RJNMSR
Review Journal of Neurological & Medical Sciences Review

Volume 4, Issue 1, 2026

KNOWLEDGE, ATTITUDES, AND PRACTICES RELATED TO PREMENSTRUAL DYSPHORIC DISORDER AMONG FEMALES: EVIDENCE FROM LAHORE, PAKISTAN

Major Najma Yasmeen[*1], Major Ishrat[2], Saba Khan[3], Syed Jamal Mehdi[4]

[1]*GDNO Oncology, CMH, Bahawalpur, Pakistan*
[2]*GDNO, ICU, CMH, Bahawalpur, Pakistan*
[3]*Assistant Professor, Department of Nursing and Paramedics, Ibadat International University, Islamabad, Pakistan*
[4]*Nurse Internee, Pakistan Institute of Medical Sciences, Islamabad, Pakistan*

[*1]najmaimran102@gmail.com

Corresponding Author: *
Major Najma Yasmeen
DOI: https://doi.org/10.5281/zenodo.18309555

Received	Accepted	Published
21 November 2025	07 January 2026	20 January 2026

ABSTRACT

Objectives: *To assess the prevalence of Premenstrual Dysphoric Disorder (PMDD) and to evaluate knowledge, attitudes, and practices related to PMDD among females in Lahore, Pakistan.*

Methods: *A cross-sectional descriptive study was conducted among 220 females attending gynecological outpatient wards at Jinnah Hospital and Lady Wallingdon Hospital, Lahore. Data were collected using a structured self-administered questionnaire. PMDD was screened using the Premenstrual Symptoms Screening Tool (PSST). Knowledge, attitudes, and practices related to PMDD were assessed, and multivariate logistic regression was used to identify predictors of adequate knowledge.*

Results: *The prevalence of premenstrual dysphoric disorder among the studied females was 10%, and 52% demonstrated adequate knowledge regarding PMDD. Multivariate logistic regression showed that females with university-level education were significantly more likely to have adequate PMDD knowledge (AOR = 14.62; 95% CI: 5.84–36.58; $p < 0.001$), while attitudes were largely positive but professional help-seeking practices remained limited.*

Conclusion: *Premenstrual dysphoric disorder is relatively common among females in Lahore, and although knowledge and attitudes are generally positive, limited professional help-seeking underscores the need for integrated PMDD education and mental health services within gynecological care.*

Keywords: *Premenstrual dysphoric disorder, Knowledge, Attitudes, Practice*

INTRODUCTION

Premenstrual Dysphoric Disorder (PMDD) is a severe form of premenstrual syndrome characterized by marked affective, behavioral, and somatic symptoms that significantly impair daily functioning and quality of life among women of reproductive age. Globally, PMDD affects approximately 3–8% of menstruating women, with symptoms including irritability, depression, anxiety, and interpersonal difficulties that recur during the luteal phase of the menstrual cycle (Epperson et al., 2012; American Psychiatric Association [APA], 2013). Despite its clinical recognition, PMDD remains underdiagnosed and poorly managed, particularly in low- and middle-income countries where menstrual health is often stigmatized and mental health services are limited. In Pakistan, menstruation-related disorders are frequently perceived through socio-cultural and

religious lenses, which influence women's understanding, attitudes, and help-seeking behaviors. Limited awareness, normalization of menstrual suffering, and gendered expectations often prevent women from recognizing PMDD as a medical condition requiring professional care (Ali et al., 2020; Rizvi et al., 2021). Existing local studies largely focus on general premenstrual symptoms rather than PMDD specifically, and evidence suggests that women predominantly rely on informal coping strategies such as family support, self-medication, or silence, rather than consulting healthcare professionals (Khan et al., 2019)

Assessing knowledge, attitudes, and practices (KAP) related to PMDD is therefore critical for understanding gaps between symptom burden and health-seeking behavior among Pakistani females. Lahore, as a major metropolitan city with diverse socio-economic and educational profiles, provides an important setting to examine these dynamics. Generating local evidence on PMDD-related KAP can inform the integration of mental health screening and counseling within gynecological services, contributing to improved reproductive and mental health outcomes for women in Pakistan.

1. Materials and Methods

2.1 Study Design and Setting

A cross-sectional descriptive study was conducted among females attending the gynecological outpatient wards of Jinnah Hospital, Lahore, and Lady Wallingdon Hospital, Lahore. These tertiary-care public sector hospitals cater to a large and socioeconomically diverse female population from Lahore and surrounding districts. Data collection was carried out over a defined study period using standardized procedures.

2.2 Study Population and Eligibility Criteria

Inclusion criteria:

Females of reproductive age (18–49 years) who reported having regular menstrual cycles during the preceding six months and who provided informed consent to participate were included in the study.

Exclusion criteria:

Participants with a self-reported history of diagnosed psychiatric disorders, chronic medical illnesses, or current use of psychotropic medications, hormonal therapy, chemotherapy, or other drugs that could influence psychological symptoms or menstrual patterns were excluded. Females who were unable to complete the questionnaire independently were also excluded.

2.3 Sampling Technique and Sample Size

A systematic random sampling technique was used to recruit participants from the gynecological outpatient departments. Every third eligible woman attending the clinic was approached until the required sample size was achieved.

The final sample consisted of 220 participants, calculated using Epi Info (StatCalc) based on a 95% confidence level, 5% margin of error, and an estimated PMDD prevalence of 8–10% reported in regional literature. The sample size was inflated to account for non-response and incomplete questionnaires.

2.4 Data Collection Instruments

Data were collected using a structured, self-administered questionnaire developed after an extensive review of relevant literature. The questionnaire was prepared in English and translated into Urdu following WHO guidelines for translation and cultural adaptation. Face and content validity were assessed by experts in gynecology, psychiatry, and public health. A pilot study was conducted on 20 females (excluded from final analysis) to ensure clarity, cultural appropriateness, and feasibility.

The questionnaire comprised the following sections:

Premenstrual Symptoms Screening Tool (PSST):

The PSST was used to screen participants for PMDD. It assesses the severity and functional impact of premenstrual symptoms using a four-point Likert scale (not at all, mild, moderate, severe) and categorizes respondents as meeting or not meeting PMDD criteria.

Knowledge Domain (9 items):

Assessed participants' understanding of PMDD symptoms, differentiation between PMDD and PMS, causes, and management options.

Attitude Domain (7 items):
Evaluated perceptions regarding PMDD awareness, perceived causes, stigma, and attitudes toward seeking medical or psychiatric care, using a three-point Likert scale (agree, neutral, disagree).
Practice Domain (11 items):
Applied to participants who screened positive for PMDD to assess coping strategies, discussion with family or friends, health-seeking behavior, and use of pharmacological or non-pharmacological interventions.
The overall instrument demonstrated acceptable internal consistency (Cronbach's alpha = 0.74), with domain-specific alpha values ranging from 0.68 to 0.78.

2.5 Sociodemographic and Clinical Variables
Additional data collected included age, marital status, educational level, employment status, obstetric history, menstrual characteristics, medication use, and body mass index (BMI).

2.6 Statistical Analysis
Data were entered and analyzed using IBM SPSS version 28. Normality of continuous variables was assessed using the Kolmogorov–Smirnov test. Continuous variables were summarized as means and standard deviations or medians and ranges, as appropriate. Categorical variables were presented as frequencies and percentages.
Comparisons between groups were performed using the independent t-test or Mann–Whitney U test for continuous variables and the Chi-square test for categorical variables. Multivariate logistic regression analysis was conducted to identify independent predictors of adequate PMDD knowledge. Adjusted odds ratios (AORs) with 95% confidence intervals were reported. A two-tailed p value < 0.05 was considered statistically significant.

2. Results
Table 1. General Characteristics of the Studied Females

General Characteristics	**Percentage** (%)
Age (mean ± SD)	29 ± 6 years
Marital Status	
Married	90.7
Never married	9.3
Residence	
Rural	78.0
Urban	22.0
Employment Status	
Housewife	41.3
Working woman	58.7
Education Level	
Illiterate	3.3
Basic education	16.7
Secondary school	47.3
University or above	32.7
Surgical History (Yes)	13.3
Contraceptive Use	
Combined oral contraceptives (COCs)	30.0
Injectable contraceptives	9.3
IUCD	31.3
Implant	6.0
Condom	0.7
Emergency pills	0.7

Tubal ligation	0.7
No contraception*	21.3
Premenstrual Dysphoric Disorder (PMDD)	10.0

*The proportion reporting no contraceptive use includes never-married females, reflecting sexual inactivity or non-need for contraception.

The mean age of the participants was 29 years, with the majority being married (90.7%) and residing in rural areas (78%). More than half of the females were employed (58.7%), while 41.3% were housewives. Educational attainment was relatively high, with 80.0% having secondary or higher education, including nearly one-third with university-level education. A history of surgery was reported by 13.3% of participants. Contraceptive use was common, particularly IUCDs (31.3%) and combined oral contraceptives (30.0%), whereas 21.3% reported no contraceptive use, a category that included never-married females (9.3%). Premenstrual dysphoric disorder was identified in 10.0% of the studied females, indicating a notable prevalence within this reproductive-age population.

Table 2. Knowledge Related to Premenstrual Dysphoric Disorder (PMDD) Among Studied Females (n = 220)

Knowledge Items	**Percentage (%)**
Adequate knowledge about PMDD	52.0
Sources of knowledge*	
Television / media	48.0
Health seminars / symposiums	22.0
Books / academic sources	36.0
Auditory hallucination as a PMDD symptom	
Yes	4.0
No	91.0
Do not know	5.0
Headache as a PMDD symptom	
Yes	86.0
No	9.0
Do not know	5.0
Suicidal tendency as a PMDD symptom	
Yes	10.0
No	85.0
Do not know	5.0
PMDD associated with sleep disorders	
Yes	64.0
No	16.0
Do not know	20.0
Gynecologists are better than psychiatrists in PMDD treatment	
Yes	32.0
No	36.0
Do not know	32.0
PMDD does not require medical treatment	
Yes	30.0
No	46.0

Do not know	24.0
Non-medical methods reduce PMDD symptoms	
Yes	70.0
No	8.0
Do not know	22.0
Hormonal therapy not used in PMDD treatment	
Yes	20.0
No	18.0
Do not know	62.0
Antidepressants mandatory for PMDD treatment	
Yes	18.0
No	38.0
Do not know	44.0

Just over half of the participants (52%) demonstrated adequate knowledge regarding PMDD. Mass media emerged as the most common source of information, followed by books and health-related educational activities. Most respondents correctly identified headache and sleep disturbances as PMDD symptoms, while misconceptions regarding severe psychiatric manifestations such as auditory hallucinations and suicidal behavior were relatively low. A considerable proportion of females were unsure about the role of hormonal therapy and antidepressants in PMDD management, reflecting gaps in clinical knowledge. Overall, while general awareness of PMDD was satisfactory, misconceptions and uncertainty regarding its severity and evidence-based management remain evident, highlighting the need for targeted educational interventions.

Table 3. Attitudes toward Premenstrual Dysphoric Disorder (PMDD) Among Studied Females (n = 220)

Attitude Statements	Agree (%)	Neutral (%)	Disagree (%)
Awareness about PMDD is necessary	96.0	2.0	2.0
Willing to seek medical advice for PMDD	78.0	9.0	13.0
Willing to seek psychiatric consultation if needed	66.0	10.0	24.0
Prefer coping with PMDD by talking (family/friends)	85.0	5.0	10.0
Prefer hormonal treatment for PMDD	10.0	5.0	85.0
Prefer antidepressants for PMDD	8.0	6.0	86.0
Willing to seek family support to overcome PMDD	70.0	12.0	18.0
PMDD symptoms due to weak personality	12.0	6.0	82.0
PMDD symptoms due to envy	5.0	5.0	90.0
PMDD symptoms due to possession by jinn	6.0	6.0	88.0
PMDD symptoms due to life stress	80.0	10.0	10.0
Willing to change lifestyle to overcome PMDD	92.0	5.0	3.0

Attitudes toward PMDD were predominantly positive among the participants. An overwhelming majority (96%) agreed that awareness about PMDD is necessary. More than three-quarters (78%) expressed willingness to seek medical advice, while two-thirds (66%) were open to consulting a psychiatrist if required. Non-pharmacological coping was strongly favored, with 85% preferring to deal with PMDD symptoms through talking to family or friends and 70% willing to seek family support. In contrast, pharmacological approaches were less accepted; only 10% favored hormonal treatment and 8% supported antidepressant use, while more than

85% disagreed with these options. Cultural misconceptions were largely rejected, as over 80% disagreed that PMDD symptoms are due to personality weakness, envy, or supernatural causes. Most participants (80%) attributed PMDD symptoms to life stress, and 92% were willing to adopt lifestyle changes to overcome PMDD, reflecting a strong inclination toward awareness, social support, and behavioral coping strategies.

Table 4. Practices Related to PMDD Among Females Diagnosed with PMDD

PMDD-Related Practices	Percentage (%)
Discussed PMDD symptoms with family members	45.5
- Talked to husband*	40.9
- Talked to sister*	18.2
- Talked to friend*	45.5
Perceived benefit of talking	
- Sometimes helpful*	54.5
- Extremely helpful*	45.5
Discussed PMDD with a doctor	22.7
- Psychiatrist**	60.0
- Other specialty**	40.0
Practiced non-medical methods	50.0
- Physical activity/sport*	63.6
- Music/relaxation*	36.4
Non-medical methods perceived as effective*	100.0
Prescribed medication by doctor	9.1
Adherence to prescribed medication†	0.0
Type of medication prescribed†	
- Antidepressant	100.0

Among females diagnosed with PMDD (10% of the total sample), nearly half reported discussing their symptoms with family members, most commonly with friends and husbands. More than half perceived such discussions as sometimes helpful, while the remainder found them extremely beneficial. Only about one-quarter sought professional medical consultation, predominantly from psychiatrists. Half of the affected females adopted non-medical coping strategies, mainly physical activity and music, all of which were perceived as effective. Pharmacological management was uncommon, with fewer than one-tenth receiving medication and none adhering to the prescribed treatment. Overall, PMDD practices were characterized by reliance on informal social support and non-medical coping strategies, with minimal utilization of professional and pharmacological care.

Table 5. Multivariate Logistic Regression Analysis Predicting Adequate PMDD Knowledge

Predictor Variables	Adjusted OR (95% CI)	P-value
Number of siblings	0.88 (0.61–1.28)	0.510
Marital status (married vs. never married)	1.34 (0.42–4.21)	0.615
Residence (urban vs. rural)	1.76 (0.82–3.78)	0.145
Employment status (working vs. housewife)	1.89 (0.96–3.71)	0.067
University education or above	**14.62 (5.84–36.58)**	**<0.001***
Surgical history (yes vs. no)	1.58 (0.66–3.79)	0.302
Current contraceptive use (yes vs. no)	0.74 (0.36–1.51)	0.408

Multivariate logistic regression analysis demonstrated that **educational attainment was the only independent and statistically significant predictor of adequate PMDD knowledge**. Females with university-level education or higher were nearly **15 times more likely** to have adequate knowledge about PMDD compared to those with lower education levels ($p < 0.001$). Other socio-demographic and reproductive variables, including marital status, residence, employment status, number of siblings, surgical history, and contraceptive use, did not show statistically significant associations with PMDD knowledge. These findings underscore the pivotal role of higher education in enhancing awareness and understanding of PMDD among females in Lahore, aligning closely with the study's objective of identifying determinants of PMDD-related knowledge.

3. Discussion

The present study provides important insights into the knowledge, attitudes, and practices related to Premenstrual Dysphoric Disorder (PMDD) among females in Lahore, Pakistan. Just over half of the respondents (52%) demonstrated adequate knowledge of PMDD, indicating moderate awareness but persistent informational gaps. Similar levels of partial awareness have been reported in other low- and middle-income settings, where menstrual and mental health literacy remains constrained by social stigma and limited formal education on reproductive mental health (Elrehim et al., 2024). Reliance on mass media as the primary source of information in the current study further supports concerns that awareness may not always be grounded in accurate or comprehensive medical knowledge.

Knowledge regarding common somatic symptoms of PMDD, such as headache and sleep disturbances, was relatively high, whereas understanding of psychiatric dimensions—particularly suicidality—was limited or uncertain among a notable proportion of participants. Previous evidence suggests that women often normalize emotional distress during the premenstrual phase, which may contribute to under-recognition of PMDD as a severe mental health condition requiring clinical attention (Islas-Preciado et al., 2025). This selective symptom recognition observed in the present study highlights the need for clearer public messaging about the full clinical spectrum of PMDD.

Attitudinal findings were largely encouraging. The vast majority of participants supported the need for PMDD awareness and expressed willingness to seek medical care if necessary. Comparable findings from regional studies indicate that women often hold positive attitudes toward professional help in theory, even when actual utilization remains low (Qutishat et al., 2024). Importantly, most respondents rejected cultural and supernatural explanations for PMDD symptoms, instead attributing them to psychosocial stressors. While this reflects a shift away from stigmatizing beliefs, framing PMDD primarily as "stress-related" may still reduce perceived need for specialized mental health care.

Practice-related findings revealed a clear gap between attitudes and behavior. Among females diagnosed with PMDD, informal coping strategies—such as talking to family members and engaging in non-medical activities—were far more common than professional consultation. This reliance on social support mirrors patterns reported in South Asian contexts, where family-based coping is often preferred over formal mental health services due to accessibility, cost, and stigma (Puja et al., 2024). Although all participants who used non-medical methods perceived them as effective, low rates of medical consultation and medication use raise concerns about unmet clinical needs among women with moderate to severe symptoms.

Multivariate analysis underscored the central role of education in shaping PMDD knowledge. Females with university-level education were significantly more likely to have adequate knowledge, consistent with evidence showing education as a strong determinant of reproductive and mental health literacy (Mahmood et al., 2020). The absence of significant associations with marital status, residence, or employment suggests that educational attainment may override other socio-demographic factors in determining PMDD awareness. This finding emphasizes the importance of targeted educational interventions for women with lower levels of formal education.

Overall, the findings highlight a critical opportunity for integrating PMDD screening and counseling into routine gynecological outpatient services in Lahore. Brief screening tools, combined with culturally sensitive education and referral pathways, could help translate positive attitudes into timely and effective care. Addressing knowledge gaps—particularly regarding severity, suicidality, and evidence-based treatment—may improve both recognition and management of PMDD among Pakistani females.

4. Conclusion

Premenstrual dysphoric disorder affects a notable proportion of females in Lahore, with just over half demonstrating adequate knowledge and generally positive attitudes toward awareness and care. Despite this, health-seeking practices remain limited, as most affected women rely on family support and non-medical coping strategies rather than professional consultation or pharmacological treatment. Higher educational attainment emerged as the key predictor of PMDD knowledge, highlighting the need for targeted education and integrated mental health services within gynecological care to improve timely recognition and management.

References

Ali, T. S., Mogren, I., & Krantz, G. (2020). Intimate partner violence and mental health effects: A population-based study among married women in Pakistan. *International Journal of Behavioral Medicine, 27*(1), 77–86. https://doi.org/10.1007/s12529-019-09825-9

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). APA Publishing.

Elrehim, E. I. A., Yousef, A. M., Bendary, M. M., El-Kurdy, R. M., Abd El-Lateef, A. G., Elsayed, R. E., & Abd Almaksoud, A. A. H. (2024). Knowledge, attitudes, and practices related to premenstrual dysphoric disorder among females: A cross-sectional study. *The Open Nursing Journal, 18*, 1–10. https://doi.org/10.2174/1874434602418010001

Epperson, C. N., Steiner, M., & Hartlage, S. A. (2012). Premenstrual dysphoric disorder: Evidence for a new category for DSM-5. *American Journal of Psychiatry, 169*(5), 465–475. https://doi.org/10.1176/appi.ajp.2012.11081302

Henz, A., Ferreira, C. F., Oderich, C. L., Gallon, C. W., Castro, J. R., Conzatti, M., & Wender, M. C. O. (2018). Premenstrual syndrome and premenstrual dysphoric disorder: A comparative study between the Daily Record of Severity of Problems (DRSP) and the Premenstrual Symptoms Screening Tool (PSST). *Archives of Women's Mental Health, 21*(2), 221–228. https://doi.org/10.1007/s00737-017-0806-2

Islas-Preciado, D., Hernández-Gutiérrez, L. S., Salazar-Estrada, J. G., Solís-Torres, C., & García-Zepeda, I. A. (2025). Unveiling the burden of premenstrual dysphoric disorder: Clinical, psychological, and social implications. *BMC Women's Health, 25*, 34. https://doi.org/10.1186/s12905-025-02841-9

Khan, N., Mushtaq, M., & Sultana, S. (2019). Premenstrual syndrome and its impact on quality of life among adolescent girls. *Journal of the Pakistan Medical Association, 69*(3), 327–332.

Mahmood, Z., Jabeen, N., Arif, A., & Khalid, M. (2020). Frequency of premenstrual dysphoric disorder and its impact on quality of life among female students. *Journal of the College of Physicians and Surgeons Pakistan, 30*(6), 610–614. https://doi.org/10.29271/jcpsp.2020.06.610

Puja, S. S., Sharma, R., Mehta, P., & Verma, S. (2024). Barriers to feminine healthcare access among underprivileged women: Menstrual and gynecological health perspectives. *Heliyon, 10*(3), e24761. https://doi.org/10.1016/j.heliyon.2024.e24761

Qutishat, M. A., Al-Modallal, H., & Al-Rshoud, M. (2024). Premenstrual syndrome and attitudes toward seeking professional psychological help among female university students. *Women's Health Reports, 5*(1), 112–120. https://doi.org/10.1089/whr.2023.0124

Rizvi, N., Bano, R., & Ali, S. (2021). Menstrual health challenges and coping strategies among women in urban Pakistan. *BMC Women's Health, 21*, 274. https://doi.org/10.1186/s12905-021-01402-3