Anxiety Disorders in Children and Adolescents

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Abstract

Anxiety disorders are among the most common and functionally impairing mental health disorders to occur in childhood and adolescence. Primary care providers can expect to treat youth who have anxiety disorders frequently, and this article aims to provide the tools necessary to evaluate and manage patients who present with anxiety symptoms during childhood or adolescence. This article discusses the epidemiology of anxiety disorders, including the increased risk of future anxiety disorders and other mental health problems that are associated with having an anxiety disorder in childhood and adolescence. Next, the etiology of anxiety disorders is delineated, including discussion of genetic, cognitive-behavioral, physiological, and ecological explanatory models, and a summary of neurophysiological findings related to childhood and adolescent anxiety. Next, methods and tools are presented for assessment and treatment of anxiety disorders, with a focus on assessment and treatment that can be initiated in a primary care setting. Evidence-based therapy and medication interventions are reviewed. The article includes a focus on developmental differences in symptom presentation, assessment techniques, and treatment strategies, such that a primary care provider will have tools for working with the wide age range in their practices: preschool children through adolescents. We conclude that many effective intervention strategies exist, and their improving availability and ease of use makes it both critical and achievable for children and adolescents with anxiety disorders to be accurately diagnosed and treated with evidence-based medication and therapy.

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Candice dreads going to school, where she is in 8th grade. Her mom reports that every morning she has asked to be allowed to stay home, but gets ready for school with resignation when the answer is no. While in class, teachers notice Candice's tense body posture, the fact that she looks away when they are asking for volunteers, and her subdued voice when she is called upon. Sometimes she is not able to answer at all. Candice frequently does not turn in her completed homework, which has led to reduced grades. She tells her mom that she's embarrassed to turn it in because "it's not good enough." In a one-on-one setting, Candice has shown the ability to develop friendships and enjoy social conversations, but when in a group she becomes so quiet that her friends call her "invisible." Her dry sense of humor is known only to a few close friends; others in her peer group experience her as quiet, inhibited, and not very fun to be around. Of note is that her mom also reports that for the last couple of months the school nurses have begun calling her regularly at work to let her know that Candice has been coming to their office with vague complaints of "not feeling well" and nausea.

When 8-year-old Janet came in for an evaluation, she brought a towel with her, which she placed between any part of her body and the furniture, door knob, or handshake with which she came into contact. When Janet uses the bathroom, she takes all of her clothing off, and washes in a ritualistic way before putting her clothing back on. When at home, her mom reports that Janet will frequently be "just about" ready to leave for school, but then will feel the need to urinate, which will again result in these series of behaviors. Despite her mom's efforts to stop her by insisting that Janet get in the car, Janet insists on going to the bathroom, and this has led to her nearly daily tardiness to school and her mom being regularly late to work.

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During 2nd grade, Andrew, a shy boy who was normally very well-behaved, began having violent temper tantrums when his mom was dropping him off for school. He would cling to his mother and scream incoherently about not wanting to go to school. Sometimes he would say very troubling things such as wanting to die. When he and his mother would end up in the school office and the school staff attempted to help separate Andrew from his mother, he would hit and kick school staff with surprising force for his age and size, at one point resulting in the broken arm of a staff member. Andrew exhibited similar behavior when his parents would take him to do activities that he had chosen, such as to try go-kart racing. Before such an outing, Andrew would be eager to go. However, as they approached the event he would become quiet and withdrawn, and once in line for participation or upon being presented with the actual go-kart, he would respond by screaming, hitting and kicking, or running away.

Vince is a previously well 17-year-old who was referred to a medical specialist because of a 50-pound weight loss over the previous 6 months. He denies wanting to lose this weight, but attributes his weight loss to fears that began several months ago about choking, when he would feel that most foods and some liquids would "get stuck while I was trying to swallow." Eventually, he was unable to handle even his own saliva and withdrew from junior year high school because of embarrassment about needing to spit continuously. His mom has brought the medical records from several exhaustive work-ups he has received for this complaint and all pulmonary and GI studies have been negative. He also reports feeling depressed now, and has had numerous other physical symptoms such as stomach aches, shortness of breath, and "not feeling great at all." He denies feeling worried about anything other than his falling weight, but had experienced in the past month what he describes as a couple of "panic attacks" while driving in the car with his dad. His mom describes him as having always been a "sensitive child," a perfectionist, and rigid in his thinking and behaviors.

All these children have symptoms of anxiety severe enough to cause significant impairment in functioning, as required in the Diagnostic and Statistical Manual's definition of anxiety disorders. Anxiety is the body's response to danger and is adaptive in shaping responses to threatening events and promoting safety. There is strong cross-species commonality in the response to danger and the brain circuitry used.[1] However, for some children and adolescents, such as those described earlier in the text, the anxiety response goes awry, resulting in high levels of anxiety in situations that are not dangerous. In such cases, the severity, frequency, or persistence of anxiety is inconsistent with the circumstances that the child is in, and their anxiety reaction interferes with normal functioning. As all children and adolescents exhibit anxiety in some situations, and because there are developmental periods where increased anxiety is normative (eg, separation anxiety at 9 months-18 months; fear of storms in toddlerhood), diagnosing anxiety disorders can be challenging. Furthermore, children may lack communication skills to let their parents, pediatricians, or teachers know what is bothering them, and thus often do not reach out to providers, even if questioned. Rather, their worry may be manifested as stomachaches, headaches, school avoidance, or even temper tantrums when faced with anxiety.

Using Diagnostic and Statistical Manual of Mental Disorders, 4th edition (DSM-IV) criteria, it has been estimated that about 9% to 10% of preschool children have an anxiety disorder.[6]

Magnitude of the Problem

Epidemiological studies have consistently indicated that anxiety disorders are among the most prevalent mental health disorders in children,[2-5] with cross-sectional screening indicating that 20% of pediatric patients score above the identified clinical cut-offs for one or more anxiety disorders.[3] Community prevalence estimates vary based on methods and sources of information, but range from 3.1% to 17.5% for the point prevalence of diagnosis of any anxiety disorder in children and adolescents, across multiple international epidemiological studies.[1]

Anxiety disorders have relatively equal prevalence among young boys and girls, but become more common in females, with a 2:1 to 3:1 female preponderance by adolescence.[7-10] Further, half of the adults in the United States with a mental health disorder,