## Letters to the Editor

## Symptoms of ADHD or Marijuana Use?

To The Editor: We are grateful for the treatment in psychiatry article "Attention Deficit Hyperactivity Disorder and Substance Use Disorders" (1), by Timothy E. Wilens, M.D., published in the Dec. 2006 issue of the *Journal*. The article provides sound scientific and practical steps for clinicians encountering patients with co-occurring substance use and psychiatric disorders, a rampant challenge for clinicians today. However, we feel that the case presented is not a clear example of such encounters.

We have studied treatment-seeking students with "learning problems," or attention deficit hyperactivity disorder (ADHD), who misuse psychostimulants, such as methylphenidate, for academic performance enhancement. A voluntary survey of 53 undergraduate stimulant abusers revealed that 94.3% of participants had smoked marijuana within the past month (32% smoking daily) (2). In the cases presented in this survey, as in the case presented by Dr. Wilens, cannabis use was the most likely cause of learning problems and psychostimulant-seeking behavior.

In the psychiatric evaluation in Dr. Wilens's case, it is assumed that ADHD was present before (and independent of) the marijuana use during childhood/adolescence. Although the patient admitted displaying personality traits similar to those of his father (e.g., easily frustrated), these traits do not confirm an ADHD diagnosis. No family history of ADHD or other psychiatric disorders were mentioned in the case. Furthermore, all that "wheezes" is not asthma. Depression can be undiagnosed hyperthyroidism, cocaine dependence, or even mononucleosis (3). Every person with inattention/hyperactivity does not suffer from ADHD.

The case presented does exhibit symptoms typical of marijuana users (4–6). According to Fletcher et al. (7), long-term cannabis use is associated with disruption of short-term memory, working memory, and attentional skills, all of which are exemplified in the case presented in Dr. Wilens's article. If symptoms of ADHD were present in this case, they are likely to be the result of chronic substance abuse/dependence (in this case, marijuana). As exemplified in the section on the overlap between ADHD and substance use disorders, individuals with substance use disorders are more likely to be diagnosed with a psychiatric disorder, such as ADHD, than are individuals with a psychiatric disorder to be diagnosed with substance use disorders. Furthermore, as Dr. Wilens confirmed, in those individuals with comorbid substance use and psychiatric disorders, it is best practice to treat the substance use disorder, followed by treatment of the psychiatric disorder (if it persists).

In such cases, the primary clinical goal should not be "reduction," but cessation of all nonmedical drug use, especially marijuana use, which is likely to require referral to long-term participation in a 12-step program, substance abuse treatment, and ongoing drug testing. Only prolonged abstinence from nonmedical drug use can allow for a diagnosis of ADHD to be made with confidence.

## References

 Wilens TE: Attention deficit hyperactivity disorder and substance use disorders. Am J Psychiatry 2006; 163:2059–2063

- Hall J, Frost-Pineda K, Gold MS: Marijuana use linked to prescription stimulant abuse (abstract). Biol Psychiatry 2005; 5(suppl):159S
- Extein I, Gold MS: The medical mimics of psychiatric disorders, in The Progress in Psychiatry Series. Edited by Spiegel D. Washington, DC, American Psychiatric Publishing, 1986
- Copersino ML, Boyd SJ, Tashkin DP, Huestis MA, Heishman SJ, Dermand JC, Simmons MS, Gorelick DA: Cannabis withdrawal among non-treatment-seeking adult cannabis users. Am J Addict 2006; 15:8–14
- Lundqvist T: Cognitive consequences of cannabis use: comparison with abuse of stimulants and heroin with regard to attention, memory and executive functions. Pharmacol Biochem Behav 2005; 81:319–330
- Pope HG, Yurgelun-Todd D: The residual cognitive effects of heavy marijuana use in college students. JAMA 1996; 275:521– 527
- 7. Fletcher JM, Page JB, Francis DJ, Copeland K, Naus MJ, Davis CM, Morris R, Krauskopf D, Satz P: Cognitive correlates of long-term cannabis use in Costa Rican men. Arch Gen Psychiatry 1996; 53:1051–1057

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Dr. DuPont reports support from McNeil Pharmaceuticals for monitoring of nonmedical use of prescription stimulants; he is also Chairman of the Advisory Committee on Prescription Drug Abuse for the Institute for Behavior and Health, Inc. Dr. Gold and Ms. Graham report no competing interests.

## **Dr. Wilens Replies**

To The Editor: The authors comment on the validity of the case presented for meeting criteria for ADHD in light of substance abuse in general and marijuana abuse in particular. For teaching purposes, the case purposely left some areas vague, since it is illustrative of a typical presentation of ADHD in a young adult with marijuana use disorder. While in a perfect world, it would be nice to have adults present with an established childhood diagnosis with evidentiary documentation and completed full-structured interviews on their firstdegree relatives, such data are not available in clinical practice. Epidemiological evidence clearly indicates that most adults with ADHD are neither diagnosed nor treated for their condition and that ADHD is not a trivial disorder with substantial impairment (1). Hence, practitioners must evaluate the presence of symptoms and not make a formal diagnosis of ADHD in the parents of individuals being assessed indirectly for the disorder, which is often the case for substance use disorders. The idea that not all inattention is ADHD is obvious; however, if you can elicit a history of a longitudinal track of a cluster of attentional- and/or hyperactive/impulsive-based symptoms in childhood that are associated with impairment and exist at times when there is no substance abuse, a multiplicity of studies have demonstrated the validity of the retrospective diagnosis of ADHD in adults (2, 3), even in the presence of substance use disorders (4). In the illustrative case that I presented, the ADHD symptoms can be tracked well