

**ERIC Identifier:** ED482344

**Publication Date:** 2003-10-00

**Author:** Neihart, Maureen

**Source:** ERIC Clearinghouse on Disabilities and Gifted Education

## **Gifted Children with Attention Deficit Hyperactivity Disorder (ADHD). ERIC Digest.**

Attention Deficit Hyperactivity Disorder (ADHD) is the most common behavioral disorder of childhood, and is marked by a constellation of symptoms including immature levels of impulsivity, inattention, and hyperactivity (American Psychiatric Association, 1994). The National Institutes of Health declared ADHD a "severe public health problem" in its consensus conference on ADHD in 1998. In the ongoing dialogue about ADHD in gifted children, three questions often arise. Are gifted children over-diagnosed with the disorder? In what ways are gifted ADHD children different from gifted children without the disorder and from other ADHD children? Does the emerging research suggest any differences in intervention or support?

There are three subtypes of ADHD: predominantly inattentive type, predominantly hyperactive/impulsive type, and combined type. The combined type is most common and best researched. The DSM-IV states that to meet criteria for a diagnosis of Combined Type ADHD, a child must meet at least six of the nine criteria from both lists and exhibit significant impairment in functioning. Symptoms must occur in more than one setting, have been present for at least six months, and have been present before the age of seven. It is important to note that a child who meets the criteria but doesn't exhibit significant impairment is not diagnosed with the disorder. The subjective determination of what constitutes significant impairment is one of several factors that contribute to the controversy regarding diagnosis and treatment, especially in gifted children.

### **Differences in Gifted Children and Non-Gifted Children with ADHD**

Initial findings suggest two points for consideration (Kalbfleisch, 2000; Kaufmann, Kalbfleisch, & Castellanos, 2000; Moon, 2001; Moon, Zentall, Grskovic, Hall, & Stormant, 2001; Zentall, Moon, Hall, & Grskovic, 2001). First, Kaufman and her colleagues' (2000) work indicates that identified gifted ADHD children are more impaired than other ADHD children, suggesting the possibility that we are missing gifted children with milder forms of ADHD. Second, high ability can mask ADHD, and attention deficits and impulsivity tend to depress the test scores as well as the high academic performance that many schools rely on to identify giftedness. Also, teachers

may tend to focus on the disruptive behaviors of gifted ADHD students and fail to see indicators of high ability.

These delays are of concern because early provision of appropriate services is important for academic and social success. Gifted children whose attention deficits are identified later may be at risk for developing learned helplessness and chronic underachievement (Moon, 2001). ADHD children whose giftedness goes unrecognized do not receive appropriate educational services. It is recommended that children who fail to meet test score criteria for giftedness and are later diagnosed with ADHD be retested for the gifted program (Baum, Olenchak, & Owen, 1998; Moon, 2002).

As a group, ADHD children tend to lag two to three years behind their age peers in social and emotional maturity (Barkley, 1998). Gifted ADHD children are no exception (Kaufmann & Castellanos, 2000; Moon, 2001; Zentall, Moon, Hall, & Grskovic, 2001). This finding has important implications for educational placement. As a group, gifted children without ADHD tend to be more similar in their cognitive, social, and emotional development to children two to four years older than children their own age (Neihart, Reis, Robinson, & Moon, 2002). When placed with other high ability children without the disorder, ADHD children may find the advanced maturity of their classmates a challenge they are ill prepared for. Also, gifted children without the disorder may have little patience for the social and emotional immaturity of the gifted ADHD student in their midst. This is not to say that gifted ADHD students should not be placed with other gifted students. The research is clear that lack of intellectual challenge and little access to others with similar interests, ability, and drive are often risk factors for gifted children (Neihart, Reis, Robinson, & Moon, 2002), contributing to social or emotional problems.

### **Assessing ADHD in Gifted Children**

It is difficult to differentiate true attention deficits from the range of temperament and behavior common to gifted children. There is concern in the literature that clinicians err on the side of pathologizing normal gifted behavior (Baum, Olenchak, & Owen, 1998; Baum, Owen & Dixon, 1991; Cramond, 1995; Leroux & Levitt-Perlman, 2000; Webb, 2001). Common characteristics of gifted children can be misconstrued as indicators of pathology when the observer is unfamiliar with the differences in the development of gifted children. This difficulty can be exacerbated when the gifted child in question spends considerable time in a classroom where appropriate educational services are not provided. The intensity, drive, perfectionism, curiosity, and impatience commonly seen in gifted children may, in some instances, be mistaken for indicators of ADHD (Baum, Olenchak, & Owen, 1998; Webb, 2001). The creatively gifted child may appear to be oppositional, hyperactive, and argumentative (Cramond, 1995). Gifted children with some kinds of undiagnosed learning disabilities will be very disorganized, messy, and have difficult social relations (Baum & Owen, & Dixon, 1991; Olenchak & Reis, 2002).

Ideally, a diagnosis of ADHD in gifted children should be made by a multidisciplinary team that includes at least one clinician trained in differentiating childhood psychopathologies and one professional who understands the normal range of

developmental characteristics of gifted children. Since as many as two thirds of children with ADHD have coexisting conditions such as learning disabilities or depression, assessment must include an evaluation for these disorders as well (American Academy of Pediatrics, 2000). School personnel rarely have the training needed to differentially diagnose ADHD, and few clinicians are aware of the unique developmental characteristics of gifted children. Accurate assessment must be a team effort.

One of the reasons parents may be hesitant to comply with treatment recommendations for their children is because they aren't convinced their child has the disorder. Parents want a thorough evaluation, and parents of gifted children want assurance that their child's giftedness has been taken into consideration when evaluations are conducted. When parents see that their child has been properly evaluated, they may be more willing to participate in a treatment plan.

### **What is Appropriate Intervention and Support?**

The available research suggests that we should not assume that all interventions recommended for ADHD children are appropriate for gifted children who have the disorder. Early findings suggest that there may be some differences in the way we intervene with gifted ADHD children. Treatment matching is crucial. Effective interventions are always those that are tailored to the unique strengths and needs of the individual. There is wide agreement in the literature on gifted children with learning problems that as a general strategy, intervention should focus on developing the talent while attending to the disability. Keeping the focus on talent development, rather than on remediation of deficits, appears to yield more positive outcomes and to minimize problems of social and emotional adjustment (Baum, Owen & Dixon, 1991; Olenchak, 1994; Olenchak & Reis, 2002; Reis, McGuire, & Neu, 2000).

In addition, there is limited evidence that some of the commonly recommended interventions for ADHD children may make problems worse for ADHD children who are also gifted (Moon, 2002). For instance, since gifted children tend to prefer complexity, shortening work time and simplifying tasks may increase frustration for some gifted ADHD students who would handle better more difficult and intriguing tasks. Similarly, decreasing stimulation may be counterproductive with some gifted ADHD children who, as a group, tend to be intense and work better with a high level of stimulation.

### **Conclusion**

There has been some concern that problems with inattention or hyperactivity that are better attributed to a mismatch with the curriculum (Baum, Olenchak, & Owen, 1998; Webb, 2001) or to characteristics of high creative ability (Cramond, 1995) are wrongly attributed to ADHD. Although there are good reasons to believe that misidentifications occur, there are yet no hard data on the frequency with which gifted children are over- (or under-) diagnosed or over- (or under-) medicated. Until systematic studies are conducted, we should be cautious about rejecting ADHD diagnosis in gifted children out of hand because there are serious, long-term negative consequences for undertreating the disorder

(Barkley, 1998). The available research on ADHD children indicates that nationally, there is a good deal of undertreatment as well as some overtreatment of ADHD children.

It is a challenge to arrange a good fit in school for gifted ADHD children. They must have an appropriate level of intellectual challenge with supports and interventions to address their social and emotional immaturity. Placement in the gifted program may or may not be appropriate, depending on the nature of the program, the social milieu of the gifted classroom, and the coping ability of the child, but a coherent plan for addressing the student's intellectual, social, and behavioral needs is nevertheless imperative.

## **References**

American Academy of Pediatrics (2000). Clinical practice guidelines: diagnosis and evaluation of the child with attention-deficit/hyperactivity disorder. *Pediatrics*, 105 :1158-1170.

American Psychiatric Association (1994). *Diagnostic and statistical manual of mental disorders*. Washington, DC: Author.

Barkley, R.A. (1998). *Attention deficit hyperactivity disorder: A handbook for diagnosis and treatment*. New York, NY: Guilford Press.

Baum, S.M., Olenchak, F.R., & Owen, S.V. (1998). Gifted students with attention deficits: Fact and/or fiction? Or, can we see the forest for the trees? *Gifted Child Quarterly*, 42, 96-104.

Baum, S., Owen, S.V., & Dixon, J. (1991). *To be gifted and learning disabled: From definition to practical intervention strategies*. Mansfield Center, CT: Creative Learning Press.

Kalbfleisch, M.L. (2000). *Electroencephalographic differences between males with and without ADHD with average and high aptitude during task transitions*. Unpublished doctoral dissertation, University of Virginia, Charlottesville.

Kaufmann, F.A., & Castellanos, F.X. (2000). Attention-deficit/hyperactivity disorder in gifted students. In K.A. Heller, F.J. Monks, R.J. Sternberg, & R.F. Subotnik (Eds.), *International handbook of giftedness and talent*. (2nd ed., pp. 621-632). Amsterdam: Elsevier.

Kaufmann, F., Kalbfleisch, M. L., & Castellanos, F. X. (2000). *Attention deficit disorders and gifted students: What do we really know?* Storrs, CT: National Research Center on the Gifted and Talented, University of Connecticut.

Leroux, J.A., & Levitt-Perlman, M. (2000). The gifted child with attention deficit disorder: An identification and intervention challenge. *Roeper Review*, 22, 171-176.

Moon, S.M., Zentall, S.S., Grskovic, J.A., Hall, A. & Stormont, M. (2001). Emotional, social, and family characteristics of boys with AD/HD and giftedness: A comparative case study. *Journal for the Education of the Gifted*, 24, 207-247.

Moon, S. (2002). Gifted children with attention deficit/hyperactivity disorder. In M. Neihart, S. Reis, N. Robinson, S. Moon (Eds.). *The social and emotional development of gifted children: What do we know?* (pp. 193-204). Waco, TX: Prufrock Press.

National Institutes of Health (1998). *Diagnosis and treatment of attention deficit hyperactivity disorder (ADHD) consensus statement*. Washington, DC: Author.

Neihart, M., Reis, S., Robinson, N., & Moon, S. (Eds.) (2002). *The social and emotional development of gifted children: What do we know?* Waco, TX: Prufrock Press.

Olenchak, R., & Reis, S. (2002). Gifted children with learning disabilities. In M. Neihart, S. Reis, N. Robinson, & S. Moon (Eds.), *The social and emotional development of gifted children: What do we know?* (pp. 177-192). Waco, TX: Prufrock Press.

Olenchak, F.R. (1994). Talent development: Accommodating the social and emotional needs of secondary gifted/learning-disabled students. *Journal of Secondary Gifted Education*, 5, 40-52.

Reis, S.M., McGuire, J.M. & Neu, T.W. (2000). Compensation strategies used by high-ability students with learning disabilities who succeed in college. *Gifted Child Quarterly*, 44, 123-134.

Webb, J.T. (2001). Mis-diagnosis and dual diagnosis of gifted children: Gifted and LD, ADHD, OCD, oppositional defiant disorder. N. Hafenstein & F. Rainey (Eds.), *Perspectives in gifted education: Twice exceptional children* (pp. 23-31). Denver: Ricks Center for Gifted Children, University of Denver.

Zentall, S.S., Moon, S.M., Hall, A.M., & Grskovic, J.A. (2001). Learning and motivational characteristics of boys with AD/HD and/or giftedness. *Exceptional Children*, 67, 499-519.