Assessing ADHD in Preschool Children

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Do you know these 10 signs that may help you differentiate early signs of ADHD from the “typical” behavior of a 3- to 4-year-old?

BRIEF COMMUNICATION

Childhood ADHD is a major public health problem with prevalence estimates of over 5 million children in the US alone. Of particular concern is the progressive increase in diagnosis. For example, in 2013, the National Center for Health Statistics estimated that 9.5% of children in the US aged 4 to 17 years (13.3% of boys, 5.6% of girls) have been diagnosed with ADHD.\(^1\) Moreover, nearly 2% of children aged 3 to 4 years had been diagnosed with ADHD—an almost 4-fold increase from 0.5% in 1997.\(^2\)

The need to identify ADHD earlier

Recently, a leading ADHD researcher, Stephen Hinshaw,\(^3\) warned that the movement toward universal pre-kindergarten might inadvertently lead to an “epidemic” of preschool children wrongly identified as having ADHD. This is largely due to the mismatch between biological readiness and earlier academic demands.\(^3\)

Increased prevalence of ADHD is of great concern because the disorder is associated with extraordinary societal costs. In 2011, for example, it was estimated that the annual incremental cost of illness for ADHD in the US was $143 to $266 billion,\(^4\) driven largely by high rates of psychiatric and learning disorders, injury, and mortality associated with the disorder.\(^5\)

An especially alarming trend is the identification of adverse outcomes among preschool children with ADHD.\(^6\) Even when children with ADHD are identified and treated in the preschool years, symptoms and functional difficulties continue throughout the elementary school years.\(^7\) A recent prospective study from the UK found that adults who were rated as hyperactive at aged 3 years incurred 17.6 times higher annual health care costs than concomitantly studied cohort of adults who had not been identified as hyperactive at aged 3 years.\(^8\)

The costly toll that ADHD takes on individual adjustment, family life, schools, health care, and social services underscores the importance of earlier identification and treatment. Biomarkers of ADHD, including neuroanatomic and functional anomalies, are associated with chronic cognitive and behavioral dysfunction.\(^9\) These brain-based changes develop early in life (even before formal diagnosis) and include delayed brain maturation (delay from to 2 to 5 years) by the time children with ADHD reach middle school age.\(^10\) Researchers are now seeking to identify biomarkers of ADHD as early as possible in order to facilitate improved outcomes. In one of the first neuroimaging studies of preschoolers with ADHD (aged 4 to 5 years), Mahone and colleagues\(^11\) identified significant reductions in the caudate nucleus among children with ADHD—with greater reductions associated with more severe symptoms of hyperactivity.

Early signs

The emerging research literature now suggests that with careful and thorough assessment, ADHD can be accurately diagnosed in the preschool years.\(^12\) Given these considerations, the following signs are offered as examples of behavioral risk factors for ADHD in children aged 3 to 4 years that may help clinicians and parents differentiate early signs of ADHD from “typical” behavior.

1. Dislikes or avoids activities that require paying attention for more than a minute or two
2. Loses interest and starts doing something else after engaging in an activity for only a few moments
3. Talks a lot more and makes much more noise than other children the same age
4. Climbs on things when not supposed to
5. Can’t hop on one foot (one time) by age 4 years
6. Nearly always restless—wants to constantly kick or jiggle feet, or twisting around in seat; “must” get up after being seated for only a few minutes
7. Has gotten into dangerous situations because of fearlessness
8. Warms up too quickly with strangers
9. Consistently aggressive with playmates; has been expelled from preschool or daycare for aggression
10. Has been injured (eg, stitches) because of moving too fast or running when not supposed to

If 2 or more of these symptoms are observed in young children, a referral should be made to a
clinician with expertise in diagnosis and treatment of ADHD in the preschool years.

Disclosures:
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References:


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