

## The Effectiveness of Psychoeducation on Menstrual Disorders in Adolescent Girls: A Systematic Literature Review

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Submitted: August 2025

Revised: September 2025

Published: 30 September 2025

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### ABSTRACT

**Introduction:** Menstrual disorders such as dysmenorrhea and premenstrual syndrome (PMS) are common among adolescent girls and often cause physical discomfort and psychological distress that interfere with academic performance and daily functioning. Within the context of adolescent-centered health promotion, psychoeducation has been increasingly recognized as a non-pharmacological strategy to improve menstrual health and emotional well-being. **Objective:** This study aims to systematically review and synthesize evidence regarding the effectiveness of psychoeducational interventions in alleviating menstrual symptoms and improving psychological outcomes among adolescent girls. Specifically, it evaluates outcomes related to pain severity, premenstrual symptoms, emotional regulation, and illness perception. **Method:** A systematic search was conducted in PubMed, Google Scholar, ScienceDirect, Taylor & Francis, ProQuest, Wiley Online Library, JSTOR, SAGE Journals, and Springer Nature for randomized controlled trials (RCTs) published between 2015 and 2025. Eligible studies included adolescent girls aged 10–19 years who received psychoeducational interventions for menstrual disorders. The interventions varied in structure, duration, and theoretical basis, including models such as Leventhal's Self-Regulation Model, Cognitive Behavioral Therapy (CBT), and psychodrama-based approaches. Study selection followed PRISMA 2020 guidelines. Methodological quality was appraised using the Critical Appraisal Skills Programme (CASP) checklist. **Result:** Five RCTs with a total of 395 participants met the inclusion criteria. The findings consistently demonstrated that psychoeducation significantly reduced menstrual pain severity and

premenstrual symptoms while enhancing emotional regulation and illness perception. Most interventions were delivered in small-group formats across three to seven sessions, combining cognitive and behavioral components. **Conclusion:** Psychoeducation is an effective, feasible, and complementary intervention for managing menstrual disorders in adolescent girls. Integrating psychoeducational programs into school-based and primary healthcare settings can enhance adolescent reproductive health outcomes and promote holistic well-being through preventive and evidence-based approaches.

**Keywords:** adolescent girls, menstrual disorders, psychoeducation

## Introduction

Menstrual disorders such as dysmenorrhea and premenstrual syndrome (PMS) are among the most prevalent reproductive health issues experienced by adolescent girls worldwide (Azahary et al., 2022). These conditions not only lead to recurrent physical symptoms including abdominal cramps, fatigue, and headaches but are also frequently accompanied by psychological distress, such as irritability, mood swings, anxiety, and depressive symptoms (Itani et al., 2022a). The dual burden of physical discomfort and emotional disturbance can significantly interfere with adolescents' academic performance, social interaction, and overall quality of life (Chouhan et al., 2025; Itani et al., 2022b).

The onset of menstruation during adolescence marks a critical stage in female development. However, it is often met with limited understanding, misinformation, and negative cultural perceptions, which compound the psychological impact of menstrual disorders (Koçoğlu et al., 2025; Sukmawati, et al., 2024). Many adolescents report feelings of embarrassment, fear, or confusion surrounding menstruation, often exacerbated by a lack of comprehensive reproductive health education (Betsu et al., 2023). Inadequate management of menstrual distress in adolescence may contribute to long-term reproductive and mental health consequences, including the development of chronic pain conditions, school absenteeism, and reduced self-esteem (Method et al., 2024).

Effective management of menstrual disorders in adolescents requires a multidimensional approach that addresses both physical symptoms and psychological wellbeing (Izati, Sukmawati & Fauzi, 2025). While pharmacological treatments such as nonsteroidal anti-inflammatory drugs (NSAIDs) are commonly prescribed for menstrual pain, these approaches are often insufficient in addressing the emotional and cognitive responses related to menstruation (Pouraliroudbaneh et al., 2024). Moreover, concerns about medication side effects, dependency, or cultural reluctance toward pharmacotherapy in young girls may limit their use and accessibility (Osuala et al., 2024). Thus, there is growing interest in non-pharmacological interventions that promote self-awareness, emotional regulation, and behavioral coping.

One such promising intervention is psychoeducation, a structured, therapeutic approach aimed at increasing individuals' knowledge, self-management skills, and emotional resilience in coping with health challenges (Armour et al., 2019). Psychoeducation programs for menstrual disorders typically include anatomical education, pain management strategies, emotional coping mechanisms, and self-regulation techniques, delivered through group or individual sessions. These interventions can be grounded in theories such as cognitive-behavioral therapy (CBT) or Leventhal's self-regulatory model, which emphasize the interaction between thoughts, emotions, and physiological responses (Bahrami et al., 2025).

Physiologically, psychoeducation may improve menstrual experiences by reducing pain perception through relaxation and reframing strategies, while psychologically, it can foster positive illness perception, reduce catastrophizing, and strengthen social support networks (Asgari et al., 2020). Group-based psychoeducation further facilitates peer validation and emotional sharing, which are particularly beneficial during adolescence a period marked by identity formation and sensitivity to peer influence (Altan Sarikaya & Kaya Meral, 2025). Despite the documented benefits, the integration of psychoeducation into adolescent reproductive health programs remains fragmented, and the evidence base for its effectiveness is still emerging.

Current research on psychoeducation for menstrual disorders shows considerable variation in terms of intervention duration, content, delivery methods, and outcome measures, which complicates the synthesis of findings and generalizability to broader populations (Başoğlu et al., 2020). Moreover, many studies are geographically limited, predominantly conducted in middle-income countries, and often lack rigorous methodological designs or adequate sample sizes (Ozkan-Sat & Isik, 2024). These gaps underscore the need for a systematic evaluation of existing evidence to determine whether psychoeducation can be considered an effective and scalable approach to managing menstrual disorders in adolescent girls.

In response to this need, the present systematic review and meta-analysis aims to evaluate the effectiveness of psychoeducational interventions in reducing symptoms of dysmenorrhea and PMS, as well as improving psychological outcomes such as illness perception and coping, in adolescent girls. By synthesizing evidence from randomized controlled trials conducted over the past decade, this study seeks to inform future adolescent health education strategies, guide clinical practice, and support the integration of psychoeducation into school- and community-based reproductive health programs.

## **Objective**

This study aims to systematically analyze and synthesize research findings related to the effectiveness of psychoeducational interventions in managing menstrual disorders among adolescent girls. Specifically, it evaluates outcomes in menstrual pain reduction, premenstrual symptom improvement, emotional regulation, and illness perception. Additionally, this study identifies methodological and contextual gaps in the existing literature and compares the effectiveness of different psychoeducational models such as self-regulation, cognitive-behavioral, and psychodrama-based approaches. The findings are expected to provide evidence-based recommendations for future research and the integration of psychoeducation into school-based and primary healthcare settings to enhance adolescent menstrual health and well-being.

## **Method**

### **Study Design**

This systematic literature review follows the PRISMA 2020 (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines.

### **Search Strategy**

A comprehensive and structured literature search was carried out across eight electronic databases PubMed, Google Scholar, ScienceDirect, Taylor & Francis, ProQuest, Wiley Online Library, JSTOR, SAGE Journals and Springer Nature to identify eligible studies published between January 1, 2015, and July 1, 2025. The selected timeframe was chosen to

capture the most up-to-date and clinically relevant findings from the past ten years, aligning with recent developments in adolescent health education while ensuring feasibility in data synthesis. To enhance the precision and sensitivity of the search, Medical Subject Headings (MeSH) terms and specific keywords such as “psychoeducation” OR “menstrual disorders”, OR “dysmenorrhea”, OR “premenstrual syndrome”, and “adolescent girls” were employed and adapted to each database’s search interface. The screening process was independently conducted by two reviewers (IS and AF), who applied predetermined inclusion and exclusion criteria. Any disagreements between reviewers were resolved through discussion, and when necessary, a third reviewer (HS) was consulted to reach a consensus. This rigorous selection process was designed to ensure the review's methodological quality, minimize bias, and guarantee that all relevant evidence was accurately identified and included. The full search strategy is presented in table 1.

**Table 1. Search Strategy**

Source	Link	Keyword	Num
PubMed	<a href="https://pubmed.ncbi.nlm.nih.gov/?term=PSYCHOEDUCATION+AND+MENSTRUAL+DISORDERS">https://pubmed.ncbi.nlm.nih.gov/?term=PSYCHOEDUCATION+AND+MENSTRUAL+DISORDERS</a>	Psychoeducation And Menstrual Disorders	5
Google Scholar	<a href="https://scholar.google.com/scholar?q=Psychoeducation+on+menstrual+disorders">https://scholar.google.com/scholar?q=Psychoeducation+on+menstrual+disorders</a>	Psychoeducation on menstrual disorders;	1,340
ScienceDirect	<a href="https://www.sciencedirect.com/search?q=PSYCHOEDUCATION+AND+MENSTRUAL+DISORDERS">https://www.sciencedirect.com/search?q=PSYCHOEDUCATION+AND+MENSTRUAL+DISORDERS</a>	Psychoeducation on menstrual disorders	14
Taylor & Francis	<a href="https://taylorandfrancis.com/search-results/?query=Psychoeducation+on+menstrual+disorders">https://taylorandfrancis.com/search-results/?query=Psychoeducation+on+menstrual+disorders</a>	Psychoeducation on menstrual disorders	100
ProQuest	<a href="https://www.proquest.com/resultsol/A787219D2B6F4B93PQ/1">https://www.proquest.com/resultsol/A787219D2B6F4B93PQ/1</a>	Psychoeducation on menstrual disorders;	367
Wiley Online Library	<a href="https://onlinelibrary.wiley.com/action/doSearch?AllField=psychoeducation+on+menstrual+disorder">https://onlinelibrary.wiley.com/action/doSearch?AllField=psychoeducation+on+menstrual+disorder</a>	Psychoeducation on menstrual disorders	97
JSTOR	<a href="https://www.jstor.org/action/doBasicSearch?Query=psycho-education+and+premenstrual+syndrome">https://www.jstor.org/action/doBasicSearch?Query=psycho-education+and+premenstrual+syndrome</a>	Psycho-education and premenstrual syndrome	16
SAGE Journals	<a href="https://journals.sagepub.com/action/doSearch?AllField=psychoeducation+on+menstrual+disorders">https://journals.sagepub.com/action/doSearch?AllField=psychoeducation+on+menstrual+disorders</a>	Psychoeducation on menstrual disorders	31

Source	Link	Keyword	Num
Springer Nature	<a href="https://link.springer.com/search?new-search=true&amp;query=psychoeducation+on+menstrual+disorders">https://link.springer.com/search?new-search=true&amp;query=psychoeducation+on+menstrual+disorders</a>	Psychoeducation on menstrual disorders	393
Total			2,363

### Eligibility Criteria

The eligibility criteria for study selection were determined using the PIOS framework. The Population (P) included adolescent girls aged 10 to 19 years who experienced menstrual disorders, particularly dysmenorrhea and premenstrual syndrome (PMS). Studies were included regardless of participants' ethnicity, educational level, or geographical setting, as long as the participants were within the defined adolescent age range and had a clinical or self-reported diagnosis of menstrual distress. The Intervention (I) focused on psychoeducational programs delivered in individual or group formats. These interventions included approaches based on cognitive-behavioral therapy (CBT), Leventhal's self-regulation model, and psychodrama techniques, with session durations ranging from 45 to 90 minutes and conducted over 3 to 7 sessions. The Outcomes (O) assessed included changes in the severity of menstrual pain, frequency and intensity of premenstrual symptoms, and psychological responses, such as illness perception, emotional distress, and coping ability. Outcome measurement tools used across studies included the Visual Analog Scale (VAS), Menstrual Distress Questionnaire (MDQ), Premenstrual Syndrome Scale (PMSS), Functional and Emotional Measure of Dysmenorrhoea (FEMD), and Illness Perception Questionnaire (IPQ). The Study design (S) was limited to randomized controlled trials (RCTs).

Studies were eligible for inclusion if they were published in English between January 1, 2015, and July 1, 2025, provided full-text access, and reported original research findings from randomized controlled trials (RCTs) that evaluated psychoeducational interventions for managing menstrual disorders among adolescent girls aged 10–19 years. Eligible studies specifically addressed conditions such as dysmenorrhea and premenstrual syndrome (PMS), and employed validated instruments to measure outcomes related to pain severity, menstrual symptoms, and psychological responses, including illness perception and emotional regulation. Studies were excluded if they were not published in English, did not provide full-text access, or included participants outside the adolescent age range. Studies were also excluded if they focused on pharmacological, surgical, or alternative non-psychoeducational interventions, or included participants with significant neurological or psychiatric disorders, communication impairments, or those receiving analgesics, sedatives, or psychotropic medications during the intervention period. Exclusion further applied to studies involving participants with comorbid medical conditions that could confound menstrual symptoms (e.g., endometriosis, polycystic ovary syndrome), or if the menstrual disorders were not the primary outcome. Additionally, non-research publication types including editorials, opinion pieces, letters, correspondence, narrative reviews, scoping reviews, systematic reviews, conference abstracts, and book chapters were excluded from this review.

### **Study Selection and Data Extraction**

Two reviewers (YR,NS and AEP) independently reviewed all titles and abstracts of the identified studies using EndNote X9 for systematic reference management. Duplicate records were removed prior to screening. The initial screening was conducted based on predefined inclusion and exclusion criteria to determine study relevance. When discrepancies or uncertainties arose during the selection process, the reviewers discussed their assessments to reach consensus. If agreement could not be achieved, the senior researcher (IS) made the final decision regarding study inclusion.

Following the selection phase, data extraction was independently conducted by the two reviewers (R,R and DNF) using a standardized data extraction form. Extracted data included key study characteristics such as author, publication year, country, research design, sample size, intervention details, measurement instruments, main outcomes, and significant findings. This systematic process ensured the accuracy and completeness of data representation across all included studies.

### **CASP Evaluation**

We used the Critical Appraisal Skills Programme (CASP) to assess the quality of primary and secondary outcomes based on the following domains: study design, risk of bias, inconsistency, indirectness, imprecision, and other considerations. The application of the CASP tool was guided by its 10-question checklist, evaluating aspects such as clarity of the research question, appropriateness of methodology, recruitment strategy, data collection, reflexivity, ethical considerations, data analysis, and findings. Each study was assessed systematically to determine its reliability and relevance.

## **Result**

### **Study Selection**

Figure 1 illustrates the PRISMA flow diagram representing the screening and selection process of studies included in this systematic review. A total of 2,363 records were initially identified through nine electronic databases: PubMed (n = 5), Google Scholar (n = 1,340), Science Direct (n = 14), Taylor & Francis (n = 100), ProQuest (n = 367), Wiley Online Library (n = 97), JSTOR (n = 16), SAGE Journals (n = 31), Springer Nature (n = 393). After the removal of 412 duplicate, 1951 records remained for title and abstract screening. Of these, 1678 records were excluded for not meeting the eligibility criteria based on their titles and abstracts. A total of 273 full-text articles were then assessed for eligibility. During this full-text review phase, 268 articles were excluded for the following reasons: population mismatch (n = 65), irrelevant intervention (n = 48), inappropriate or incompatible outcomes (n = 76) and unsuitable study design (n = 79). Ultimately, 5 studies met all inclusion criteria and were included in the final synthesis.

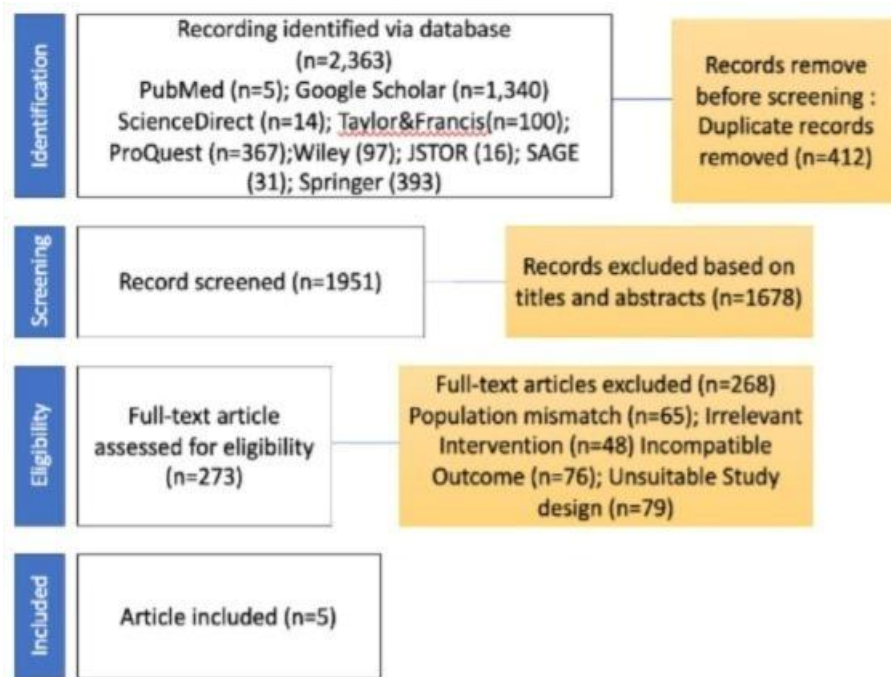


Figure 1. Screening proses flowchart by PRISMA

### Characteristics of The Studies

A total of 395 participants were included across the five randomized controlled trials selected for this review, with allocation to either the psychoeducation intervention group or the control group. The studies were conducted in two countries: Iran ( $n = 2$ ) and Turkey ( $n = 3$ ), reflecting regional efforts to address menstrual disorders in adolescent populations through psychological and educational approaches. All included studies evaluated the effectiveness of psychoeducational interventions in managing menstrual disorders, particularly premenstrual syndrome (PMS) and dysmenorrhea, among adolescent girls. The interventions ranged from three to seven structured sessions, incorporating methods such as Leventhal's self-regulatory model, cognitive-behavioral therapy, and psychodrama-based techniques. The delivery of psychoeducation varied by length and frequency but was consistently implemented in a group format. A variety of validated instruments were used across studies to assess outcomes, including the Visual Analog Scale (VAS), Moos Menstrual Distress Questionnaire, Menstrual Symptom Questionnaire (MSQ), and the Premenstrual Syndrome Scale (PMSS). Several studies also included customized sociodemographic or illness perception questionnaires to evaluate additional factors influencing menstrual health and psychoeducational outcomes. A comprehensive summary of the characteristics of the included studies is presented in table 2.

## Study Characteristics

**Tabel 2. Characteristics of The Studies**

Author, Year, Country	Design (Sample Size)	Intervention (Case)	Instrument (Outcomes)	Findings
Asgari, et al., (2020) Iran	RCT ITT=50, PP=50) <sup>a</sup> (ITT=50, PP=50) <sup>b</sup>	3-session psychoeducational intervention based on the self-regulation model	Visual Analog Scale (VAS), Moos Menstrual Distress Questionnaire (MDQ), Illness Perception Questionnaire (IPQ).	Focused on chronic dysmenorrhea and improved understanding and management of menstrual distress through the self-regulation model.
Bahrami, et al., (2025) Iran	RCT ITT=60, PP=60) <sup>a</sup> (ITT=54, PP=60) <sup>b</sup>	Three 60–90 minute group sessions based on Leventhal’s self-regulation model	Menstrual Distress Questionnaire, Pain Intensity Scale, Illness Perception Questionnaire	Significant reduction in menstrual distress and dysmenorrhea pain; improvement in illness perception in the intervention group.
Başıoğlu & Karaca (2019) Turkey	RCT (ITT=43, PP=45) <sup>a</sup> (ITT=45, PP=45) <sup>b</sup>	Five-session psychoeducation based on cognitive-behavioral therapy (CBT) over 4 weeks	Premenstrual Syndrome Questionnaire (PMSQ), Sociodemographic Form, Self-developed items (n = 9)department, living conditions, etc.	Significant improvement in PMS scores, particularly in depressive thoughts, irritability, and fatigue.
Ozkan-Sat & Isik (2024) Turkey	RCT (ITT=32, PP=33) <sup>a</sup> (ITT=29, PP=33) <sup>b</sup>	Three-session psychoeducation based on the self-regulation model (SRM)	Visual Analog Scale (VAS), Functional and Emotional Measure of Dysmenorrhoea (FEMD), Menstrual Symptom Questionnaire (MSQ)	Effective in reducing dysmenorrhea severity and improving coping skills related to functional and emotional impact.
Sarikaya & Meral (2025) Turkey	RCT ITT=16, PP=16) <sup>a</sup> (ITT=16, PP=16) <sup>b</sup>	Seven-session psychoeducational program based on	Premenstrual Syndrome Scale (PMSS), Personal Information Questionnaire	Proven effective in reducing and managing premenstrual symptoms through CBT-psychodrama-based psychoeducation.



cognitive-behavioral  
psychodrama  
techniques

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RCT= Randomized Controlled Trial, ITT= Intention to Threat, PP= Per Protocol, <sup>a</sup>= Intervention group, <sup>b</sup>=control group, VAS= Visual Analog Scale, MDQ= Moos Menstrual Distress Questionnaire, IPQ= Illness Perception Questionnaire, CBT= Cognitive Behavioral Therapy, PMSQ= Premenstrual Syndrome Questionnaire, SRM= Self-Regulation Model, FEMD= Functional and Emotional Measure of Dysmenorrhoea, MSQ= Menstrual Symptom Questionnaire, PMSS= Premenstrual Syndrome Scale.

Table 2 outlines the procedural characteristics of the psychoeducational interventions applied across the five randomized controlled trials included in this review. The studies demonstrated variability in terms of session structure, theoretical framework, delivery format, and intervention duration, reflecting a flexible application of psychoeducation tailored to adolescent populations with menstrual disorders. Most interventions consisted of three to seven sessions, typically delivered over 2 to 4 weeks, with each session lasting between 60 to 90 minutes. The content was primarily grounded in cognitive-behavioral therapy (CBT) and Leventhal's self-regulatory model (SRM). Common themes included biological education about menstruation, identification and restructuring of negative thoughts, pain management techniques, stress reduction, and emotional regulation skills. The delivery mode in all studies was face-to-face and group-based, typically led by trained mental health professionals, clinical psychologists, or midwives. Group sizes ranged from 6 to 12 participants, creating a supportive peer-learning environment that fostered emotional sharing and mutual understanding. Some interventions incorporated interactive discussions, role-playing, psychoeducational handouts, and home assignments, while others emphasized experiential exercises such as guided imagery and relaxation. For instance, Bahrami et al. (2025) conducted three structured group sessions focused on cognitive reframing and self-regulation, using a visual and discussion-based approach. In contrast, Sarikaya & Meral (2025) implemented a seven-session psychoeducational program incorporating psychodrama techniques, enabling participants to explore and express emotional experiences related to premenstrual symptoms. Several studies also incorporated culturally relevant components, adapting content to align with participants' age, sociocultural context, and prior knowledge. All interventions were conducted in educational or clinical settings, such as high schools, university counseling centers, or primary healthcare clinics. Attendance and participation were monitored, and in some cases, post-session reflection sheets or evaluations were used to assess engagement. The heterogeneity in intervention design ranging from theoretical basis to delivery style underscores the adaptability of psychoeducation to different developmental, cultural, and clinical contexts. Despite variations, the core goal across all studies remained consistent: to equip adolescent girls with the knowledge, emotional skills, and cognitive tools needed to better understand, manage, and cope with menstrual disorders.

**Table 3. CASP Evaluation**

Author/Year	Q1	Q2	Q3	Q4a	Q4b	Q4c	Q5	Q6	Q7	Q8	Q9	Q10	Q11
Asgari et al. (2020)	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bahrami et al. (2025)	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Başıoğlu & Karaca (2019)	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes	No	Yes	Yes	Yes
Ozkan-Sat & Isik (2024)	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes	No	Yes	Yes	Yes
Sarikaya & Meral (2025)	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes	No	Yes	Yes	Yes

Table 3 presents the results of the Critical Appraisal Skills Programme (CASP) checklist assessment used to evaluate the methodological quality of five randomized controlled trials (RCTs) examining the effectiveness of psychoeducation on menstrual disorders among adolescent girls. The checklist consists of thirteen criteria (Q1–Q11), where “Yes” indicates that the study fulfilled the criterion, “No” denotes non-fulfillment, and “?” indicates insufficient information or uncertainty. Overall, all studies demonstrated strong methodological quality, with consistent “Yes” scores on key items related to study objectives, randomization, intervention description, data collection, and clarity of results (Q1–Q3, Q6–Q7, Q9–Q11). This consistency reflects the sound design and systematic implementation of psychoeducational interventions across studies conducted in Iran and Turkey. However, none of the studies clearly addressed questions Q4a–Q4c, which assess aspects of blinding for participants, intervention providers, and outcome assessors. The lack of blinding is a common limitation in psychoeducational interventions, given their interactive and behavioral nature, where participant awareness of group allocation is often unavoidable. A few studies particularly those by Başıoğlu & Karaca (2019), Ozkan-Sat & Isik (2024), and Sarikaya & Meral (2025) did not fully elaborate on analytical procedures (Q8) or control for potential confounding variables, which could affect internal validity. Despite these limitations, the studies consistently provided reliable outcome measures and demonstrated clear improvements in menstrual symptoms, emotional regulation, and illness perception following psychoeducational programs. In summary, the CASP evaluation indicates that the included RCTs are methodologically robust, with clear research objectives, appropriate randomization, and well-documented results. Nevertheless, future studies are encouraged to enhance transparency in reporting blinding procedures and analytical rigor to strengthen the overall quality of evidence in psychoeducational research for menstrual health.

## Discussion

This systematic review confirms that psychoeducation is an effective non-pharmacological intervention for managing menstrual disorders among adolescent girls. Consistent with holistic and adolescent-centered health promotion principles, psychoeducation enhances both physiological and psychological outcomes, including pain reduction, emotional regulation, and improved illness perception. The evidence collectively demonstrates that psychoeducation delivered through structured group sessions empowers young girls to manage menstrual discomfort and fosters adaptive coping strategies.

Across the five randomized controlled trials (RCTs) included, significant improvements were observed following psychoeducational interventions of varying theoretical foundations. Asgari et al. (2020) and Bahrami et al. (2025), both conducted in Iran, implemented Leventhal's self-regulation-based psychoeducation and found notable reductions in dysmenorrhea severity and menstrual distress. These studies highlight the value of self-regulation frameworks in helping adolescents reinterpret menstrual pain and enhance self-management behaviors.

Similarly, Başoğlu and Karaca (2019) and Sarikaya and Meral (2025) demonstrated the effectiveness of cognitive-behavioral-based psychoeducation in Turkey. Their findings revealed decreased premenstrual symptoms particularly irritability, depressive mood, and fatigue suggesting that cognitive reframing and emotional awareness contribute to better psychological adjustment. The inclusion of psychodrama-based methods (Sarikaya & Meral, 2025) further emphasizes the role of experiential learning and group interaction in improving emotional regulation. Ozkan-Sat and Isik (2024) expanded on this evidence by employing a self-regulation model within a three-session psychoeducation program, reporting improvements in pain intensity and functional coping. These findings are consistent with the biopsychosocial perspective, where knowledge, emotion, and behavior interact to influence the perception and management of menstrual symptoms.

The reviewed studies collectively support the notion that psychoeducation not only alleviates physical discomfort but also strengthens psychological resilience and self-efficacy. The integration of theoretical models such as Leventhal's Self-Regulation Model and Cognitive Behavioral Therapy (CBT) enhances adolescents' understanding of bodily cues and emotional responses, leading to improved health behaviors and menstrual self-care.

Methodologically, all studies employed RCT designs, providing robust evidence of causal relationships between psychoeducation and improved outcomes. However, limitations persist such as relatively small sample sizes, short follow-up durations, and limited diversity in cultural contexts which may constrain generalizability. Despite these constraints, the convergence of findings across Iran and Turkey reinforces psychoeducation's cross-cultural applicability in menstrual health management. From a practical standpoint, the evidence underscores the feasibility of implementing psychoeducation in school and community health settings. Structured group sessions ranging from three to seven meetings were effective in improving both physiological and emotional outcomes. This aligns with adolescent-friendly care principles that emphasize peer support, participatory learning, and empowerment.

In summary, psychoeducation represents a promising, evidence-based intervention for adolescent girls with menstrual disorders. By combining cognitive, behavioral, and emotional strategies, it facilitates holistic well-being and complements medical approaches. Future research should explore long-term outcomes, digital delivery methods, and culturally tailored modules to broaden accessibility and sustainability of psychoeducational programs.

## Conclusion

Psychoeducational interventions have demonstrated a significant positive impact on reducing menstrual disorders and enhancing psychological well-being among adolescent girls. Improvements in pain severity, premenstrual symptoms, emotional regulation, and illness perception indicate that psychoeducation is an effective, non-pharmacological strategy for menstrual health management. These findings affirm that structured, theory-based psychoeducation whether grounded in self-regulation, cognitive-behavioral, or psychodrama approaches empowers adolescents to understand and manage their menstrual experiences more effectively.

Integrating psychoeducational programs into school curricula and primary healthcare services offers a practical and sustainable means to promote adolescent reproductive health. Such programs not only address physical symptoms but also strengthen emotional resilience and self-care capacities. Further research is recommended to explore the long-term effectiveness, digital adaptations, and cultural contextualization of psychoeducation to ensure broader accessibility and impact. Thus, psychoeducation stands as a vital educational and preventive tool to support the holistic well-being of adolescent girls.

## Conflict of Interest

The researchers stated that there is no conflict of interest related to the implementation and publication of the results of this research. The entire research process, from planning, data collection, analysis, to report preparation, was carried out independently without any influence or pressure from any third party. A commitment to research ethics is upheld throughout the research process, ensuring transparency, accuracy and honesty in reporting results. Respondents' participation was voluntary with informed consent, and their confidentiality and privacy were maintained in accordance with applicable research ethics standards. With this statement, researchers hope that the research results can be trusted and used as a valid reference for the development of science and health practices related to ethnomedicine and reproductive health.

## Ethical Consideration

Not applicable.

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