

EFFECT OF PRE-MENSTRUAL SYNDROME (PMS) ON THE DAILY ROUTINE OF UNDERGRADUATE NURSING STUDENTS AT A PRIVATE NURSING COLLEGE, LAHORE

PATRAS S, FIRDOS U, MUNIR J, WILLIAM S, IQBAL H, QADEER A, ZAFAR M

Department of Nursing Saida Waheed FMH College of Nursing Lahore, Pakistan

**Correspondence author email address: uzma.qaiswarraich@gmail.com*

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Abstract: *Pre-menstrual Syndrome is a condition that affects women before the onset of their period, causing physical, psychological, and behavioral symptoms. Although it affects women worldwide, it primarily affects students due to their busy schedules and routines. This study aims to identify the effects of pre-menstrual Syndrome on nursing students. The objective was to examine how pre-menstrual Syndrome affects the daily routines of undergraduate nursing students. This study used a descriptive cross-sectional quantitative design, with 106 female participants selected through purposive sampling. It was conducted at a private nursing college. The results showed that the most common physiological and behavioral symptoms were lethargy, food cravings, and joint and back pain, which mainly interfered with college and daily routines. In this study, breast sensitivity affected 49% of participants, while back and joint pain affected 84.9%, and anger issues affected 55.2%. Among the participants, 26.4% had mild effects on their work or school, 34% had a moderate impact, and 12.3% had severe consequences. Participants who reported back and joint pain were 84.9%, while those who reported headaches were 75.4%, and those who experienced food cravings were 77.4%. The participants who felt anxiety were about 84.9%. The study concluded that most female nursing students suffer from pre-menstrual Syndrome every month, and it affects their college life due to the different physical and psychological symptoms it causes.*

Keywords: Pre-menstrual Syndrome, undergraduate nursing students

Introduction

Pre-menstrual Syndrome is a cyclical disorder of the menstrual cycle that occurs during the late luteal phase of menstruation. It affects the quality of life. The symptoms are a combination of physical and psychological behavior that some girls experience before the start of their periods. The intensity of pre-menstrual Syndrome depends upon hormonal and psychological factors. Pre-menstrual Syndrome has a significant impact on academic performance. The rate of pre-menstrual Syndrome is high among University students (Hashim et al., 2019).

Pre-menstrual Syndrome occurs during reproductive age. It affects the daily lives of women and alters their lives. Physical symptoms are more common and severe than mental symptoms. These symptoms occur in cyclic form, but their severity and extent differ from one woman to another. It also indirectly affects the quality of sleep. Pre-menstrual Syndrome severity is measured through a reliable scale such as DSM-III and DSM-IV-R (Sut & Mestogullari, 2015).

The management of pre-menstrual Syndrome is usually irritating for both the patient and the physicians. Many women try the path of alternative medicine, such as taking minerals and vitamins instead of conventional therapies, because it does not help them, or sometimes, they want to keep their distance or stay away from the side effects of hormonal or psychotropic drugs (Nageeb, Mohamed & Amasha, 2014).

Women usually experience cognitive, affective, and psychomotor symptoms that generally occur at the same phase of the menstrual cycle; these symptoms frequently happen at the menstrual cycle's ovulation phase. These

symptoms are completely relieved once the menstrual flow begins (Oo, Sein, Mar & Aung, 2015).

The pathophysiology behind pre-menstrual Syndrome is still not fully understood, but some evidence shows that the link between the sex steroids and neurotransmitters is the cause of the manifestations of pre-menstrual Syndrome. The alterations in neurotransmitters such as gamma-aminobutyric acid, serotonin, and endorphins are thought to be involved (Amina et al., 2022).

Many women have pre-menstrual Syndrome, and it is slightly distressing, and still now. Some clinicians think this condition is not a severe health disorder, but in reality, it is a significant health condition. According to research, only 28.8% of women get help from medical (Zeke et al., 2023).

In developing countries like India, menstruation is still considered a mark of disgrace that is the biggest hurdle that women have to go through because it stops them from seeking medical help for their mental and physical discomfort (Upadhyay, Mahishale & Kari., 2023).

Many studies show that about 23-30% of women at their reproductive age face pre-menstrual Syndrome that affects their daily life activities. Pre-menstrual Syndrome affects the students' performance (Shrestha et al., 2019).

The primary menstrual symptom is identified as menstrual pain, also known as dysmenorrhea. It affects around 60-90% of students. Many studies have shown that how this pain affects the performance of students. Absenteeism is a significant problem that negatively impacts students' performance (Martinez et al., 2019). Menstrual is also known as menses or menstrual periods. It is a physiological condition that a woman at reproductive age experiences.

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Various emotional and physical symptoms characterize pre-menstrual Syndrome. The symptoms appeared before menstruation during the luteal phase and disappeared within four days after the start of the period (Yae-Ji & Young Joo, 2017).

According to research, 80-90% of women with menstruation experience pre-menstrual Syndrome but to a different degree. Psychological factors such as BMI, age, family history, sleep cycle, dietary modification, and psychological factors, which include depression, menstrual knowledge, and attitude towards menstruation, greatly influence pre-menstrual Syndrome; therefore, it is very necessary to determine the correlation between stress and pre-menstrual Syndrome among students (Kim et al., 2019). There is a link between stress and oligomenorrhea, pre-menstrual Syndrome, Dysmenorrhea, Menorrhagia, Abnormal vaginal bleeding, Irregular menstruation and Polymenorrhagia. Several factors affect the menstrual cycle, including physical activity, ethnicity, age, family history, smoking, and dietary habits (Rafique & H. Alsheikh, 2016).

Some research studies reported that pre-menstrual syndrome symptoms are more prevalent and severe among highly educated women than those who are less educated related to stress, and it interferes with the work and lifestyles of women as well. As nursing students have anxiety related to their academic and clinical requirements, they must know adolescents' health-related quality of life, especially nursing students (Malhotra et al., 2020).

Thus, the study aims to clarify the effect of Pre-menstrual Syndrome on the daily life activities of nursing students as they face academic and clinical burdens.

Methodology

The study aimed to determine the effects of pre-menstrual Syndrome on BSc nursing students at a private nursing college. A descriptive cross-sectional study design was used, and the data was collected using a questionnaire. The questionnaire comprised four parts: demographic data, psychological data, physiological data, and behavioral data. The research population comprised 106 undergraduate nursing students selected through non-probability purposive sampling techniques. The inclusion criteria for the study included having knowledge related to the research and a willingness to participate. The data was analyzed using SPSS (Statistical Package for Social Sciences) IBM version 23, and the results were computed using frequency and percentage of data.

Results

The total population was 106, and all participants voluntarily participated in the study. In our research study, the percentage of female participants was 100%. The age limit of participants was between 18-21 and 22-25 years. About 63.2% of participants' age falls in the 1st category, and 35.8% fall in the 2nd category. The married participant's percentage was 0.9, and the unmarried participant was 99.1%—female students of B.Sc. Nursing participates in this research. The portion of BSc Nursing 1st prof was 24.5%, the percentage of BSc Nursing 2nd prof was 23.6%, the rate of BSc Nursing 3rd prof was 24.5%, and the portion of BSc Nursing 4th prof was 27.4%. The age at menarche was between 9-12 and 13-16. About 19.8% of girls' menarche was started between 9-12 years of age, and 80.2% of girl's menarche was created between 13-16 years. (Table 1)

Table 1: Demographic Characteristics of undergraduate nursing students affected by pre-menstrual Syndrome at a private nursing college in Lahore.

Age	Frequency	Percentage
18-21	67	63.2
22-25	38	35.8
Gender		
Female	106	100.0
Level of study		
BSc Nursing 1 st prof	26	24.5
BSc Nursing 2 nd prof	25	23.6
BSc Nursing 3 rd prof	26	24.5
BSc Nursing 4 th prof	29	27.4
Marital status		
Single	105	99.1
Married	1	0.9
Age at menarche		
9-12	21	19.8
13-16	85	80.2

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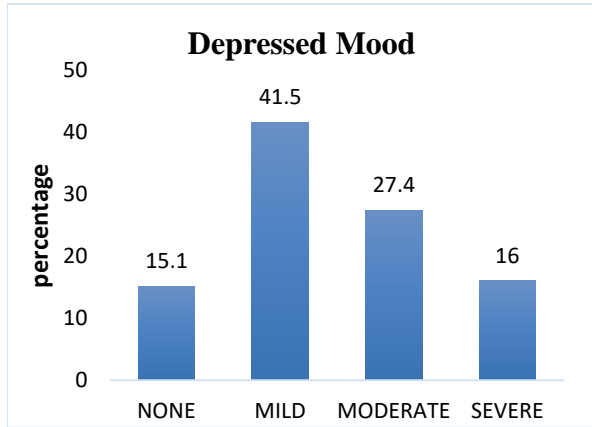


Figure 1: Psychological symptoms (participants with Depressed Mood).

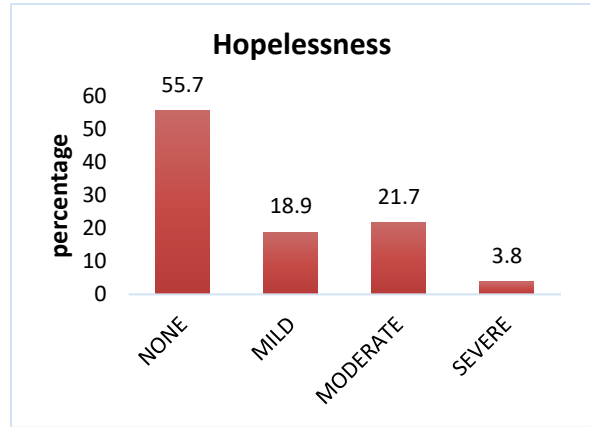


Figure 2: Psychological symptoms (participants with hopelessness).

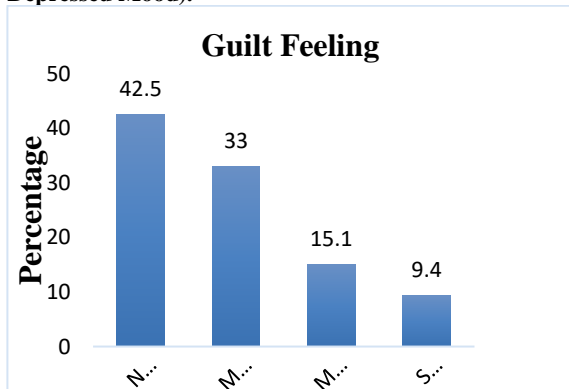


Figure 3: Psychological symptoms (participants with Guilt feeling).

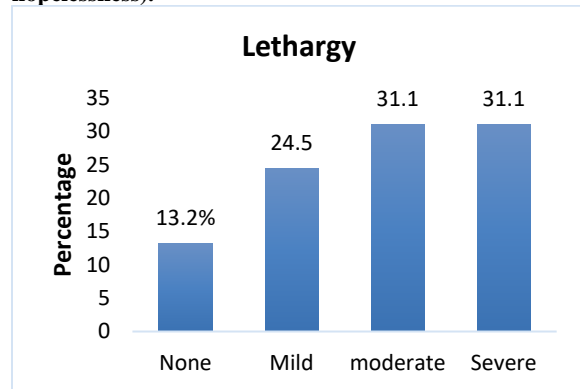


Figure 4: Physical symptoms (participants with lethargy).

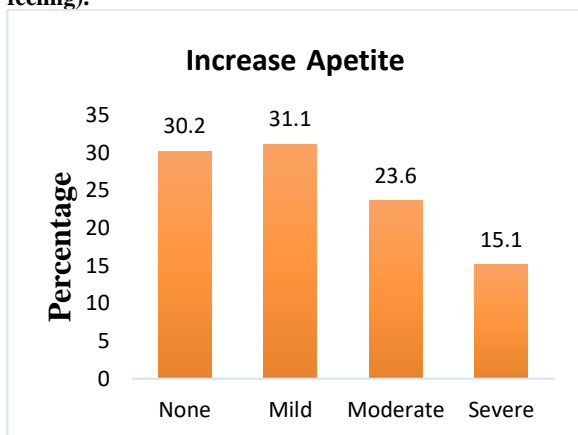


Figure 5: Physical symptoms (participants with increased appetite).

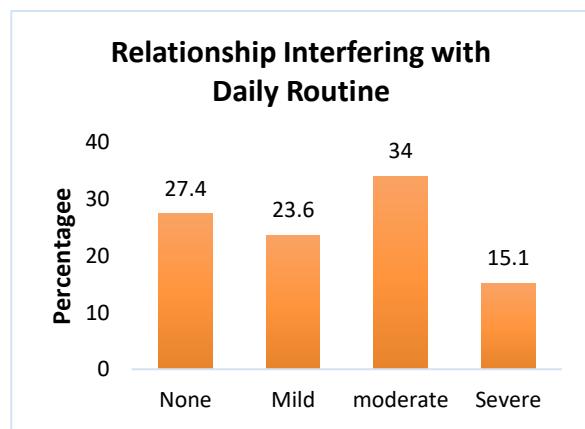


Figure 6: Behavioral symptoms (Relationship Interfering with Daily Routine).

Participants who participated in the study with depressed mood showed no symptoms, 15.1%, 41.5% with mild symptoms, 27.4% with moderate symptoms, and 16% with severe symptoms.

Participants who participated in the study felt hopelessness. 55.7% have no symptoms, 18.9% have mild, 21.7% have moderate, and 3.8% have severe symptoms.

42.5% of participants have no symptoms, 33% have mild, 15.1% have moderate, and 9.4% have severe symptoms. During PMS, Participants who don't feel lethargic are about 13.2%, who think mild symptoms are about 24.5%, who feel

moderate symptoms are 31.1%, and who feel severe symptoms are 31.1%.

During PMS, those who don't feel an increase in their appetite are about 30.2%, who think there is a mild increase in their need are about 31.1%, who feel a moderate increase in their appetite are 23.6%, and those who think severely increase in their desire are 15.1%

Most participants said that they don't feel any issue in their daily routine 27.4%, 23.6% of participants have mild effects on their daily routine, 34% of participants have moderate effects on their daily routine, and 15.1 participants have severe effects on their daily routine. (Figure 1-5)

Table 2: Effect of pre-menstrual syndrome (PMS) on the daily routine of the undergraduate nursing students at a private nursing college in Lahore.

Symptoms	None %	Mild %	Moderate %	Severe %
Psychological symptoms:				
Depressed mood	15.1	41.5	27.4	16
Hopelessness	55.5	18.9	21.7	3.8
Guilt feeling	42.5	33	15.1	9.4
Anxiety/worry	15.1	33	33	18.9
Affective lability	30.2	28.3	31.1	10.4
Increased sensitivity toward others	17.9	25.5	32.1	24.5
Anger feelings	17.9	25.5	32.1	24.5
Easily irritated/agitated	12.3	24.5	31.1	32.1
Lack of interest	20.8	34.9	27.4	17
Difficulty concentrating	22.6	29.2	23.6	24.5
Loss of control	39.6	24.5	17.9	17.9
Feeling overwhelmed	31.1	34	22.6	12.3
Physical Symptoms:				
Lethargy/fatigue/decreased energy	13.2	24.5	31.1	31.1
Increased appetite	30.2	31.1	23.6	15.1
Craving certain foods	22.6	33	18.9	25.5
Hypersomnia	28.3	22.6	30.2	18.9
Insomnia	56.6	25.5	10.4	7.5
Breast tenderness	50.9	31.1	11.3	6.6
Breast engorgement	63.2	22.6	11.3	2.8
Headache	21.7	29.2	24.5	24.5
Muscle, joint, abdominal, and back pain	14.2	20.8	20.8	44.3
Acne	38.7	33	16	12.3
Behavioral symptoms				
Symptoms Interfering with Relationships	42.5	28.3	20.8	8.5
Symptoms interfering with work or school	27.4	26.4	34	12.3
Symptoms interfering with Daily routine	27.4	23.6	34	15.1

The table 2 reveals a range of emotional and mental symptoms in the Psychological Symptoms category. For instance, 15.1% of students reported having no depressed mood, while 41.5% experienced mild symptoms, 27.4% reported moderate symptoms, and 16% suffered from severe symptoms. Similarly, hopelessness, guilt feelings, anxiety/worry, affective lability, and several other psychological symptoms are presented with their corresponding percentages across the four levels of severity. The Physical Symptoms section provides insights into the physical effects of PMS on students. It includes symptoms such as lethargy, increased appetite, insomnia, breast tenderness, headaches, and more. Like the psychological symptoms, the data here is displayed in the same format, showing the proportion of students within each severity level for each sign.

The final section, Behavioral Symptoms, explores how PMS affects students' behavior, including its impact on relationships, work or school performance, and daily routines. The table offers percentages for each severity level, showing how much PMS influences these behavioral aspects. (Table 2)

Discussion

As per the findings of our study, it has been observed that almost all female students experience pre-menstrual Syndrome (PMS) at some point in their lives. However, the severity of the symptoms varies from one student to another. The psychological symptoms that are commonly reported include anxiety, affective lability, anger feeling, and difficulty concentrating. Similarly, the most common

physiological symptoms include lethargy, food cravings, and joint and back pain. In addition, the most common behavioral symptoms that interfere with college and daily routine include irritability, mood swings, and decreased motivation.

A similar study was conducted at the University of Sharjah, where it was found that around 95% of the women experience PMS syndrome. In this study, the least common symptoms were behavioral, while muscle, joint, and back pain and feelings of anger were the most common ones. In our research, it was found that breast sensitivity was observed in about 49% of the participants, while back and joint pain was reported by 84.9% of them. Furthermore, anger issues were found to be present in approximately 55.2% of the participants.

On the other hand, another study reported a higher proportion of participants with moderate to mild symptoms, with 35% reporting moderate symptoms, 27% reporting mild symptoms, and 21% saying severe symptoms (Malhotra et al., 2020).

In our study, it was observed that 26.4% of the participants reported mild effects of PMS on their work or school, while 34% reported moderate results, and 12.3% reported severe effects.

The study had some limitations, which must be considered while interpreting the results. Firstly, the study design had some constraints that may have affected the findings. Secondly, the study's findings cannot be generalized as the data was collected only from one setting. Lastly, the limited time we had during this study was another limitation that may have impacted the quality of the results.

Conclusion

We concluded from the study that most of the women experienced pre-menstrual Syndrome during their lifetime, but their severity differs from student to student. The most common symptoms that were found in the study were mood swings, depression, and difficulty concentrating. At last, we can say that pre-menstrual Syndrome affects the daily routine of undergraduate nursing students, their interpersonal relationship, their work environment, and their behavior.

Declarations

Data Availability statement

All data generated or analyzed during the study are included in the manuscript.

Ethics approval and consent to participate.

Approved by the department Concerned.

Consent for publication

Approved

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Conflict of interest

The authors declared an absence of conflict of interest.

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