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# Recognizing and Treating Uncommon Behavioral and Emotional Disorders in Children and Adolescents Who Have Been Severely Maltreated: Somatization and Other Somatoform Disorders

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*This article reviews current knowledge about somatoform disorders in children and adolescents. Somatoform disorders are likely to occur more frequently in children and adolescents who have been severely maltreated than in others. The symptoms of somatoform disorders are reviewed, strategies for distinguishing somatoform disorders from other disorders are examined, and treatment strategies are explored.*

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Between the ages of 6 and 8 years, Richard was sodomized repeatedly by several male workers at an after-school program. The abuse was discovered when Richard was 8, and the abusers were convicted and sent to prison. Richard and his parents attended therapy together for about a year. Beginning at age 10, Richard frequently complained about multiple aches and pains and reported often being nauseous at school. Repeated examinations by Richard's pediatrician showed no clear physical reason for the complaints. His parents responded with increased care when Richard complained of an illness or pain because they wanted to do everything that they could to make him feel loved. Over the next year, Richard's symptoms increased to the point where he had to leave school once or twice a week. He refused to participate in physical education, saying that the physical

activity was too painful. This resulted in an ongoing confrontation between Richard and his physical education teacher, who believed that Richard was faking problems to avoid physical education. Richard's parents were confused about how to respond to him. On one hand, they were concerned that Richard's physical symptoms were a result of his abuse and did not want to dismiss them and seem insensitive. On the other hand, they did not want to reinforce Richard's use of imagined or minor physical complaints to avoid his educational or social obligations.

**A** somatoform disorder can be diagnosed when a child has a physical complaint and an appropriate medical examination reveals no organic basis for the complaint or when a child with an identified organically based disorder has symptoms that are much more severe than would be expected (Campo & Fritsch, 1994).<sup>1</sup> The symptoms must cause significant distress or impairment and may not be primarily because of substance use or another mental disorder (American Psychiatric Association [APA], 1994).

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Although somatoform disorders are rare in children (Campo & Fritsch, 1994), severe forms of child sexual abuse have been associated with higher rates of somatization problems (Garraalda, 1996; Kinzl, Traweger, & Biehl, 1995).<sup>2</sup> A similar pattern is found among adult victims of rape, who are more likely than other adults to report physical symptoms even when they were not physically injured during the rape or when sufficient time has elapsed for their injuries to heal (Koss & Harvey, 1991).

It has long been recognized that some degree of somatization is normal in young children and that it is developmentally appropriate for them to express emotional distress through physical symptoms (Fritz, Fritsch, & Hagino, 1997). For example, young children who are anxious about attending preschool may express their anxiety through headaches, stomachaches, or other physical symptoms (Garraalda, 1999). As they get older, most children develop a greater awareness of their emotions and a heightened ability to express their emotions through words and behaviors. This often results in a reduction of their need to express their emotions through somatic symptoms. However, children who are overwhelmed by their physical symptoms or who have little training in recognizing and expressing emotions may continue to express their emotions through somatic complaints.

Children who have been severely abused may be more likely than other children to persist in expressing emotions through physical symptoms because of their history of the pairing of emotional trauma with physical trauma or pain. In addition, they may express the severity of the trauma they have experienced through somatic symptoms that are severe enough to be considered a somatoform disorder.

However, somatoform disorders may be particularly difficult to diagnose in children who have been severely abused. It can be unclear whether old or recent injuries are the cause of the child's physical complaints, even when an examination reveals no clear indications of injury. This difficulty may be accentuated when a child has physical complaints in an area associated with abuse.

Treatment for somatization problems typically involves (a) promoting changes in the reinforcement that a child receives for reporting symptoms and (b) helping the child develop strategies for coping with his or her physical symptoms and other distress (Campo & Reich, 1999). Somatoform disorders can be particularly disruptive to parent-child relationships and to family functioning; therefore, an important component of treatment will be providing guidance for parent-child and family interactions where it is appropriate and providing support to the family

(Garraalda, 1999). In addition, problematic relationships may have developed between the child or his or her family and health professionals, teachers, or day care providers, and these relationships may need to be a focus of attention.

#### **CHARACTERISTICS OF SOMATIC SYMPTOMS AND SOMATOFORM DISORDERS**

The central feature of somatoform disorders is the presence of physical symptoms that are not fully explained by a known medical condition. The symptoms must cause a meaningful impairment of the child's life. Common forms of somatization found in children are headaches, recurrent abdominal pains, limb pains (colloquially called growing pains), fatigue, dizziness, and chest pain (Egger, Costello, Erkanli, & Angold, 1999). Children who are experiencing somatization problems are not lying about their symptoms or faking illnesses. The assumption in most cases is that some basis for a child's physical complaints exists and that the intensity or the meaningfulness of the symptoms has become exaggerated (Garraalda, 1999).

Currently, the same symptoms are required for a diagnosis of a somatoform disorder in adults and children (APA, 1994). Given the range of symptoms required for some somatoform disorders, it is often difficult for children to receive a diagnosis of a specific somatoform disorder (Fritz et al., 1997). However, some children may receive a diagnosis of somatoform disorder not otherwise specified if they have significant somatization symptoms that do not meet all the criteria for a specific somatoform disorder (APA, 1994).

Early research found higher frequencies of somatic complaints by younger children than older children and adolescents, but some recent work has found no relationship between age and frequency of somatic complaints (Egger et al., 1999). There appears to be little or no difference in the frequency of somatic complaints between prepubertal girls and boys; however, more girls than boys report somatic complaints after puberty and through adolescence (Campo, Jansen-McWilliams, Comer, & Kelleher, 1999; Egger et al., 1999). Garraalda (1999) noted that no empirical research exists on the characteristics of children who are more likely to experience somatization symptoms but that a series of clinical reports suggests that many of these children are conscientious, sensitive, insecure, and anxious. Many are described as good children who strive for high achievement in school and other activities.

Several disorders are included in the category of somatoform disorders, and those that are most common among children are described below. The following descriptions come from APA (1994) and Fritz et al. (1997).

#### ***Somatization Disorder***

This is a pattern of multiple, recurring physical symptoms that are not fully explained by the presence of a known medical condition. Symptoms in each of four areas—pain, gastrointestinal, sexual, and pseudoneurological—must be present. This combination of symptoms, especially the requirement of a sexual symptom, makes it difficult for children to be diagnosed with somatization disorder (Campo & Fritsch, 1994).

#### ***Undifferentiated Somatoform Disorder***

This is diagnosed when one or more physical symptoms are present that cannot be explained by the presence of a medical condition. The symptom or symptoms must cause distress or impairment and must be present for at least 6 months.

#### ***Body Dysmorphic Disorder***

This involves a preoccupation with an imagined or a slightly defective aspect of a child's physical appearance (e.g., a small bump on the nose, a discoloration of a small patch of skin). The child often experiences shame over the physical issue and so keeps his or her concerns secret. Excessive checking in a mirror and conversations about the body area may be clues that a child is experiencing this problem.

#### ***Conversion Disorder***

This is diagnosed when one or more symptoms occur involving voluntary motor or sensory functions that suggest a neurological or general medical condition (e.g., inability to move an arm). The initiation or exacerbation of the symptoms must be linked to psychological conflicts or other stressors. The most common conversion symptoms in children are those resembling sudden seizures. Conversion symptoms are reported by adolescents more frequently than prepubertal children; more girls report conversion symptoms than boys across all ages. Lack of concern for the physical symptoms (*la belle indifférence*) is common in adults with conversion disorder but is uncommon in children.

#### ***Pain Disorder***

This is diagnosed when the primary symptom is pain in one or more anatomical sites, when the pain causes significant distress or impairment, and when

psychological factors are judged to have an important role in the development or maintenance of the pain.

#### ***Hypochondriasis***

This involves a preoccupation with fears of having a serious disease that are based on a misinterpretation of bodily symptoms (e.g., a stomachache is believed to be cancer). The fear or belief must be present for at least 6 months and must persist in spite of medical evidence that the serious disease is not present.

#### ***Vocal-Chord Dysfunction***

This involves spasms of the vocal chords leading to a narrowing of the glottis that creates symptoms similar to those of acute asthma. It can be distinguished from asthma by a lack of nocturnal symptoms, normal blood gas values despite extreme symptoms, and significant adduction of the vocal chords.

### **INFLUENCES ON THE DEVELOPMENT OF SOMATIZATION**

Several issues have an influence on the development of somatization problems and on the intensity and frequency of symptoms. In many cases, a combination of several issues can influence somatization, often requiring attention to each during therapeutic interventions.

#### ***Organic Vulnerability***

Some children who are experiencing somatization problems have a greater susceptibility to disease and an increased sensitivity to their internal states. For example, some children with irritable bowel syndrome have heightened sensitivity in their rectum and are more likely to have an organically based intolerance to a variety of foods (Farthing, 1995). The extent to which increased sensitivity is influenced by bodily functioning or a cognitive style that focuses on bodily sensations is unknown, and the comparative influence of the two is likely to vary from child to child (Garraida, 1996). However, it is known that untreated recurring pain or other physical symptoms can lower a child's organically based threshold to pain (White, Alday, & Spirito, 2001).

Egger et al. (1999) suggested that the associations frequently found between somatic symptoms and disorders such as depression and anxiety in children and adults may implicate serotonin or other neurotransmitters in the development of frequent headaches and stomachaches. Associations between body dysmorphic disorder and obsessive-compulsive disorder also suggest a common feature of serotonin

(Phillips, Atala, & Albertini, 1995). Research in this area is just beginning.

### **Stress**

Stress exacerbates physical symptoms in children with and without somatization problems (e.g., Reynolds, O'Koon, Papademetriou, Szczygiel, & Grant, 2001; Torsheim & Wold, 2001). High levels of stress may also increase children's susceptibility to viral or bacteriological infections and might reduce their ability to recover from these infections. This may result in frequent and prolonged illnesses that might mistakenly be attributed solely to the child using the illnesses in a functional way (Garralda, 1996).

### **Learning**

Learning is thought to be the primary psychological process associated with somatization (Campo & Fritsch, 1994). Learning through modeling can occur if a child observes parents or siblings receiving increased attention when sick or when presenting with a physical complaint. A child may learn through direct experience that he or she receives more attention when sick than when not sick. Many cases of somatization occur after an actual physical problem (e.g., recurrent abdominal pains may start after a gastrointestinal infection; loss of sensation in a limb may start after an injury to that limb requiring immobilization), suggesting that the attention received during a physical problem may lead some children to maintain that problem to continue receiving the reinforcement or attention (Garralda, 1999).

Reinforcement for physical complaints can come from many sources. For example, pain-reduction behaviors, such as taking medication, staying in bed, and missing school, can be negatively reinforced by the reduction of pain, resulting in increased use of pain-reduction behaviors (White et al., 2001). Sick behaviors can be positively reinforced by parents and others. For example, children experiencing unexplained abdominal pain receive more attention than do children who are experiencing emotional disorders or diagnosed organic disorders (Bennett-Osborne, Hatcher, & Richtsmeier, 1989; Walker, Garber, & Greene, 1993). Maltreated children who are suddenly living in a new environment, who are neglected or rejected by peers, or who have few social skills may be very susceptible to the attention received from adults when they are sick or have physical complaints. In addition, some maltreated children have a history of being abused less frequently when they are sick.

### **Family Issues**

Family systems theorists and clinicians have proposed that a child's somatization can be maintained over time by the role that it plays in the family system (Mullins & Olson, 1990). The illness may facilitate the functioning of the family by diverting attention from parental or parent-child conflict by bringing parents closer together to deal with the illness or by allowing the family to receive a variety of medical and family support services.

The role of the family in the development or maintenance of somatic symptoms can be seen in the associations between physical problems of parents and children within the same families. For example, a clinical study of children with conversion disorder found that 54% of them had symptoms that mimicked a physiologically based disease of one of their parents (Spierings, Poels, Sijben, Gabreels, & Renier, 1990). Walker et al. (1993) found that somatic symptoms and pain symptoms increased in parents after their child was diagnosed with recurrent abdominal pain.

### **Physician Issues**

The actions of physicians may play a role in the maintenance of somatization. After a review of several studies, Garralda (1996) suggested that physicians who use unnecessary medical procedures, thus increasing a child's contact with the medical community, may be convincing both the child and his or her parents that he or she is ill. (It should be noted, however, that determining those medical procedures that are unnecessary with these children may be very difficult.) Similarly, inadequate medical advice or a physician's inability to form a firm diagnosis may also prolong somatization.

### **COMORBIDITY AND DIFFERENTIAL DIAGNOSIS**

Children who are experiencing somatization share symptoms with children who have several other disorders, and many children with somatization problems are diagnosed with additional behavioral or emotional disorders (Campo et al., 1999; Egger et al., 1999; Masi, Favilla, Millepiedi, & Mucci, 2000). A careful assessment is required to determine accurately the disorders a child has because the most effective treatment for them can be quite different. In some cases, a child will have somatization symptoms comorbid with another disorder, requiring treatment for two or more disorders.



### *Undiagnosed Medical Illness*

It is important that children who are suspected of having a somatoform disorder receive a careful medical evaluation. It is important to remember that some actual medical conditions may be difficult to diagnose.

### *Depression and Anxiety Disorders*

Children with somatization symptoms show a higher rate of depression and anxiety than do other children. This association appears especially strong for girls (Campo et al., 1999). Somatization symptoms can occur around the issue of attending school. If few somatic symptoms occur around other stressful events, then the appropriate diagnosis may be social phobia or some other anxiety disorder. Somatic symptoms occurring in a variety of contexts suggest that a somatoform disorder may be the appropriate diagnosis.

### *Obsessive-Compulsive Disorder*

Concerns about health issues are common among children with obsessive-compulsive disorder. In many cases, children with obsessive-compulsive disorder view their fears as abnormal and try to hide them, whereas children with somatization often accentuate their fears and their perceived physical problems (Fritz et al., 1997).

### *Dissociative Disorders*

A study of adults with dissociative disorders found that a high percentage of them also had a somatoform disorder or somatization symptoms (Saxe et al., 1994). The reason for this connection was not clear. The same association may exist for children.

### **OBSTACLES TO RECOGNIZING SOMATIZATION IN CHILDREN**

Accurately diagnosing somatoform disorders is complicated by the fact that they are only diagnosed when no organically based problems are discovered or when the symptoms are much more severe than suggested by organically based problems. Missing an organically based problem may result in significant consequences to a child's health. Thus, there is often pressure to do one more test, give one more examination, or delay diagnosing a somatoform disorder.

Children who have been severely abused may have sustained significant physical damage. Knowing that a child had been severely abused may make it even

more difficult for a physician or clinician to conclude that his physical complaints are not organically based.

Sympathy for a maltreated child with an illness may facilitate the development of an environment in which adults feel that they should go out of their way to provide all the nurturing and care that they believe the child deserves. This can make it difficult to consider that a physical complaint is somatization because doing so may require the withdrawal of some of the nurturing and caring that a parent or other adult enjoys providing.

### **BEHAVIORS ASSOCIATED WITH SOMATIZATION IN CHILDREN**

Little systematically collected information exists to guide assessment of somatization in children. Clinical experience suggests that several of the following signs occurring together can strengthen one's confidence that somatization is occurring. It is important to note, however, that almost all of these individual signs can be found in children who are experiencing organic disease (Campo & Fritsch, 1994; for additional information, consult Garralda, 1999, and Goodyer & Taylor, 1985).

- The child has a history of somatization.
- A parent or another important adult in the child's life has a history of somatization.
- The complaint appears to result in personal, family, or social benefit.
- A symptom has some symbolic meaning to the child or family.
- Reassurance about perceived physical symptoms by trusted adults has little influence on the child.
- A symptom violates known anatomical or physiological patterns (e.g., a pattern of pain that does not correspond to nerve locations).
- There is a time relationship between stressors and the appearance or exacerbation of somatic symptoms (e.g., symptoms increase around the time of school exams).
- The intensity of the complaint or symptom seems to fluctuate in relation to personal, family, or social factors.
- Parental concerns and parental responses to the child's physical symptoms appear exaggerated.
- A physical symptom responds to psychological intervention or placebo.
- The child engages in excessive checking of a specific area of the body.
- Frequent discussions occur about specific body areas or physical symptoms, especially if reassurance about them has little effect.

### THERAPEUTIC INTERVENTIONS WITH CHILDREN AND THEIR FAMILIES

A good working relationship between a child's physician and clinician increases the likelihood of successful interventions with children who are experiencing somatization problems. The physician is in the difficult position of needing to ensure that the child's complaints do not indicate an organic problem. However, unnecessary or repetitive medical procedures can reinforce the child's symptoms. By working together, both the physician and clinician can gain important knowledge from each other and can develop a mutually agreed on and appropriate intervention plan.

Several authors suggest that it is most effective to have one physician as the primary person with whom the child and family interact, with a psychologist or other clinician acting as a consultant to the physician (Campo & Reich, 1999; Fritz et al., 1997; Garralda, 1999; Kager et al., 1992). Having a physician as the primary provider acknowledges and honors the child's and parents' perceptions that the symptoms do involve some physical problem. Bringing a mental health professional into the treatment process early shows the child and family that the child's symptoms involve a complex mix of physical and psychological components. The child and family are not forced to abandon their beliefs about the physical nature of the child's symptoms but are helped to expand their beliefs to include an interaction between physical and psychological components. Acknowledging the child's suffering and the parents' difficulties dealing with the child is important. In addition, the child and family should be helped to see that treatment will not lead to an immediate cessation of the physical symptoms and that an important aspect of treatment will be for the child and family to learn to live with the child's somatization, at least in the short term (Garralda, 1999).

A thorough physical examination, with all appropriate tests, should be completed by the primary physician, and the negative results should be explained patiently to the child and family (Garralda, 1999). The primary physician should then be discouraged from additional testing unless the child's physical symptoms change (Campo & Reich, 1999).

Psychotherapeutic interventions focus on three areas: education, changes in reinforcement, and development of coping skills. Education about the links between a person's psychological and physical states should be provided to the child and his or her parents or caregivers. Helping everyone understand the ways that a child's cognitions and emotions, and parents'

actions, can accentuate pain or other symptoms helps them accurately perceive the influence that they can have on his or her physical complaints (Wasserman, Whittington, & Rivara, 1988). This can give the parents and child an increased sense of control over the symptoms and prepare them for the changes in behaviors and cognitions that the clinician will suggest.

Operant conditioning is often used to increase the reinforcement that a child receives for healthy behaviors and to reduce the reinforcement received for complaints about symptoms (Campo & Fritsch, 1994; Campo & Reich, 1999). This strategy is likely to be successful only when the child and his or her family understand the value of the strategy and are willing to put it into action. Therefore, working with the child and his or her family to gain their trust and support and to make them active participants in the development and implementation of any strategy will improve the likelihood of it working. Successful strategies will be multifaceted and will include some of the following components:

- The child is reinforced for joining physical, educational, or social activities.
- The child is reinforced for reducing complaints about symptoms. (However, there must be some agreed on way that the child can report the periodic symptoms or illnesses that arise in the lives of all children without feeling penalized.)
- The ways that the child is reinforced for physical complaints can be identified, and, when appropriate, the reinforcement can be withdrawn.
- The ways that others in the child's life are reinforced when he or she reports symptoms (e.g., a caregiver who spends an afternoon with a child after a symptom is reported) are recognized and the reinforcement is withdrawn if appropriate.
- The child and parents are encouraged to engage in pleasant activities during times that the child is symptom free.

Relaxation techniques can be taught as one of several ways to help the child cope with symptoms. Cognitive restructuring can be employed in which the child's cognitions about symptoms are identified and the clinician works to modify those that are dysfunctional (Garralda, 1996). Another coping strategy is to help the child learn to refocus his or her attention if he or she finds himself or herself concentrating on his or her symptoms. Refocusing is facilitated by parents and other caregivers giving the child support and guidance in this process (Sanders, Shepherd, Cleghorn, & Woolford, 1994).

Sleep issues often must be addressed in children with somatization problems (Garralda, 1999). Developing times for a child to go to bed in the evening and

get out of bed in the morning is important. Extended bed rest during the day should be discouraged, as should naps. Developing and sustaining a healthy diet for the child will also be important.

Working with the parents on their own concerns and behaviors related to their child is often essential (Campo & Reich, 1999). Successful treatment will require that the parents maintain firmness in the face of a child's physical complaints, and this will be difficult for many parents. The parents will have to act in ways that they and the child may perceive as unfair (e.g., ignoring a child's complaints; refusing to allow a child to engage in pleasurable evening activities if he or she has been sick during the day), and they must be helped to develop the resolve to do this. Helping them to see the long-term benefits of their anxiety-provoking, short-term interventions is often useful.

#### INTERVENTIONS AT SCHOOL, WITH MEDICAL PROVIDERS, AND WITH OTHERS INVOLVED IN THE CHILD'S LIFE

In some cases, involvement of school personnel and those in other social settings frequented by the child will be useful (Campo & Reich, 1999). The consent of the child and his or her family to involve these others in the interventions is needed. Consultation between the clinician and school personnel or others can give them some of the same information that is useful for parents, such as the causes of somatization and the ways that reinforcement from those in the child's environment can exacerbate or reduce somatization symptoms. Whenever possible, the clinician, child, school personnel or others, and often the child's parents should meet and decide on a plan of cooperation to help the child reduce his or her somatization symptoms. This will help to form an alliance between the child and these others rather than creating a situation in which they feel like adversaries.

In some cases, a child's ongoing somatic complaints may have created an environment of hostility between medical providers and the child or his or her family. The clinician may need to work with the medical providers and the family to heal their relationship. This may be particularly difficult if the medical providers believe that it is only the family that is hostile and do not see any role that their hostility may play in the relationship. Dealing with such a situation in a sensitive way will be important for the clinician.

#### REVISITING RICHARD

Richard's case exemplifies several issues faced by parents as they try to do what is best for a severely mal-

treated child who is reporting physical symptoms for which no cause can be found. Richard's parents want to attend to any potential physical complaints, and they may be particularly worried that his earlier sexual abuse is causing these complaints. Richard may also be confused and worried as he tries to cope with his symptoms and with his parents, teachers, and physicians, who may, at times, appear to be indicating that they do not believe that the symptoms exist. As Richard experiences more stress about his symptoms—based partly on the responses of others and partly on his own concerns about his physical condition—he is likely to experience additional or more severe symptoms. Interventions are needed to interrupt this cycle, to give the parents more confidence in their dealings with Richard, and to help Richard understand that he has some control over the symptoms that he is experiencing.

#### NOTES

1. As in the other articles in this special issue, the term *children* is used to refer to children and adolescents. Specific age-related terms will be used when it is necessary to refer to specific age groups (e.g., adolescents, school-age children).

2. In this article, *somatization* will be used to refer to the process of expressing emotional concerns through physical symptoms.

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