with age, residence, place of stay, or mother's education.

Discussion

The present study demonstrates a high prevalence of PMS among paramedical students, with moderate symptoms being the most common presentation. Similar findings have been reported in studies among adolescent and college populations, indicating that PMS remains a widespread yet under-recognized health concern.

Academic stress, lifestyle changes and limited awareness may contribute to symptom severity. The significant association with menstrual duration and information sources highlights the importance of reproductive health education. Educational interventions and counselling programs may help students develop effective coping strategies and reduce symptom burden.

Table No.1: Demographic Characteristics

S.No	Variable	Category	Frequency (n)	Percentage (%)
1	Age Group	17–19 years	32	64
		19–20 years	10	20
		>20 years	8	16
2	Type of Family	Nuclear	31	62
		Joint	19	38
3	Place of Stay	Home	35	70
		Hostel	15	30
4	Duration of Menstruation	<3 days	12	24
		3–6 days	33	66
		>6 days	5	10
5	Source of Information	Mother/Sister	32	64
		Friends	10	20
		Books	5	10
		Media	3	6

Table No.2: Prevalence of Premenstrual Syndrome

S.No	Severity of PMS	Frequency (n)	Percentage (%)
1	Mild	7	14
2	Moderate	33	66
3	Severe	10	20

Mild PMS: 7 participants (14%)
Moderate PMS: 33 participants (66%)
Severe PMS: 10 participants (20%)

RECOMMENDATIONS

A study can be conducted on a larger sample to improve the generalizability of the findings.
A study can be conducted in different settings to compare the prevalence of premenstrual syndrome among various groups.
A study can be conducted using standardized tools for more accurate assessment of premenstrual symptoms.
A study can be conducted to evaluate the effectiveness of intervention programs in reducing PMS symptoms.
A study can be conducted to explore the psychological and academic impact of PMS among students.
A study can be conducted to assess the effectiveness of health education and counseling programs on PMS management.

CONCLUSION

Premenstrual syndrome is highly prevalent among paramedical students and has potential implications for academic performance and psychological well-being. Regular screening and structured awareness programs should be integrated into student health services.

IMPLICATIONS FOR NURSING PRACTICE

Nursing education

Enhances awareness regarding menstrual health and PMS management.

Nursing practice

Encourages early identification and counselling.

Nursing Administration

Supports implementation of campus-based awareness programs.

Nursing Research

Provides baseline data for future large-scale investigations.

AUTHOR CONTRIBUTIONS

The authors contributed to study conception, data collection, analysis, manuscript preparation, and final approval of the manuscript.

FUNDING

No funding was received for this research.

ETHICAL APPROVAL

Institutional permission was obtained, and informed consent was secured from all participants prior to data collection.

DATA AVAILABILITY STATEMENT

Data supporting the findings of this study are available from the corresponding author upon reasonable request.

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CONFLICT OF INTEREST

The authors declare no conflict of interest.

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