

# Clinical Presentations of Adult Patients With ADHD

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Attention-deficit/hyperactivity disorder (ADHD) persists into adulthood in an increasingly recognized number of individuals with childhood onset. The symptoms of adult ADHD are similar to the restlessness, distractibility, and impulsivity central to childhood ADHD, but expression of symptoms changes as the individual matures. A childhood history of ADHD is requisite for a diagnosis of adult ADHD, although full DSM-IV criteria for the childhood disorder need not be met as long as significant symptoms and impairment occurred. Three case reports described here illustrate the migration of symptoms and the use of retrospective reporting and rating scales to determine a diagnosis of adult ADHD. These reports also stress the high probability of comorbid disorders and family aggregation of ADHD, as well as the likelihood that the adult with ADHD has developed coping mechanisms to compensate for his or her impairment.

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**A**ttention-deficit/hyperactivity disorder (ADHD), usually identified in childhood, persists into adulthood in about 60% of individuals with childhood onset.<sup>1</sup> The symptoms of adult ADHD are similar to the restlessness, distractibility, and impulsivity central to childhood ADHD, but expression of symptoms naturally changes as the individual matures. Aimless restlessness in a child may migrate to purposeful restlessness in an adult. The child who ran about and climbed excessively may find as an adult that he or she can perform well only at active jobs. The adult with ADHD has usually learned to compensate to some degree for impairment caused by the disorder by, for example, depending overmuch on a personal digital assistant. Additionally, a diagnosis of adult ADHD may be obscured by symptoms of comorbid disorders, which are extremely common alongside both childhood and adult ADHD.

According to the DSM-IV, there are 3 critical elements in making a diagnosis of ADHD in an adult: childhood onset, presence of significant symptoms, and impairment from these symptoms.<sup>2</sup> A childhood history of ADHD is requisite for a diagnosis of adult ADHD, although full

DSM-IV criteria for the childhood disorder is unnecessary as long as significant symptoms and impairment occurred. As the diagnosis may have been missed in childhood, the adult patient's retrospective reporting of childhood symptoms is often valid. However, the clinician should obtain whenever possible a collateral history using resources like old report cards from school and the recollections of a parent, sibling, or close friend. Full adult criteria—at least 6 of 9 inattentive or hyperactive/impulsive symptoms—must be met for a diagnosis of adult ADHD. Additionally, merely having symptoms is not sufficient for a diagnosis; there must also be resulting impairment in at least 2 domains: school/work, social interaction, or home life. Again, copies of work evaluations and interviews with significant others or family members may be helpful. In addition to a careful clinical history, a family history is important given the high rate of familial aggregation of ADHD. First-degree relatives of a child with ADHD appear to be at a 4.6-fold to 7.6-fold higher morbidity risk for ADHD than relatives of normal controls or of controls with other psychiatric disorders.<sup>3</sup>

This article reviews 3 cases of ADHD in adult patients, illustrating the symptoms, diagnosis, and treatment of adult ADHD.

## CASE REPORTS

### Case 1

The patient, a 54-year-old Latino skilled laborer, presented to an emergency room and was hospitalized with acute mania. His symptoms over the previous 3 weeks included euphoric mood, racing thoughts, irritability, increased activity, impulsive behavior, impaired functioning, and insomnia. He had been skipping work

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at his nonsedentary job and going on shopping sprees, purchasing several pairs of expensive boots and numerous gold chains, among other things. He had no psychotic symptoms. Prior to onset of manic symptoms, the patient had consumed 4 bottles of over-the-counter cold medicine containing sympathomimetics and narcotic analogs to treat a common cold. He indicated that taking one bottle of medication “did not work,” so he continued to take more until his supply was exhausted. This failure to dose appropriately highlighted impulsivity in the patient as well as the possibility of comorbid substance abuse.

Though it can be challenging to elicit a full history from a patient experiencing mania, a careful clinical history is always crucial to proper diagnosis. It was learned that the patient indeed had a history of cocaine and heroin abuse but had not abused drugs for the past 10 years. He had no prior manic episodes but reported 2 untreated episodes of depression between 1993 and 2000, each of 8 months’ duration. He had no prior psychiatric hospitalizations.

Retrospective reporting of ADHD symptoms by the patient using the Kiddie Schedule for Affective Disorders and Schizophrenia (KSADS)<sup>4</sup> indicated that he had been an easily distractible child who “couldn’t sit still” and “never finished a plan.” He had trouble paying attention in school and completing his homework, especially math and reading. These troubles resulted in poor academic performance and feelings of inferiority. He was frequently admonished for talking out of turn in the classroom, and at home his parents complained that he did not listen and failed to do his chores around the house. As an adolescent, the patient began using marijuana, nicotine, and alcohol and started fighting at school. In one incident, he responded to a teacher’s verbal reprimand by physically striking the teacher. (The condition most commonly comorbid with childhood and adolescent ADHD is oppositional defiant disorder.<sup>5</sup>) The patient dropped out of high school to join the armed forces. The military offered an external set of rules, and he performed well within this institutional setting, attaining the rank of corporal and receiving an honorable discharge and a Good Conduct Medal.

Many problems from the patient’s youth plagued him into adulthood. As an adult, he continued to have difficulties with 1) organization and planning, 2) completing uninteresting tasks in a timely fashion, and 3) impulsive behavior—symptoms not limited to the single manic episode with which he now presented. Thus, provisional diagnoses were mania (either substance induced or in the context of bipolar I disorder) and adult ADHD. The patient’s mania was treated first and treatment of ADHD deferred until the patient’s mood was more stable. The patient was treated with the mood-stabilizing anticonvulsant topiramate, the atypical antipsychotic olanzapine, and the benzodiazepine clonazepam, with dose titrated to 150

mg daily, 15 mg daily, and 1 mg b.i.d., respectively. This treatment course resulted in resolution of the patient’s manic symptoms: his euphoria dissipated, his psychomotor agitation ceased, and his pressured speech and racing thoughts subsided. However, the patient remained intrusive and demanding, repeatedly interrupting hospital community meetings and bullying the staff for cigarettes. He had difficulty adhering to the routine and rules of the ward, paced the hall, moved about during seated activities, and intermittently refused to take his medication. Eventually, he was discovered smoking cigarettes inside the hospital and, due to this clear violation of rules, was administratively discharged with a referral for outpatient follow-up and a recommendation for ongoing treatment of his mood disorder and initiation of treatment of ADHD.

This presentation illustrates that diagnostically significant symptoms of ADHD can be recognized even in a patient with an acute mood disorder. It is noteworthy that the mood disorder, as the most acutely impairing condition, was treated first, but that the behavior leading to the patient’s premature discharge from the hospital occurred after the symptoms of mania had resolved and may have resulted from ADHD and associated non-mood disorder comorbidities. The patient’s clinical history suggested the comorbidities of substance abuse and disruptive behavior disorder.

## Case 2

The second patient, a 29-year-old African-American actress, waitress, and student, requested evaluation of ongoing problems with inattention, restlessness, disorganization, planning, and task completion. Prior to this presentation, she had voiced similar complaints to primary care and psychiatric providers. Her decision to again seek a professional opinion was inspired by the fact that her sister and her nephew had recently been diagnosed with ADHD and successfully treated with psychostimulants. At 7 years of age, the patient had herself been diagnosed with ADHD—and had also shown symptoms of a disruptive behavior disorder—but had not been treated per parental preference. As an adult, she had been diagnosed with dysthymia alone and had received unsuccessful and adequate trials of the selective serotonin reuptake inhibitors fluoxetine and sertraline.

The patient’s retrospective reporting of symptoms on the ADHD module of the KSADS showed significant symptoms in all domains as well as impairment at school, at home, and among peers beginning at age 6. As a child, the patient was inattentive; her mother and her teachers often noted that she did not listen when spoken to. She showed impulsivity, as when she accidentally set the family house on fire trying to burn a tick off her pet dog. She ran about and climbed excessively, once fracturing her leg in a leap from furniture. The patient’s childhood fidgeting and hyperactivity made it difficult for her to sit still long

enough to complete her homework. She was a child who often lost her belongings, necessitating that her gloves or mittens be attached to her jacket with a safety pin.

Current symptoms of ADHD were assessed with the Attention Deficit Hyperactivity Disorder Rating Scale (ADHD-RS).<sup>6</sup> The ADHD-RS is an 18-item scale, corresponding to the 18 inattentive and hyperactive-impulsive symptoms of ADHD in the DSM-IV; symptoms are rated by the clinician on a severity basis: 0—"none," 1—"mild," 2—"moderate," and 3—"severe." The patient was rated as "moderate" or "severe" on all 18 ADHD symptoms of the scale. She was impulsive, once receiving a speeding ticket for driving over 100 miles an hour in a borrowed sports car. As is typical in the progression into adulthood, the patient's childhood restlessness had evolved into an adult need to be always on the move, planning her daily activities to avoid situations that would require waiting and taking active vacations. At the time of her presentation, the patient lived a very busy life. She was forgetful and chronically late, which affected her work as an actress. She interrupted others while they were speaking and was distracted in conversation, which affected not only her job as a waitress but her interpersonal relationships as well. She suffered from feelings of inadequacy linked to her impairment.

In addition to her scores on the KSADS and the ADHD-RS, the patient's family history of ADHD helped support the diagnosis. She was started on a course of mixed dextroamphetamine and amphetamine (also known as mixed amphetamine salts), resulting in prompt, substantial improvement in ADHD symptoms and resolution of dysthymia. When the patient reported that she was forgetting to take her medication t.i.d., she was switched to 40 mg of extended-release formulation in the morning and 20 mg of immediate-release formulation in the afternoon, with good results.

Of interest is the fact that the patient's dysthymia resolved with psychostimulant treatment. It may be that the patient's dysthymia was not a true comorbidity but an affective consequence of untreated, impairing ADHD symptoms. Alternatively, the dysthymia might have been truly comorbid and primarily improved by a direct antidepressant effect of amphetamine therapy.

### Case 3

The third patient, a 42-year-old white attorney, presented for an evaluation secondary to problems at work and at home. He had been staying especially long hours at the office but still finding it difficult to get his work done. As a result, he had little time for his wife and children, and when the family were together, he felt distracted and had trouble listening to them. The patient had no prior history of psychiatric illness, but he had 2 children who had been diagnosed with ADHD, and his father had been diagnosed with bipolar disorder. The patient's medi-

cal condition was unremarkable, except for high blood cholesterol levels treated with medication.

As a child, the patient paid little attention in class and frequently talked out of turn. He put off doing his homework and spent large amounts of time looking for his misplaced books and assignments. These symptoms improved somewhat when he was transferred to a private middle school with smaller class sizes and an enriched curriculum. At home, however, he interrupted his parents when they were talking to each other and regularly had to be reprimanded for climbing on things. On formal retrospective evaluation of childhood symptoms, the patient met childhood criteria for combined type ADHD, with symptom onset in the first grade. All symptoms but one were within the moderate range of severity. Of note was the patient's improvement in symptoms when transferred to a private school with smaller class sizes.

As an adult, too, the patient met criteria for combined type ADHD symptoms, scoring moderate or severe on 15 of 18 items on the ADHD-RS. At work, he had trouble both starting and finishing tasks in a timely manner. He procrastinated until deadlines loomed, worked more slowly than expected, and impulsively started new projects at the end of the day when preparing to leave the office would have been appropriate. He also interrupted his partners at the law firm while they were busy. He struggled with organization and filled his pockets with notes to himself intended, along with his personal digital assistant, to help him remember appointments and errands. These methods of compensation for his impairment were successful to some degree, but in addition to his underperformance at work, the patient felt he was experiencing impairment at home. He was distracted in conversation with his wife and unable to relax, even on vacation.

The patient anticipated that he would have difficulty remembering to take multiple daily doses of a psychostimulant. He also had some qualms about taking a Schedule II controlled substance. On the basis of these concerns, a treatment course of the nonstimulant atomoxetine was initiated. The patient is currently stabilized at a maintenance dose of 60 mg/day of atomoxetine, taken in the morning. He reports improved task completion and time management and reduced distractibility. He also reports an increased sense of fulfillment and greater availability to his family.

### CONCLUSIONS

The symptoms of adult ADHD are similar to the restlessness, distractibility, and impulsivity central to childhood ADHD, but symptoms naturally evolve as the individual matures and copes with his or her symptoms. In all instances, significant symptoms of childhood ADHD are requisite for the diagnosis of adult ADHD; the case reports discussed here illustrate that retrospective report-

ing can uncover a history of childhood ADHD symptoms that may have been missed.

Like others in her family, the second patient (Case 2) was diagnosed with ADHD as a child. However, she received no treatment at that time. Her symptoms continued into adulthood and the consequent functional impairment may have led to or exacerbated the dysthymia that she experienced. Once this patient began a regimen of mixed dextroamphetamine and amphetamine, her symptoms of both ADHD and dysthymia resolved.

The first patient's case (Case 1) highlights the issue of comorbidity. Investigation uncovered a diagnosis of adult ADHD despite the potentially confounding fact that this patient presented with acute mania. Retrospective reporting also indicated a history of substance abuse and possible oppositional defiant or conduct disorder. His symptoms of ADHD, including restlessness and intrusive behavior, remained after his manic symptoms had resolved in response to treatment.

Like many adults with ADHD, the third patient (Case 3) developed coping strategies in his day-to-day life to compensate for impairment attributable to his disorder. In such a high-functioning individual, a diagnosis of adult ADHD may be more easily overlooked. Symptoms are often context based, as evidenced by this patient's improvement in symptoms with a change to a middle school with smaller class sizes. Thorough investigation is crucial. Family aggregation of ADHD, a childhood history of ADHD symptoms, impairment at work and at home, and his scores on the ADHD-RS support this patient's diagnosis.

Pharmacologic intervention led to significant symptomatic improvement in the second and third patients

discussed. The costs, both to the patient and to society, can be significant when ADHD is underdiagnosed or undertreated. However, undertreatment can be minimized, given the improved range of pharmacologic therapies currently available, notably, long-acting stimulants and the nonstimulant atomoxetine. These case reports show that adult ADHD is an identifiable and treatable disorder.

*Drug names:* atomoxetine (Strattera), clonazepam (Klonopin and others), fluoxetine (Prozac and others), mixed dextroamphetamine and amphetamine (Adderal and others), olanzapine (Zyprexa), sertraline (Zoloft), topiramate (Topamax).

*Disclosure of off-label usage:* The author of this article has determined that, to the best of his knowledge, clonazepam is not approved by the U.S. Food and Drug Administration for the treatment of acute mania; mixed dextroamphetamine and amphetamine is not approved for the treatment of adult attention-deficit/hyperactivity disorder; and topiramate is not approved for the treatment of acute mania.

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