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Prevalence of Somatic Symptom Disorder (SSD) among Children and Adolescents: A Systematic Review

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A B S T R A C T :

Background: When a person becomes excessively focused on physical symptoms, such as pain, weakness, or shortness of breath, to the extent that it causes significant distress and disrupt daily life, even when medical explanations are insufficient is known as Somatic Symptoms Disorder (SSD). Children and Adolescents are particularly vulnerable, yet prevalence of SSD remains poorly understood. It is essential to improve early identification, reduce stigma, and strengthen mental health literacy.

Objectives: This systematic review aims to synthesize existing evidence on the prevalence of Somatic Symptom Disorder (SSD) among children and adolescents.

Methods: Following PRISMA guidelines, a systematic search was conducted across databases PubMed and supplemented with searches in Google Scholar, ResearchGate, BioMed Central, and Frontiers to identify additional relevant studies. Thirty mixed-method studies published between 2009 and 2025 were selected that examined the prevalence of SSD among children and adolescents.

Eligibility Criteria: Included studies were English-language, peer-reviewed, published within the defined timeframe, and focused on children and adolescents (up to 19 years), exploring the prevalence of SSD or related somatic symptoms. Exclusion criteria were non-peer-reviewed sources and articles not involving children and adolescents' populations.

Results: Thematic analysis highlighted two major patterns: (1) conceptualizations of Somatic Symptom Disorder and (2) prevalence of Somatic Symptoms among Children and Adolescents.

Keywords: Somatic Syndrome Disorder, Children, Adolescents, Prevalence and beliefs

1. Introduction

The concept of Somatic Symptom Disorder (SSD) has gained increasing attention in recent years, particularly following its formal introduction in the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) in 2013. SSD is characterized by the presence of one or more distressing somatic symptoms that cause significant disruption in daily functioning and are often accompanied by excessive thoughts, feelings, or behaviors related to those symptoms [1]. The introduction of the new DSM-5 category, Somatic Symptom Disorder (SSD), is widely regarded as a significant development in public mental health and psychiatry [2]. Children and adolescents represent a vulnerable population, as somatic complaints frequently emerge during developmental years and may reflect both underlying psychological distress and cultural models of expressing suffering [3]. Studies suggest that the prevalence of somatic symptoms and related disorders is substantial in younger populations, with estimates ranging from 4% to 12% among children and adolescents [4]. Stigma from both groups delay the recognition of, and help-seeking for, conditions such as SSD [5]. Recent Indian research on SSD highlights that pathways to care are often delayed, and stigma contributes to underreporting and misattribution of symptoms to physical illness rather than psychological causes [6].

1.1 Beliefs and Help-seeking for Somatic Symptoms Disorder

Misconceptions about somatic symptoms are common in society and even among healthcare professionals. Some of the most frequent myths include patients who somatize are considered weak; children fabricate symptoms for attention or to avoid responsibilities; families are at fault; conducting numerous tests will uncover the problem; symptoms will disappear if the child is ignored; and using "tough love" will force the child to attend school [7]. The general population may not be well informed about the diagnosis and treatment of SSD. Their beliefs and knowledge about SSD have not yet been investigated. Women are more likely to believe that misinterpretation of body signals is a potential cause of this SSD. People who are younger, women, less educated, or know someone with SSD are more likely to believe psychotherapy helps fatigue related to SSD. [8]. Similarly, research on children, adolescents and young adults' experiences reveals that life challenges, societal expectations, and a lack of mental health education contribute to delays in help-seeking behaviours, particularly for conditions like SSD [9]. The Indian context reveals that children and adolescents often face significant barriers when it comes to recognizing and seeking help for SSD. A study conducted in Odisha highlighted that adolescent living in Urban Habitat development board encounter multiple obstacles, including limited mental health awareness, cultural stigmas, and inadequate access to healthcare services, which hinder their ability to seek appropriate mental health care [10]**.** This study systematically analyses the prevalence of SSD among Children and Adolescents.

2. Materials and Methods

The methodology and reporting of this systematic review were structured according to the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines. PRISMA provides a comprehensive 27-item checklist and a flow diagram that support transparency at every stage of the review process, including literature search, study selection, data extraction, quality appraisal, and synthesis of findings. By following PRISMA, the review enhances replicability, minimizes the risk of bias, and facilitates critical appraisal by readers and researchers, thereby maintaining transparency throughout the review process, from study execution to final reporting [11].

2.1 Inclusion Criteria

- Articles and dissertations published in between 2009 and 2025. Only English-language articles will be included in the analysis.
- All selected articles must be published in peer-reviewed journals.
- Studies involving *children and adolescents aged up to 19 years***.**
- *Empirical studies***,** reviews, and systematic reviews.

2.2 Searching strategy

A systematic literature search was conducted to identify relevant studies on the prevalence of Somatic Symptom Disorder (SSD) among children and adolescents published between 2009 and 2025. Following PRISMA guidelines, the primary academic database searched was *PubMed***,** using a structured keyword approach. In addition, supplementary searches were performed in *Google Scholar***,** *ResearchGate***,** and publisher websites such as *BioMed Central (BMC)* and *Frontiers.* The search strategy was developed to maximize sensitivity and specificity. Keywords and subject headings related to “Somatic Symptom Disorder,” “somatoform disorders,” “somatic symptoms,” “children,” and “adolescents” were identified and grouped into three main categories. Boolean operators **(***AND***,** *OR***)** were applied systematically to combine search terms across categories.

1. SSD and mental health concept – "somatic symptom disorder" OR "somatoform disorder"
2. Children and adolestent population– "children” OR “adolestent” OR "teenagers
3. Prevalence – "prevalence"

2.3 Selection Process

The screening process began with an initial title review, followed by a detailed assessment of abstracts to evaluate relevance. Duplicate records were removed during this stage. Studies meeting the inclusion criteria were further examinated, including a reference list search to identify additional relevant publications. After applying eligibility criteria, a final set of 11 studies was selected for inclusion in the systematic review.

2.4 Synthesis Method

A narrative thematic synthesis was employed to analyze the findings of the included studies. Themes were derived inductively by reading and re-reading the results and discussion sections of each included study. Key themes were reviewed and refined iteratively, resulting in two overarching themes.

2.5 Risk of Bias Assessment

The quality assessment of the included studies was conducted on the basis of key indicators of methodological quality, such as the clarity of research objectives, appropriateness of study design, and transparency in data collection and analysis. Each study was further examined for its relevance to the stated aims, particularly in relation to children and adolescents’ prevalence of SSD. This process ensured that uncertainties were critically examined from multiple perspectives and helped maintain consistency in the assessment

Summary of the Selected Studies

The reviewed studies from global contexts, including countries across Asia, Korea, France, Singapore, Pakistan and Germany, explore the prevalence of SSD and related psychosomatic conditions. The overarching goal of these investigations is to understand how children and adolescents across cultural and geographic settings perceive SSD and the frequency and intensity of its symptoms. Methodologically, the studies employed both qualitative and quantitative designs. Qualitative approaches were predominant, utilizing in-depth interviews, semi-structured interviews, focus group discussions, and case studies to extract nuanced perceptions of children and adolescents. Quantitative studies frequently relied on surveys and validated instruments to assess levels of prevalence of psychosomatic symptoms.

The PRISMA flow diagram presented below outlines the process of identification, screening, eligibility assessment, and inclusion of studies for the systematic review.

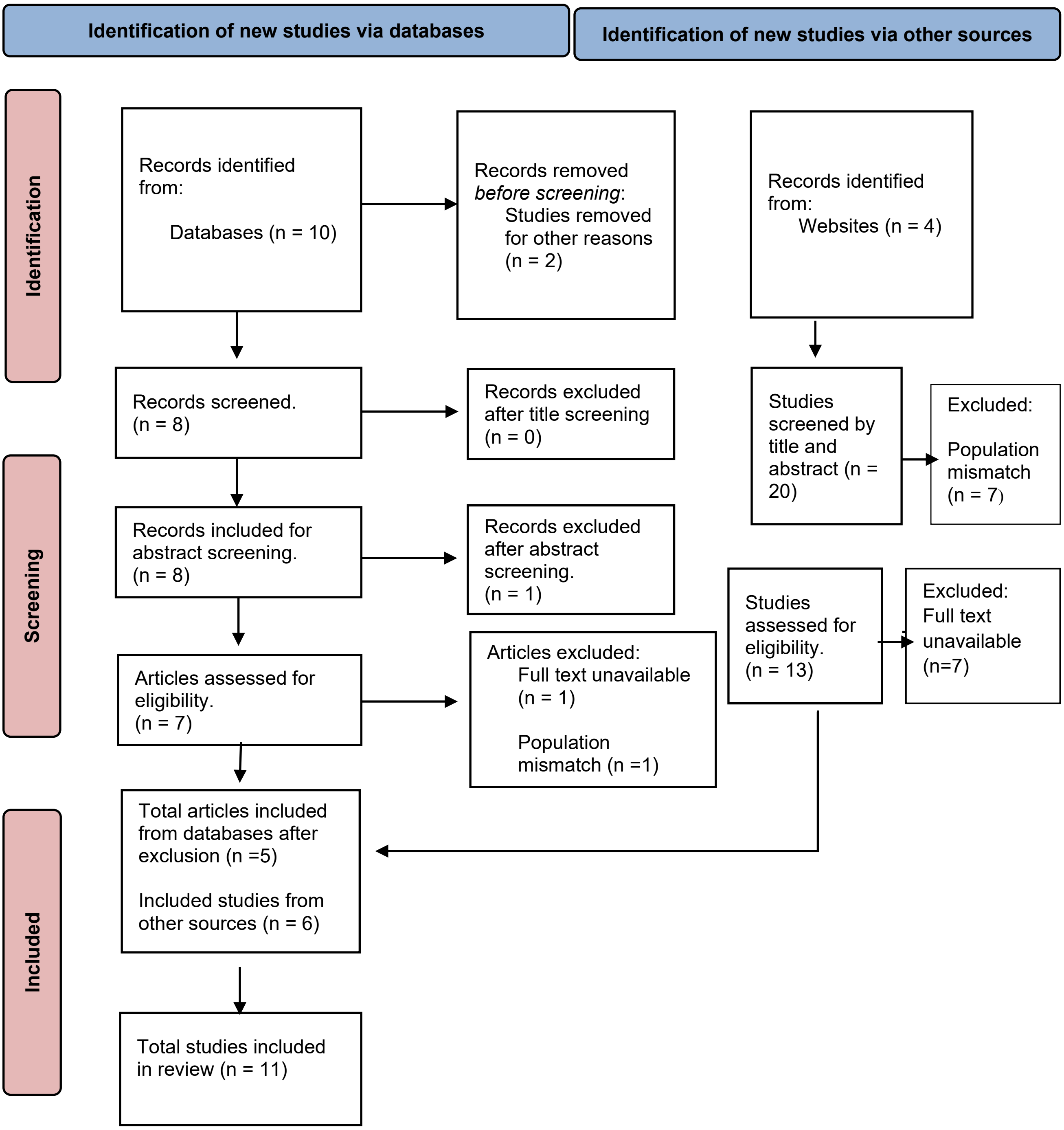

Fig. 1 - PRISMA flowchart of study selection for the systematic review

3. Results

3.1 Conceptualizations of Somatic Symptom Disorder

The prevalence of somatoform disorders affects approximately 4 to 12% of children and adolescents. Across the reviewed studies, adolescents' understanding of SSD was often shaped by cultural, social, and contextual influences [12]. SSD was not always conceptualized as a psychological or medically unexplained condition, but rather understood through the lens of physical health problems, stress, or even spiritual explanations in some cultural contexts. For example, in Western studies, SSD was often linked to stress, anxiety, and the mind–body connection. This highlights the wide variation in how adolescents interpret SSD and demonstrates that prevalence is deeply embedded within cultural models of illness [13]. *For instance, studies conducted in various cultural contexts have highlighted distinct interpretations of SSD among adolescents.* In a study conducted in South Korea, adolescents exhibited a strong tendency to express psychological distress through somatic symptoms, reflecting cultural norms that prioritize physical manifestations of emotional suffering. Conversely, in Western contexts, such as the United States, adolescents are more likely to articulate their distress verbally, with less emphasis on somatic expressions [14].

3.2 Prevalence of Somatic Symptoms among Children and Adolescents

In Singapore, a study examining the prevalence of somatic symptoms among adolescents found that older adolescents (aged 17–19 years) reported a greater prevalence of somatic symptoms (37.1%) compared to younger adolescents (28–29%), with females more likely to report somatic symptoms than males. The study also observed that Malay adolescents reported a higher prevalence of somatic symptoms (42.2%) compared to their Chinese counterparts (29.8%), suggesting that cultural factors may influence the expression of distress [15]. In a study conducted in Ethiopia, a high prevalence of somatic symptoms was observed among adolescent psychiatric inpatients, with most of the adolescents reporting such symptoms [16]. Similarly, in German adolescents' psychiatric inpatients, over 93% of participants reported at least one somatic symptom [17]. Also common among children and adolescents, with somatoform disorders affecting about 1%–2% of the paediatric population [7]. Female adolescents tend to report higher levels of these symptoms compared to their male peers. In Pakistan, 65.1% of adolescents experiencing school-related stressors reported somatic symptoms with female adolescents reporting higher levels [18].

Globally, the prevalence of somatic symptoms among adolescents ranges widely, from 10 to 15% for specific complaints in population surveys to up to 50% in lifetime estimates and clinical settings, depending on measurement criteria and cultural context [19]. A study of youth in France found that somatic symptoms were positively associated with traumatic stress symptoms in a large sample of children and adolescents who had experienced at least one DSM-5–defined traumatic event. The findings showed that somatic symptoms were more common and more severe among participants diagnosed with PTSD [20]. The occurrence of somatic experiences among children and adolescents is relatively consistent across countries. Data from Australia's Department of Health and Ageing (1998) showed that 14% of young people aged 4–17 years reported experiencing a mental health problem, with somatic complaints being the most common [21].

4.Discussions

This systematic review set out to examine the conceptualizations and prevalence of Somatic Symptom Disorder (SSD) among children and adolescents. The DSM-5 and ICD-11 offer standardized definitions, the studies reviewed highlight that individuals' experiences and reporting of somatic symptoms vary widely and are strongly influenced by context. Across studies, adolescents did not uniformly interpret somatic symptoms as indicators of psychological distress or medically unexplained conditions. Instead, they often interpreted these symptoms in terms of physical health, stress, or culturally influenced factors, including spiritual beliefs. This underscores that children's and adolescents' experiences of SSD are shaped by broader cultural understandings of illness, influencing how symptoms are expressed and whether help is sought. The prevalence of somatic symptoms varied widely across settings: community surveys reported moderate prevalence rates, while clinical and inpatient samples indicated much higher levels of symptoms. Age and gender were important moderators, with adolescents—particularly females—exhibiting higher rates of somatic complaints compared to younger children or males. Overall, the evidence indicates that SSD is common among children and adolescents, highly variable across contexts, and influenced by developmental, gender, and cultural factors.

5.Future Directions

First, there is a clear need for more culturally and developmentally sensitive research on SSD in children and adolescents. While many studies focus on symptom prevalence or clinical diagnosis, fewer investigate how adolescents themselves, along with their families and educators, perceive, interpret, and respond to somatic symptoms. Future research can incorporate longitudinal designs to examine how somatic symptom patterns evolve across key developmental stages, from childhood through adolescence and into early adulthood. Additionally, studies should explore cross-cultural differences to understand how cultural norms, stigma, and beliefs shape the expression and interpretation of SSD. Gender-specific patterns should also be examined, particularly given evidence that female adolescents tend to report higher levels of somatic symptoms. Further, research integrating physical health conditions with psychological symptoms can clarify overlaps and *enhance comprehensive care strategies.*

4.Conclusion

Children and adolescents with Somatic Symptom Disorder experiences their symptoms within complex intersections of personal, familial, and sociocultural contexts. Their symptoms are not only expressions of internal distress but also reflections of how families, schools, and communities interpret and respond to their needs. Supportive environments can help adolescents manage symptoms and build resilience. Equally important is the recognition that SSD is not only a medical condition but also a reflection of how societies interpret and respond to mental and physical health. Cultivating awareness within communities, reducing stigmas and ensuring access to appropriate care are essential steps.

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Conflict of Interest

The authors declare that there are no conflicts of interest related to the design, execution, or reporting of this systematic review. The review was conducted purely for academic and scholarly purposes.

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