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Preschoolers With ADHD and Disruptive Behavior Disorder

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ABSTRACT

Preschoolers with attention-deficit hyperactivity disorder or disruptive behavior disorder often lack school readiness skills and may be at risk for subsequent poor academic achievement, which affects their long-term health and well-being. This article describes the challenges to affected families and children, reviews the diagnostic process in primary care, and offers evidence-based management options including behavior management training and/or the use of stimulant medications.

Keywords: attention-deficit hyperactivity disorder, behavior management training, disruptive behavior disorder, preschoolers, primary care, stimulants

School readiness is essential for promoting future academic achievement. Successful school performance is linked to improved emotional and physical well-being, better employment opportunities, and improved quality of life.[1] School readiness requires social-emotional regulation, language development, self-help skills, and fine and gross motor abilities. When preschoolers are challenged by issues like attention-deficit hyperactivity disorder (ADHD) or disruptive behavior disorder (DBD), school readiness skills are often impacted.[2] A negative cascade of learning and social problems ensues unless accurate diagnoses are made and effective management strategies are implemented. This article addresses the challenges faced by pediatric primary care providers (PCPs), including nurse practitioners (NPs) and physicians, in assessing and managing preschoolers with overactive and disruptive behavior patterns. It describes the impact troublesome behavior has on the family and on the child's development, reviews the diagnostic process, and offers evidence-based approaches that improve behaviors and facilitate school readiness and future success.

SCOPE OF PROBLEM

According to recent Centers for Disease Control and Prevention statistics, ADHD affects approximately 11% of children between the ages of 4 and 18 years in the United States.[3] Exact prevalence figures for ADHD and DBD in the preschool population are difficult to determine because of differing criteria and study designs and developmental variability in preschool years. Recently, there has been an increase in preschoolers in the US who present to their PCPs with concerning behaviors.[4]

CHALLENGES

A child with disruptive behaviors creates stress for the entire family.[5] The parent-child relationship is impacted negatively because parents (or guardians) often devote so much time to maintaining discipline and ensuring safety that they engage the child in fewer activities. Siblings are unhappy; Their own experiences are restricted since parents limit outside family activities due to the extreme behaviors of their brother or sister.

Families experience employment stress when behaviors are too disruptive to be managed by child care providers at home or in a preschool setting. Parents must often leave their work to care for a disruptive child, thus jeopardizing their employment.[6] This creates not only stress about employment and finances but also frustration and resentfulness toward the child, further limiting effective parent-child interactions.

It is sometimes difficult to maintain children in preschool settings if they frequently exhibit disruptive

behaviors. Expulsion rates are very high.[7] Unfortunately, when these children are excluded from preschool settings, they are at an increased risk of entering kindergarten without the necessary developmental skills.

Difficult behaviors also have an important influence on the child's language development. Parents often do not use expanded language but instead rely on brief commands and directions. Limited language exchange leads to decreased receptive and expressive language development, both of which are critical skills for future academic progress.[8] O'Neill et al[9] reported that the effects of these diminished early language skills continue to impact reading throughout elementary school.

Preschool children with disruptive behavior patterns also have delays in social-emotional skills. Montes et al[10] reported that these children have delays in their abilities to inhibit many behaviors. They have difficulty waiting turns, following directions, and functioning in groups. Because of these behaviors, they are often excluded from activities with peers, further impacting social skill development and sometimes exacerbating disruptive behaviors. The lack of readiness in these developmental domains further increases the risk of poor performance in future academic settings. Self-regulation skills, such as executive function and emotion regulation, are particularly important for children's early school success.[11]

It is clear that there are potentially negative impacts on young children and their families when children exhibit disruptive behaviors beyond the normal range. However, it is in the normal nature of young children to exhibit active, inconsistent, and noncompliant behaviors. Many preschoolers are just beginning to be able to focus attention and use goal-directed behaviors.[12] PCPs are challenged by this unique developmental period and must help parents, early care providers, and teachers to differentiate natural exuberance and high-energy levels from behaviors and conditions that are outside the normal range.

ASSESSMENT IN THE PRIMARY CARE SETTING

In 2011, the American Academy of Pediatrics (AAP) provided guidelines for PCPs to identify, diagnose, and manage children starting at 4 years of age who present with cognitive, behavioral, and developmental concerns.[13] When a family presents to the PCP with concerns about a preschooler's behavior or development, it is essential to obtain a complete history (Table). After a thorough history of the presenting concerns, further information is gathered, including family, social, birth, medical, and developmental histories. The family and medical history may alert the PCP to specific genetic or personal risks. The social history may give insight into the family situation, including risk factors such as poverty, a single-parent household, substance use/abuse, and domestic violence as well as protective factors such as education, social supports, and community and religious connections.[14]

A complete primary care evaluation includes an evaluation of the child's current functioning across all developmental domains. The currently used AAP guidelines on developmental surveillance, screening, and assessment are still valid and suggest many useful developmental screening tools for use by PCPs.[15] Each tool provides important data about current development compared with peers. The results of developmental screenings may direct the PCP to a variety of differential diagnoses including global delay, transient delay, or mental health disorders.

If a child has isolated and potentially transient delays (language, social-emotional, or motor) and has concurrent disruptive behaviors, there are additional assessment options for the PCP. The AAP guidelines include behavior rating scales, which apply to children from 4 to 18 years of age.[16] These include the National Institute of Children's Health Quality Vanderbilt ADHD Assessment Parent Rating Scales and Vanderbilt ADHD Assessment Teacher Rating Scales (nichq.org/childrens-health/adhd).

The psychometric properties of these tools were re-evaluated in 2013 as follows:

> Test-retest reliability exceeded .80 for all summed scale scores. The Vanderbilt ADHD Assessment Parent Rating Scales produced a sensitivity of .80, specificity of .75, positive predictive value of .19, and negative predictive value of .98 when predicting an attention-deficit hyperactivity disorder