ADHD: Current Questions and Research

By Jeffery Newcorn, MD

The past decade has seen an increased focus on the developmental trajectory of attention-deficit/hyperactivity disorder (ADHD), with the recognition that ADHD is, for many, a life-long condition akin to many other chronic illnesses.\(^1\) There has been an increase in the extent to which young children, adolescents, and adults receive a diagnosis of ADHD,\(^2\) yet there remain many poorly understood and controversial issues within the scientific community and the lay public. Do ADHD patients of different ages present with similar manifestations of the disorder, and if so, why was this not recognized for so long? Are there alternative clinical presentations among ADHD patients of different ages? What is the nature of comorbidity in ADHD over the course of development, and what are its functional consequences? How can we best measure and define ADHD, differentiating it from normal activity in young children, on the one hand, and other psychiatric disorders in older children and adults on the other? This is a key issue because ADHD has been a controversial diagnostic entity to many nonpsychiatrists because there is no one laboratory task that defines it.\(^3,4\) Most importantly, how do we understand issues related to risk and resilience in a longitudinal model, and can we identify factors that predict different clinical outcomes or pathways?\(^5\)

Four articles in this issue provide new data regarding ADHD across the lifespan. Elizabeth A. Curko Kera, MA, and colleagues examine neuropsychological functioning in parents of “at-risk” preschoolers. Their finding that parents of at-risk children may have characteristic patterns of neuropsychological dysfunction, despite the fact that they do not rate themselves as having ADHD, is consistent with current genetic theories of ADHD.\(^6\) This may lead to the identification of more narrowly defined endophenotypes. By identifying deficits in inhibitory control in parents of at-risk preschool children, they indirectly validate their at-risk status, suggesting that ADHD can indeed be identified in this population.

Operating at the other extreme of the age continuum, Mary V. Solanto, PhD, and colleagues examine several problems in differential diagnosis in adults with ADHD who self-refer to an adult ADHD program. Their findings—that currently available rating scales and neuropsychological measures do a poor job of discriminating adults with ADHD from non-ADHD psychiatric controls, and that distinctions across the different ADHD subtypes do not hold up well on accepted assessment measures—are certainly sobering. Although both ADHD and non-ADHD subjects had high scores on inattention, there were differences in hyperactive-impulsive symptoms across groups. Clearly, there is a signal, but it needs to be refined. The challenge of distinguishing the attentional dysfunction of ADHD from that of myriad related conditions in adults is difficult. Measures are currently being developed that may better allow us to do this in the future.

The studies featured here by Seth C. Harry, MST, and colleagues and Newcorn and colleagues address key issues in the developmental progression of ADHD from childhood to adolescence. Analyzing data from a longitudinal study of youths with ADHD, in a sample enriched for aggression, they address topics related to risk factors for substance abuse and the developmental consequences of early comorbid conduct and anxiety disorders, respectively. In both studies, the interaction among different risk variables best accounts for adverse outcome. Harry and colleagues report that among ADHD children with early conduct disorder, high intelligence quotient is predictive of increased levels of later substance abuse. This adolescent sample is relatively young and it will be of interest to determine whether this interaction truly represents risk for later substance abuse or for earlier age of onset for experimentation with drugs. Newcorn and colleagues find that childhood conduct problems and anxiety predict relatively specific courses in adolescence, and that the combination of conduct and anxiety disorders produces the highest risk for poor outcome.

The data are tantalizing, but they also highlight the need for larger studies of developmental pathways among ADHD youth, and for improved diagnostic methods of use in the preschool and adult populations. Only then will we better understand the boundaries of ADHD and its true meaning.

**REFERENCES**


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