disrupt academic efforts, as well as social relationships. Consider the case of Danny.

Danny... The Boy Who Couldn't Sit Still

Danny, a handsome 9-year-old boy, was referred to us because of his difficulties at school and at home. Danny had a great deal of energy and loved playing most sports, especially baseball. Academically, his work was adequate, although his teacher reported that his performance was diminishing and she believed he would do better if he paid more attention in class. Danny rarely spent more than a few minutes on a task without some interruption: He would get up out of his seat, rifle through his desk, or constantly ask questions. His peers were frustrated with him because he was equally impulsive during their interactions. He never finished a game, and in sports he tried to play all positions simultaneously.

At home, Danny was considered a handful. His room was in a constant mess because he became engaged in a game or activity only to drop it and initiate something else. Danny's parents reported that they often scolded him for not carrying out some task, although the reason seemed to be that he forgot what he was doing rather than that he deliberately tried to defy them. They also said that, out of their own frustration, they sometimes grabbed him by the shoulders and yelled, "Slow down!" because his hyperactivity drove them crazy. •

Clinical Description

Danny has many characteristics of ADHD. Like Danny, people with this disorder have a great deal of difficulty sustaining their attention on a task or activity (Barkley, 2015c). As a result, their tasks are often unfinished, and they often seem not to be listening when someone else is speaking. In addition to this serious disruption in attention, some people with ADHD display motor hyperactivity. Children with this disorder are often described as fidgety in school, unable to sit still for more than a few minutes. Danny's restlessness in his classroom was a considerable source of concern for his teacher and peers, who were frustrated by his impatience and excessive activity. In addition to hyperactivity and problems sustaining attention, impulsivity—acting apparently without thinking—is a common complaint made about people with ADHD. For instance, during meetings at baseball practice, Danny often shouted responses to the coach's questions even before the coach had a chance to finish his sentence.

For ADHD, *DSM-5* differentiates two categories of symptoms. The first includes problems of *inattention.* People may appear not to listen to others; they may lose necessary school assignments, books, or tools; and they may not pay enough attention to details, making careless mistakes. The second category of symptoms includes *hyperactivity and impulsivity.* Hyperactivity includes fidgeting, having trouble sitting for any length of time, and always being on the go. Impulsivity includes blurting out answers before questions have been completed and having trouble waiting turns. Either the first (inattention) or the second and third (hyperactivity and impulsivity) set of symptoms must be present for someone to be diagnosed with ADHD (American Psychiatric Association, 2013). These different presentations are called *subtypes,* and they include the inattentive subtype (what some may call *ADD,* noting the absence of hyperactivity, although this is not an official diagnostic label), and the hyperactive/impulsive subtype. Other individuals meet criteria for both inattention and hyperactivity/impulsivity, and these individuals are labeled with the *combined* subtype.

Inattention, hyperactivity, and impulsivity often cause other problems that appear secondary to ADHD. Academic performance often suffers, especially as the child progresses in school. The cause of this poor performance is not known. It could be a result of inattention and impulsivity, and in some children this can be made worse by factors such as concurrent learning disabilities. Genetic research on both ADHD and learning disabilities suggests that they may share a common biological cause (DuPaul, Gormley, & Laracy, 2013). Children with ADHD are likely to be unpopular and rejected by their peers (McQuade & Hoza, 2015). This, too, may be the result of genetic factors as well as environmental influences such as a hostile home environment and gene–environment interactions. For example, some research shows that having a specific genotype (i.e., a dopamine transporter— DAT1; and a serotonin transporter) and psychosocial distress can predict ADHD in children (Barkley, 2015a; Nigg, Nikolas, & Burt, 2010).

Statistics

An important analysis of prevalence of ADHD suggests that the disorder is found in about 5.2% of the child populations across all regions of the world (Polanczyk, de Lima, Horta, Biederman, & Rohde, 2007). This finding of comparable rates of ADHD worldwide is important because debates continue to rage about the validity of ADHD as a real disorder. Some people believe that children who are just normally "active" are being misdiagnosed with ADHD. Previously, geographic differences were noted in the number of people diagnosed with this disorder. Children were more likely to receive the label of ADHD in the United States than anywhere else. For example, an analysis of data from surveying parents over the phone suggests that 11% of children in the United States aged 4 to 17 were labeled with ADHD between 2011 and 2012 (Centers for Disease Control and Prevention, 2013). This higher number may suggest that it is being over-diagnosed in the United States.

Based on these different rates of diagnosis, some have argued that ADHD in children is simply a cultural construct—meaning that the behavior of these children is typical from a developmental perspective, and it is Western society's intolerance (due to the loss of extended family support, pressure to succeed academically, and busy family life) that causes labeling ADHD as a disorder (Timimi & Taylor, 2004). The best data suggest, however, that from 5% to 7% of the worldwide population of children currently meet the criteria for ADHD and 3% to 5% have symptoms that significantly interfere with their quality of life (Roberts, Milich, & Barkley, 2015).