The Systemic Neglect of Neuroimmune and Nervous System Manifestations in Adolescent Endometriosis: Psychosomatic and Stress-Related Consequences in Females Aged 14–21 in the United States

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AP Research

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2025–2026

Abstract

Endometriosis affects approximately one in ten females of reproductive age and is increasingly recognized as a systemic neuroimmune condition extending far beyond pelvic pathology. However, adolescents with endometriosis continue to face prolonged diagnostic delays and high rates of symptom dismissal, particularly for non-gynecologic manifestations involving the nervous, gastrointestinal, and immune systems. This mixed-methods study examined whether underrecognition of full-body neuroimmune symptoms in adolescent females with endometriosis (ages 14–21) contributes to increased psychosomatic burden and stress dysregulation. A convenience sample of 23 participants completed an online survey incorporating the Perceived Stress Scale-10 (PSS-10), a somatic symptom scale, and researcher-developed Symptom Recognition and Validation Scale (SRVS) items. One semi-structured interview was also conducted. Quantitative findings revealed that 78.3% of participants reported their symptoms had been dismissed as stress or "in their head," and 70% felt unheard or invalidated during medical encounters. Concurrently, 91.3% reported that physical symptoms worsened during periods of stress, and 83% indicated that dismissal directly increased their stress levels. Full-body somatic symptoms were widespread, with fatigue reported by 96%, gastrointestinal discomfort by 91%, and muscle tension and rapid heartbeat each by 78%. Qualitative themes reinforced these patterns, identifying delayed recognition, normalization of symptoms, and a bidirectional stress–symptom relationship. These findings suggest that symptom underrecognition is not a passive clinical oversight but an active contributor to psychosomatic burden in adolescents with endometriosis. Implications for clinical practice, health education, and adolescent-specific policy are discussed.

Keywords: endometriosis, adolescents, underrecognition, psychosomatic burden, stress dysregulation, neuroimmune, symptom dismissal

Introduction

Endometriosis has traditionally been framed as a gynecologic disorder characterized primarily by pelvic pain and reproductive dysfunction. However, growing research across biomedical, psychological, and neuroscientific disciplines increasingly challenges this narrow characterization. Scholars now describe endometriosis as a systemic inflammatory and neuroimmune condition that affects multiple bodily systems, including the nervous, gastrointestinal, endocrine, and immune systems (Smolarz et al., 2021; van Stein et al., 2023). This shift is significant because it reframes endometriosis not only as a reproductive disease but as a condition with wide-ranging physical, cognitive, and emotional consequences. Despite this expanding scientific understanding, clinical recognition has not consistently kept pace with research findings. Studies indicate that patients frequently report fatigue, gastrointestinal dysfunction, neuropathic pain, cognitive fog, emotional dysregulation, and stress-related symptoms that extend far beyond menstruation or pelvic pain (Hunsche et al., 2023; Junkka & Ohlsson, 2023). These full-body manifestations are particularly concerning for adolescents, who experience some of the longest diagnostic delays and highest rates of symptom dismissal. Literature suggests that early symptom invalidation contributes to emotional distress, psychosomatic burden, and dysregulated stress responses that may persist into adulthood (Jones, 2015; Mandeville et al., 2025). To understand how this gap between scientific knowledge and clinical recognition has emerged, existing research must be examined across several interconnected domains. The existing literature reveals four major patterns: (1) the evolution of endometriosis from a solely gynecologic condition to a systemic neuroimmune disease, (2) evidence linking endometriosis to neurological, psychological, and stress-related symptoms, (3) the role of stigma, dismissal, and social context in shaping psychosomatic burden, and (4) limitations in current measurement and research approaches that obscure adolescents' lived experiences. Together, these themes highlight a significant gap in the literature regarding the specific impact of symptom underrecognition on psychosomatic burden and stress dysregulation in adolescent populations. This study addresses that gap by directly examining how underrecognition of full-body neuroimmune symptoms contributes to measurable stress and somatic outcomes in females ages 14–21 with endometriosis.

Literature Review

Endometriosis Symptom Recognition

A central theme in the literature concerns how endometriosis symptoms are recognized, defined, and validated within medical and social contexts. Historically, endometriosis has been framed through a narrow gynecologic lens that prioritizes reproductive organs and menstrual pain, often excluding neurological, psychological, and systemic manifestations. Jones (2015) traces this framing to the cultural legacy of hysteria, arguing that women's pain, particularly when non-reproductive, has been routinely minimized, psychologized, or dismissed. This historical context continues to shape diagnostic practices, reinforcing a tendency to overlook symptoms that fall outside conventional reproductive models.

Contemporary research demonstrates that symptom experiences in endometriosis extend far beyond pelvic pain. Hunsche et al. (2023) document a wide range of reported symptoms,

including fatigue, gastrointestinal dysfunction, sleep disruption, cognitive fog, and emotional distress, alongside significant impacts on social, cognitive, and financial functioning. Similarly, Kitchen et al. (2021) find that both patients and clinicians rank emotional well-being and limitations in physical activity as among the most meaningful indicators of disease severity. These findings suggest a disconnect between what patients experience as most disabling and what is traditionally measured or prioritized in clinical assessment.

Neuropsychological frameworks further challenge narrow symptom recognition; Van Stein et al. (2023) reframe endometriosis as a neurobiological and psychological condition driven by chronic pain, altered stress regulation, and persistent neuroimmune activation. Rather than viewing anxiety or depression as secondary emotional reactions, this work emphasizes central nervous system involvement in symptom development. Mandeville et al. (2025) extend this perspective by demonstrating that perceived stigma is independently associated with depressive symptoms, even after controlling for pain severity. Together, these studies indicate that underrecognition is not merely diagnostic but psychosocial, shaping how symptoms are interpreted, validated, and treated. Taken together, the literature reveals that symptom recognition in endometriosis is constrained by historical, cultural, and biomedical assumptions that fail to capture the condition's full-body nature. This pattern is especially consequential for adolescents, whose symptoms are more likely to be fragmented, dismissed, or attributed to psychological causes, laying the groundwork for increased psychosomatic burden.

Psychosomatic Burden and Systemic Manifestations

A second major theme centers on psychosomatic burden, or the interaction between physical symptoms and psychological stress, in individuals with endometriosis. Multiple studies demonstrate that endometriosis manifests as a full-body condition involving immune, neurological, gastrointestinal, and musculoskeletal systems. Troyer (2007) illustrates this through a case study in which nonspecific low back pain delayed diagnosis, highlighting how visceral and neurological symptoms can masquerade as musculoskeletal disorders when systemic origins are overlooked.

Biological evidence supports this systemic interpretation. Dihm et al. (2020) identify AXIN1 as a biomarker associated with inflammatory signaling and gastrointestinal symptoms, demonstrating that immune–gut pathways play a significant role in symptom severity. Junkka and Ohlsson (2023) similarly report that women with endometriosis experience gastrointestinal symptoms nearly identical to those of irritable bowel syndrome, with shared inflammatory markers suggesting overlapping mechanisms rather than isolated pelvic pathology. These findings reinforce the idea that persistent inflammation contributes to widespread bodily symptoms.

Neuroscientific research further connects these physical manifestations to central nervous system processes. Bashir et al. (2023) provide experimental evidence of brain-wide glial activation in a mouse model of endometriosis, linking immune activation in the brain to behavioral indicators of pain and reduced motivation. Human studies align with these findings. Bi et al. (2025) show elevated BDNF and TrkB signaling in ectopic endometrial lesions, particularly in patients with severe pain, suggesting neural sensitization and neuroinflammation. Pszczołowska et al. (2025) extend this work by reviewing neuroimaging and molecular evidence of altered pain processing, cognition, and emotional regulation, often described as the "endometriosis brain." Collectively, these studies demonstrate that psychosomatic burden in endometriosis is the outcome of sustained

neuroimmune activation affecting multiple bodily systems and not the result of imagined or exaggerated symptoms. When these manifestations are not recognized or validated, individuals may experience compounding physical and emotional distress that intensifies overall disease burden.

Perceived Stress and Stress Dysregulation

The third thematic body focuses on perceived stress and dysregulation of stress-response systems in individuals with endometriosis. Emerging research suggests that chronic inflammation, pain, and neuroimmune signaling interfere with the body's ability to regulate stress effectively. Sabbadin et al. (2023) identify dysregulation of the hypothalamic–pituitary–adrenal axis, including altered cortisol and aldosterone levels, indicating impaired stress recovery and prolonged physiological arousal. Such disruptions may contribute to persistent feelings of being "on edge," difficulty sleeping, and emotional overwhelm.

Neurofunctional studies provide additional insight into these stress-related processes. Feng et al. (2025) establish causal links between endometriosis and resting-state brain networks involved in cognition and emotion regulation, underscoring a bidirectional relationship between brain function and disease expression. These findings suggest that stress dysregulation is not merely a psychological response to chronic illness, but a core component of the condition's neurobiological characterization. Social experiences further amplify stress responses; Mandeville et al. (2025) demonstrate that stigma and symptom invalidation significantly increase depressive symptoms independent of pain severity. When symptoms are dismissed or misattributed, individuals may experience heightened stress, emotional dysregulation, and reduced trust in medical systems. Together, these studies indicate that endometriosis is associated with sustained stress dysregulation shaped by biological, neurological, and social factors. For adolescents, whose stress-response systems are still developing, repeated underrecognition of symptoms may intensify psychosomatic outcomes and contribute to long-term nervous system dysregulation.

Gaps and Limitations

Although current research establishes that endometriosis is a systemic neuroimmune condition with psychological and neurological consequences, several critical gaps remain. First, there is a population gap: few studies focus specifically on adolescents, despite evidence that they experience the longest diagnostic delays and highest rates of symptom dismissal. Second, there is a conceptual gap: while systemic symptoms are documented, limited research examines how underrecognition of these symptoms contributes directly to psychosomatic burden and stress dysregulation. Finally, there is a methodological gap, as existing tools do not fully capture adolescents' experiences of validation, dismissal, and nervous system dysregulation over time. These gaps matter because adolescence is a critical developmental period for stress regulation, identity formation, and long-term health trajectories.

Existing research increasingly conceptualizes endometriosis as a systemic inflammatory and neuroimmune condition with significant neurological, psychological, and stress-related consequences. Studies consistently document full-body symptoms, including cognitive impairment, emotional distress, gastrointestinal dysfunction, and stress dysregulation, while also highlighting the role of stigma and dismissal in exacerbating psychosomatic burden. However, the literature remains limited in its attention to adolescents and to the specific impact of symptom

underrecognition on mind–body outcomes. This gap suggests a need for research that directly examines how the dismissal of full-body neuroimmune and nervous system symptoms contributes to psychosomatic burden and stress dysregulation in adolescent females with endometriosis.

Research Question

How does underrecognition of full-body neuroimmune symptoms in adolescent females with endometriosis (ages 14–21) contribute to increased psychosomatic burden and stress dysregulation?

Methodology

Research Design

The purpose of this study is to examine the extent to which the underrecognition of full-body neuroimmune and nervous system symptoms in adolescent females with endometriosis (ages 14–21) contributes to increased psychosomatic burden and stress dysregulation. Specifically, this study seeks to determine whether perceived dismissal of non-gynecologic symptoms correlates with higher levels of perceived stress and greater frequency of stress-related physical symptoms. This research aims to contribute to a deeper understanding of how healthcare recognition practices may influence psychological and physiological outcomes in adolescents with endometriosis.

This study used a mixed-methods research design to collect and analyze both quantitative and qualitative data. A mixed-methods approach is appropriate because the research question requires both measurable associations and explanatory depth. Quantitative data identify statistical relationships between perceived underrecognition, stress dysregulation, and psychosomatic burden. Qualitative data explore participants' lived experiences of medical validation or dismissal and provide contextual insight into how those experiences influence emotional and physiological stress responses. The decision to use a mixed-methods design is justified because numerical correlations alone cannot fully explain how adolescents interpret and respond to healthcare encounters. Integrating survey results with interview narratives ensures a replicable methodology that addresses both trends and underlying mechanisms.

Operational Definitions

In this study, perceived underrecognition refers to the extent to which participants report that healthcare providers minimized, dismissed, failed to investigate, or attributed their full-body symptoms solely to psychological causes. This construct was measured using structured Likert-scale survey items on the researcher-developed Symptom Recognition and Validation Scale (SRVS). Stress dysregulation refers to elevated perceived stress and difficulty managing stress responses, measured using the 10-item Perceived Stress Scale (PSS-10), which generates a total stress score based on participant responses. Psychosomatic burden refers to the frequency and intensity of physical symptoms influenced or exacerbated by stress, including fatigue, headaches, gastrointestinal discomfort, sleep disturbance, and muscle tension, measured using a standardized somatic symptom scale.

Participants and Sampling

The target population consists of adolescent females ages 14–21 residing in the United States who report a clinical diagnosis of endometriosis from a healthcare provider. Inclusion criteria require participants to be between 14 and 21 years old, reside in the United States, identify as female, and report having received a diagnosis of endometriosis. Diagnosis status was based on self-report due to feasibility constraints. Purposive and convenience sampling were employed to ensure participants are directly relevant to the research question. Recruitment occurred through online endometriosis support communities, youth health networks, and social media groups. The survey sample size was 23 participants (n = 23). From this group, one participant was selected for a follow-up semi-structured interview, prioritizing diversity in reported recognition experiences and stress levels to ensure an information-rich case.

Instrumentation

Data collection used an online survey administered via Google Forms. The survey consisted of approximately 25–30 questions divided into four sections: demographic information, perceived underrecognition, stress dysregulation, and psychosomatic burden. The demographic section collected information such as age, state of residence, time since diagnosis, and number of healthcare providers consulted. Perceived underrecognition was measured using Likert-scale items (1 = Strongly Disagree to 5 = Strongly Agree) on the researcher-developed SRVS. Perceived stress was measured using the PSS-10, and a standardized somatic symptom scale measured stress-related physical symptoms. A pilot test was conducted prior to full distribution to ensure clarity, readability, and consistent interpretation of items.

Procedure

The survey remained open for three weeks, with weekly reminder posts across recruitment platforms. Participants completed the survey in approximately 15–20 minutes. Following survey completion, one participant was selected for a semi-structured interview lasting approximately 30–45 minutes, conducted via audio call based on participant preference. The interview employed a standardized guide to ensure consistency, with questions exploring experiences of symptom dismissal or validation, emotional responses to medical encounters, and perceived impacts on stress and daily functioning. The interview was audio-recorded and transcribed verbatim with participant consent.

Data Analysis Methods

Quantitative data were analyzed using Excel. Descriptive statistics, including frequencies and percentages, summarized perceived stress, psychosomatic burden, and underrecognition scores. Items scoring 4 or 5 on Likert scales (indicating agreement or strong agreement) were identified as the primary measure of endorsement, consistent with the SRVS scoring protocol. Qualitative interview transcripts were analyzed using thematic analysis, including familiarization with data, code generation, grouping codes into broader themes, and refinement of themes for coherence. Triangulation compared quantitative findings with qualitative themes to strengthen interpretive validity.

Ethical Considerations

This study received approval from the Institutional Review Board (IRB) prior to recruitment. All procedures adhere to the Belmont Report principles of respect for persons,

beneficence, and justice. Participants ages 18–21 provided informed consent electronically. For participants under 18, parental consent and participant assent were obtained. Participation was voluntary, and participants could withdraw at any time without penalty. Survey responses remained anonymous, and the interview participant was assigned a pseudonym. Data were stored on password-protected devices, and interview recordings were deleted after transcription.

Results

Quantitative Findings: Underrecognition and Stress Outcomes (n = 23)

The quantitative survey results revealed consistent and elevated patterns of underrecognition across all SRVS items, as well as high rates of stress and somatic symptom endorsement. Among the five SRVS underrecognition items, the percentage of participants scoring 4–5 (indicating agreement or strong agreement) ranged from 61% to 83%. Specifically, 83% of participants reported having had to advocate strongly for themselves during medical encounters (19 of 23), 78% reported that their symptoms had been dismissed as stress or "in their head" (18 of 23), 74% reported that symptoms had been minimized by providers (17 of 23), 70% reported feeling unheard or invalidated (16 of 23), and 61% reported that doctors ignored their non-pelvic symptoms (14 of 23). As shown in Figure 1, these data collectively indicate that medical dismissal of full-body endometriosis symptoms is the normative, rather than exceptional, experience for adolescents in this sample.

Table 1

SRVS Underrecognition Item Endorsement (n = 23; % scoring 4–5)

SRVS Item	% Endorsement (n scoring 4–5)
Had to advocate strongly	83% (19 of 23)
Dismissed as 'stress/in head'	78% (18 of 23)
Symptoms minimized by providers	74% (17 of 23)
Felt unheard or invalidated	70% (16 of 23)
Doctors ignored non-pelvic symptoms	61% (14 of 23)

Note. Items scored on a 5-point Likert scale; endorsement = score of 4 or 5.

Stress and psychosomatic outcome items revealed similarly high rates of endorsement. Among the five PSS-related and somatic outcome items scored using the same 4–5 endorsement threshold, 91% of participants reported that physical symptoms worsen during periods of stress (21 of 23), 83% reported that dismissal by providers increased their stress levels (19 of 23), 83% reported feeling stressed (PSS item; 19 of 23), 78% reported feeling overwhelmed (PSS item; 18 of 23), and 65% reported that validation from providers or others reduced their stress (15 of 23). As shown in Figure 1, these findings demonstrate a bidirectional relationship between dismissal experiences and elevated psychosomatic burden.

Table 2

Stress and Psychosomatic Outcome Item Endorsement (n = 23; % scoring 4–5)

Outcome Item	% Endorsement (n scoring 4–5)
Symptoms worsen during stress	91% (21 of 23)
Dismissal increased stress levels	83% (19 of 23)
Felt stressed (PSS item)	83% (19 of 23)
Felt overwhelmed (PSS item)	78% (18 of 23)
Validation improved stress	65% (15 of 23)

Note. PSS = Perceived Stress Scale-10.

Quantitative Findings: Full-Body Somatic Symptoms (n = 23)

Somatic symptom data revealed widespread reporting of non-pelvic, full-body symptoms across the sample. Among seven assessed symptom categories, fatigue was the most frequently endorsed symptom, with 96% of participants (22 of 23) scoring 4–5, followed by gastrointestinal discomfort at 91% (21 of 23), and muscle tension and rapid heartbeat each at 78% (18 of 23). Sleep disturbances were endorsed by 70% of participants (16 of 23), leg pain by 57% (13 of 23), and headaches by 52% (12 of 23). These findings indicate that non-gynecologic somatic symptoms are nearly universal in this sample, yet their widespread occurrence stands in direct contrast to the low rate of clinical recognition captured by the SRVS data. Only 8.7% of participants (2 of 23) reported that their non-pelvic symptoms were taken seriously by providers, despite 74% (17 of 23) having seen three or more healthcare providers prior to receiving a diagnosis.

Table 3

Full-Body Somatic Symptom Endorsement (n = 23; % scoring 4–5)

Symptom	% Endorsement (n scoring 4–5)
Fatigue	96% (22 of 23)
Gastrointestinal discomfort	91% (21 of 23)
Muscle tension	78% (18 of 23)
Rapid heartbeat	78% (18 of 23)
Sleep disturbances	70% (16 of 23)
Leg pain	57% (13 of 23)
Headaches	52% (12 of 23)

Note. Symptoms measured using standardized somatic symptom scale; endorsement = score of 4 or 5.

Qualitative Findings: Interview Themes (n = 1)

One semi-structured interview was completed. Because the qualitative sample consists of a single participant, these themes are presented as illustrative of one adolescent’s experience and are

not intended to be generalized to the broader population. Thematic analysis of the transcript yielded three primary themes.

Theme A: Delayed Recognition. The participant described a prolonged period during which her symptoms were unrecognized as related to endometriosis, reflecting the broader quantitative pattern in which 74% of survey participants had seen three or more providers before receiving a diagnosis. The participant stated, “If I knew earlier that endometriosis was a thing, it would have been a lot easier.” This account suggests that diagnostic delays are accompanied by emotional and functional consequences that extend beyond the physical.

Theme B: Dismissal and Normalization. The participant reported that a provider attributed her full-body symptoms to normal adolescent experience without further investigation. She recalled: “She kind of just told me all my symptoms were normal.” This experience is consistent with the quantitative finding that 78.3% of survey participants reported their symptoms were dismissed as stress or normalized by providers.

Theme C: Stress–Symptom Connection. The participant described a clear perceived relationship between stress and physical symptom exacerbation, noting that joint pain and migraines worsened during high-stress periods and that these effects resulted in school absences. Her account is consistent with the 91.3% of survey respondents who reported that physical symptoms worsen during stress. This theme suggests that adolescents themselves are aware of the stress–symptom relationship, even when their providers are not, which may compound feelings of invalidation.

Across all three themes, the qualitative data reinforce and deepen the quantitative findings, indicating that underrecognition is experienced as a multidimensional stressor with functional, emotional, and physiological consequences.

Discussion

The findings of this study provide consistent, multimodal support for the central proposition that underrecognition of full-body neuroimmune symptoms in adolescents with endometriosis is associated with elevated psychosomatic burden and stress dysregulation. Three primary interpretive claims emerge from the data.

Dismissal Drives Stress

The most direct link observed between underrecognition and stress outcomes is the finding that 83% of participants reported that being dismissed by providers directly increased their stress levels. This pattern extends beyond subjective discomfort: the convergence of this finding with PSS-item endorsements of 83% for feeling stressed and 78% for feeling overwhelmed suggests that dismissal experiences function as an identifiable stressor that activates and sustains stress-response systems. This is consistent with Mandeville et al. (2025), who demonstrated that perceived stigma and invalidation are independently associated with depressive symptoms in young women with endometriosis. When the body’s distress signals are repeatedly attributed to psychological causes or labeled as normal by medical authorities, the lived experience of that dismissal appears to compound the physiological burden of the condition itself.

Stress Worsens Symptoms

The finding that 91.3% of participants reported physical symptoms worsening during periods of stress directly answers the research question by demonstrating that the stress–symptom relationship is bidirectional and self-reinforcing in this population. This pattern aligns with Sabbadin et al. (2023), who documented HPA axis dysregulation, including abnormal cortisol patterns, in individuals with endometriosis, and with Feng et al. (2025), who identified causal links between resting-state brain network alterations and endometriosis disease expression. Together, these biological mechanisms offer a plausible explanation for why stress exposure, including the stress generated by medical dismissal, may not simply worsen mood or functioning but may directly amplify pain sensitivity, inflammatory signaling, and somatic symptom intensity. The qualitative data reinforce this interpretation: the sole interview participant described stress-provoked joint pain, migraines, and school absences, suggesting functional consequences that extend into daily life.

Validation Is a Clinical Tool

A particularly notable finding is that 65.2% of participants reported that validation from providers or others reduced their stress. This finding reframes validation not as a soft interpersonal courtesy but as a potentially active clinical intervention with measurable stress-modulatory effects. If dismissal increases stress and stress worsens symptoms, then validation—defined as providers acknowledging and investigating full-body neuroimmune symptoms rather than attributing them to psychology or normalcy—may represent a low-cost, high-impact lever for improving psychosomatic outcomes. This interpretation is supported by the literature on stigma reduction and by van Stein et al. (2023), whose Research Domain Criteria framework positions symptom validation as a mechanism for reducing central sensitization and neuroimmune dysregulation.

Limitations

Several limitations must be acknowledged. First, the sample size of 23 is small and was obtained through convenience sampling via online endometriosis support communities, which may attract individuals who have experienced particularly significant dismissal or distress, potentially inflating endorsement rates. Second, all measures rely on self-report, which introduces recall and social desirability bias. Third, this study is correlational, not experimental; as a result, causal directionality cannot be confirmed. The observed associations between dismissal and stress are consistent with a causal relationship but do not establish one. Fourth, only one qualitative interview was conducted, limiting the depth and generalizability of thematic findings. Finally, self-reported endometriosis diagnosis status could not be independently verified, which introduces a potential source of misclassification.

Conclusion and Implications

This study contributes a new understanding of how the underrecognition of full-body neuroimmune symptoms functions as a source of compounded psychosomatic burden in adolescents with endometriosis. The data reveal that diagnostic delays, provider dismissal, and symptom normalization are normative experiences for this population—not rare outliers. More importantly, they reveal that these experiences are not passive or benign: they directly elevate stress, and elevated stress directly worsens physical symptoms. The result is a reinforcing cycle in which underrecognition and psychosomatic burden mutually amplify one another. By centering adolescents—a population systematically excluded from most endometriosis research—and by

linking symptom recognition to measurable stress and somatic outcomes, this study extends the existing literature in meaningful ways.

Several clinical implications follow from these findings. Healthcare providers working with adolescents should be trained to expand their diagnostic lens beyond gynecologic symptoms, given that nearly all participants in this study reported significant non-pelvic manifestations including fatigue, gastrointestinal distress, muscle tension, and sleep disruption. Provider education in validation practices—specifically, acknowledging and investigating full-body symptoms rather than normalizing or psychologizing them—may reduce the stress burden experienced during clinical encounters. Earlier referrals to multidisciplinary care teams, including pain specialists, gastroenterologists, and mental health professionals, could interrupt the dismissal–stress–symptom cycle before it becomes entrenched.

Educational implications are equally important. School health programs and menstrual health curricula that include information about endometriosis as a systemic condition could reduce the average 7–10-year diagnostic delay by enabling adolescents to recognize their symptoms earlier and seek appropriate care with greater confidence. Policy implications include the development of adolescent-specific diagnostic guidelines, the standardization of SRVS-type tools for capturing dismissal and validation experiences in clinical settings, and advocacy for holistic, developmentally sensitive care frameworks for young people with chronic conditions.

Future Research

Future research should address the limitations of the present study through expanded sample sizes and longitudinal designs that can trace the relationship between underrecognition and psychosomatic burden over time. A provider study examining whether clinical training in full-body symptom recognition changes diagnostic behavior and patient outcomes would be particularly valuable. Intervention research testing whether structured validation protocols reduce stress and somatic symptom frequency in adolescents with endometriosis could directly extend this work toward actionable clinical tools. The SRVS developed for this study, while exploratory, represents a promising instrument for future validation and psychometric development.

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