NCTSN The National Child Traumatic Stress Network

Is It ADHD or Child Traumatic Stress?

A Guide for Clinicians

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About the National Child Traumatic Stress Network

Established by Congress in 2000, the National Child Traumatic Stress Network (NCTSN) is a unique collaboration of academic and community-based service centers whose mission is to raise the standard of care and increase access to services for traumatized children and their families across the United States. Combining knowledge of child development, expertise in the full range of child traumatic experiences, and attention to cultural perspectives, the NCTSN serves as a national resource for developing and disseminating evidence-based interventions, trauma-informed services, and public and professional education

Introducing Child Traumatic Stress and ADHD

Jack Henderson's third grade teacher has been noticing that he has difficulty concentrating in the classroom. When she mentions this to Jack's mother, she reports that he also struggles with following instructions for completing chores at home. During a parent/teacher conference, the teacher says that she believes Jack is displaying signs of Attention-Deficit/Hyperactivity Disorder, or ADHD. Jack's mother discloses, however, that his difficulty with concentration seemed to appear after a series of sometimes violent family conflicts during which his father struck him and his mother, and subsequently moved out of the house. After moving out, Jack's father was injured on his construction job and ended up hospitalized for an extended period.

Does Jack have ADHD or might he be showing symptoms of Child Traumatic Stress? Or might he have both? A number of researchers believe that child traumatic stress can sometimes be mistaken for ADHD because of the overlap between ADHD symptoms and the effects of experiencing trauma.[i]

In this Guide, we provide definitions of child traumatic stress and ADHD, explain how symptoms can overlap, and summarize some of the differences between the two. Understanding these differences can help parents and providers assess and treat children appropriately and more effectively.

What Is Child Traumatic Stress?

Child Traumatic Stress refers to a psychological reaction that some children have to a traumatic experience in which they are involved or have witnessed. Over 30 years of research have confirmed that children and adolescents can exhibit the full range of traumatic stress reactions seen in adults. Traumatic experiences can affect the brains, minds, and behavior of even very young children, causing similar reactions to some of those seen in older children and adults. Trauma responses of young children also differ, however, from those seen in adults.

What Causes Child Traumatic Stress?

Examples of events that might be experienced as traumatic include:

- Automobile accidents
- Serious injuries
- Violent acts
- Neglect or abandonment
- Unexpected death of a loved one
- Life-threatening disasters
- Acts of physical or sexual abuse

A child's temperament and prior exposure to trauma, as well as a range of risk and protective factors including the kind of support the child has at home and from other adults, may also influence whether a child will experience ongoing difficulties following a traumatic event.

What Is ADHD?

Attention-Deficit/Hyperactivity Disorder (ADHD) is a common neurobiological disorder with onset in childhood that is characterized by developmentally inappropriate levels of inattention, impulsivity, and hyperactivity. The symptoms shown in ADHD are linked to many specific brain areas, and are influenced by the activity of stress-signaling pathways that control attention and behavior in the brain's prefrontal cortex. Symptoms in younger children may be different from those exhibited by teens. Research has shown that the majority of children do not outgrow ADHD when they reach adolescence, and continue to exhibit inattention, hyperactivity, and impulsivity. However, symptoms related to hyperactivity may lessen over time and become more subtle, while those of inattention and distraction remain throughout adulthood. Thus, poor school performance may intensify due to increased demands and expectations. Symptoms of ADHD persist into adulthood in as many as 65 percent of cases.

What Causes ADHD?

Despite multiple studies, researchers have yet to determine the exact causes of ADHD. However, scientists have discovered a strong genetic link since ADHD can run in families. More than 20 genetic studies have shown evidence that ADHD is strongly inherited. Yet ADHD is a complex disorder, which is the result of multiple genetic interactions.

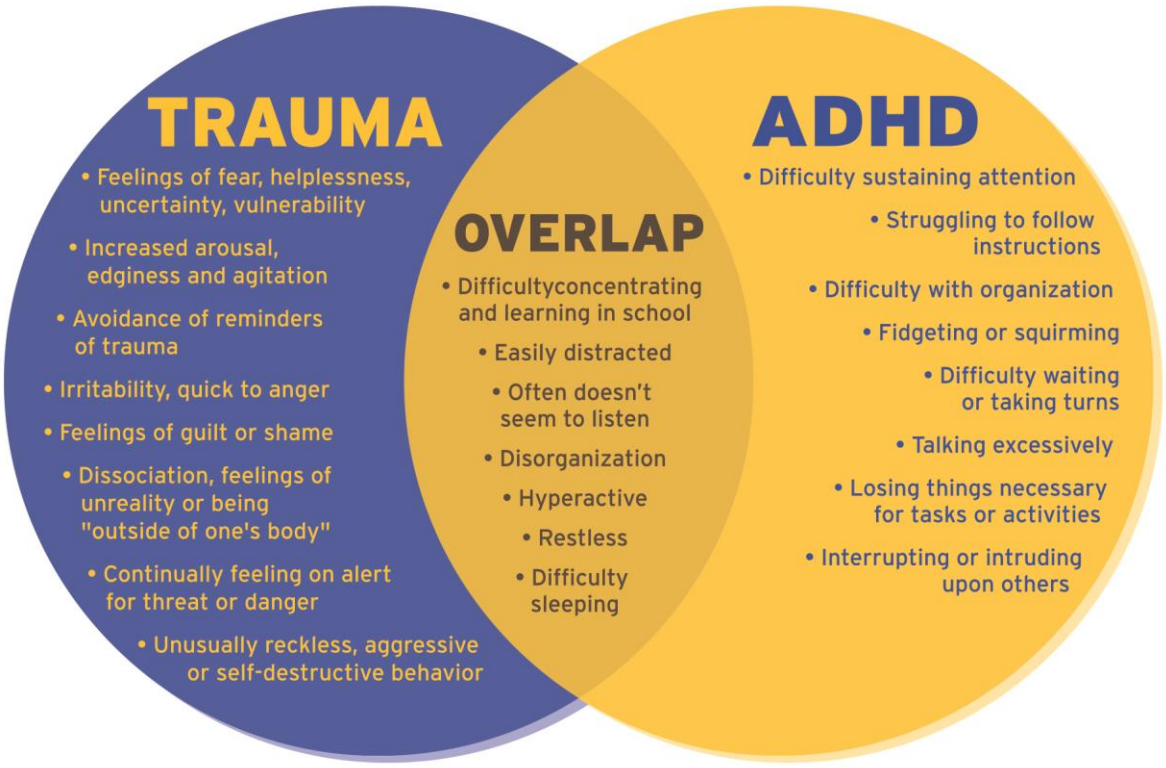
Other factors in the environment may increase the likelihood of having ADHD, such as:

- exposure to lead or pesticides in early childhood
- premature birth or low birth weight
- brain injury
- prenatal exposure to alcohol or drugs

Previously, scientists believed that maternal stress and smoking during pregnancy could increase the risk of a child developing ADHD. However, emerging evidence is starting to question this conclusion; and further research is needed to determine whether there is a link. Family stress (such as that caused by poverty and family conflict) is not a known cause of ADHD but can worsen ADHD or exacerbate traits in some children.

Symptoms of Child Traumatic Stress and ADHD Can Overlap

Children who suffer from child traumatic stress develop reactions to trauma that linger and affect their daily lives long after the traumatic event has ended. Symptoms can vary according to developmental stage. For instance, an infant or toddler may lose previously acquired skills, such as toileting or language skills, while a teen might exhibit unusually reckless, aggressive or self-destructive behavior. The figure below provides a list of some of the common symptoms of child traumatic stress and ADHD. The overlapping area shows some symptoms that are common to both.



Are Children with ADHD at Greater Risk for Trauma?

Researchers disagree on whether or not ADHD is associated with risk of exposure to psychological trauma. Some pediatric studies have documented that youth with ADHD are more likely than those without ADHD to develop child traumatic stress and vice versa.[ii] Some researchers maintain that children with ADHD should be considered a high-risk population for the development of child traumatic stress. Still other studies show children and adults diagnosed with ADHD are at elevated risk for exposure to traumatic events but not always for the development of trauma-related symptoms.[iii]

Overlap Complicates Assessment

A number of researchers believe that symptoms of child traumatic stress could be mistaken for ADHD and that the risk of misdiagnosis is high.[iv] This is because there is an overlap between ADHD symptoms and the effects of experiencing trauma.[v] Unless symptoms are examined closely, the profiles of child traumatic stress and ADHD can appear to be similar. For example:

- Young children who experience trauma may have symptoms of hyperactivity and disruptive behavior that resemble ADHD.[vi]
- Trauma can make children feel agitated, troubled, nervous, and on alert. These behaviors can be mistaken for hyperactivity.
- What might seem like inattention in children who experience trauma might actually be symptoms of dissociation (feelings of unreality or being outside of one's body) or the result of avoidance of trauma reminders.
- Among children who experience trauma, intrusive thoughts or memories of trauma (e.g., feeling like it is happening all over again) may lead to confused or agitated behavior which can resemble the impulsivity of ADHD.

Overlapping symptoms can make it difficult to obtain a correct diagnosis, which can complicate both assessment and treatment. This is especially true when little or nothing is known about the onset of symptoms.

Both ADHD and child traumatic stress frequently co-occur with other conditions, such as anxiety, depression, or learning disabilities. For example, research indicates that up to 60 percent of children and teens with ADHD have been found to have at least one additional disorder.[vii] Many biological and psychological problems can contribute to symptoms similar to those exhibited by children with ADHD and child trauma. In some cases, other conditions may actually be the primary diagnosis; in others, these conditions may co-occur. Symptoms of other types of mental illness—particularly Oppositional Defiant Disorder and Conduct Disorder—overlap with both child traumatic stress and ADHD. In studies of children with ADHD, this overlap increases with age. To complicate matters, a traumatic event can make an underlying psychological condition worse, resulting in greater symptoms.[viii]

Along with the symptoms of traumatic stress depicted in the diagram above, children who have experienced trauma can display a wide range of developmental issues and problems including stress and anger control issues, behavioral issues, anxiety and depression, and learning disabilities. In fact, trauma can have such a large impact on development that children often experience problems in many areas of their lives. The complexity of their symptoms and presentation often lead to multiple diagnoses and potential misdiagnoses, particularly when the impact of their trauma history goes unrecognized. As a result, they may be treated with multiple medications and therapies that are ultimately ineffective.

Assessment and Treatment

How Do We Assess for Child Traumatic Stress?

The assessment of trauma can be complex because it involves assessing children's exposure to multiple traumatic events, as well as the wide-ranging impact of this trauma exposure across domains of development.

A comprehensive assessment for child traumatic stress includes the following:

- Assessing for a wide range of traumatic events and time of occurrence so that they can be linked to developmental stages
- Assessing for a wide range of symptoms (including but not limited to symptoms of PTSD), such as high-risk behaviors, family environmental factors, functional impairments, and trauma reminders and triggers, as well as their time of onset
- Assessing the child's strengths, talents, abilities, sources of emotional support, and capacity for resilience
- Gathering information using a variety of techniques (clinical interviews, standardized measures, and behavioral observations)
- Gathering information from a variety of perspectives (child, caregivers, teachers, other providers, etc.)
- Conducting ongoing assessments because symptoms often change as children develop and have new experiences and exposures to new stressors

How Do We Assess for ADHD?

There is no single test to diagnose ADHD and few diagnostic tools for facilitating assessment, especially for young children.[ix] A child should have a comprehensive assessment that includes medical, educational, and psychological evaluations and an assessment for other disorders that mimic or commonly co-occur with ADHD.[x] A thorough medical examination should be done, including assessment of hearing and vision, to rule out other medical problems. Behavior rating scales or checklists are used for most children assessed for ADHD[xi] and results must be interpreted by a mental health or medical provider.

The diagnostic process typically includes a conversation with parents about their children's behavior. After a careful history is taken from parents, input to help with the diagnostic process can also be solicited from childcare providers, teachers, school staff, or adults outside the family, as well as the child (when appropriate). The diagnostic process includes a clinical assessment of the individual's academic, social, and emotional functioning and developmental level.

How Do We Treat Child Traumatic Stress?

Each child's treatment depends on the nature, timing, and degree of exposure to trauma. Some children may not be ready immediately to talk about their trauma, and clinicians should move at a pace that is tolerable for the child.

There are a number of effective treatments for trauma, which typically include at least some of the following components:

- Promoting safety and building routines and rituals
- Teaching children stress management and relaxation skills to help them cope with distress and trauma reminders
- Talking about traumatic events in ways that enable children to master painful feelings and resolve the impact the events have on their lives
- Correcting untrue or distorted ideas about what happened and why
- Enhancing children's ability to regulate emotions, behaviors, and physiological reactions

The evidence base for pharmacotherapy for children with symptoms of traumatic stress remains limited.[xii]

How Do We Treat ADHD?

For children, a comprehensive treatment plan can include all or some of the following based on the unique needs of the child, available resources, and prioritization of need:

- Parent and child education about ADHD diagnosis, its causes, and the course of treatment
- Behavioral therapy for the child to manage his/her behaviors and acquire new skills
- Mental health counseling for the child, as well as the family, to address relationship, self-esteem, discipline, and parenting concerns, among other issues
- Parent training classes or programs to help them address the child's behavior
- Educational program modifications and supports, including 504 Plans, tutoring, and special education programs
- ADHD medication prescription, in conjunction with regular monitoring

In general, more than one intervention is needed. By working closely with health care providers and school personnel, parents will be able to engage in treatment options that are most suited to the unique needs of their child and family.

The treatment for ADHD typically focuses on symptom management. While medication is the most widely used ADHD treatment, behavioral interventions are also a major recommended component of treatment for children who have ADHD. For young children, pediatricians generally recommend behavioral treatments first and medication only when needed. Behavioral therapy provides the parents and children with techniques to teach and reinforce positive behaviors and skills. Use of positive reinforcement, consistency, problem-solving techniques, and communication are also important.[xiii] What may work for one child may not work for another. For children of any age, it is important to continually monitor to determine whether the treatment is working.[xiv]

The most common and effective treatment for teens with ADHD combines medication and psychosocial treatment approaches. Although the symptoms of ADHD may change with age, teens still require treatment to target these symptoms and may require treatment into adulthood.[xv] Little or no research currently exists to support the use of dietary treatments, traditional psychotherapy, play therapy, or social skills training alone for teens who have ADHD.

The Importance of Treatment

Without appropriate identification and treatment, a child who has ADHD can experience serious consequences, including school failure, depression, conduct problems, failed relationships, and substance abuse. And, if left untreated, childhood trauma may also have far-reaching impacts, derailing the course of healthy development. Child traumatic stress can adversely affect a child's memory, attention, behavior, and emotional and social life. It can also change the structure of the child's brain, alter the nervous system, and deplete a child's capacity to bear ordinary life stresses. Trauma and subsequent experiences can damage a child's trust in a safe world.

The Overlap Has Implications for Treatment

A variety of studies have shown that trauma can make ADHD worse and ADHD can complicate the effects of trauma. In fact, there is little doubt that other emotional and behavioral symptoms can complicate the clinical evaluation and management of ADHD.[xvi] Some researchers have found that co-occurring traumatic stress and ADHD are likely to impair the functioning of children and adults to a greater extent than either disorder alone.[xvii] Youth with both ADHD and trauma have been shown to have higher lifetime rates of almost all psychiatric disorders, leading to more severe outcomes.[xviii] Some studies found that traumatized children's feelings of emotional numbing, avoidance, and disengagement from others may exacerbate problems that those with ADHD have in functioning at home, school, and in social relationships.[xix]

On the positive side, in children with both ADHD and child traumatic stress, treatment of ADHD may enhance their engagement trauma treatment and improve outcomes. Conversely, trauma treatment may add to ADHD treatment by reducing anxiety and children's reactions to stress, since this can contribute indirectly to inattention or impulsivity.[xx]

Treatment of Youth with Both Disorders

Treatment for child traumatic stress or ADHD should be modified for children with both issues. Individualized treatment planning is necessary, and professionals treating ADHD need to think more carefully about screening for trauma and designing a more trauma-informed treatment plan when a history of trauma is present.[xxi]

For patients diagnosed with ADHD and trauma, psychotherapy and medication often work well together. There are no established recommendations about which disorder to treat first or whether both should be treated at the same time. Obtaining a good history may help differentiate the conditions somewhat, making it easier to identify post-trauma changes in self-control or behavior and attention. But ultimately it is up to the provider and family to work together to tailor the treatment to what works best for the child. Ongoing monitoring of treatment progress is important to be able to adjust the approach as needed.

For some children, providers might want to begin with reducing the symptoms of ADHD to provide initial relief so the child will be better able to focus on the deeper clinical work needed for trauma treatment. Some children with ADHD may have difficulty participating in trauma-focused therapy, such as doing trauma narrative work, because their problems with inattention might interfere.[25] These children may need more time to complete tasks and assessments, for example. While engaging the child in trauma-focused work, it may be important to provide breaks as well as support to the child.

ADHD, Trauma, and Resiliency

Whether a child has ADHD or child traumatic stress or is experiencing both, effective treatments are available. All children have strengths to help them adapt and progress toward recovery. Even those children with a complicated and overlapping symptom profile can thrive with appropriate supports from family, friends, school, and community.

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