



Editors' Comment

Children and adolescents generally experience some stress as they deal with the developmental tasks expected at different ages. All stress is not bad; mastering challenges and learning ways of dealing with stress can result in emotional growth. Some children, however, have to deal with additional stresses such as the loss of significant people in their lives, separation from parents, divorce, family violence, shifting family arrangements, frequent moves, multiple hospitalizations, academic and social pressures.

Children respond differently to stress; some may make a good adjustment and move on, some may take a step back, some may become angry, sad and scared, and some may express their reaction in physical complaints. If stress continues in intensity over a period of time, physiological changes occur, and the body can react in the form of illness.

In this issue of the *NYU Child Study Letter* we discuss psychosomatic illness, now known as Somatoform Disorder, how it relates to stress, its prevalence, possible causes, symptoms, professional assessment and treatment, and what parents can do to help.

AG/HSK

Introduction

Sometimes a child or adolescent complains continually of a discomfort or a pain for which a physician cannot find a cause. The pain or the discomfort, however, is very real to the child. When physical complaints have no apparent medical basis they may be a reflection of a stress, such as nervousness in a social situation, a demanding school setting, family discord, separation from parents, or another troubling situation. Stress, as it affects the body and the mind, can play a role in the origin and course of some illnesses. Stress can influence how a child or adolescent

PSYCHOSOMATIC ILLNESS IN CHILDREN AND ADOLESCENTS (SOMATOFORM DISORDERS)

perceives the symptoms of the illness, how he or she deals with the illness, and the rate of recovery.

Somatoform Disorders is the relatively new term used in the Diagnostic and Statistical Manual, Fourth Edition (DSM-IV) to describe a group of disorders characterized by physical symptoms that cannot be fully explained by a neurological or generalized medical ("organic") condition. Although it is common for children to report recurrent physical symptoms with no physical cause, the actual diagnosis in children is rare, because the criteria for Somatoform Disorder were established for adults.

Historical Perspective

The existence of physical symptoms without an apparent physical cause is not a new phenomenon. For many years, there have been reports of patients with unexplained physical symptoms. The term "hysteria" was used first by the Greeks to refer to these individuals. In 1859 Paul Briquet studied patients with multiple unexplained physical symptoms, which resulted in another term, "Briquet's Syndrome." Charcot, Bernheim, Janet and Freud studied "hysterical" symptoms using hypnosis, and their work resulted in the development of the concept of disassociation. As the DSM has been revised over the years, other terms, such as conversion hysteria and conversion reaction, have been used to describe Somatoform Disorders.

Case vignettes

Ania, a 17-year-old girl, born in the U. S. to eastern Arabic parents, wanted to attend an out-of-town college. This plan evoked the sharp disapproval of her parents, who, in accordance with the custom of their culture, wanted her to remain at home while attending college. The disagreement was not discussed openly; it was assumed that Ania would attend a

local college. She developed seizures and was admitted to a hospital for observation. Neurological tests were negative and an organically-based seizure disorder was ruled out. After psychiatric consultation and a number of sessions with both Ania and her parents, they came to view the seizures as related to a long-established pattern in which Ania was unable to deal openly with her anxiety. Unable to directly express negative and angry feelings, Ania reacted with her body. Her conflict in assertively expressing her feelings to her parents about leaving home resulted in the pseudo-seizures. When the family was helped to consider the symptoms as a manifestation of cultural stress they learned new ways to communicate their feelings, and the symptoms remitted.

Scott, aged 13, complained for more than a year of severe stomachaches, which often resulted in vomiting. His pediatrician conducted a series of diagnostic tests and found no physical basis for his complaints. A school avoidance pattern was ruled out, since Scott willingly attended school; he was a good student, well-liked by his classmates and an outstanding soccer player. However, he spent many after-school hours at soccer practice, practiced compulsively at home, travelled with his team, took trombone lessons, and often stayed up until midnight completing his homework. Scott's parents began to think that his complaints were imagined. In consultation with a mental health professional they were helped to understand that when stress builds up without relief the body may react. They were advised to make life-style changes such as limiting Scott's soccer practice and trombone lessons to reduce the pressure that he was experiencing. The stomachaches and vomiting subsided within a few months.

Ania and Scott were diagnosed as having Somatoform Disorder.



NEW YORK UNIVERSITY

Kenneth G. Langone
Chairman, Foundation Board of Trustees

Robert M. Glickman, M.D.
Dean
NYU School of Medicine

Editorial Board

Harold S. Koplewicz, M.D., Founding Editor
Arnold and Debbie Simon Professor of Child
and Adolescent Psychiatry
Director of the Child Study Center
New York University School of Medicine

Anita Gurian, Ph.D., Editor
Executive Editor, www.AboutOurKids.org
Clinical Assistant Professor
New York University School of Medicine

Howard Abikoff, Ph.D.
Pevaroff-Cohn Professor of Psychiatry
Director of Research
Child Study Center
New York University School of Medicine

Robert Cancro, M.D.
Professor and Chairman
Department of Psychiatry
New York University School of Medicine

Gabrielle A. Carlson, M.D.
Professor of Psychiatry and Pediatrics
New York State University at Stony Brook

Stella Chess, M.D.
Professor of Child Psychiatry
New York University School of Medicine

Gail Furman, Ph.D.
Women's Commission on Refugee
Women and Children, United Nations

Glenn S. Hirsch, M.D.
Assistant Professor of Clinical Psychiatry
Deputy Director, Child Study Center
Medical Director, Division of Child and
Adolescent Psychiatry
New York University School of Medicine

Rachel Klein, Ph.D.
Professor of Psychiatry
New York University School of Medicine

Maria Kovacs, Ph.D.
Professor of Psychiatry
University of Pittsburgh School of Medicine

Wade P. Parks, M.D., Ph.D.
Professor and Chairman
Department of Pediatrics
New York University School of Medicine

Alexander Thomas, M.D.
Professor of Psychiatry
New York University School of Medicine

What are the symptoms?

Young children typically complain of vague symptoms; school-age children are better able to localize their pain, and adolescents can describe their pain in detail. Many complaints are short-lived, but when a child complains repeatedly, and a physician can find no physical basis for the complaint, the child may have a Somatoform Disorder. The recurrent symptoms commonly reported by children and adolescents are:

- Headaches
- Stomachs and abdominal distress
- With the hormonal changes of puberty, anxiety and worry, fatigue, loss of appetite, aches and pain are frequent symptoms, more prevalent in girls than boys
- Symptoms that mimic neurological disorders, such as double vision, poor balance and coordination, paralysis, seizures
- Imagined physical deformities or defects
- Back pain
- Fatigue
- Sore muscles

Academic problems, school refusal, social withdrawal, anxiety and behavioral problems often accompany and may trigger Somatoform Disorders.

How is Somatoform Disorder diagnosed?

In order to meet the criteria for a diagnosis of Somatoform Disorder in the DSM-IV, the person must demonstrate a pattern of recurring, multiple, clinically significant physical complaints, the symptoms of which are NOT produced voluntarily. (See the description of Scott above.)

Somatoform Disorder must not be due to other disorders and must be distinguished from Malingering or Factitious Disorder, which are both characterized by consciously or purposely produced symptoms. Some children who suffer from Posttraumatic Stress Disorder after a traumatic event report pain; this pain is acute rather than chronic and is accompanied by nightmares, intrusive thoughts and re-experiencing of the event that was the source of stress. Children who had Somatoform Disorder before experiencing a traumatic event may complain more frequently and the severity of their complaints may intensify.

Types of Somatoform Disorders diagnosed in children (DSM-IV)

Conversion Disorder is the most common type diagnosed in children. (See the description of Ania above.) Conversion Disorder involves unexplained symptoms or deficits affecting voluntary motor or sensory function that are suggestive of a neurological or other general medical condition. The symptoms resemble neurological conditions and physical ailments such as blindness, seizures, gait imbalance, paralysis, tunnel vision and numbness. Children may complain of weakness; they may have trouble walking, talking, or hearing. Trauma and abuse increase the likelihood of Conversion Disorder, which is usually triggered by psychological factors.

Somatization Disorder is a disorder that begins before age 30 years, extends over a period of years, and is characterized by a combination of pain, gastrointestinal, sexual and pseudoneurological symptoms. This chronic, recurrent disorder with multiple complaints is often presented in a dramatic and exaggerated way. Although somatic complaints in children are common, a formal diagnosis is difficult because of the criteria regarding sexual symptoms.

Body Dysmorphic Disorder is the preoccupation with an imagined or exaggerated defect in physical appearance which causes significant distress or impairment in social, occupational, or other important areas of functioning.

Hypochondriasis is the preoccupation with the fear of having, or the idea that one has, a serious disease based on the person's misinterpretation of bodily symptoms or bodily functions.

Pain Disorder has limited usefulness in children since there are few studies to distinguish it from Conversion Disorder. Pain Disorder is characterized by pain as the predominant focus of clinical attention. In addition, psychological factors have an important role in the onset, severity, exacerbation, or maintenance.

Undifferentiated Somatoform Disorder is characterized by unexplained physical complaints, lasting at least 6 months, that are below the threshold for a diagnosis of Somatization Disorder. When somatoform symptoms do not meet the criteria for any of the specific Somatoform Disorders, a **Somatoform Disorder Not Otherwise Specified** is utilized.

Prevalence of Somatoform Disorders

Studies show conflicting evidence regarding the occurrence of Somatoform Disorders. In a child psychiatric outpatient study, rates ranged from 1.3 to 5%. In a general population study, somatic complaints were found in 11% of girls, and 4% of boys. Adult studies show .2 - 2% in women and less than .2% in men. Somatoform disorders are believed to occur more often in less sophisticated or less educated populations and lower SES groups. In terms of gender differences there is a 5:1 female-male ratio. Studies of prepubertal children report an equal ratio in boys and girls; in post-puberty, however, the female incidence increases.

Causes

Children react differently to stress, depending on individual personal characteristics, such as their appraisal of the event and their coping strategies. Certain children have more difficulty in expressing their emotions directly, due to their individual temperament, the emotional climate of the family, and cultural customs. The most common triggers of Somatoform Disorders are psychosocial stressors, such as a death in the family, trauma (physical or sexual abuse) or family conflict. The specific origins of Somatoform Disorder are as yet unknown, although there are a number of theories.

- 1) Psychosocial theory views the symptoms as social communication to express emotions or to symbolize feelings that cannot be verbalized.
- 2) A psychodynamic interpretation views symptoms as repressed instinctual impulses. Psychosomatic pains are believed to be the bodily expressions of underlying and unresolved emotional issues – painful memories, unconscious conflicts, sometimes sexual abuse.
- 3) Biological studies suggest the individual may have a faulty perception and assessment of sensory inputs.
- 4) Genetic data suggest that somatoform disorders tend to run in families with an occurrence of 10 - 20% of first degree female relatives. Other evidence shows that anxiety and depression are more common in the families of somatizing children. Parents of children with recurrent abdominal pain reported more psychiatric symptoms.

Treatment

A professional assessment is the first step in treating a child who may have a Somatoform Disorder. The professional conducting the assessment will generally perform the following procedures:

- 1) Conduct a complete initial workup of the symptoms, including a physical exam.
- 2) Examine the child without the parent present and note if there are any changes in the child's behavior.
- 3) Obtain a psychosocial history, including information about possible stressors, in order to differentiate the symptoms from other disorders.
- 4) Inform the family of the importance of psychological factors which may contribute to the symptoms and the plan to manage them.
- 5) Discuss the advisability of an in-depth psychiatric or psychological evaluation to assist in understanding the symptoms picture and causes.

Intervention procedures may include the following.

- 1) Communication with the primary care physician to be clear and to avoid duplication of services and tests and the transmission of contradictory information to the family.
- 2) Education of the child regarding the interpretation of bodily sensations.
- 3) Development and reinforcement of coping behaviors that reduce the positive gain associated with the sick role through individual, family, group and cognitive behavior therapies. Relaxation and biofeedback techniques are useful.
- 4) Identification and appropriate treatment of co-existing diagnoses, i.e., anxiety, depression.
- 5) When indicated, medication management with SSRIs (Selective Serotonin Reuptake Inhibitors), tricyclics, anxiolytics, stimulant and mood stabilizers is effective.

How parents can help

Take your child's complaints seriously. Remember that a child who complains may have a real physical illness. Consultation with a physician is imperative. If,

after a physical checkup, the child's complaints – headaches, stomach aches, motor coordination, back pain, eating or sleeping difficulties, or other problems – persist and interfere with daily personal and academic functioning, be aware that the symptoms are not produced intentionally, but may be emotionally-based. Adolescents may attempt to self-medicate with alcohol or drugs.

Encourage your child to express her pain verbally. Reassure her that you are aware that the pain is real and that ways can be found to alleviate it. Explain that pressure and worry can cause physical problems. Emphasize that the pain is not punishment and not her fault, and that stress can affect the body in different ways.

Understand that the perception of pain is affected by a variety of factors, including the age of the child as well as her basic temperamental style, psychological state and individual experience. Infants and young children react to pain by crying and physical gestures. As children grow older, they will have more experience with pain and will have developed coping strategies. By adolescence most youngsters have a mature understanding of pain and its significance.

Try to pinpoint potential causes. Your child may be experiencing academic pressure, family conflict, a change in school, a move, the illness or death of a family member or friend, or physical or sexual abuse. She may have had traumatic experiences you have not known about.

Devise ways to give the child a sense of control. For some children, keeping a log will help identify the specific situations which cause stress and those which result in relief. For example, have the child record when the pain occurs in relation to activities, time of day, playdates or other social occasions, how long the pain lasts, what alleviates it. This information will help in planning appropriate life changes, such as a modification of school demands, adjustment in family relationships, modification of an overly crowded schedule of activities, and may alleviate a possible source of stress.

Be careful not to inadvertently reinforce the behavior by becoming visibly alarmed and overly solicitous. For example, allowing your child to stay home or to avoid social situations may reinforce the behavior.

Be a good role model. Examine your own ways of dealing with stress to see if you also tend to express emotional conflicts through physical complaints and take steps to change this pattern of response.

If improvement does not occur, and your child is getting appropriate medical treatment, consultation with a mental health professional is warranted.

ABOUT THE AUTHOR

Melvin D. Oatis, M.D., is Assistant Professor of Psychiatry at the NYU School of Medicine and the Director of the Pediatric Consultation and Liaison Service, which provides diagnostic evaluations and treatment, including medication and therapy. In addition to Somatoform Disorders, Dr. Oatis's interests include psychopharmacologic research regarding anxiety and ADHD and teaching medical students and residents in adult and child psychiatry.

REFERENCES

- American Psychiatric Association (1994) *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.). Washington, DC: American Psychiatric Press.
- Behrman, RE, Kliegman, R & Jenson, HB (Eds.) (2000) *Nelson Textbook of Pediatrics* (16th ed.). Philadelphia: W.B. Saunders & Co.
- Lewis, M. (Ed.) (1991) *Child and Adolescent Psychiatry: A Comprehensive Textbook*. Baltimore: Williams and Wilkins.
- Sadock, BJ & Sadock, VA (Eds.) (2000) *Kaplan & Sadock's Comprehensive Textbook of Psychiatry* (7th ed.). Baltimore: Lippincott, Williams & Wilkins Publishers.
- Campo, JV & Fritsch, SL (1994) Somatization in children and adolescents. *Journal of the American Academy of Child & Adolescent Psychiatry*. 33, 1223-1235.
- Leslie, SA (1988) Diagnosis and treatment of hysterical conversion reactions. *Archives of Disease in Childhood*. 63, 506-511.

RELATED ARTICLES

- About Anxiety Disorders
AboutOurKids.org/articles/about_anxiety.html
- About Body Dysmorphic Disorder
AboutOurKids.org/articles/about_bdd.html
- About Depressive Disorders
AboutOurKids.org/articles/about_depressive.html
- About Posttraumatic Stress Disorder
AboutOurKids.org/articles/about_ptsd.html
- Choosing a Mental Health Professional
AboutOurKids.org/articles/choosingmh.html
- CSC Letter: Children with a Chronic Illness: The Interface of Medicine and Mental Health
AboutOurKids.org/letter/index.html
- Guide to Psychiatric Medications for Children and Adolescents
AboutOurKids.org/articles/guidetopsychmeds.html
- Stress in Children: What It Is, How Parents Can Help
AboutOurKids.org/articles/stress.html
- Understanding School Refusal
AboutOurKids.org/articles/refusal.html



Letter
Child Study Center

550 First Avenue New York, NY 10016 (212)263-6622



NEW YORK UNIVERSITY