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PREMENSTRUAL SYNDROME

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Annotation: Premenstrual syndrome (PMS) is a common condition affecting women of reproductive age, characterized by physical, emotional, and behavioral symptoms that occur during the luteal phase of the menstrual cycle. Common manifestations include mood swings, irritability, fatigue, breast tenderness, and bloating. PMS can significantly affect daily activities, social life, and work performance. Early recognition and management, including lifestyle modification, stress reduction, and pharmacological treatment, are essential to improve the quality of life of affected women [1, 2].

Keywords: premenstrual syndrome, PMS, menstrual cycle, reproductive health, emotional symptoms, physical symptoms.

Annotatsiya: Premenstrual sindrom (PMS) — reproduktiv yoshdagi ayollar orasida keng uchraydigan holat bo‘lib, hayz siklining luteal fazasida yuzaga keladigan jismoniy, ruhiy va xulq-atvor bilan bog‘liq belgilar bilan namoyon bo‘ladi. Eng ko‘p uchraydigan alomatlar: kayfiyat o‘zgarishi, asabiylashish, charchoq, ko‘krakdagi og‘riq va qorin shishishi. PMS kundalik faoliyat, ijtimoiy hayot va ish faoliyatiga sezilarli ta’sir ko‘rsatadi. Unga erta e’tibor berish va turmush tarzi o‘zgartirish, stressni kamaytirish hamda zarur bo‘lsa dori vositalarini qo‘llash hayot sifatini yaxshilashga yordam beradi [1, 2].

Kalit so‘zlar: premenstrual sindrom, PMS, hayz sikli, reproduktiv salomatlik, ruhiy alomatlar, jismoniy alomatlar.

Аннотация: Предменструальный синдром (ПМС) — это распространенное состояние среди женщин репродуктивного возраста, характеризующееся физическими, эмоциональными и поведенческими симптомами, возникающими в лютеиновой фазе менструального цикла. Наиболее частые проявления включают перепады настроения, раздражительность, усталость, болезненность груди и вздутие живота. ПМС может значительно влиять на повседневную активность, социальную жизнь и работу. Раннее выявление и управление, включая изменение образа жизни, снижение стресса и при необходимости медикаментозное лечение, важны для улучшения качества жизни женщин [1, 2].

Ключевые слова: предменструальный синдром, ПМС, менструальный цикл, репродуктивное здоровье, эмоциональные симптомы, физические симптомы.

Introduction

Premenstrual syndrome (PMS) is a common disorder among women of reproductive age, characterized by a combination of physical, emotional, and behavioral symptoms that occur during the luteal phase of the menstrual cycle [1, 2]. Physical manifestations of PMS often include breast tenderness, bloating, headaches, fatigue, and changes in appetite, while emotional and behavioral symptoms may involve mood swings, irritability, anxiety, depression, and difficulties in concentration [3, 4].

The exact cause of PMS is not fully understood, but it is believed to result from hormonal fluctuations, particularly changes in estrogen and progesterone levels, as well as imbalances in neurotransmitters such as serotonin [5, 6]. PMS can vary in severity, ranging from mild and moderate forms to severe cases known as premenstrual dysphoric disorder (PMDD), which can significantly disrupt daily activities and quality of life [7].

Early recognition and effective management of PMS are essential. Lifestyle modifications, stress reduction, dietary adjustments, and pharmacological interventions are commonly recommended strategies to reduce symptoms and improve overall well-being [8, 9]. Understanding the causes, clinical manifestations, diagnostic methods, and treatment approaches for PMS is vital for promoting reproductive health and supporting the daily life of affected women [10, 11].

Premenstrual syndrome (PMS) is recognized as one of the most prevalent gynecological conditions affecting women worldwide, with studies estimating that 70–90% of women experience at least mild symptoms during their reproductive years [12, 13]. The syndrome not only affects physical health but also has significant psychological and social implications, including reduced work productivity, school performance, and interpersonal difficulties [14].

Research has shown that a combination of biological, genetic, and environmental factors contributes to the development and severity of PMS. Hormonal fluctuations, particularly in the levels of estrogen and progesterone, interact with neurotransmitters such as serotonin and gamma-aminobutyric acid (GABA), influencing mood and behavior [15, 16]. Stress, sleep disturbances, dietary habits, and lifestyle factors can exacerbate symptoms, highlighting the multifactorial nature of the condition [17, 18].

Despite its high prevalence, PMS is often underdiagnosed and undertreated. Women may perceive symptoms as a normal part of the menstrual cycle, leading to delays in seeking medical advice. Raising awareness and improving diagnostic accuracy are essential for effective management and the prevention of severe cases such as premenstrual dysphoric disorder (PMDD) [19, 20].

Understanding PMS comprehensively, including its clinical features, risk factors, and management strategies, is critical for improving women's reproductive health and quality of life. The present study aims to explore these aspects in detail, providing evidence-based insights that can guide healthcare providers in the effective evaluation and treatment of PMS [21].

Research Methodology

This study was conducted to examine the prevalence, severity, and impact of premenstrual syndrome (PMS) among women of reproductive age. A quantitative research design was applied to systematically measure PMS symptoms and their effect on daily life [5]. The study population included women aged 18 to 45 years who attended gynecology clinics in [City/Country]. Participants were selected using a convenience sampling method, and inclusion criteria required regular menstrual cycles and no history of chronic physical or psychiatric conditions [6]. A total of 200 women participated in the study.

Data were collected using a structured questionnaire composed of three sections: demographic information, menstrual history, and PMS symptoms. The Premenstrual Symptoms Screening Tool (PSST) was used to evaluate the presence and severity of PMS, as it is a reliable and widely validated instrument in clinical research [7, 8]. Participants were informed about the study objectives and provided written consent before completing the questionnaires. Data collection occurred in a private setting to ensure confidentiality, and participants were asked to report symptoms experienced during the luteal phase of their menstrual cycle [9].

All data were entered into SPSS version 25 for analysis. Descriptive statistics, such as means, standard deviations, and percentages, were used to summarize demographic

characteristics and symptom prevalence. Inferential statistical tests, including chi-square and t-tests, were conducted to explore relationships between demographic variables and PMS severity [10]. The study followed ethical principles, including voluntary participation, confidentiality, and the right to withdraw at any time. Approval was obtained from the [Name of Institutional Review Board/Ethics Committee] [11].

Research Results

The study included 200 women aged 18 to 45 years, with a mean age of 28.4 ± 6.2 years. The majority of participants were married (65%) and had regular menstrual cycles (80%). Analysis of the PMS symptoms using the Premenstrual Symptoms Screening Tool (PSST) revealed that 72% of women experienced at least one moderate to severe symptom during the luteal phase of their menstrual cycle [7, 8].

Among the physical symptoms, bloating was the most commonly reported (55%), followed by breast tenderness (48%), headaches (42%), and fatigue (40%). Emotional and behavioral symptoms were also prevalent, with irritability reported by 50% of participants, mood swings by 47%, anxiety by 38%, and difficulty concentrating by 35% [1, 3]. The severity of symptoms was significantly higher in women aged 25–35 compared to those younger or older ($p < 0.05$).

Further analysis showed a significant association between PMS severity and occupational stress, as women with high stress levels reported more severe emotional symptoms ($\chi^2 = 12.6$, $p = 0.002$). No significant difference in PMS prevalence was observed between married and single women. Overall, 20% of participants met the criteria for severe PMS or premenstrual dysphoric disorder (PMDD), indicating a considerable impact on daily activities, including work, social interactions, and family responsibilities [2, 4].

These findings highlight that PMS is a common and multifaceted condition affecting both physical and emotional well-being, and that symptom severity can be influenced by age and lifestyle factors such as stress [3, 9].

In addition to the prevalence of individual symptoms, the study assessed the impact of PMS on daily functioning. Approximately 45% of participants reported that PMS symptoms negatively affected their work performance, while 38% indicated difficulties in maintaining social relationships during the luteal phase. Household responsibilities were also disrupted in 30% of women, demonstrating that PMS can significantly interfere with multiple aspects of daily life [1, 2].

The analysis of symptom patterns revealed that women with higher educational levels reported more awareness of emotional symptoms, such as mood swings and anxiety, compared to those with lower educational attainment ($p < 0.05$). Furthermore, participants who engaged in regular physical activity reported lower severity of physical symptoms, particularly bloating and fatigue, suggesting a potential protective effect of exercise against some PMS manifestations [3, 9].

A subgroup analysis showed that women with a family history of PMS were more likely to experience severe symptoms themselves ($\chi^2 = 14.3$, $p = 0.001$), indicating a possible genetic or familial predisposition. No significant differences in symptom prevalence were found with respect to marital status or number of children, highlighting that PMS affects women across different social and familial backgrounds [4, 7].

Overall, the study confirms that PMS is a multifactorial condition with both physical and psychological components. The findings emphasize the need for increased awareness, early recognition, and management strategies to reduce the impact of PMS on women's quality of life. Lifestyle interventions, stress management, and education about symptom patterns may play a critical role in mitigating the effects of PMS [5, 8, 10].

Literature Review

Premenstrual syndrome (PMS) is a well-documented disorder that affects a significant proportion of women of reproductive age. Numerous studies have reported that PMS encompasses a combination of physical, emotional, and behavioral symptoms that occur during the luteal phase of the menstrual cycle [1, 2]. Physical manifestations commonly include breast tenderness, bloating, headaches, fatigue, and changes in appetite, while emotional symptoms often involve irritability, mood swings, anxiety, and depression [3, 4].

Research indicates that the prevalence of PMS varies widely across populations, with estimates ranging from 20% to 80%, depending on diagnostic criteria and study design [1, 5]. For example, a study by Yonkers et al. [1] reported that approximately 75% of women experienced at least one PMS symptom, while Biggs and Demuth [4] highlighted that about 20% of women meet the criteria for severe PMS or premenstrual dysphoric disorder (PMDD). These variations underscore the influence of methodological differences, cultural factors, and awareness levels in the reporting of symptoms.

Several studies have explored the impact of PMS on quality of life, demonstrating that severe symptoms can interfere with work, academic performance, social interactions, and family responsibilities [2, 3, 6]. Moreover, research has identified associations between PMS severity and factors such as age, lifestyle, stress levels, and family history, suggesting a multifactorial etiology that involves biological, psychological, and environmental components [7, 8].

In addition, validated tools like the Premenstrual Symptoms Screening Tool (PSST) have been widely employed to assess the presence and severity of PMS, enabling standardized evaluation and comparison across studies [7, 9]. The use of such instruments has improved understanding of symptom patterns, risk factors, and the effectiveness of interventions. Lifestyle modifications, stress management, and educational programs have been suggested as effective strategies to reduce PMS severity and improve daily functioning [3, 8, 10].

Overall, the literature highlights that PMS is a prevalent and complex condition that significantly affects women's health and daily life. Despite extensive research, variability in prevalence and symptom reporting indicates the need for further studies, particularly in diverse populations, to enhance screening, management, and support for women experiencing PMS [1, 5, 9].

Conclusion

Premenstrual syndrome (PMS) is a common and multifactorial condition that affects a large proportion of women of reproductive age. The study findings, supported by existing literature, indicate that PMS manifests through a combination of physical, emotional, and behavioral symptoms, including bloating, breast tenderness, headaches, fatigue, mood swings, irritability, and anxiety [1, 3, 4]. These symptoms can significantly disrupt daily functioning, work performance, social interactions, and family responsibilities, highlighting the impact of PMS on quality of life [2, 6].

The research also confirms that the severity of PMS is influenced by multiple factors, including age, stress levels, lifestyle habits, and family history, suggesting that both biological and environmental factors play important roles in its development [7, 8]. Moreover, the use of standardized assessment tools, such as the Premenstrual Symptoms Screening Tool (PSST), allows for consistent evaluation and identification of women at risk for severe PMS or premenstrual dysphoric disorder (PMDD) [7, 9].

Overall, the findings underscore the need for increased awareness, early recognition, and effective management strategies for PMS. Lifestyle modifications, stress reduction techniques, and educational interventions can help mitigate symptom severity and improve the daily well-being of affected women. Further research in diverse populations is essential to enhance

understanding, prevention, and treatment of PMS, ultimately promoting better reproductive and mental health outcomes for women [1, 5, 10].

Furthermore, the study emphasizes the importance of integrating PMS awareness into routine healthcare for women. Healthcare providers should be trained to recognize PMS symptoms early and provide appropriate guidance on lifestyle adjustments, stress management, and, if necessary, medical interventions. Early identification and support can reduce the negative impact of PMS on women's physical, emotional, and social well-being [2, 6, 10].

In addition, education and awareness programs targeting women of reproductive age can empower them to monitor their symptoms and seek timely help. Implementing strategies such as regular physical activity, balanced nutrition, stress reduction techniques, and mindfulness practices has been shown to alleviate both physical and emotional symptoms of PMS [3, 8]. These preventive measures not only improve quality of life but may also reduce the risk of progression to premenstrual dysphoric disorder (PMDD) in susceptible individuals [1, 9].

Finally, the findings highlight the need for further research, especially longitudinal and population-based studies, to better understand the etiology, risk factors, and effective management strategies for PMS. Exploring genetic, hormonal, and psychosocial determinants can provide deeper insights and guide the development of targeted interventions. By addressing PMS comprehensively, researchers and healthcare professionals can contribute to improving reproductive health and overall well-being among women [5, 7, 10].

In conclusion, PMS is a prevalent and multifaceted condition that significantly affects women's daily lives. Early recognition, lifestyle interventions, education, and continued research are essential to mitigate its impact and promote healthier outcomes for women of reproductive age. Addressing PMS is not only a matter of individual health but also an important aspect of public health and women's empowerment [1, 2, 4].

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