Turkish Journal of Clinics and Laboratory

To cite this article: Cetinkaya Ak E, Ucan Yamac S. Traditional practices and coping methods used by women experiencing premenstrual syndrome. Turk J Clin Lab 2026; 1: 1882899.

Research Article

Traditional practices and coping methods used by women experiencing premenstrual syndrome

Premenstrual sendrom yaşayan kadınların kullandığı geleneksel uygulamalar ve başa çıkma yöntemleri

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Abstract

Aim: This study aimed to examine the symptom severity, coping methods, and use of traditional and complementary medicine (TCM) among women living in rural areas and experiencing premenstrual syndrome (PMS).

Material and Methods: This cross-sectional, descriptive study was conducted among women aged 18–49 years registered at a primary health care centre. Participants were selected using purposive sampling, specifically criterion sampling; 327 women who reported experiencing (according to the PMS Scale) PMS were included in the study. Data were collected using a Identification Information Form, the Premenstrual Syndrome Scale (PMSS), and the Premenstrual Coping Measure (PCM). Descriptive statistics, chi-square tests, and Spearman correlation analysis were used to analyze the data.

Results: Among women screened at the health center, 48.23% met the PMS screening criteria and were included in the study. The average age of the women was 33.92±9.30. The mean total PMSS score was 142.50±12.28, with the highest subscale scores found in depressive mood, anxiety, and fatigue. Among the PCM subscales, the highest mean scores were found in awareness and acceptance of premenstrual changes. A weak but significant positive correlation was found between the total PMSS score and the PCM awareness-acceptance, self-care, and communication subscales ($r \approx 0.15–0.25$; $p<0.05$). 74.9% of women used at least one TCM method, and TCM use was significantly higher in the 42–49 age group, among women with primary school education, and among working women ($p<0.05$).

Conclusion: Women living in rural areas largely rely on traditional and complementary methods to cope with PMS, but their coping levels remain limited. These findings may guide the development of culturally sensitive counseling approaches for PMS in primary healthcare settings.

Keywords: complementary therapies, premenstrual syndrome, traditional medicine, women's health

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Doi: 10.18663/tjcl.1882899
Received: 05.02.2026 accepted: 26.02.2026 Publication date: 29.03.2026
This study was presented as an oral presentation at the 5th International 6th National Midwifery Congress (November 11-14, 2021)and was published as a summary text in the abstract book.

Öz

Amaç: Bu çalışma, kırsal bölgelerde yaşayan ve premenstrual sendrom (PMS) yaşayan kadınlarda semptom şiddetini, başa çıkma davranışlarını ve geleneksel ve tamamlayıcı tıp (GTT) kullanımını incelemeyi amaçlamıştır.

Gereç ve Yöntemler: Bu kesitsel ve tanımlayıcı çalışma, bir birinci basamak sağlık merkezine kayıtlı 18-49 yaş arası kadınlarla gerçekleştirilmiştir. Katılımcılar, amaçlı örnekleme, özellikle de kriter örnekleme yöntemi kullanılarak seçilmiştir; PMS yaşadığını bildiren (PMS Ölçeğine göre) 327 kadın çalışmaya dahil edilmiştir. Veriler, Kimlik Bilgileri Formu, Premenstrüel Sendrom Ölçeği (PMSÖ) ve Premenstrual Semptomlarla Baş Etme Ölçeği (PSBÖ) kullanılarak toplanmıştır. Verilerin analizinde tanımlayıcı istatistikler, ki-kare testi ve Spearman korelasyon analizi kullanılmıştır.

Bulgular: Sağlık merkezinde taranan kadınlar arasında %48,23'ü PMS tarama kriterlerini karşılamış ve çalışmaya dahil edilmiştir. Kadınların yaş ortalaması 33,92±9,30'dur. Toplam PMSÖ puan ortalaması 142,50±12,28 olarak saptanmış ve en yüksek alt ölçek puanlarının depresif duygu durum, anksiyete ve yorgunluk alt boyutlarında olduğu belirlenmiştir. PSBÖ alt ölçekleri arasında ise en yüksek ortalama puanlar premenstrual değişimlere ilişkin farkındalık ve kabul alt boyutunda görülmüştür. Toplam PMSÖ puanı ile PSBÖ'nün farkındalık-kabul, öz bakım ve iletişim alt boyutları arasında zayıf ancak istatistiksel olarak anlamlı pozitif bir korelasyon saptanmıştır (r≈0,15-0,25; p<0,05). Kadınların %74,9'u en az bir GTT yöntemi kullanmakta ve GTT kullanımı 42–49 yaş grubunda, ilkokul mezunu olanlarda ve çalışan kadınlarda anlamlı düzeyde daha yüksektir (p<0,05).

Sonuç: Kırsal bölgelerde yaşayan kadınlar, premenstrual sendromla başa çıkmak için büyük ölçüde geleneksel ve tamamlayıcı yöntemlere başvurmaktadır, ancak başa çıkma düzeyleri sınırlı kalmaktadır. Bu bulgular, birinci basamak sağlık hizmetlerinde PMS'ye yönelik kültürel olarak duyarlı danışmanlık yaklaşımlarının geliştirilmesine rehberlik edebilir.

Anahtar Kelimeler: tamamlayıcı terapiler, premenstrual sendrom, geleneksel tıp, kadın sağlığı

Introduction

Menstruation is a natural and physiological process that spans approximately 30–35 years of a woman's life and occurs regularly every month [1,2]. One of the problems that women frequently encounter during this process is Premenstrual Syndrome (PMS) [3]. PMS is a condition characterized by emotional, behavioral, and physical symptoms that appear in the premenstrual period and decrease or disappear with the onset of menstruation [4].

The prevalence of PMS varies among countries and societies. Studies across different countries report that the prevalence of PMS varies widely and can differ by cultural, sociodemographic, and sample characteristics [3,5]. Studies in Türkiye have shown that PMS is quite common and that the prevalence can reach high rates, especially in young women [6,7]. A systematic review and meta-analysis study examining the prevalence of PMS in Türkiye determined that 52.2% of women had PMS in 2023 [8]. These data reveal that PMS is a common and significant problem in our country in terms of management.

In PMS, emotional symptoms such as depressed mood, irritability, tension, anger outbursts, crying spells, anxiety, difficulty concentrating, insomnia, and decreased libido are common [9,10]. These emotional symptoms are often accompanied by physical symptoms such as changes in appetite, breast tenderness, bloating, headaches, abdominal pain, and gastrointestinal complaints [2,4].

Symptoms associated with PMS negatively affect women's work life, family relationships, social life, and daily living activities [11,12]. Studies report that PMS leads to decreased work/school performance, loss of productivity, and a decline in quality of life [6,13,14]. Furthermore, it is stated that PMS symptoms have negative effects on marital harmony and interpersonal relationships [15]. In this respect, PMS is considered not only a physiological condition but also a serious women's health problem with significant psychosocial consequences [9].

Although pharmacological treatments have been predominantly used to manage PMS in the past, recent years have emphasized that combined approaches are more effective [16]. In addition to pharmacological methods such as selective serotonin reuptake inhibitors (SSRIs), anxiolytics, gonadotropin-releasing hormone (GnRH) agonists, spironolactone, nonsteroidal anti-inflammatory drugs, and oral contraceptives; education-based interventions, cognitive behavioral approaches, exercise, reflexology, acupressure, massage, light therapy, dietary adjustments, and various nutritional supplements are reported to be effective in reducing PMS symptoms [17,18]. It is known that women resort not only to medical treatments but also to traditional and complementary medicine (TCM) practices to reduce PMS symptoms [19]. It is reported that women prefer herbal teas, vitamin and mineral supplements, massage, rest, and various traditional practices during PMS [20-22].

It is thought that TCM practices may be more frequently

preferred by women living in rural areas to cope with PMS symptoms, due to limited access to healthcare services and the greater prevalence of traditional knowledge transfer and cultural practices. Although there are studies on the prevalence of PMS in Türkiye, there are limited studies that comprehensively and systematically address traditional and complementary methods used to cope with PMS symptoms, especially in rural samples. This constitutes a significant gap in the literature. This study aims to evaluate the traditional and complementary medicine practices used by women with PMS living in rural areas to manage PMS symptoms and believes the findings will contribute to the development of holistic, culturally sensitive care approaches for PMS management.

Material and Methods

This study was a cross-sectional, descriptive study to identify traditional and complementary medicine practices used by women experiencing PMS. The study population consisted of women aged 18–49 years who were registered at a primary healthcare center located in a rural district in the southern region of the country and who presented to this center between April and August 2021. Participants were selected using purposive sampling, specifically criterion sampling. All women who applied to the health center during the data collection period, who agreed to participate, and met the inclusion criteria were evaluated.

During the data collection period, 678 women who applied to the health center were screened for premenstrual syndrome using the Premenstrual Syndrome Scale (PMSS). PMS status was determined according to the scale's recommended cut-off score (≥110). Based on this criterion, 327 women (48.23%) met the PMS screening criteria and were included in the study, whereas 351 women (51.77%) scored below the cut-off and were therefore excluded. Consequently, the final study sample consisted of 327 women identified as experiencing PMS.

Women who were literate, agreed to participate in the study, were not pregnant or in the postpartum period, were not premenopausal, and had no diagnosed chronic illness or psychiatric disorder were included. Women under the age of 18 or over the age of 49, as well as those who did not meet the PMS diagnostic criteria, were excluded.

Data Collection

Written informed consent was obtained from all women who agreed to participate in the study prior to data collection. Data were collected by researchers using face-to-face interviews. During data collection, all women who applied to the health center and met the general eligibility criteria were first screened for PMS using the PMSS. Based on the scale's cut-off score (≥110), women who scored 110 or above were defined as experiencing PMS and included in the study, while those who scored below 110 were excluded in line with the exclusion criterion. Women who met the PMS diagnostic criteria and were included in the study were then administered the Identification Information Form and the PCM. Completing the data collection forms took an average of 15–20 minutes.

Data Collection Tools

In collecting the research data, 'Identification Information Form', 'Premenstrual Syndrome Scale', and 'Premenstrual Coping Measure', prepared by the researchers in line with the literature, were used.

Identification information form

The identification information form, created by the researchers by scanning the literature, includes 19 questions about participants' socio-demographic characteristics (such as age, parental education status, place of residence), menstrual history, coping behaviors with premenstrual symptoms, and use of traditional methods [1,4,5,7-10].

Premenstrual coping measure (PCM)

The PCM was developed by Read, Perz, and Ussher (2014) to assess women's capacity to cope with PMS symptoms. It is a five-point Likert-type scale (1=Not applicable to me, 5=Almost always applicable to me) consisting of five subscales: "harm avoidance" (α=0.89), "awareness and acceptance of premenstrual change" (α=0.86), "energy regulation" (α=0.73), "self-care" (α=0.81), and "communication" (α=0.68). The total score is not considered in the assessment. Higher subscale scores indicate better PMS coping behaviors. The validity and reliability of the Turkish version were established by Abay and Kaplan (2020). The scale's validity was assessed using linguistic, content, and construct validity (CFA) methods; its reliability was determined using the test-retest method and Cronbach's alpha. The Cronbach's alpha values for the subscales "harm avoidance", "awareness and acceptance of premenstrual changes", "energy regulation", "self-care", and "communication" were 0.88, 0.89, 0.75, 0.83, and 0.86, respectively. In this study, Cronbach's alphas for the subscales were 0.82, 0.87, 0.76, 0.85, and 0.87, respectively [17,20].

Premenstrual syndrome scale (PMSS)

Developed by Gençdoğan in 2006 and subsequently validated and tested for reliability, the PMS Scale is a 44-item, five-point Likert-type scale (never, very rarely, sometimes, frequently, constantly). The Cronbach's Alpha value for the scale was 0.75. In this study, Cronbach's alpha was 0.78. The scale was scored as follows: "never=1", "very rarely=2", "sometimes=3", "frequently=4", and "constantly=5". When answering the PMS Scale, respondents are asked to consider their experience during the week preceding their period. The PMS Scale has nine subcomponents: pain, bloating, appetite changes, irritability, anxiety, fatigue, depressive mood, depressive thoughts, and

sleep changes. The total PMS score is obtained by summing the scores from all subcomponents. The lowest possible score on the scale is 44, and the highest is 220. An increase in the score indicates that PMS symptoms are experienced more intensely. Although there is no cutoff point for the scale, it is suggested that a score exceeding 110, which is half the total possible score, should be considered indicative of PMS [1].

The study approval was obtained from the Burdur Mehmet Akif Ersoy University Noninvasive Clinical Research Ethics Committee (Report date: 03.02.2021; Report number: GO-2021/64). The individuals included in the study were informed about the study, and their informed consent was obtained; the study questionnaires were then administered. The study was conducted in accordance with the Declaration of Helsinki and the ethical standards of the country of origin. Permission has been obtained from the scale owners.

Statistical Analysis

Statistical analysis of the research data was performed using SPSS 23.0. In this study, the use of TCM methods was classified as follows: women who reported using at least one traditional or complementary practice to manage premenstrual syndrome symptoms were classified as "using TCM (yes)," and women who reported not using any method were classified as "not using TCM (no)." TCM use was treated as a two-category (yes/no) dependent variable. Descriptive statistics were presented as numbers, percentages, means, and standard deviations. The normality of the distributions of continuous variables was evaluated using the Shapiro-Wilk test, and it was determined that the total and subscale scores of the PMSS, as well as the PCM subscale scores, did not follow a normal distribution. Therefore, chi-square tests and Spearman's correlation analysis were used. The relationships between sociodemographic characteristics and the use of TCM methods were analyzed using the chi-square (χ^2) test. The relationship between PMSS total and subscale scores and PCM subscale scores were evaluated using Spearman correlation analysis. The internal consistency of the scales was assessed using Cronbach's alpha. A 95% confidence interval was used for all statistical analyses, and p-values <0.05 and <0.001 were considered statistically significant.

Results

The total scores obtained by the participants on the PMSS scale ranged from min=113 to max=204, with an average of 142.50±12.28. The distribution of mean scores for the sub-dimensions of the scale was as follows: depressive mood sub-dimension 23.41±0.16, anxiety sub-dimension 20.57±0.17, fatigue sub-dimension 20.03±0.16, irritability sub-dimension 16.47±0.16, depressive thoughts sub-dimension 20.25±0.16, pain sub-dimension 10.78±0.08, appetite changes sub-dimension 10.44±0.11, sleep changes sub-dimension 8.96±0.11, and bloating sub-dimension 11.58±0.09.

The distribution of mean scores on the PCM scale sub-dimensions for the participants in the study was as follows: harm avoidance sub-dimension 25.37±0.15, awareness and acceptance of premenstrual changes sub-dimension 34.35±0.17, energy adaptation sub-dimension 6.68±0.11, self-care sub-dimension 10.98±0.12, and communication sub-dimension 11.55±0.16.

In this study, weak but statistically significant positive correlations were found between total PMSS scores and the mindfulness and acceptance, self-care, and communication subscales of the PCM ($r \approx 0.15–0.25$; $p<0.05$). The PMSS subscales of depressive mood, anxiety, and irritability showed weak correlations, while these correlations were more pronounced in the PCM subscales of harm avoidance and mindfulness-acceptance ($r \approx 0.18–0.28$; $p<0.05$). In contrast, the relationships between the pain and appetite change subdimensions of PMSS and the energy adaptation subdimension of PCM were very weak and did not reach statistical significance in some comparisons ($r<0.10$; $p>0.05$).

The descriptive characteristics of women experiencing PMS and their use of the TCM method are given in Table 2. The use of the TCM method in women aged 42-49 years with PMS was greater than that in other age groups. According to chi-square analysis, there was a significant difference in the use of the TCM method across age groups ($\chi2 = 17.56$; $p = 0.001$). The use of the TCM method was greater in primary school graduate women with PMS than in the other groups. There was a significant difference in the use of TCM methods by educational status ($\chi2 = 20.82$; $p < 0.001$). Working women are more likely to use the TCM method than nonworking women, and there is a significant difference between the two ($\chi2 = 16.38$; $p < 0.001$). Women who consumed sugary foods had a higher rate of TCM use than those who did not, and the difference was significant ($\chi2 = 12.0$; $p = 0.001$). Women who consumed more than 1 cup of coffee per day were significantly more likely to use the TCM method than those who did not ($\chi2 = 6.35$; $p = 0.016$).

The distribution of PMS symptoms among women is indicated in Table 3, and 46.8% of them experienced pain, 53.2% experienced changes in appetite, 41% experienced sleep problems, 59.9% experienced bloating, 76.8% experienced breast tenderness, 67% experienced mood changes, 67.9% experienced fatigue, and 55% experienced irritability.

The distribution of women's methods of coping with PMS symptoms is indicated in Table 4, and 10.1% of women who

experienced pain applied apple oil to the abdomen and underfoot. A total of 26.3% of women with appetite changes consumed too much junk food. A total of 17.1% of the women were unable to cope with sleep problems, and 23.9% used hot showers to cope with bloating. A total of 36.4% of women with tenderness in the breasts, sensitivity take hot showers, and 10.7% of those with mood changes watch videos on the phone and are interested in social media. While 17.7% of women with fatigue reported trying to sleep, 17.7% of those with nervousness reported breathing deeply.

Table 5 presents the findings regarding the use of TCM methods by women experiencing premenstrual syndrome (PMS). According to the findings, the TCM methods used by women experiencing PMS (74.9%) were classified into herbal treatments (40.4%), body therapies (8.6%), mind-body techniques (10.7%), and hot applications (15.3%). Within the herbal treatments category, the most frequently used applications were fennel and rose tea (11.6%), olive oil and fish oil (7.6%), mint, ginger, and chamomile tea (7.3%), and chasteberry seeds and Jerusalem artichoke (7.3%). In the body therapies group, massage with herbs was reported by 5.2%, and massage with primroses by 3.4%. Among mind-body techniques, walking was reported by 4.0%, listening to music and prayer by 2.4%, and relaxation exercises by 1.8%. Among heat applications, taking a hot shower was the most frequently reported practice at 14.1%, while applying heat to the abdomen and soles of the feet was reported at 1.2%.

Table 1. The Situation of Women Experiencing PMS.

PMS	**n**	**%**
PMS Yes (≥110)	327	48.23
PMS No (<110)	351	51.77
TOTAL	678	100.0

PMS: premenstrual syndrome

Table 2. Examination of the Descriptive Characteristics of Women Experiencing PMS and the Use of TCM.

	Using the TCM Method		**Non-TCM Method**		**Analysis**	
Introductory Features	n	%	n	%	X^2	P
Age groups						
18-25	45	18.4	33	40.2		
26-33	63	25.7	16	19.5		
34-41	62	25.3	19	23.2		
42-49	75	30.6	14	17.1	17.56	0.001**
Educational background						
Primary school graduate	95	38.8	13	27.1		
Secondary school graduate	58	23.7	16	18.6		
High school graduate	65	26.5	35	42.7		
College and above	27	11.0	18	22.0	20.82	0.000*
Marital status						
Single	63	25.7	26	31.7		
Married	182	74.3	56	68.3	1.11	0.32
Employment status						
Yes	165	67.3	74	90.2		
No	80	32.7	8	9.8	16.38	0.000*
Smoking status						
Yes	72	29.4	24	29.3		
No	173	70.6	58	70.7	0.000	0.55
Consumption of sugary foods						
Yes	203	82.9	53	64.2		
No	42	17.1	29	35.4	12.0	0.001**
Exercise status						
Yes	95	38.8	35	42.7		
No	150	61.2	47	57.3	0.39	0.60
Consuming more than one cup of coffee a day						
Yes	169	69.0	44	53.7		
No	76	31.0	38	46.3	6.35	0.016**

PMS: premenstrual syndrome, TCM: traditional and complementary medicine

X^2: Chi square analysis, p<0.001, p<0.05***

Table 3. Distribution of PMS Symptoms in Women.

Symptoms experienced in the premenstrual period	Yes		No	
	n	%	n	%
Pain	153	46.8	174	53.2
Change in appetite	174	53.2	153	46.8
Sleep problems	134	41.0	193	59.0
Bloating	196	59.9	131	40.1
Tenderness in the breasts	251	76.8	76	23.2
Mood change	219	67.0	108	33.0
Fatigue	222	67.9	105	32.1
Irritability	180	55.0	147	45.0

PMS: premenstrual syndrome

Table 4. Distribution of Women's Methods of Coping with the Symptoms of PMS.

PMS Symptoms	n	%	Coping Methods	n	%
Pain					
Yes	153	46.9	I cannot cope	35	10.7
No	174	53.1	I drink pain medication	28	8.6
			I will get some rest	18	5.5
			I drink sugar water	10	3.1
			I wear socks on my feet all the time	12	3.7
			I apply apple oil to my abdomen and under my feet	33	10.1
Total	327	100.0	I drink herbal tea	17	5.2
Appetite					
Yes	174	53.2	I cannot cope	71	21.7
No	153	46.8	I eat a lot of junk food	86	26.3
			I eat anything dessert type	14	4.3
Total	327	100.0	I drink a lot of coffee	3	0.9
Sleep					
Yes	134	41.0	I cannot cope	56	17.1
No	193	59.0	I look for a quiet place to sleep	45	13.8
Total	327	100.0	I eat yogurt or drink milk	33	10.1
Swelling					
Yes	196	59.9	I cannot cope	60	18.3
No	131	40.1	I take a hot shower	78	23.9
			I drink herbal tea	21	6.4
			I drink a lot of water	3	0.9
Total	327	100.0	I reduce salt in meals	34	10.4
Tenderness in the breasts					
Yes	251	76.7	I cannot cope	74	22.6
No	76	23.3	I drink painkillers	58	17.7
Total	327	100.0	I take a hot shower	119	36.4
Mood change					
Yes	219	67.1	I cannot cope	34	10.4
No	108	32.9	I work in the field	30	9.2
			I take a walk	27	8.3
			I will go to my neighbor	27	8.3
			I pray	28	8.6
			Cry	25	7.6
			I watch videos on the phone; I look at social media	35	10.7
Total	327	100.0	I listen to music	13	4.0
Fatigue					
Yes	222	67.9	I cannot cope	61	18.7
No	105	32.1	I try to sleep	58	17.7
			I massage my belly and lower back	45	13.8
Total	327	100.0	I try to rest	58	17.7
Irritability					
Yes	180	55.05	I cannot cope	29	8.9
No	147	44.95	I breathe deeply	58	17.7
			Cry	21	6.4
			I take a walk toward my garden	11	3.4
			I work faster in the field	17	5.2
			I pray all the time	24	7.3
Total	327	100.0	I eat a lot of coffee and chocolate	20	6.1

PMS: premenstrual syndrome

Table 5. The Use of TCM Methods By Women Experiencing PMS.

TCM Method	Use Case	
	n	%
Herbal Treatments (n=132)		
Mint, ginger, chamomile tea	24	7.3
Chocolate, dessert	5	1.5
Hayit seed, Jerusalem artichoke	24	7.3
Burdock-Melissa (son's herb)	16	4.9
Fennel tea, rose tea	38	11.6
Olive oil, fish oil	25	7.6
Body Therapy (n=28)		
Massage with primroses	11	3.4
From the plant of the wife to the cremation	17	5.2
Mind-body techniques (n=35)		
Walk	13	4.0
Relaxation exercise	6	1.8
Listen to music	8	2.4
Pray	8	2.4
Hot Application (n=50)		
Warm application to the abdomen and under the feet	4 46	1.2 14.1
Taking a hot shower		

PMS: premenstrual syndrome, TCM: traditional and complementary medicine

Discussion

In this study, the mean age of women experiencing PMS was 33.92±9.30 years, and 48.23% (n=327) of all participants experienced PMS. In a systematic review and meta-analysis conducted in Türkiye, the prevalence of PMS was reported to be up to 52.2% [8]. Studies conducted in different countries also show that PMS is quite common; for example, in Korea, the prevalence of PMS in young women ranges from 62–75% [4], and in Sudan, it is reported as 64.8% in adolescent girls [5]. These findings support the high prevalence of PMS in this study. The slightly lower prevalence observed in this study compared with some international findings may be related to cultural perceptions of symptoms, differences in reporting behaviors, and variations in lifestyle and stress exposure. In addition, women in Türkiye especially in rural settings may rely more on traditional coping practices and normalize symptoms, which can influence both symptom interpretation and reporting patterns.

In this study, the high total and sub-dimension scores of PMSS, particularly in the areas of depressive mood, anxiety, and fatigue, indicate that emotional and cognitive symptoms of PMS are prominent. Similarly, current literature reports that psychological symptoms of PMS are more dominant than physical symptoms [8,14]. The relatively high scores in the mindfulness-acceptance and harm avoidance sub-dimensions and the low score in the energy adaptation sub-dimension in PCM suggest that women tend to rely more on cognitive and emotional strategies in coping with PMS, while their physical adaptation behaviors remain limited. These findings support the importance of mindfulness and acceptance-based approaches in PMS management as stated in the literature [21,22].

This study found weak but significant positive correlations between total PMSS scores and the mindfulness-acceptance, self-care, and communication sub-dimensions of PCM, and the magnitude of these correlations was low (r≈0.15–0.25), indicating that coping styles explain only a limited proportion of the variability in PMS symptoms. This may suggest a tendency for women with higher PMS scores to report slightly higher use of certain coping strategies, although the relationships observed were weak. Therefore, these associations should be interpreted cautiously and not as strong behavioral determinants. The fact that emotional PMS symptoms such as depressive mood, anxiety, and irritability show more pronounced correlations with harm avoidance and mindfulness-acceptance-based coping approaches is consistent with current studies emphasising the prominence of the psychological dimension of PMSS [8,20,21]. Conversely, the very weak and, in some comparisons, insignificant correlations between physical symptoms such as pain and appetite changes and the energy adaptation sub-dimension suggest that somatic PMS symptoms respond more limitedly to psychosocial coping methods [11,14]. Overall, these findings may indicate associations rather than causal mechanisms, and, given the study's cross-sectional design, no causal inference can be made about the relationship between coping styles and PMS severity. This highlights the multifactorial nature of PMS and suggests that coping behaviors represent only one component within broader biopsychosocial processes.

This study found that TCM use increased with age and was highest in the 42–49 age group. A study examining the use of GCC in Türkiye shows an increasing trend toward traditional practices among older age groups, which is related to the cultural transmission of health behaviors [19]. Uçak and Özkan (2022) also reported that the tendency towards herbal and traditional methods increases with age in women experiencing PMS [22]. This numerical and directional similarity supports the age-TCM use relationship in this study. Similar patterns have also been reported in international studies; for example,

research conducted in Jordan and Ethiopia indicates that women frequently rely on culturally transmitted and experience-based coping strategies when managing PMS symptoms [3,21]. Likewise, studies among adolescent girls in India suggest that traditional and non-pharmacological approaches remain common coping preferences shaped by sociocultural norms and learned behaviors [23]. This suggests that the age-related increase in TCM use observed in this study reflects a broader cross-cultural phenomenon rather than a country-specific pattern.

When evaluated by education level, the rate of TCM use is higher among women who have completed primary education. Studies conducted in Türkiye report that the rate of traditional practice use is over 70% among women with low levels of education, whereas it remains 30-40% among university graduates [19,22]. This situation is consistent with the findings of this study. International studies similarly indicate that lower educational attainment is associated with greater reliance on culturally transmitted coping practices and informal health knowledge, as shown in studies from Jordan, Ethiopia, and India [3,21,23]. Research from Korea and Sudan also suggests that access to formal health information shapes how women interpret menstrual symptoms and select coping strategies [4,5]. In contrast, findings from higher-income contexts, such as the Netherlands, indicate that women with greater educational opportunities are more likely to seek biomedical support and to use traditional methods more selectively [11]. Taken together, these results suggest that education influences not only access to information but also symptom interpretation and health decision-making patterns.

In this study, breast tenderness (76.8%), fatigue (67.9%), mood changes (67%), bloating (59.9%), and irritability (55%) were the most frequently reported PMS symptoms. Similarly, studies conducted in Türkiye show that fatigue, irritability, mood changes, and physical pain are reported in over 50% of cases [6,9]. International studies have also reported that PMS presents with both psychological and physical symptoms; in Jordan, breast tenderness and bloating were reported in over 70% of cases [3]. In this respect, the symptom distribution in this study is consistent with the literature.

This study found that 74.9% of women used TCM methods to cope with PMS symptoms. A study conducted in Türkiye with women experiencing PMS reported a TCM usage rate of 68.4% [22]. Similarly, a study in Jordan indicated that approximately 60% of women resorted to herbal and traditional methods to manage PMS [3]. These numerical data support the high TCM usage rate found in this study.

When examining women's coping mechanisms for PMS symptoms, a high percentage of women reported being unable to cope, particularly with appetite changes (21.7%), sleep problems (17.1%), and fatigue (18.7%). A study of university students also reported that 20–30% of women were unable to cope with similar symptoms [7]. Eshetu et al. (2022) reported that 93% of women used at least one coping mechanism, but these methods were mostly insufficient [21].

When evaluating the uses of TCM, herbal treatments are the most frequently used method in this study (40.4%). Fennel and rose tea (11.6%), mint-ginger-chamomile tea (7.3%), and chasteberry seeds (7.3%) are the most frequently preferred herbal applications. Studies conducted in Türkiye report that the usage rates of chamomile, fennel, and chasteberry seeds vary between 20-45% [19,22]. This indicates that herbal treatments are widespread and culturally accepted practices in PMS management in Türkiye.

In this study, heat applications (15.3%), mind-body techniques (10.7%), and physical therapies (8.6%) were also used to alleviate PMS symptoms. Studies conducted in Türkiye report that the use of heat applications varies between 12–30%, while walking and relaxation techniques are preferred by 8–20% [7,22]. Similarly, a study conducted in India indicated that 18% of adolescent girls used walking and relaxation techniques to cope with PMS [23].

In conclusion, the findings of this study are largely consistent with the quantitative results of studies conducted in Türkiye and in different cultures regarding the distribution of PMS symptoms, TCM use rates, and coping behaviors. In particular, age, education level, and rural living significantly influence TCM use. However, the weak correlations observed between PMS severity and coping styles indicate that these relationships should be interpreted as associative rather than causal. Future longitudinal or interventional studies are needed to clarify the direction and strength of these relationships. This highlights the importance of holistic approaches in PMS management that consider cultural context and individual characteristics.

Limitations of the study

This study has some limitations. The cross-sectional and descriptive nature of the research limits the evaluation of the findings within a cause-and-effect framework. The fact that the data were collected within a single time period prevented examination of changes in PMS symptoms and coping behaviors over time. Limiting the sample to women who applied to a single rural health center, using a purposive sampling approach, and including only those who applied to the center partially restricts the generalizability of the

findings. The self-reported data collection may have led to recall and social acceptability biases. Furthermore, the lack of detailed evaluations of the characteristics, frequency, and duration of the traditional and complementary medicine methods used limits the interpretation of their effectiveness.

In conclusion, this study shows that women living in rural areas tend to rely on traditional and complementary approaches in coping with premenstrual syndrome (PMS), and that this process is largely based on individual and cultural experiences. PMS management needs to be addressed holistically and in a structured manner in primary healthcare settings. In this context, it is important for midwives and nurses to assess women's coping behaviours and traditional practice preferences regarding PMS, and to provide safe and evidence-based counselling. Developing culturally sensitive education and counseling approaches in which midwives and nurses play an active role will help support women in PMS management and improve their quality of life.

Declaration of conflicting interests

The authors declared no conflicts of interest with respect to the authorship and/or publication of this article.

Funding

The authors received no financial support for the research and/or authorship of this article.

Ethics approval

This study was approved by the Burdur Mehmet Akif Ersoy University Noninvasive Clinical Research Ethics Committee (Report number, place, and date: GO-2021/64, Burdur-Turkey, 03.02.2021).

Authors' contribution

E.Ç.A.: Concept/Idea, Design, Supervision/Consultancy, Literature Review, Data Collection and Analysis, Literature Review, Writing the Article, Critical Review.

S.U.Y.: Concept/Idea, Design, Supervision/Consultancy, Literature Review, Data Collection and Analysis, Literature Review, Writing the Article, Critical Review.

References

1. Gencdogan B. A new scale for premenstrual syndrome. Turk Psikiyatri Derg 2006; 8: 81-7.
2. American College of Obstetricians and Gynecologists. Premenstrual syndrome (PMS). Available from: https://www.acog.org. Accessed January 24, 2026.
3. Albsoul-Younes A, Alefishat E, Farha RA, Tashman L, Hijjih E et al. Premenstrual syndrome and premenstrual dysphoric disorders among Jordanian women. Perspect Psychiatr Care 2018; 54: 348-53.
4. Kim YJ, Park YJ. Menstrual cycle characteristics and premenstrual syndrome prevalence based on the daily record of severity of problems in Korean young adults. J Korean Acad Nurs 2020; 50: 147-57.
5. Salih Y, Hassan AA, AlHabardi N, Adam I. Prevalence and associated factors for dysmenorrhea, heavy menstrual bleeding, and premenstrual syndrome in adolescent schoolgirls in Sudan. BMC Womens Health 2025; 25: 445.
6. Aba YA, Ataman H, Dissiz M, Sevimli S. Premenstrual syndrome, physical activity and quality of life in young women. J Acad Res Nurs 2018; 4: 75-82.
7. Topatan S, Kahraman S. The methods applied for coping and the quality of life of university students experiencing premenstrual syndrome. Anatol J Nurs Health Sci 2020; 23: 35-44.
8. Erbil N, Yucesoy H. Premenstrual syndrome prevalence in Turkey: a systematic review and meta-analysis. Psychol Health Med 2023; 28: 1347-57.
9. Erbil N. Prevalence of depressive symptoms among Turkish women experiencing premenstrual symptoms and correlated factors. Alexandria J Med 2018; 54: 549-53.
10. Sarwar U, Rauf U. Social support, quality of life and mental health problems among females with and without menstruation problems: a comparative study. Khyber Med Univ J 2021; 13: 206-10.
11. Schoep ME, Adang EMM, Maas JWM, De Bie B, Aarts JWM et al. Productivity loss due to menstruation-related symptoms: a nationwide cross-sectional survey among 32,748 women. BMJ Open 2019; 9: e026186.
12. Karimiankakolaki Z, Mazloomy Mahmoodabad SS, Heidari F, Gerayllo S, Khabiri F. The relationship between premenstrual syndrome and women's marital satisfaction. J Midwifery Reprod Health 2019; 7: 1630-35.
13. Kahyaoglu SH, Mestogullari E. Effect of premenstrual syndrome on work-related quality of life in Turkish nurses. Saf Health Work 2016; 7: 78-82.
14. Hardy C, Hunter MS. Premenstrual symptoms and work: exploring female staff experiences and recommendations for workplaces. Int J Environ Res Public Health 2021; 18: 3647.
15. Basagac E, Ege E. The relationship between premenstrual syndrome symptoms and marital adjustment. Ordu Univ J Nurs Stud 2021; 4: 1-9.
16. Frey Nascimento A, Gaab J, Kirsch I, Kossowsky J, Meyer A et al. Open-label placebo treatment of women with premenstrual syndrome: study protocol of a randomized controlled trial. BMJ Open 2020; 10: e032600.

17. Abay H, Kaplan S. Validation and reliability of the Turkish Premenstrual Coping Measure. Bezmialem Science 2020; 8: 289–99.
18. Kucukkelepce DS, Tashan ST. The effects of health belief model-based education and acupressure for coping with premenstrual syndrome. Perspect Psychiatr Care 2021; 57: 189-97.
19. Ceyhan D, Yigit TT. The role of current complementary and alternative medical treatments in health practice. Duzce Univ Inst Health Sci J 2016; 6: 178-89.
20. Read JR, Perz J, Ussher JM. Ways of coping with premenstrual change: development and validation of a premenstrual coping measure. BMC Womens Health 2014; 14: 1-15.
21. Eshetu N, Abebe H, Fikadu E, Getaye S, Jemal S et al. Premenstrual syndrome, coping mechanisms and associated factors among Wolkite University female students, Ethiopia, 2021. BMC Womens Health 2022; 22: 88.
22. Ucak H, Suzer Ozkan F. Traditional and complementary medicine practices used by women with premenstrual syndrome. Konuralp Med J 2022; 14: 23-29.
23. Gopika AV, George S, Rose BM, Olickal JJ, Thankappan KR. Attitude towards menstruation, prevalence of premenstrual syndrome and coping mechanisms among adolescent girls in Kerala, India: a cross-sectional study. BMJ Public Health 2025; 3: e002281.