

Lifestyle and Related Issues in Adult AD/HD

by Sam Goldstein, PhD

ADULTS WITH AD/HD TYPICALLY FACE MAJOR LIFESTYLE IMPAIRMENTS as the result of hyperactive, impulsive, and inattentive symptoms. Even with cognitive and medical treatment, many struggle on a daily basis due to poor organization, inconsistent follow through, poor financial management, difficulty balancing work and home responsibilities, and quality of relationships. Yet, until just recently, the greatest volume of literature in the treatment of AD/HD has been devoted to the investigation of the direct benefits of psychostimulants and related medications in treating the symptoms of AD/HD.



Although a very large diverse and scientifically rigorous literature has demonstrated the benefits of psychostimulants in treating AD/HD in adulthood, particularly due to their excellent short-term symptomatic relief, these medications have not been demonstrated in the long run to significantly alter the life course, lifestyle, and related problems in adults with the disorder. The biopsychosocial nature of AD/HD makes it reasonable to conclude that even with treatment, adults with AD/HD will face frequent challenges in important life domains. This research brief provides a sample of some of the best studies completed over the past eight years addressing lifestyle and related issues in adults with AD/HD.

► **Able, S.L., Johnston, J.A., Adler, L.A., & Swindle, R.W. (2007). Functional and psychosocial impairments in adults with undiagnosed ADHD. *Psychological Medicine*, 37(1), 97-107.**

Administrative claims records and responses to a telephone-administered adult AD/HD screener were used to classify approximately 21,000 members of two large managed health care plans as undiagnosed AD/HD or non-AD/HD controls. Individuals identified as having undiagnosed AD/HD were compared with samples of non-AD/HD controls and patients diagnosed with AD/HD according to ICD-9. Demographics, socioeconomic

Sam Goldstein, PhD, is a member of the faculties of the University of Utah and George Mason University. He is the Clinical Director of the Neurology, Learning, and Behavior Center in Salt Lake City, and serves as editor in chief of the Journal of Attention Disorders. Goldstein is a contributing editor to Attention magazine and a member of its editorial advisory board.



status, past and present mental health conditions, and self-reported functional and psychosocial impairments (including quality of life) were evaluated. A total of 752 undiagnosed AD/HD subjects, 199 non-AD/HD controls, and 198 diagnosed AD/HD subjects completed the telephone interview. The undiagnosed AD/HD cohort demonstrated higher rates of comorbid illness and greater functional impairment than non-AD/HD controls, including significantly higher rates of current de-

pression, problem drinking, lower educational attainment, and greater emotional and interpersonal difficulties. Undiagnosed AD/HD subjects reported a different racial composition and lower educational attainment than diagnosed AD/HD subjects. The authors concluded that there is a significant undiagnosed population of adults with AD/HD that manifests dysfunction in psychosocial impairment, even when AD/HD was clinically unrecognized.

What Have We Learned?

- › Compared to the general population, adults with AD/HD experience statistically significant and moderate to severely impairing problems in multiple life areas.
- › Adults with AD/HD have higher rates of depression, alcoholism, and interpersonal difficulties.
- › Adults with AD/HD typically have lower rates of educational achievement.
- › Adults with AD/HD likely experience a myriad of health and related physical problems (such as asthma) to a much greater degree.
- › It may be very likely that among populations of adults with severe mental illness, AD/HD is often missed or misdiagnosed.
- › Adults with AD/HD have lifetime histories of higher medical costs and greater work loss.
- › Adults with AD/HD have a significantly increased likelihood of smoking on a regular basis.
- › Adults with AD/HD are more likely to develop negative patterns of personality.
- › Even among adults with undiagnosed AD/HD, the majority of these lifestyle, medical, health, emotional, and vocational problems are found.
- › An increasing literature demonstrates that through a cognitive/behavioral education program, adults with AD/HD can develop the skills to improve emotional regulation, organization, memory, and self-esteem, and thereby reduce daily levels of functional impairment.

► **Blomqvist, M., Holmberg, K., Fernell, E., Ecke, K.U., & Delof, G. (2006).** Oral health, dental anxiety and behavior management problems in children with ADHD. *European Journal of World Science, 114(5), 385-390.*

Research on dental issues in adults with AD/HD has not been completed; however, this study on childhood issues is relevant, suggesting adults may well experience similar problems. The authors evaluated 24 eleven-year-olds with AD/HD and 58 controls, comparing the results of their dental examinations and radiographs taken between the ages of 3 and 10 years. The authors also evaluated fear of dentists. Using a parent rating scale, children with AD/HD were found to have significantly greater decayed surfaces and more missing or filled teeth than the control children. No differences were noted in ratings of the children's dental fear. The children with AD/HD, however, had more office behavior problems noted in their charts than did control children, particularly during the ages of 7 to 9 years.

► **Kenemer, K., & Goldstein, S. (2005).** Incidence of ADHD in adults with severe mental health problems. *Applied Neuropsychology, 12(2), 77-82.*

These authors sought to determine the prevalence rates of AD/HD and comorbid disorders in an adult inpatient psychiatric setting. Patient charts were reviewed from a state hospital in the western United States. Of the 292 persons served in 2002, only six

received a diagnosis of AD/HD. Of these patients, two received additional diagnoses for major depression, one for generalized anxiety, and one for bipolar disorder. Five of the six participants had a history of substance abuse and four were diagnosed with personality disorders. None of the six diagnosed with AD/HD received a diagnosis of learning disability. A variety of nonstimulant medications were utilized to treat these patients. Prevalence, comorbidity, and implications for future research regarding adult AD/HD in this population are discussed.

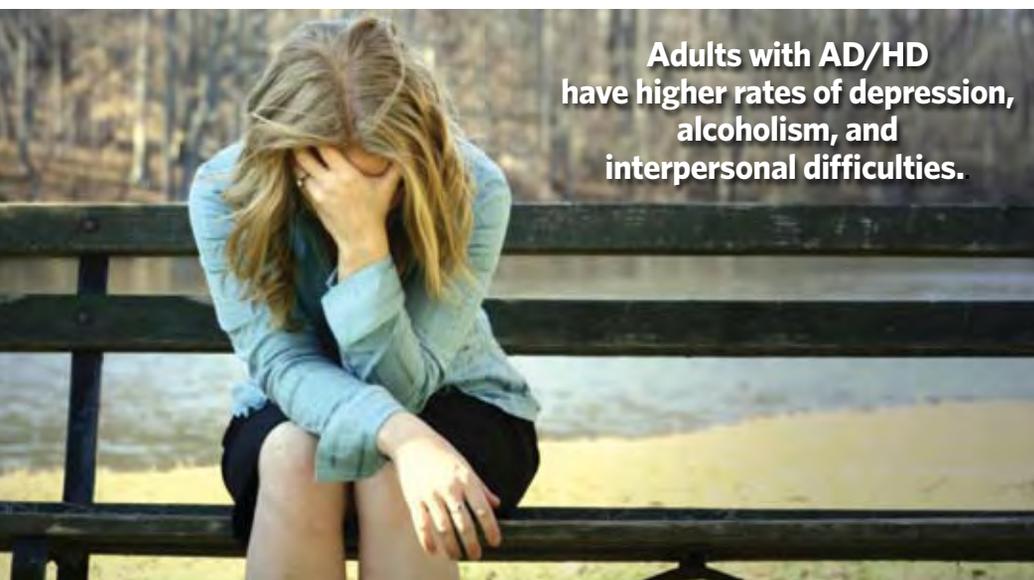
► **Kollins, S.H., McClernon, F.J., & Fuemmeler, B.F. (2005).** Association between smoking and attention-deficit/hyperactivity disorder symptoms in a population-based sample of young adults. *Archives of General Psychiatry, 62(10), 1142-1147.*

To evaluate the relationship between smoking-related variables and the number of retrospectively reported AD/HD inattentive and hyperactive/impulsive symptoms, these authors evaluated over 15,000 eligible participants from the National Longitudinal Study of Adolescent Health. Logistic regression was used to examine the relationship between self-reported AD/HD symptoms and the lifetime likelihood of being a regular smoker (defined as having smoked at least one cigarette a day for thirty days). For individuals reporting regular smoking, the authors also examined the extent to which

AD/HD symptoms predicted age at onset of regular smoking and the number of cigarettes smoked. A linear relation was identified between the number of self-reported inattentive and hyperactive/impulsive symptoms and smoking outcome measures. Controlling for demographic and conduct disorder symptoms, each reported inattention and hyperactivity/impulsivity symptom significantly increased the likelihood of ever smoking regularly. For those reporting lifetime regular smoking, reported symptoms decreased the estimated age at onset and increased the number of cigarettes smoked. Thus, self-reported AD/HD symptoms were found to be associated with adult smoking outcome variables, providing further evidence of a likely link between AD/HD symptoms and risk for tobacco use.

► **Robin, A.L., Tzelepis, A., & Bedway, M. (2008).** A cluster analysis of personality style in adults with ADHD. *Journal of Attention Disorders, 12(3), 254-263.*

The authors used a statistical technique to examine the normative personality styles in a sample of over 300 adults with AD/HD. The results found two specific clusters of personality styles. The first reflected individuals who demonstrated more polarized, negative motivating aims, cognitive modes, and interpersonal behaviors. These individuals tended to look on the pessimistic side of life, expecting that things would go wrong, and tended to react and accommodate to life's events rather than taking charge of their lives. The second cluster exhibited a much more balanced, less extreme profile of personality style. These individuals tended to look on the bright, optimistic side of life and believed that they could take charge of their world, even in the face of problems. They tended to possess a healthy balance of self-interest and caring for others. The results indicate that meaningful clusters of personality styles can be derived empirically for adults with AD/HD. Thirty-nine percent of the adults fell in the first cluster, with 52 percent falling in the second cluster. These results if replicated would have significant implication for clinical practice.



Adults with AD/HD have higher rates of depression, alcoholism, and interpersonal difficulties.

► **Secnik, K., Swensen, A., & Lage, M.J. (2005). Comorbidities in costs of adult patients diagnosed with attention deficit hyperactivity disorder. *Pharmacoeconomics*, 23(1), 93-102.**

A retrospective study examined comorbidities, medical costs, and missed work days for adults with AD/HD. Adults diagnosed with AD/HD between 1999 and 2001 were identified from a large claims database, finding over 2,000 subjects. They were matched with a non-AD/HD group based on age, gender, geographic location, and insurance coverage. Those diagnosed with AD/HD were more likely to have comorbid diagnoses, including asthma, anxiety, bipolar disorder, depression, substance abuse, and antisocial personality disorder. When comorbidity was controlled, adults with AD/HD still had higher outpatient costs, inpatient costs, and prescription drug costs compared to non-AD/HD counterparts. Over \$2,000 in additional medical costs were associated with the diagnosis of AD/HD. Further, this group missed significantly more work days due to unofficial absences.

► **Swensen, A.R., Birnbaum, H.G., Secnik, K., Marynchenko, M., Greenberg, P., & Claxton, A. (2003). Attention-Deficit/Hyperactivity Disorder: Increased costs for patients and their families. *Journal of the American Academy of Child and Adolescent Psychiatry*, 42(12), 1415-1423.**

An administrative database from a national Fortune 100 manufacturer that included all medical, pharmaceutical, and disability claims for over 100,000 beneficiaries was examined to estimate the direct and indirect costs of children treated for AD/HD and their family members. Direct costs included medical and prescription drugs; indirect costs included work loss. The annual average expenditure in direct cost per AD/HD patient was \$1,574 compared to \$541 among matched controls. The annual average payment (direct plus indirect costs) per family member was \$2,728 for non-AD/HD family members of AD/HD patients, versus \$1,440 for family members of matched controls. These differences were significant at a 95 percent confidence level. Based upon these data, it is reasonable to conclude that AD/HD imposes a significant financial burden regarding the cost of medical care and work loss for affected individuals and family members.

► **Virta, M., Vedenpaa, A., Gronroos, N., Chydenius, E., Partinen, M., Vataja, R., Kaski, M., & Iivanainen, M. (2008). Adults with ADHD benefit from cognitive-behaviorally oriented group rehabilitation. *Journal of Attention Disorders*, 12(3), 218-226.**

Twenty-nine adults were seen in a three-month weekly rehabilitation program. The program provided cognitive-behaviorally ori-

ented psychological intervention on a group basis. Sessions included education about AD/HD and treatment, motivation, emotional regulation, organization, and memory and self-esteem enhancement. Based upon multiple self-report measures completed by subjects and their significant others, reduced symptoms and improved levels of functioning were reported in multiple areas. ●