Xi'an Shiyou Daxue Xuebao (Ziran Kexue Ban)/
Journal of Xi'an Shiyou University, Natural Sciences Edition
ISSN: 1673-064X
E-Publication: Online Open Access
Vol: 68 Issue 06 | 2025
DOI: 10.5281/zenodo.15694908

PREMENSTRUAL SYNDROME AND ITS ASSOCIATED SYMPTOMS AMONG EGYPTIAN WOMEN

TEREZA KHALIFA GARAS GIRGIS
Lecturer, Maternal & Newborn Health Nursing, Faculty of Nursing, October 6 University, Egypt.

RAGAA ALI ABDRABBO
Professor, Maternal & Newborn Health Nursing, Faculty of Nursing, October 6 University, Egypt.

SALLY EBRAHIM ALI
Assistant Professor, Maternity, Obstetric, & Gynecology Nursing, Al-Rayan National College of Health Sciences and Nursing, KSA & PhD, RN, Manzala Central Hospital, Dakahlia Governorate, Egypt.

AMANY S. BADAWY
Professor, Maternal & Newborn Health Nursing, Faculty of Nursing, October 6 University, Egypt.

Abstract

Background: Premenstrual Syndrome (PMS) is a disorder characterized by hormonal changes that trigger disruptive symptoms in a significant number of women. **Aim:** of this study was to assess Egyptian women's physical, psychological, and behavioral symptoms associated with premenstrual cycle. **Methods:** A descriptive cross-sectional design was utilized to study phenomena. A convenient sample of 492 women were included. Menstrual Distress Questionnaire (MDQ), and sociodemographic and obstetric history questionnaire were used to collect pertinent data. **Results:** Physical symptoms had higher frequency followed by psychological, and behavioral symptoms respectively. The most common physical complaints were muscles weakness, tachycardia, nausea and vomiting. Mood changes, depression, and anxiety, where the most common psychological symptoms. Most women also complained of behavioral changes mainly in form of less performance at work and incorrect judgment. Statistical analysis revealed a significant relation between women's age, level of education, and marital status with the premenstrual symptoms. **Conclusion.** The study implicated the importance of integration PMS through women's health programs and reproductive health programs.

Keywords: Premenstrual Syndrome (PMS) – Symptoms of PMS – Egyptian Women.

INTRODUCTION

Interest in women's menstrual experience gained popularity with the rise of the women's health movement in the eightieth. Each month some women perceive bodily sensation that occurs concurrently with fluctuation of hormones and the event of menses. Some women find this bodily sensation evoking no distress and do not regard them as symptoms. Others perceive bodily sensation as unpleasant or disruptive and identify them as symptoms [(1).]

Premenstrual syndrome (PMS) refers to symptoms that occur before menses (14 days or more after the first day of the menstrual period) and be absent for about seven days after menstrual period has ended [(2)]. PMS usually begins at puberty and last until menopause. However, women more sensitive to hormonal changes may experience PMS more than others [(3)]. According to the World Health Organization [(4)], one of the major disorders

Xi'an Shiyou Daxue Xuebao (Ziran Kexue Ban)/
Journal of Xi'an Shiyou University, Natural Sciences Edition
ISSN: 1673-064X
E-Publication: Online Open Access
Vol: 68 Issue 06 | 2025
DOI: 10.5281/zenodo.15694908

classified as specific disorder of menstruation is "premenstrual tension syndrome". PMS is diagnosed by the presence of physical, psychological, and behavioral symptoms that are cyclic and occur in association with the pre-menstrual period [5]. The behavioral changes during PMS and menstrual cycle are joined by several psychological factors, many of them focused on changing female's roles, the conflicts surrounding parenting and career as well as the pressures on single mothers, can results in lowered self-esteem, various mood disorders and a reluctance to seek help [5, 6].

Approximately 70%-90% of women are affected PMS during their childbearing years, 30%-40% of those women are thought to have severe symptoms that they are considered disabling [7]. Over 150 symptoms for PMS have been identified. These include physical, behavioral, and psychological aspects that range from mild to severe. The reason is that women get severe PMS while others have little, or none is not understood [7,8]. The physical symptoms include bloating, headache, food craving, abdominal cramps, tension, fatigue, muscle ache, and breast tenderness. Behavioral symptoms include insomnia, lack of concentration, and clumsiness. Psychological symptoms include mood swings, irritability, and depression [9,10,11]. Hence, the current study research was aimed at demonstrating menstruation and reinterpreting existing notions about premenstrual problems.

Significance of the Study

Maternity nurses and midwives are primary intellectuals focusing on helping clients to cope with difficulties in daily living associated with their health or illness problems. In fact, an appropriate goal for these groups of nurses would be to assist women in finding healthful and satisfying means to relieve their health problems. Hence, in addition to being knowledgeable about the menstrual cycle as a biological condition, these nurses need to have a knowledge base to assist in dealing with the physical, psychosocial, and behavioral problems related to menstruation. Increased knowledge in this area would provide a base for more in depth understanding of the indicators of wellbeing accordingly would assist health professionals to provide care that would produce positive health outcomes. Additionally, addressing women health practices with these symptoms would help in developing community-based health education programs.

Objectives of the Study

This study aimed to assess Egyptian women's physical, psychological, and behavioral symptoms associated with premenstrual cycle. The main goal was to compile data which would help in the creation of a profile of the pattern of symptomatology among Egyptian women.

MATERIAL AND METHODS

Design*:* A descriptive cross-sectional design was utilized to study phenomenon under investigation. This research design was utilized, as it helps the researchers to observe,

Xi'an Shiyou Daxue Xuebao (Ziran Kexue Ban)/
Journal of Xi'an Shiyou University, Natural Sciences Edition
ISSN: 1673-064X
E-Publication: Online Open Access
Vol: 68 Issue 06 | 2025
DOI: 10.5281/zenodo.15694908

describe, and document aspects of the situation as it naturally occurs. Also, this design helps the researcher to establish a database for future research.

Sample and setting: A convenient sample consisting of 492 women representing the south section of Cairo Governorate were recruited for this study at El-Maadi and Masr Elqadima Family Health Centers.

Only participants who met the following criteria were included, (a) actively menstruating, (b) not presently nor had been pregnant and/or lactating within the past six months (c) no history of gynecological disorders, and (d) no ovariectomy; these criteria were established to increase homogeneity of the sample and exclude possible confounds.

Tool of Data Collection

The first tool was a structured interview questionnaire to collect socio demographic and obstetrical history data. **The Second tool** was Menstrual Distress Questionnaire (MDQ) which is a standardized instrument to measure the presence and the severity of premenstrual related symptoms [8]. This questionnaire consists of 47 self-descriptive statements. These are rated on a three points scale, consisting of (a) no reaction, (b) mild reaction, and (c) severe reaction. Statements are aggregated into 3-categories, each representing a specific area of symptoms: physical symptoms (22 items), psychological symptoms (19 items) and behavioral symptoms (6 items). Moos stated that the intrinsic reliability of face validity of the tool were based upon research evidence that supported the tool measured PSM according to the manifested symptoms behaviors of the study.

Procedure of the Study

After explaining the purpose of the study and ensuring confidentiality, the approval of participants was obtained. The initial data was collected by the researchers using the structured tool of data collection. Women were instructed to respond only to those items which are sure describes their condition (several days before the onset of menstruation) and related to their health status. They were asked also to determine whether the symptoms experienced were due to the menstrual cycle or to something else.

RESULTS

Table (1): shows that the women age is ranged from 21-44 years, with a mean of 28 ± 4.56. The women were almost equally distributed single and married (49.2% & 47.8%) respectively. Related to educational level, it was ranged from illiterate to a university graduate. As regard employment status, majority of the sample were housewives (62.2%).

Table (2): illustrates obstetrical data. As regard the age of menarche, almost 86.8% of sample started their menarche between age of 10 to 15 years. Concerning duration of the menstrual flow, more than half of the sample had a flow duration between 5-7 days/month (61.4%). As regard the regularity of menstrual cycle, analysis of data showed that (84.1%)

Xi'an Shiyou Daxue Xuebao (Ziran Kexue Ban)/
Journal of Xi'an Shiyou University, Natural Sciences Edition
ISSN: 1673-064X
E-Publication: Online Open Access
Vol: 68 Issue 06 | 2025
DOI: 10.5281/zenodo.15694908

of the sample had regular cycle. In addition, 69.9% their menstrual interval was 28-30 days/monthly, while the rest of them ranged from 20-27 days.

Table (3): shows that the most common mild physical complaints were muscles weakness, tachycardia, nausea and vomiting, weight gain, and uterine spasm (73.2%, 69.1%, 63.8%, 63.0%, and 61.2%) respectively. While back pain was ranked as severe among 54.9% of women.

Table (4): illustrates psychological symptoms. Mood changes, depression, anxiety, tiredness, easily distracted, and difficulty of concentration were described as mild (78.7%, 71.1%, 67.5%, 64.4%, 64.2%, & 58.1%) respectively. While tension is the most common severe complaint (55.7%).

Table (5): mentions the PMS behavior symptoms. It was estimated that the decreased work productivity (75.2%), staying in bed (53.9%) were ranked at the mildest level. Moreover, incorrect judgment was (69.5%) and ranked at a severe level.

Table (6): there was a significant positive relation between the severity of menstrual symptoms and woman's age (t= 2.190 & p= 0.029).

Table (7): shows a statistically significant difference between both physical and psychological symptoms and marital status of the women (F=3.22, 3.17 at p=0.04) respectively. On the other hand, there is no statistically significant relation between behavioral symptoms & marital status (F-test =0.875 & p = 0.417).

Table (8): reflects a significant relation between the PMS related symptoms (physical, psychological, and behavioral) and level of education.

Table (1): Frequency distribution of women regarding personal data (n= 492).

Variables	No	%
Age		
Min-Max	21-44	
Mean ± SD	28 ± 4.56	
Marital status		
Single	242	49.2
Married	235	47.8
Widow or divorced	15	3.0
Education		
Can’t read & write	12	2.4
Read & write	27	5.7
Secondary School	206	41.9
High education	247	50.2
Occupation		
Housewife	306	62.2
Occupied	186	37.8
Age of menarche (years)		
less than 10	65	13.2
10-15	427	86.8
Duration of the menses (days)		

Xi'an Shiyou Daxue Xuebao (Ziran Kexue Ban)/
Journal of Xi'an Shiyou University, Natural Sciences Edition
ISSN: 1673-064X
E-Publication: Online Open Access
Vol: 68 Issue 06 | 2025
DOI: 10.5281/zenodo.15694908

Less than 5	81	16.5
5-7	302	61.4
More than 7	109	22.2
Regularity		
Regular	414	84.1
Irregular	78	15.9
Menstrual interval		
20-27	148	30.1
28-30	344	69.9

Table (2): Frequency distribution of PMS physical symptoms (n= 492).

Physical symptoms	Non		Mild		Severe	
	*No	%	*No	%	*No	%
Weight gain	0	0	310	63.0	182	37.0
Muscles stiffness	282	57.3	118	24.0	92	18.7
Headache	12	2.4	289	58.7	191	38.8
Uterine spasm	11	2.2	301	61.2	180	36.6
Drowsiness	170	34.6	129	26.2	193	39.2
Back pain	27	5.5	195	39.6	270	54.9
Cold & sweat	31	6.3	78	15.9	23	4.7
Nausea & vomiting	16	3.3	314	63.8	162	32.9
Hot flushes	418	85.0	70	14.2	4	0.8
General pain	117	23.8	197	40.0	178	36.2
Distension	48	9.8	301	61.2	143	29.1
Feeding habits change	127	25.8	216	43.9	149	30.3
Skin problem	402	81.7	62	12.6	28	5.7
Chest pain	422	85.8	30	6.1	40	8.1
Painful breasts	0	0	260	52.8	232	47.2
Feeling of well being	492	100	0	0	0	0
Numbness	411	83.5	60	12.2	21	4.3
Muscles weakness	112	22.8	360	73.2	20	4.1
Tachycardia	55	11.2	340	69.1	97	19.7
Overactive	492	100	0	0	0	0
Blurring of vision	303	61.6	109	22.2	80	16.3
Earache	396	80.5	83	16.9	13	2.6

*More than one symptom is given by the respondents.

Table (3): Frequency distribution of PMS psychologic symptoms (n= 492).

Physical symptoms	Non		Mild		Severe	
	*No	%	*No	%	*No	%
Irritability	258	52.4	100	20.3	134	27.2
Excitement	178	36.2	184	37.4	130	26.4
Loving	480	97.6	12	2.4	0	0.0
Nervousness	0	0.0	260	52.8	232	47.2
Weeping	184	37.4	278	56.5	30	6.1
Stridor	189	38.4	211	42.9	92	18.7
Anxiety	76	15.4	332	67.5	84	17.1
Uncomfortableness	0	0.0	286	58.1	206	41.9

Xi'an Shiyou Daxue Xuebao (Ziran Kexue Ban)/
Journal of Xi'an Shiyou University, Natural Sciences Edition
ISSN: 1673-064X
E-Publication: Online Open Access
Vol: 68 Issue 06 | 2025
DOI: 10.5281/zenodo.15694908

Easily distracted	19	3.9	316	64.2	157	31.9
Feeling of Suffocation	83	16.9	221	44.9	188	38.2
Mood changes	0	0.0	387	78.7	105	21.3
Depression	25	5.1	350	71.1	117	23.8
Tenseness	0	0.0	218	44.3	274	55.7
Loneliness sensation	176	35.8	281	57.1	35	7.1
Sleepiness	36	7.3	201	40.9	255	51.8
Forgetfulness	140	28.5	192	39.0	160	32.5
Difficulty concentration	0	0.0	286	58.1	206	41.9
Tiredness	34	6.9	317	64.4	141	28.7

***More than one symptom is given by the respondents.**

Table (4): Frequency distribution of PMS behavioral symptoms (n= 492).

Behavioral changes	Non		Mild		Severe	
	*No	%	*No	%	*No	%
Decreased work productivity	0	0.0	370	75.2	122	24.8
Stay in bed	112	22.8	265	53.9	115	23.4
Tidy & organized	492	100.0	0	0.0	0.0	0.0
Absent from work	316	64.2	100	20.3	76	15.4
Decrease social activity	121	24.6	238	48.4	133	27.0
Home accident	216	43.9	189	38.4	87	17.7
Incorrect judgment	38	7.7	112	22.8	342	69.5

***More than one symptom is given by the respondents.**

Table (5): Relationship between woman's age and PMS (n=492).

Decreased with age / years	No	Means	SD	t-test	p-value
Yes	309	26.17	6.84	2.190	0.029
No	183	24.75	6.10		

Table (6): Relation between marital status and PMS (n=492).

Symptoms	No	Means	SD	F	p-value
Physical symptom				3.22	0.041*
Single	242	56.33	4.57		
Married	235	57.4	4.32		
Widow or divorced	15	54.9	2.89		
Psychological symptom					
Single	242	47.27	4.86	3.176	0.043*
Married	235	46.93	5.06		
Widow or divorced	15	46.73	4.83		
Behavioral symptom					
Single	242	8.74	1.70	0.875	0.417
Married	235	8.49	1.75		
Widow or divorced	15	9.00	1.72		

Xi'an Shiyou Daxue Xuebao (Ziran Kexue Ban)/
Journal of Xi'an Shiyou University, Natural Sciences Edition
ISSN: 1673-064X
E-Publication: Online Open Access
Vol: 68 Issue 06 | 2025
DOI: 10.5281/zenodo.15694908

Table (7): Relation between the level of education and PMS (n=492).

Level of education	Physical symptom		Psychological symptom		Behavioral symptom	
	Mean	SD	Mean	SD	Mean	SD
Illiterate	57.89	3.2	46.45	4.88	9.36	1.94
Read & write	55.21	4.72	46.48	3.79	8.41	1.76
Secondary School	56.39	4.75	46.01	4.55	8.39	1.51
High education	57	4.07	47.73	5.43	9.28	1.55
F-test	6.192		4.527		12.544	
Sig	0.000**		0.004**		0.000**	

DISCUSSION

The main objective of the current study was to assess Egyptian women's premenstrual symptoms. It was noticed that the physical symptoms had higher prevalence than the psychological symptoms. It was estimated that the most common physical symptoms were tachycardia, muscles weakness, nausea and vomiting, uterine spasm, weight gain, and distension.

These findings were supported by Karpagavalli & Rani [(12)] who reported that the most common physical symptoms were abdominal cramp and muscles weakness. Furthermore, King [(13)] mentioned that backache, fatigue, headache, and breast tenderness were the most common physical symptoms. Moreover, a study was done by Kustriyanti & Rahayu, [(14)] on 745 women reported that the most common frequent menstrual complaints were abdominal cramps, backache and fatigue.

The researchers added that these physical symptoms occurred to some women in severe level, and other women have mild ones, while others have none. These symptoms are explained by the fluctuations of hormones during the luteal phase and ovulation.

The results of the present study showed that the psychological symptoms like mood changes, depression, anxiety, and easy distractibility were ranked at mild level while tense and sleepiness symptoms were ranked at a severe level. These findings go in line with Xing [(15)] who found that the most frequently reported symptoms were anxiety, tension, irritability and mood swings; the author suggested that elevated depressed mood, rather than menstrual event itself, facilitates recall for increase in anxiety in some women.

Also, Shalini et al [(16)] reported that psychological and behavioral symptoms were mentioned by 50% of women in their study, they explained these phenomena as the changes in estrogen, progesterone and serotonin level could be a cause for the presence of psychological symptoms.

In fact, most researchers agreed that the chemical transmission of signals in the brain and nervous system is in some way related to PMS. This is supported by the fact that the times following childbirth and menopause are also associated with depression, change in mood, and low estrogen level.

Xi'an Shiyou Daxue Xuebao (Ziran Kexue Ban)/
Journal of Xi'an Shiyou University, Natural Sciences Edition
ISSN: 1673-064X
E-Publication: Online Open Access
Vol: 68 Issue 06 | 2025
DOI: 10.5281/zenodo.15694908

The findings of the current study revealed that women with PMS had less performance in their work and complaints from incorrect judgment in their life during PMS. These findings are supported by Tsegaye & Getachew [17] who found that lack of concentration and performance are the most common behavioral complaints among women with PMS. Furthermore, Dilbaz, & Aksan [18] reported that more than half of the samples of their study (57.6%) had sick leave during their menses such as staying home from work, disability days, and more clinic visits.

Study findings indicated a significant relationship between marital status and physical symptoms as well as psychological symptoms. Unmarried women had complained more from PMS than married women. These findings were consistent with those reported by Sanchez & Kraemer [19] that single women had a severe physical and psychological symptom more than married women. they suggested that decreased severity of symptoms in married females may be related to a biologic hormonal influence.

A significant relationship between the level of education and PMS was indicated in the present study, this finding reflected that woman with more physical and psychological complaints had more years of education. This could be explained that the more educated women are aware to express her complaints and to look for means related changes. In addition, Pavitra, [20], reported that women with physical or psychological symptoms had higher level of education. Also, Tsegaye & Getachew [17] reported that the most frequent symptoms among university students were physical and psychological symptoms.

CONCLUSION AND RECOMMENDATION

Based on the results of the current study, the premenstrual symptoms are varied in nature and severity among Egyptian women. The most common premenstrual symptoms were physical, followed by psychological, and lastly behavioral. Premenstrual symptoms have a negative impact on their lives and role performance. It is recommended to educate females about the symptoms and time of PMS. Furthermore, a lifestyle modification guideline should be followed to reduce the severity of these symptoms.

References

1) Arafa AE, Senosy SA, Helmy HK, Mohamed AA. Prevalence and patterns of dysmenorrhea and premenstrual syndrome among Egyptian girls (12–25 years). Middle East Fertility Society Journal [Internet]. 2018 Jan 29;23(4):486–90. Available from: https://doi.org/10.1016/j.mefs.2018.01.007.

2) Yoshimi K, Shiina M, Takeda T. Lifestyle Factors Associated with Premenstrual Syndrome: A Cross-sectional Study of Japanese High School Students. Journal of Pediatric and Adolescent Gynecology [Internet]. 2019 Sep 10;32(6):590–5. Available from: https://doi.org/10.1016/j.jpag.2019.09.001.

3) Gnanasambanthan S, Datta S. Premenstrual syndrome. Obstetrics Gynaecology & Reproductive Medicine [Internet]. 2019 Jul 17;29(10):281–5. Available from: https://doi.org/10.1016/j.ogrm.2019.06.003.

4) Yonkers KA, Simoni MK. Premenstrual disorders. American Journal of Obstetrics and Gynecology. 2017 May 30;218(1):68–74. Available from: https://doi.org/10.1016/j.ajog.2017.05.045.

ISSN: 1673-064X
E-Publication: Online Open Access
Vol: 68 Issue 06 | 2025
DOI: 10.5281/zenodo.15694908

5) MoradiFili B, Ghiasvand R, Pourmasoumi M, Feizi A, Shahdadian F, Shahshahan Z. Dietary patterns are associated with premenstrual syndrome: evidence from a case-control study. Public Health Nutrition [Internet]. 2019 Oct 15;23(5):833–42. Available from: https://doi.org/10.1017/s1368980019002192.

6) Isgin-Atici K, Kanbur N, Akgül S, Buyuktuncer Z. Diet quality in adolescents with premenstrual syndrome: A cross-sectional study. Nutrition & Dietetics. 2019 Feb 6;77(3):351–8. Available from: https://doi.org/10.1111/1747-0080.12515.

7) Hashim MS, Obaideen AA, Jahrami HA, Radwan H, Hamad HJ, Owais AA, et al. Premenstrual Syndrome Is Associated with Dietary and Lifestyle Behaviors among University Students: A Cross-Sectional Study from Sharjah, UAE. Nutrients. 2019 Aug 17;11(8):1939. Available from: https://doi.org/10.3390/nu11081939.

8) Acikgoz A, Dayi A, Binbay T. Prevalence of premenstrual syndrome and its relationship to depressive symptoms in first-year university students. Saudi Medical Journal. 2017 Nov 1;38(11):1125–31. Available from: https://doi.org/10.15537/smj.2017.11.20526.

9) Farmerhealth.org.au. (2020). DASS (Depression and Anxiety Stress Scale) Scoring. [online] Available at: chromeextension://efaidnbmnnnibpcajpcglclefindmkaj/https://farmerhealth.org.au/sites/default/files/DASS_21_Scoring_white_HEALTH_PROFESSIONAL_USE_ONLY_V_15.pdf.

10) Salem IMW, Alsamti MY, Murad MA. Predictors of Premenstrual Syndrome among Female Students at Governmental Secondary Schools in Jeddah, Saudi Arabia: A Cross-sectional Study. The Egyptian Journal of Hospital Medicine. 2020 Jan 1;78(2):337–47. Available from: https://doi.org/10.21608/ejhm.2020.76614.

11) Helmy NA, Kamel DM, Gabr AA, Shehata MMA. Do dietary habits affect the premenstrual syndrome severity among a cohort of Egyptian females? A cross-sectional study. Bulletin of Faculty of Physical Therapy. 2023 Mar 27;28(1). Available from: https://doi.org/10.1186/s43161-023-00122-1.

12) International Journal of Health Sciences and Research (IJHSR). A Study to Assess the Effect of Premenstrual Syndrome on Quality of Life among College Students at Chennai. www.academia.edu. 2020 Jan 1; Available from: https://www.academia.edu/43828022/A_Study_to_Assess_the_Effect_of_Premenstrual_Syndrome_on_Quality_of_Life_among_College_Students_at_Chennai.

13) King S. Premenstrual Syndrome (PMS) and the myth of the irrational female. In: Springer eBooks [Internet]. 2020. p. 287–302. Available from: https://doi.org/10.1007/978-981-15-0614-7_23.

14) Kustriyanti D, Rahayu H. Prevalence of premenstrual syndrome and quality of life among health science college student. International Journal of Public Health Science (IJPHS). 2020 Mar 1;9(1):15. Available from: https://doi.org/10.11591/ijphs.v9i1.20404.

15) Xing J, Wu H, Wang X, Yi S, Wei Y, Zhao Y, et al. Psychological, physiological, and biochemical correlations after negative emotional videos in college students with and without premenstrual syndrome. Frontiers in Psychiatry. 2023 Aug 15;14. Available from: https://doi.org/10.3389/fpsyt.2023.1228276.

16) Shalini N, Singh V, Yadav HK, Bhankhar SK, Behmani RK. Menstrual distress and psychological well-being. International Journal of Health Sciences. 2022 May 30;8727–34. Available from: https://doi.org/10.53730/ijhs.v6ns3.8100.

17) Tsegaye D, Getachew Y. Premenstrual dysphoric disorder and associated factors among female health science students in Wollo University, Ethiopia, 2017/18. Maternal Health Neonatology and Perinatology. 2019 May 21;5(1). Available from: https://doi.org/10.1186/s40748-019-0102-z.

ISSN: 1673-064X
E-Publication: Online Open Access
Vol: 68 Issue 06 | 2025
DOI: 10.5281/zenodo.15694908

18) Dilbaz B, Aksan A. Premenstrual syndrome, a common but underrated entity: review of the clinical literature. Journal of the Turkish-German Gynecological Association. 2021 Mar 3;22(2):139–48. Available from: https://doi.org/10.4274/jtgga.galenos.2021.2020.0133.

19) Sanchez BN, Kraemer WJ, Maresh CM. Premenstrual Syndrome and Exercise: A Narrative review. Women. 2023 Jun 20;3(2):348–64. Available from: https://doi.org/10.3390/women3020026.

20) Dr RPR, Sireesha Dr. Free papers compiled. Indian Journal of Psychiatry [Internet]. 2022 Jan 1;64(9):594. Available from: https://pmc.ncbi.nlm.nih.gov/articles/PMC9129629/.