

Boys are 2 to 3 times more likely to be diagnosed with ADHD than girls, and this discrepancy increases for children being seen in clinics (Owens, Cardoos, & Hinshaw, 2015; Spencer, Biederman, & Mick, 2007). The reason for this gender difference is largely unknown. It may be that adults are more tolerant of hyperactivity among girls, who tend to be less active than boys with ADHD. Boys tend to be more aggressive, which will more likely result in attention by mental health professionals (Rucklidge, 2010). Girls with ADHD, on the other hand, tend to display more behaviors referred to as “internalizing”—specifically, anxiety and depression (Owens et al., 2015).

The higher prevalence of boys identified as having ADHD has led some to question whether the *DSM-5* diagnostic criteria for this disorder are applicable to girls. Here is the quandary: Most research over the past several decades has used young boys as participants. This focus on boys may have been the result of their active and disruptive behaviors, which caused concern among families and school personnel and therefore prompted research into the nature, causes, and treatment of these problems. More boys displayed these behaviors, which made it easier to find participants to study. But did this almost singular focus on boys result in ignoring how young girls experience this disorder?

This concern is being raised by some psychologists, including Kathleen Nadeau (a clinical psychologist who specializes in girls with ADHD), who argues that more research is needed on ADHD in girls: “Girls experience significant struggles that are often overlooked because their ADHD symptoms bear little resemblance to those of boys” (Crawford, 2003, p. 28). She says that girls with ADHD were neglected because their symptoms differ so dramatically from boys’ symptoms, although to date there is little firm evidence for these differences (Owens et al., 2015). Just as researchers are now exploring ADHD among adults, in addition to children, more research is now addressing the relative lack of research on girls and women. This expansion of research across age and gender bodes well for a fuller understanding of the disorder.

Children with ADHD are first identified as different from their peers around age 3 or 4; their parents describe them as active, mischievous, slow to toilet train, and oppositional (Taylor, 2012). The symptoms of inattention, impulsivity, and hyperactivity become increasingly obvious during the school years. Despite the perception that children grow out of ADHD, their problems usually continue: it is estimated that about half of the children with ADHD have ongoing difficulties through adulthood (McGough, 2005). Over time, children with ADHD seem to be less impulsive, although inattention persists. During adolescence, the impulsivity manifests itself in different areas; for example, teens with ADHD are at greater risk for pregnancy and contracting sexually transmitted

## Edward: ADHD in a Gifted Student



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“He’s very, very intelligent; his grades don’t reflect that because he will just neglect to do a 240-point assignment if somebody doesn’t stay behind it. . . . What I try to do with him is come in and cut it down to ‘this is what I want by tomorrow, this is what I want day after tomorrow.’”

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infections. They are also more likely to have driving difficulties, such as crashes; to be cited for speeding; and to have their licenses suspended (Barkley, 2015b; Fabiano & Schatz, 2015).

What happens to children and adolescents with ADHD as they become adults? Rachel Klein and her colleagues followed up on more than 200 boys with this disorder and reported on their status 33 years later (Klein et al., 2012). When compared with a group without ADHD, the majority of these men (84%) were employed but in jobs with significantly lower positions than the comparison group. They also had 2.5 fewer years of education and were much less likely to hold higher degrees. These men were also more likely to be divorced and to have substance use problems and antisocial personality disorder (Klein et al., 2012). In addition, the effects of their tendency to be impulsive may account for their increased risk of displaying risky driving, having a sexually transmitted disease, increased chance

of having a head injury, and more emergency department admissions (Ramos Olazagasti et al., 2013). In short, although the manifestations of ADHD change as people grow older, many of their problems persist.

Diagnosing children with ADHD is complicated. Several other *DSM-5* disorders, also found in children, appear to overlap significantly with this disorder. Specifically, oppositional defiant disorder (ODD), conduct disorder, and bipolar disorder all have characteristics seen in children with ADHD. ODD is a *DSM-5* disorder that includes behaviors such as “often loses temper,” “argues with adults,” “often deliberately annoys people,” “touchy and easily annoyed by others,” and “often spiteful and vindictive” (Toth, de Lacy, & King, 2016). The impulsivity and hyperactivity observed in children with ADHD can manifest themselves in some of these symptoms. Similarly, conduct disorder—which, as you saw in Chapter 12, can be a precursor to antisocial personality disorder—is also observed in many children with ADHD (Toth et al., 2016). Bipolar disorder—which, you will recall from Chapter 7, is one of the mood disorders—also overlaps significantly with ADHD (Pliszka, 2015). This overlap can complicate diagnosis in these children.

## Causes

Important information about the genetics of ADHD is beginning to be uncovered (Barkley, 2015a). Researchers have known for some time that ADHD is more common in families in which one person has the disorder. For example, the relatives of children with ADHD have been found to be more likely to have ADHD themselves than would be expected in the general population (Fliers et al., 2009). It is important to note that these families display an