

STRESS AND PSYCHOSOMATIC DISORDERS IN CHILDREN

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ABSTRACT

This article examines the relationship between stress and psychosomatic disorders in children within the framework of developmental psychology and pediatric health. Although stress is a natural adaptive response, chronic emotional tension may manifest in physical symptoms such as headaches, abdominal pain, and sleep disturbances. The paper analyzes major sources of stress, including family instability, academic pressure, and peer conflict, as well as the neurobiological mechanisms underlying somatization. Furthermore, it highlights the importance of early diagnosis, emotional regulation, and multidisciplinary intervention in preventing long-term health consequences.

Stress and psychosomatic disorders in children represent an increasingly urgent issue in contemporary developmental psychology and pediatric health care. In recent decades, childhood environments have changed dramatically; on the one hand, children benefit from improved educational resources and technological advancement, yet on the other hand, they are exposed to intensified academic pressure, family instability, and social comparison. Consequently, stress has become not merely an occasional adaptive response but, in many cases, a chronic condition that significantly influences emotional and physical development. Although stress is a natural biological mechanism designed to protect the organism, prolonged activation of stress systems during childhood may lead to psychosomatic disorders, in which psychological distress manifests as physical symptoms. Therefore, understanding the dynamic interaction between psychological stress and somatic functioning is essential for effective prevention and intervention.

First of all, it is important to clarify the concept of stress in childhood. Stress can be defined as the body's physiological and psychological response to perceived demands or threats. In children, however, stress responses are closely linked to developmental stage, emotional maturity, and environmental support. For example, younger children often lack the verbal capacity to articulate anxiety or fear; therefore, instead of expressing emotional discomfort directly, they may complain of stomach pain, headaches, or fatigue. In contrast, adolescents may display irritability, withdrawal, or behavioral disturbances. Thus, stress in childhood is not always immediately recognizable as psychological distress, since it frequently appears in disguised somatic forms [5, 448-454].

From a neurobiological perspective, stress activates the hypothalamic-pituitary-adrenal (HPA) axis, which subsequently releases cortisol, commonly known as the stress hormone. While short-term cortisol elevation enhances alertness and adaptive functioning, chronic overactivation leads to immune suppression, sleep disturbances, and gastrointestinal dysfunction. Moreover, persistent sympathetic nervous system activation results in increased muscle tension, cardiovascular strain, and digestive irregularities. Consequently, when stress becomes prolonged and unmanaged, the body remains in a state of heightened arousal, thereby increasing vulnerability to psychosomatic symptoms. In other words, the mind-body connection is not metaphorical but physiologically measurable [1, 597-603].

Furthermore, psychosomatic disorders in children are characterized by physical symptoms that cannot be fully explained by organic pathology, yet are strongly influenced by psychological factors. These symptoms often include recurrent abdominal pain, tension headaches, sleep disturbances, fatigue, asthma exacerbations, and dermatological conditions such as eczema. Importantly, these manifestations are genuine and distressing; therefore, they must not be dismissed as imaginary. On the contrary, they reflect the child's attempt to communicate internal emotional conflict through bodily expression. Because emotional awareness and regulation are still developing in childhood, somatization frequently becomes a non-verbal language of distress.

In addition, several environmental factors contribute significantly to stress in children. Family-related stressors play a central role, since the family constitutes the primary emotional context of development. For instance, parental conflict, divorce, inconsistent parenting, excessive expectations, or emotional neglect may create chronic insecurity. As a result, the child's stress response system remains persistently activated. Similarly, overprotective parenting may inadvertently increase anxiety by limiting opportunities for independent coping. Thus, both instability and excessive control can contribute to psychosomatic vulnerability.

Equally important is the role of academic pressure. Modern educational systems often emphasize performance, competition, and measurable achievement. Consequently, many children internalize the belief that their self-worth depends on academic success. Excessive homework, fear of failure, and constant comparison with peers intensify stress levels. In turn, psychosomatic symptoms such as headaches, nausea, or sleep disturbances frequently emerge during examination periods. Notably, symptoms often decrease during holidays, which further illustrates the connection between emotional tension and physical complaints.

Moreover, peer relationships constitute another powerful source of stress. Because social acceptance is developmentally crucial, experiences of bullying, rejection, or social isolation can produce profound emotional impact. In particular, cyberbullying has expanded the scope and duration of social stress, since digital exposure allows negative interactions to continue beyond school hours. Consequently, children may experience chronic anxiety and hypervigilance, which in turn increase the likelihood of psychosomatic manifestations. Therefore, social context must be considered when evaluating recurrent unexplained physical symptoms.

Additionally, traumatic experiences such as accidents, abuse, severe illness, or natural disasters may trigger long-lasting stress reactions. In such cases, the body often retains the

memory of trauma, even when the child struggles to articulate it verbally. Thus, chronic pain, enuresis, appetite changes, or functional gastrointestinal disorders may represent physiological echoes of unresolved trauma. Indeed, research consistently demonstrates that adverse childhood experiences significantly increase the risk of both psychological and somatic disorders later in life [3, 882-889].

At the psychological level, emotional suppression plays a particularly important role in psychosomatic development. When children feel unable to express fear, anger, or sadness safely, they may internalize these emotions. Over time, unprocessed emotional tension accumulates, and the body becomes the site of expression. Consequently, somatic symptoms function as indirect communication signals, drawing attention to underlying distress. Furthermore, children with insecure attachment patterns often display heightened physiological reactivity to stress, which further amplifies the risk of psychosomatic illness. In contrast, secure attachment relationships serve as protective factors by enhancing emotional regulation and resilience.

It is also essential to consider the diagnostic process. Although organic causes must initially be ruled out through appropriate medical examination, repeated negative findings should prompt psychosocial assessment. Nevertheless, healthcare providers must validate the child's suffering rather than minimize it. If symptoms are dismissed as "nothing serious," the child may feel misunderstood, thereby intensifying anxiety and symptom persistence. Therefore, a biopsychosocial model, integrating medical, psychological, and environmental evaluation, is particularly effective in addressing psychosomatic presentations.

With regard to intervention, multidisciplinary approaches demonstrate the greatest efficacy. Cognitive-behavioral therapy, for instance, helps children identify stress triggers, challenge maladaptive thoughts, and develop healthier coping strategies. At the same time, play therapy enables younger children to process emotions symbolically. Family therapy is equally important, since modifying family communication patterns and reducing conflict often leads to symptom improvement. Moreover, school-based emotional literacy programs can strengthen resilience by teaching stress management techniques, relaxation exercises, and peer support skills. In addition, lifestyle modifications such as regular physical activity, adequate sleep, balanced nutrition, and limited screen exposure contribute to physiological regulation.

Importantly, prevention strategies should begin early in childhood. Because neural plasticity is particularly high during developmental periods, supportive environments can buffer the negative impact of stress. Encouraging open emotional communication, modeling adaptive coping, and promoting secure attachment relationships significantly reduce psychosomatic vulnerability. Furthermore, teaching children to recognize and name their emotions enhances self-regulation and reduces the need for somatic expression.

In conclusion, stress in childhood is both inevitable and potentially transformative; however, when stress becomes chronic and unmanaged, it may give rise to psychosomatic disorders that reflect the intimate interaction between psychological and physiological systems. These disorders are neither fabricated nor purely physical; rather, they represent complex biopsychosocial phenomena. Therefore, early recognition, compassionate validation, and integrated intervention are crucial for protecting children's mental and physical well-

being. Ultimately, fostering emotional resilience in childhood not only alleviates immediate distress but also promotes healthier developmental trajectories across the lifespan.

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