

Adult AD/HD: Continuity of the Condition

by Sam Goldstein, PhD

THE EXISTENCE OF AD/HD AS A CLINICALLY IMPAIRING CONDITION throughout the human lifespan is irrefutable. Though the etiology of the condition and precise symptom profile remain debatable concepts, presenting symptoms and impairing consequences are easily observed and measured.

Recent longitudinal research on adult AD/HD compiled by Russell Barkley, Kevin R. Murphy, and Mariellen Fischer in their new book, *AD/HD in Adults: What the Science Says* (Guilford, 2008), provides strong evidence of the shifting AD/HD symptom profile and impairments from childhood through adulthood. A body of literature attesting to the emotional, cognitive, vocational, academic, substance-use, and criminal risks of AD/HD is growing. Further, the continuity of the condition in the form of similar symptoms but different consequences has been well documented. AD/HD is increasingly looked upon as a disorder of executive function rather than a simple inability to pay attention, sit still, or control impulses.

The six articles summarized and reviewed in this

column were published in May 2008 in a special issue of the *Journal of Attention Disorders* devoted completely to AD/HD in adults. This special issue included three additional peer-reviewed research articles, as well as a number of relevant reviews concerning diagnosis, symptom presentation, and treatment of AD/HD in adults.

► **Marchetta, N.D.J., Hurks, P.P.M., De Sonneville, L.M.J., Krabbendam, L., & Jolles, J. (2008). Sustained and focused attention deficits in adult ADHD. *Journal of Attention Disorders*, 11(6), 664-676.**

Twenty-eight adults with AD/HD without comorbid conditions were compared with 28 adults with AD/HD with comorbid problems. Additionally, two control groups of adults, one referred for AD/HD but with another comorbid condition instead, and a second consisting of 28 healthy controls were studied. All participants completed a battery of tests designed to measure various aspects of attention. Both AD/HD groups demonstrated a sustained attention deficit relative to controls. Only the AD/HD plus comorbid problems group (mood and anxiety disorders) showed focused attention deficits in that they were less able to ignore irrelevant information. The authors concluded their results demonstrate that adults with AD/HD, both alone and with comorbid-

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▶ What We Have Learned

ty, display a specific deficit in sustained attention compared to those without AD/HD. The adults with AD/HD plus comorbidity demonstrated additional deficits of focused attention, suggesting higher vulnerability to complex controlled processing demands and difficulty with inhibition.

▶ **Rabiner, D.L., Anastopoulos, A.D., Costello, J., Hoyle, R.H., & Swartzwelder, H.S. (2008). Adjustment to college and students with ADHD. *Journal of Attention Disorders, 11(6)*, 689-699.**

These authors evaluated over 1,600 first-semester freshman attending a

- ▶ Adults with AD/HD demonstrate problems with sustained attention on batteries of neuropsychological tests.
- ▶ Adults with AD/HD experiencing co-occurring problems such as mood and anxiety disorders may experience an even broader set of attention and related problems as measured by neuropsychological tests.
- ▶ College students with AD/HD appear to worry more about their academic performance, are more likely to smoke tobacco, and may experience higher rates of depression than other students. They are not more likely to experience social difficulty when they enter school than other students, nor are they more likely to use alcohol or marijuana.
- ▶ Investigator ratings of AD/HD symptoms are better predictors of functioning over time than self-reports, which can be inconsistent.
- ▶ Though medications are reported to reduce symptoms and improve daily functioning in adults with AD/HD, studies continue to be undertaken to examine the impact of medication on outcomes such as work productivity. Further, the severity of AD/HD symptoms may be the best predictor of functional outcomes following treatment.
- ▶ Cognitive treatment programs designed to improve self-management skills are promising as a treatment to reduce impairment in adults with AD/HD.
- ▶ Alternative treatments such as meditation are also promising as adjunct treatments for AD/HD in adults.

public and private university. The authors completed a web-based survey to examine the students' adjustment in college. Compared with 200 randomly selected controls, 68 students with AD/HD reported more academic concerns and symptoms of depression. The former was explained by high rates of inattentive symptoms among students with AD/HD but was unrelated to hyperactive-impulsive symptoms. Among students with AD/HD, medication treatment was not related to better adjustment or diminished AD/HD symptoms. The contribution of inattention to academic concerns and depressive symptoms remains significant even when controlling for personality traits. These data suggest that college students with AD/HD, at least in their initial semester, are not experiencing greater

social difficulty nor are they more likely to use alcohol or marijuana. However, they appeared more worried about their academic performance, were more likely to smoke tobacco, and at some schools experienced higher rates of depression.

► **Adler, L.A., Faraone, S.V., Spencer, T.J., Michelson, D., Reimherr, F.W., Glatt, S.J., Marchant, B.K., & Biederman, J. (2008). The reliability and validity of self and investigator ratings of ADHD in adults. *Journal of Attention Disorders, 11(6), 711-719.***

Little information is available comparing self- versus investigator ratings of symptoms in adult AD/HD. These authors compared the reliability, validity, and utility of the Conners Adult AD/HD Rating Scale in a sample of adults with AD/HD and also as an index of clinical improvement during treatment

of self- and investigator ratings of AD/HD symptoms. Data from two double-blind, parallel-designed studies of 536 adults with AD/HD randomized in a ten-week treatment of atomoxetine or placebo were evaluated. Outcome variables included AD/HD symptom severity, psychiatric symptom comorbidity and general functioning. All five subscales showed good internal consistency at each point in time. Similarly, inter-rater reliability was acceptable for each subscale. Following treatment, total scores and subscale scores improved significantly from baseline. Overall baseline investigative ratings were stronger predictors of treatment outcome than baseline self-report scores. The authors suggest that the findings of greater predictive power of investigator-rated baseline scores versus self-reports reflects an important clinical variable.

► **Adler, L.A. Spencer, T.J., Levine, L.R., Ramsay, J.L., Tamura, R., Kelsey, D., Ball, S.G., Allen, A.J., & Biederman, J. (2008). Functional outcomes in the treatment of adults with ADHD. *Journal of Attention Disorders, 11(6), 720-727.***

This study examined functional outcomes following six-month, double-blind treatment with either atomoxetine or placebo in a population of 410 adults with AD/HD. The Endicott Work Productivity Scale and the Adult ADHD Quality of Life were used to measure functional outcomes. At six months, both groups had nonsignificant improvements in work. Atomoxetine-treated patients showed significantly greater improvement in quality of life than placebo-treated patients, after controlling for baseline severity of AD/HD. Both treatment groups had low six-month study completion rates. The authors concluded their findings indicate that adults with AD/HD experience impairment in multiple life domains and that functional outcomes remain an important focus for treatment. The authors also concluded that baseline severity of AD/HD symptoms may explain some of the variability in functional outcomes for many patients.

► Solanto, M.V., Marks, D.J., Mitchell, K.J., Wasserstein, J., & Kofman, M.D. (2008). Development of a new psychosocial treatment for adult AD/HD. *Journal of Attention Disorders, 11(6)*, 728-736.

These authors sought to determine the effectiveness of a new metacognitive therapy for adults with AD/HD, extending the principles and practices of cognitive behavioral therapy for the development of executive, self-management skills. Thirty adults with AD/HD completed an eight- or twelve-week program designed to target impairments in time management, organization, and planning skills. Pre- and post-treatment data were collected with self-report instruments. The findings indicated that participants in the cognitive therapy program showed marked improvement with respect to core AD/HD symptoms of inattention as well as executive functioning skills. The authors suggest that this program holds promise as a treatment to improve metacognitive deficits in adults with AD/HD. The authors also note that there was a high frequency of comorbidity in their population, but for this initial study, comorbidity did not appear to reduce treatment effectiveness.

► Zylowska, L., Ackerman, D.L., Yang, M.H., Futrell, J.L., Horton, N.L., Hale, T.S., Pataki, C., & Smalley, S.L. (2008). Mindfulness meditation training in adults and adolescents with AD/HD: A feasibility study. *Journal of Attention Disorders, 11(6)*, 737-746.

These authors evaluated the feasibility of an eight-week mindfulness training program for adults and adolescents with AD/HD. Twenty-four adults and eight adolescents with AD/HD enrolled in an eight-week mindfulness training program. The majority of participants completed the training and reported high satisfaction. Pre/post improvements in self-reported symptoms and test performance on tasks measuring attention and cognitive inhibition were noted. Improvements in anxiety and depressive symptoms were also reported.

The authors concluded that mindfulness training appears to be a feasible intervention in a subset of adults and adolescents with AD/HD and may improve behavioral and neurocognitive impair-

ments. The authors cautioned, however, that improvements should be considered exploratory given the absence of a control group and reliance on self-report measures in this study. ●