

THE CORE SYMPTOMS OF ADHD, including inattention, hyperactivity, and impulsivity, can significantly impair a child's academic, family, and social functioning. Throughout the past several decades, deficits in important cognitive functions—those termed executive functions, like inhibition and working memory—have been considered the hallmark characteristics that explain the core symptoms and associated impairments of ADHD. Recent research suggests, however, that factors related to emotion may also play an important role in understanding the impairments experienced by children (and adults) with ADHD.

Many parents and teachers can attest to the emotional nature of many of the behaviors that seem to be part and parcel of ADHD. For example, a child may get so frustrated during homework time that she throws her books to the floor. Or, a child may get so excited that recess is scheduled as the next activity that he runs to the front of the room ready to rush out the door to start kickball, only to have his teacher punish him for leaving his seat. Clinicians and researchers are finally beginning to recognize what parents and teachers have known all along: ADHD is not simply a disorder of behavior and cognition, but also emotion.

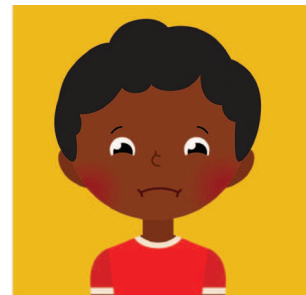
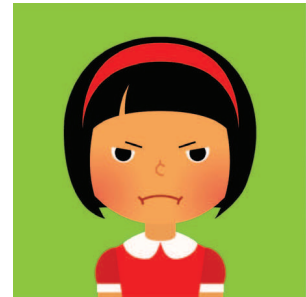
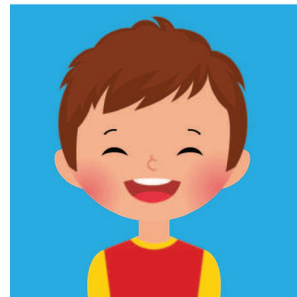
There are several different parts to emotions. Current research has focused on identifying exactly which aspects of emotion are disrupted among children with ADHD. These aspects of emotion may include:

- **Emotion recognition in both the self and in others.** For example, the child with ADHD may have difficulty in recognizing that he or she is feeling sad or in recognizing that someone else is scared and not angry.
- **Emotional empathy, or the ability to “put oneself in another person's shoes” emotionally.** For example, a child with ADHD may not be able to understand why his classmate is so upset that he lost his cookie.
- **Emotion reactivity, or the amount of fluctuation in emotions.** For example, some children with ADHD may have very little emotional changeability, seeming to have a rather inactive emotional life, while other children with ADHD may go from happy to sad to angry in seemingly a matter of minutes.
- **Emotion regulation, or the ability to manage or control ones' emotions so that they are not too intense, are not of the wrong type, and do not last too long.** For example, a child with ADHD may find it more difficult to hide his or her frustration from teasing siblings.

Recent research has suggested that children with ADHD seem to have the biggest difficulties in their emotion reactivity and emotion regulation (and to a lesser degree in their emotion recognition abilities).

In a study conducted by my research team, for example, children with and without ADHD were asked to watch several emotional film clips while we collected heart rate data using electrocardiograms (EKGs). Children were asked to mimic the emotion of the main character in one film clip (or to express the emotion). Then, children were asked to identify the emotion

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of the main character in a second film clip, but to “keep it a secret” by not expressing the emotion (or to suppress the emotion). The results suggest that not only do children with ADHD have more difficulty managing their emotions behaviorally, but also biologically, as heart rate is a known marker of the emotional response. This suggests that children with ADHD may find it more difficult to control their emotions than other children. Some children with ADHD may also find it difficult to identify what emotion they themselves are experiencing or what emotions other important people in their lives are experiencing.

Taking a new approach

From these examples, it is easy to see how these emotional processes can detrimentally influence everything from academic success to family life to forming and maintaining friendships. The impact of these difficulties on children's functioning has prompted clinicians who work with children with ADHD to take a new approach in treating the disorder by working directly with children and their families to improve their emotional skills.



Emotional Nature of ADHD



While we know that both stimulant medications and behavioral parent training are gold-standard, evidence-based treatments for ADHD, neither focuses specifically on improving emotional functioning among children with ADHD. Interestingly, while both stimulant medications and behavioral parent training have been demonstrated to improve academic and family functioning, neither have been shown to reliably improve social functioning among children with ADHD. Because of this, clinicians have begun developing new and improved methods for building emotion recognition and regulation skills among children with ADHD as these emotional processes may be key to improving social functioning in children with ADHD.

These interventions may involve training children with ADHD to recognize emotions in themselves and others through the use of emotional stories and pictures or old standards like teaching children to “count to ten” before they get angry, while giving them alternative ideas for how to respond to such situations.

Tips for parents

Children learn how to manage their emotions from their parents and other important adults in their lives. Thus, it is important that parents (and others) model appropriate emotion management. Here are some tips you can use to help your children build stronger skills:

1 Be patient; be a model for your child. All children develop at their own pace, which means that not all children will develop emotion skills at the same time. While it may be tempting to engage in a shouting match with a frustrated child, modeling your own emotion regulation skills will help your child to recognize that appropriate strategies are successful for you. So, before you get angry, take a deep breath and count to ten.

2 Label feelings; help your child recognize his or her emotions. Children aren't born with the proper words to describe what they are feeling. In young children, frustration, anger, and fear are almost always expressed with a tantrum rather than words. Labeling your child's feelings and encouraging him or her to do the same helps the child to build empathy, emotion recognition, and emotion regulation skills. If your child doesn't have the right word to describe how he or she is feeling, suggest one. For example, “I see you are struggling with that writing assignment. That must feel frustrating.”

3 Give your child a choice or two, but not too many. Giving your child the choice between two or three age-appropriate options, like what to have for snack or what to do after dinner, not only promotes independence, but also allows children to learn to manage their disappointment or frustration when things don't quite go their way. Just be careful not to give too many options, as this can be overwhelming for some children.

4 Have fun with it. There are many games that promote emotion and self-regulation. Classics like Simon Says, Red Light/Green Light, and Red Rover all help children build their self-regulation skills while having fun. Activities like games also provide opportunities to discuss behaviors that go along with being a “good winner” and “good loser.”

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