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DOCTOR'S ORDERS: A NEW PRESCRIPTION FOR ADHD MEDICATION ABUSE

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"Th[is] stuff [Adderall] is like an . . . anabolic steroid."
—Mitch[1]

In a society that never stops, discovering a quick fix grants one an immeasurable competitive edge whether it be in the academic or professional arena. The world of athletics has grappled with the use of anabolic steroids for years, finally implementing anti-doping laws[2] and strict guidelines for athletes. However, in the academic setting, a similar problem has arisen that cannot be solved by random drug testing or other anti-doping mechanisms. Since the genesis of ADD/ADHD in the early 1980s, affected individuals have been able to procure medications that enhance cognitive capabilities: the ability to focus, concentrate, and retain information. Those truly suffering from ADHD reap the benefits of these medications while many non-affected people now acquire the drug for themselves to get ahead, primarily within academic settings. The prevalence of Adderall and the ease with which indi-

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1 Alan D. DeSantis et al., *Illicit Use of Prescription ADHD Medications on a College Campus: A Multimethodological Approach*, 57 J. Am. Coll. Health 315, 319 (2008). Mitch's comment mimics that of many of his classmates surveyed during the study. Students regularly misuse/abuse Adderall for academic purposes. *Id.* at 317–19.

2 Margaret Talbot, *Brain Gain*, The New Yorker (Apr. 27, 2009), http://www.newyorker.com/reporting/2009/04/27/090427fa_fact_talbot#ixzz1dtS6kewo ("The demand is certainly there: from an aging population that won't put up with memory loss; from overwrought parents bent on giving their children every possible edge; from anxious employees in an efficiency-obsessed, BlackBerry-equipped office culture, where work never really ends.").

viduals, particularly students, can obtain it, through a diagnosis or illegal procurement, is alarming and presents ethical issues. Various solutions, including random drug testing, heightened disciplinary procedures, and education programs, have been proposed but do not attack the crux of the issue. Instead, this Note posits that to stem the abuse of ADHD medications in academic settings, the Individuals with Disabilities in Education Act (IDEA) should be amended to include ADHD as a specific learning disability and to develop a mandatory standardized diagnostic test that must be performed prior to the diagnosis of ADHD and the prescribing of Adderall that focuses on the adverse educational effect the disorder has on individuals. Currently, individuals can obtain an ADHD diagnosis and an Adderall prescription without much effort by meeting highly subjective criteria. By addressing the high rate of ADHD diagnoses and the ease with which this Schedule II Controlled Substance is obtained, only those requiring the drug will be able to obtain it and those seeking a competitive edge will be out of luck. This Note will proceed in five parts. Part I will identify background information on ADHD including diagnosis and treatment. Part II will address the current problem surrounding ADHD medications, specifically Adderall, focusing on the misuse/abuse on college and university campuses. Part III will discuss the Individuals with Disabilities in Education Act (IDEA) as well as § 504 of the Rehabilitation Act and the services provided to students with disabilities and/or ADHD. Part IV will propose a two-pronged solution to the overabundance of Adderall and the subsequent misuse by students. By amending IDEA and implementing a standard diagnostic test for ADHD, access to Adderall will decrease and the potential for abuse will be greatly lowered. Finally, Part V will address the implications of this alteration as well as aspects that cannot be addressed by a legislative mandate. The inclusion of ADHD as an enumerated learning disability under IDEA combined with a standardized identification and diagnosis procedure will allow individuals suffering from ADHD to receive appropriate treatment while preventing the illegal use of Adderall by those seeking an academic boost.

I. THE ADHD EPIDEMIC: DIAGNOSIS & TREATMENT

"The drugging of children for A.D.H.D. has become an epidemic."[3]

Attention Deficit Hyperactivity Disorder (ADHD) is one of the most common neurobehavioral disorders diagnosed in children that

3 Peter R. Breggin, *A Misdiagnosis, Anywhere,* N.Y. TIMES (Oct. 13, 2011, 8:52 P.M.), http://www.nytimes.com/roomfordebate/2011/10/12/are-americans-more-prone-to-adhd/adhd-is-a-misdiagnosis (arguing that ADHD symptoms "are the spontaneous behaviors of normal children" and when they become age inappropriate, "the potential causes are limitless").

can persist into adulthood.[4] Since its induction into the American Psychiatric Association's (APA) Diagnostic and Statistical Manual-IIIR (DSM-IIIR) in 1987 and its replacement of Attention Deficit Disorder (ADD) in the DSM-IV in 1994, ADHD diagnoses have risen an average 5.5% per year from 2003–2007.[5] ADHD manifests in various types dependent upon the primary behavior exhibited.[6] Currently, about 3–7% of school-age children suffer from ADHD; however, since 2007, about 9.5% of children aged four to seventeen have been diagnosed with the disorder.[7] In addition, though the disorder primarily appears in childhood, many older students and adults have been diagnosed with ADHD.[8] Adderall sales increased 3135.6% over a four year period from 2002–2006.[9] In a study conducted at the University of New Hampshire, researchers discovered that 50% of the students were first diagnosed with an attention disorder while in high school or college.[10]

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4 CTR. FOR DISEASE CONTROL, *Attention Deficit/Hyperactivity Disorder (ADHD): Facts About ADHD*, http://www.cdc.gov/ncbddd/adhd/facts.html (last visited Nov. 12, 2012) [hereinafter *CDC Facts About ADHD*].

5 CTR. FOR DISEASE CONTROL, *Attention Deficit/Hyperactivity Disorder (ADHD): Data & Statistics*, http://www.cdc.gov/ncbddd/adhd/data.html (last visited Nov. 12, 2012) [hereinafter *CDC Data About ADHD*].

6 AM. PSYCHIATRIC ASS'N, DIAGNOSTIC AND STATISTICAL MANUAL OF MENTAL DISORDERS 87, 93 (4th ed., text rev. 2000) [hereinafter DSM-IV-TR]. The DSM-IV-TR spells out four subtypes of ADHD: combined, predominantly inattentive, predominantly hyperactive-impulsive, and not otherwise specified.

7 *CDC Data About ADHD*, *supra* note 5 (noting that the DSM-IV-TR cites 3–7% of children suffer from ADHD while parents report about a 9.5% rate of diagnosis); *see also* Ethan Watters, *An Expression of Our Culture*, N.Y. TIMES (Oct. 13, 2011, 2:23 P.M.), http://www.nytimes.com/roomfordebate/2011/10/12/are-americans-more-prone-to-adhd/american-culture-and-adhd (discussing various reasons why there "might be . . . an upwelling of psychopathology").

8 *See* Linda Carroll, *Adults Who Claim to Have ADHD? One in Four May Be Faking It*, MSNBC.COM (Apr. 25, 2011, 8:59 A.M.), http://www.msnbc.msn.com/id/42710178/ns/health-addictions/t/adults-who-claim-have-adhd-may-be-faking-it/ ("[B]etween 2 percent and 4 percent of the adult population is estimated to have ADHD . . . .").

9 Joel Garreau, *A Dose of Genius*, WASH. POST (June 11, 2006), http://www.washingtonpost.com/wp-dyn/content/article/2006/06/10/AR2006061001181.html (noting that a reason for the increase is that Adderall is "the winner's edge—the difference between a 3.8 average and a 4.0, maybe their ticket to Harvard Law—these 'brain steroids' can be purchased on many campuses for as little as $3 to $5 per pill, though they are often obtained free from friends with legitimate prescriptions").

10 Barbara Prudhomme White et al., *Stimulant Medication Use, Misuse, and Abuse in an Undergraduate and Graduate Student Sample*, 54 J. AM. COLL. HEALTH 261, 265 (2006).

Because there is no known cause for the disorder,[11] there is not an objective and standardized mechanism for diagnosing individuals with ADHD.[12] As specified by the American Academy of Pediatrics (AAP) in its diagnostic guideline, other diagnostic tests "contribute little to establish[ ] the diagnosis of ADHD."[13] Since the discovery of the disorder, the diagnostic criteria have evolved with guidelines issued by both the APA and the AAP. The APA's DSM-IV-TR established criteria to be utilized by medical professionals when diagnosing ADHD.[14] The APA's Diagnostic Guideline outlines the following factors: the persistence of symptoms of either inactivity or hyperactivity/impulsivity for a period of at least six months—symptoms which must be evaluated by parents or educators as many symptoms do not present in a clinical environment; the manifestation of symptoms prior to age seven; the presence of symptoms in two or more settings and "clear evidence of interference with developmentally appropriate social, academic, or occupational functioning."[15] The most important provision of the DSM-IV-TR states that children who meet the diagnostic criteria for the behavioral symptoms of ADHD but who demon-

11 NAT'L RESOURCE CTR. ON ADHD, *About AD/HD*, http://www.help4adhd.org/en/about/causes (last visited Nov. 12, 2012) ("Although precise causes have not yet been identified, there is little question that heredity makes the largest contribution to the expression of the disorder in the population. In instances where heredity does not seem to be a factor, difficulties during pregnancy, prenatal exposure to alcohol and tobacco, premature delivery, significantly low birth weight, excessively high body lead levels, and postnatal injury to the prefrontal regions of the brain have all been found to contribute to the risk for AD/HD to varying degrees."); *see also* FRANCIS FUKUYAMA, OUR POSTHUMAN FUTURE 47 (2002) ("It is a pathology recognized only by its symptoms.").

12 *See* Craig S. Lerner, *"Accommodations" for the Learning Disabled: A Level Playing Field or Affirmative Action for Elites?*, 57 VAND. L. REV. 1043, 1068 (2004) ("What is the difference, then, between the ordinary mix of mind-wandering, exuberance, and boredom that is part and parcel of 'growing up,' and the abnormal inattentiveness and jitteriness that merits accommodation and even medication?").

13 AM. ACAD. OF PEDIATRICS, CLINICAL PRACTICE GUIDELINE: DIAGNOSIS AND EVALUATION OF THE CHILD WITH ATTENTION-DEFICIT/HYPERACTIVITY DISORDER 1167 (2000) [hereinafter AAP PRACTICE GUIDELINE]. The tests discredited by the AAP include blood lead levels, thyroid levels, and brain wave assessments. *Id.*

14 *See* DSM-IV-TR, *supra* note 6, at 85–93.

15 *Id.* at 85–88. This is a change from the previous editions where symptoms were those that should "appear in most situations, including at home, in school, at work, and in social situations . . . ." AM. PSYCHIATRIC ASS'N, DIAGNOSTIC AND STATISTICAL MANUAL OF MENTAL DISORDERS 50 (3d ed., rev. 1987) [hereinafter DSM-III-R]; *see* Doris Derelian, *The Legal Yin and Yang of Attention Deficit/Hyperactive Disorder*, 5 U.C. DAVIS J. JUV. L. & POL'Y 245, 250 (2001) ("This liberalization of criteria means greater numbers of children (and adults) carry this diagnosis in today's schools and workplaces.").

strate no functional impairment do not meet the diagnostic criteria for ADHD.[16]

The AAP's clinical practice evidence-based guideline[17] outlines the diagnostic and evaluative techniques that should be utilized in the process of diagnosing a child with ADHD. This guideline encompasses six recommendations including the satisfaction of the DSM-IV criteria.[18] The recommendations are as follows:

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16 DSM-IV-TR, *supra* note 6, at 93. This provision will feature prominently in my argument that without the adverse effect on education, specifically school performance, a diagnosis of ADHD should not be proscribed by a health care professional. *See infra* Part IV.

17 AAP PRACTICE GUIDELINE, *supra* note 13.

18 The DSM-IV-TR Criteria provide these factors:

A. Either (1) or (2)

(1) six (or more) of the following symptoms of **inattention** have persisted for at least 6 months to a degree that is maladaptive and inconsistent with developmental level:

Inattention

(a) often fails to give close attention to details or makes careless mistakes in schoolwork, work, or other activities

(b) often has difficulty sustaining attention in tasks or play activities

(c) often does not seem to listen when spoken to directly

(d) often does not follow through on instructions and fails to finish schoolwork, chores, or duties in the workplace (not due to oppositional behavior or failure to understand instructions)

(e) often has difficulty organizing tasks and activities

(f) often avoids, dislikes, or is reluctant to engage in tasks that require sustained mental effort (such as schoolwork or homework)

(g) often loses things necessary for tasks or activities (e.g., toys, school assignments, pencils, books, or tools)

(h) is often easily distracted by extraneous stimuli

(i) is often forgetful in daily activities

(2) six (or more) of the following symptoms of **hyperactivity-impulsivity** have persisted for at least 6 months to a degree that is maladaptive and inconsistent with developmental level:

Hyperactivity

(a) often fidgets with hands or feet or squirms in seat

(b) often leaves seat in classroom or in other situations in which remaining seated is expected

(c) often runs about or climbs excessively in situations in which it is inappropriate (in adolescents or adults, may be limited to subjective feelings of restlessness)

Recommendation 1: In a child six to twelve years old who presents with inattention, hyperactivity, impulsivity, academic underachievement, or behavior problems, primary care clinicians should initiate an evaluation for ADHD.

Recommendation 2: The diagnosis of ADHD requires that a child meet DSM-IV criteria.

Recommendation 3: The assessment of ADHD requires evidence directly obtained from parents or caregivers regarding the core symptoms of ADHD in various settings, the age of onset, duration of symptoms, and degree of functional impairment.

Recommendation 4: The assessment of ADHD requires evidence directly obtained from the classroom teacher (or other school professional) regarding the core symptoms of ADHD, the duration of symptoms, the degree of functional impairment, and coexisting conditions. A physician should review any reports from a school-based multidisciplinary evaluation where they exist, which will include assessments from the teacher or other school-based professional.

Recommendation 5: Evaluation of the child with ADHD should include assessment for coexisting conditions.

Recommendation 6: Other diagnostic tests are not routinely indicated to establish the diagnosis of ADHD.[19]

(d) often has difficulty playing or engaging in leisure activities quietly

(e) is often 'on the go' or often acts as if 'driven by a motor'

(f) often talks excessively

Impulsivity

(g) often blurts out answers before questions have been completed

(h) often has difficulty awaiting turn

(i) often interrupts or intrudes on others (e.g., butts into conversations or games)

B. Some hyperactive-impulsive or inattentive symptoms that caused impairment were present before age 7 years.

C. Some impairment from the symptoms is present in two or more settings (e.g., at school [or work] and at home).

D. There must be clear evidence of clinically significant impairment in social, academic, or occupational functioning.

E. The symptoms do not occur exclusively during the course of a Pervasive Developmental Disorder, Schizophrenia, or other Psychotic Disorder and are not better accounted for by another mental disorder (e.g., Mood Disorder, Anxiety Disorder, Dissociative Disorder, or Personality Disorder).

DSM-IV-TR, *supra* note 6, at 92–93.

19 AAP PRACTICE GUIDELINE, *supra* note 13, at 1160–68.

The first recommendation specifically mentions "academic underachievement" as a factor while the following recommendations rely on data obtained from the home and school environments and provide for the identification of other disorders.[20] By identifying other disorders—primarily "conduct and oppositional defiant disorder, mood disorders, anxiety disorders, and learning disabilities"—health care professionals can recommend special education services that are tailored to the coexisting disability rather than only to ADHD.[21]

The AAP addresses the limited scope of the DSM-IV-TR criteria in effectively diagnosing ADHD,[22] again reinforcing the subjective nature of the process. As highlighted in Recommendation 2, "[f]urthermore, the behavioral characteristics specified in the DSM-IV[-TR], despite efforts to standardize them, remain subjective and may be interpreted differently by different observers."[23] The subjective nature of the diagnosis and the failure to have a mandatory procedure for diagnosis are major factors in the rise of ADHD medication access by non-sufferers. A key component that is required by the DSM-IV-TR, yet is only part of the guideline, is that there must be some adverse impact upon the individual in a social, academic, or occupational environment.

Though these two prominent guidelines exist (in addition to numerous rating scales),[24] studies have shown that medical providers

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20 *Id.* Much of the information utilized in making a diagnosis is obtained from parents and teachers. Recommendation 3 utilizes "evidence directly obtained from parents or caregivers regarding the core symptoms of ADHD in various settings, the age of onset, duration of symptoms, and degree of functional impairment." *Id.* at 1163. Recommendation 4 utilizes, "evidence directly obtained from the classroom teacher (or other school professional) regarding the core symptoms of ADHD, the duration of symptoms, the degree of functional impairment, and coexisting conditions." *Id.* at 1165. The AAP also provides a clinical algorithm within its criteria outlining the process for diagnosis. This algorithm includes the DSM-IV criteria, reiterating that symptoms must be present in more than one setting and last for longer than six months. *Id.* at 1162 tbl.1.

21 *Id.* at 1166.

22 Given the lack of methods to confirm the diagnosis of ADHD through other means, it is important to recognize the limitations of the DSM-IV TR definition. *Id.* at 1162.

23 *Id.* at 1163.

24 Am. Acad. of Child and Adolescent Psychiatry (AACAP) Official Action, *Practice Parameter for the Assessment and Treatment of Children and Adolescents with Attention-Deficit/Hyperactivity Disorder*, 46 J. Am. Acad. Child Adolescent Psychiatry 894, 899 (2007) [hereinafter *AACAP Practice Parameter*] (discussing a practice parameter that provides information on the clinical evaluation, research, and treatment of ADHD).

do not routinely follow either the AAP or APA's standards for diagnosing ADHD.[25] A 2002 study of Michigan primary care physicians, found that only 25.8% utilized all "4 diagnostic components in the survey."[26] Though a majority of physicians were familiar with the guidelines, few utilized the DSM-IV-TR criteria routinely in practice.[27] Many selected a few of the recommendations promulgated by the AAP but adherence to the Clinical Algorithm for diagnosing ADHD was quite low.[28] Though the guidelines were not followed as specified by the AAP, "[n]early every (97.8%) respondent had prescribed a medication for ADHD in the past year."[29] Physicians, especially primary care doctors, are faced with overcrowded waiting rooms, short appointments, and a variety of other factors that prevent a thorough evaluation prior to diagnosis. In addition, the multi-step process for diagnosis places a strain on physicians and because the procedures are simply guidelines, many doctors circumvent them. Furthermore, the need for concert between educators, parents, and health care professionals in order to ascertain an individual's diagnosis consumes more time than a one visit consultation. The lack of a standardized and mandatory procedure for physicians allows the ADHD diagnosis and medication to be easily obtained by both sufferers and non-sufferers alike.

Another issue contributing to this problem encompasses individuals who fake ADHD symptoms to obtain the ADHD diagnosis. Some individuals desire an ADHD diagnosis for educational assistance such

25 Laurel K. Leslie et al., *Implementing the American Academy of Pediatrics Attention-Deficit/Hyperactivity Disorder Diagnostic Guidelines in Primary Care Settings*, 114 PEDIATRICS 129 (2004); Jerry L. Rushton et al., *Use of Practice Guidelines in the Primary Care of Children with Attention-Deficit/Hyperactivity Disorder*, 114 PEDIATRICS e23, e23 (2004) (This "study sought 1[.] to describe primary care diagnosis and management of ADHD, 2[.] to determine whether the care is in accordance with American Academy of Pediatrics (AAP) practice guidelines, and 3[.] to describe factors associated with guideline adherence.").

26 Rushton, *supra* note 25, at e23.

27 *Id.* at e24–e25. This presents the primary problem with diagnosing ADHD. Physicians and other health care professionals are focusing more on the subjective parent/teacher rating scales rather than the APA's criteria—specifically the provision that requires an impairment in social, occupational, or academic functioning.

28 *Id.* at e23.

29 *Id.* at e24; *see also Prescribed Stimulant Use for ADHD Continues to Rise Steadily*, NAT'L INST. OF MENTAL HEALTH, (Sept. 28, 2011), http://www.nimh.nih.gov/science-news/2011/prescribed-stimulant-use-for-adhd-continues-to-rise-steadily.shtml [hereinafter Press Release] ("Stimulant medications work well to control ADHD symptoms, but they are only one method of treatment for the condition. Experts estimate that about 60 percent of children with ADHD are treated with medication." (quoting Benedetto Vitiello, M.D.)).

as extra time on tests and assignments or additional assistance in the classroom.[30] "Students may also be motivated to exaggerate or feign symptoms in an effort to obtain stimulant medication, either as a study aid or for recreational purposes as an inexpensive, prescription-based alternative to cocaine."[31] Because the symptoms of ADHD are undetectable by a specific medical test, they are easily manufactured by individuals, especially those with the motivation to secure neuro-enhancing medication.[32] In a similar fashion, because ADHD symptom checklists do not incorporate mechanisms for identifying those who exaggerate or fake symptoms, it is relatively simple for adults and/or children to look at criteria from the DSM-IV-TR or the AAP Guideline and provide answers that will result in an ADHD diagnosis.[33] Studies have shown "that symptom checklists for ADHD lack specificity and are prone to over-identifying both students at the post-secondary level and adults in the general population as having ADHD when they do not."[34] Criteria for evaluation are posted on numerous websites including the National Institutes of Health (NIH) and the AAP, providing a wealth of information for individuals looking to obtain an ADHD diagnosis and treatment plan.[35] Moreover, because

30 A primary motivation for obtaining the diagnosis of ADHD originates with securing extra-time on tests including admissions tests to secondary education institutions. *See* Melana Zyla Vickers, *A Role in Admissions*, N.Y. TIMES (Oct. 12, 2011), http://www.nytimes.com/roomfordebate/2011/10/12/are-americans-more-prone-to-adhd/the-role-of-adhd-diagnoses-in-college-admissions ("[T]here is [a] small subset of cases involving parents who may be abusing recent expansions in psychologists' terminology, as well as in disability law, to seek a diagnosis of attention deficit or learning disability for their child not because their child is disabled but because the diagnosis can provide academic advantages.").

31 Allyson G. Harrison et al., *Identifying Students Faking ADHD: Preliminary Findings and Strategies for Detection*, 22 ARCHIVES OF CLINICAL NEUROPSYCHOLOGY 577, 579 (2007) (citing Sean P. Barrett et al., *Characteristics of Methylphenidate Misuse in a University Student Sample*, 50 CAN. J. PSYCHIATRY, 457–461 (2005)).

32 *Id.* ("Self-report inventories are notoriously vulnerable to exaggeration or feigning of symptoms [and] [r]ecent studies demonstrate how simple it is to fake symptoms of ADHD, especially when filling out self-report checklists." (internal citation omitted)); *see also*, White, et al., *supra* note 10, at 265 ("This finding [of students stockpiling ADHD medication] also raises the question of whether students might fake ADHD or ADD symptoms to obtain stimulants for planned misuse or abuse or for resale.").

33 *See* Harrison et al., *supra* note 30, at 579.

34 *Id.* ((citing Allyson G. Harrison, *An Investigation of Reported Symptoms of ADHD in a University Population*, 12 ADHD REPORT 6, 8–11 (2004); Barbara S. McCann & Peter Roy-Byrne, *Screening and Diagnostic Utility of Self-Report Attention Deficit Hyperactivity Disorder Scales in Adults*, 45 COMPREHENSIVE PSYCHIATRY 175, 175–183 (2004).

35 *How is ADHD Diagnosed?*, NAT'L INST. OF HEALTH, http://www.nimh.nih.gov/health/publications/attention-deficit-hyperactivity-disorder/how-is-adhd-diag-

physicians do not adhere strictly to the DSM-IV-TR criteria when diagnosing ADHD or prescribing medication, students do not necessarily have to demonstrate an adverse effect upon their education when presenting symptoms.[36]

Treatment plans for students suffering from ADHD incorporate a wide variety of non-medical alternatives to prescribing an ADHD drug. As highlighted by the Acting Director of the National Institutes of Mental Health in 2002, "[m]ost often, the first treatment used should be psychosocial, including behavioral therapy, social skills training, support groups[,] and parent and educator skills training."[37] Some of the components of a treatment plan may include: parent training, classroom supports, behavior modification, and if necessary, medication. Behavior modification is the sole nonmedical treatment supported by a large basis of scientific evidence.[38] Behavioral modifications include assistance with organization, scheduling, stress relief, and relaxation techniques.[39] Though numerous options exist for the treatment of ADHD, medication provides the fastest and most effective way to reduce the unwanted behaviors.[40] "Adderall over-stim-

nosed.shtml (last visited Nov. 12, 2012); *Clinical Practice Guideline*, AM. ACAD. OF PEDIATRICS, http://aappolicy.aappublications.org/cgi/content/full/pediatrics;128/5/1007 (last visited Nov. 12, 2012). This phenomenon is not limited to students seeking an edge over classmates. *See* Carroll, *supra* note 8 ("Twenty-two percent of adults in the study who claimed they suffered from attention-deficit/hyperactivity disorder tried to skew test results to make their symptoms look worse, according to a new report based on the medical records of 268 patients and published in the journal The Clinical Neuropsychologist.").

36 *See* Carroll, *supra* note 8 ("'I had a patient who was prescribed Adderall by another doctor,' one physician wrote. 'I asked her [for] her medical history pertaining to ADD. She explained how she had difficulty concentrating at home and how the meds had helped her maintain the A grades she had been having all along.'").

37 *Attention Deficit/Hyperactivity Disorder—Are We Overmedicating Our Children?: Hearing Before the H. Comm. on Gov't Reform*, 107th Cong. 72 (2002) (statement of Richard Nakamura, Acting Director, National Institute of Mental Health, U.S. Dept. of Health and Human Services).

38 *Behavioral Treatment*, NAT'L RESOURCE CTR. ON ADHD, http://www.help4adhd.org/en/treatment/behavioral (last visited Nov. 12, 2012).

39 *See Behavioral Treatments for ADHD*, CLEVELAND CLINIC, http://my.clevelandclinic.org/disorders/attention_deficit_hyperactivity_disorder/hic_behavioral_treatments_for_adhd.aspx (last visited Nov. 12, 2012).

40 *See* Amanda Slater & Ronald E. Reeve, *The "Tug-Of-War" Over Attention-Deficit Hyperactivity Disorder: Balancing the Interests of Parents and Schools (and Don't Forget the Kids)*, 27 DEV. MENTAL HEALTH L. 1, 4 (2008) ("Indeed, numerous studies conducted across a [wide] range of settings have found that stimulant medications effectively reduce the core symptoms of ADHD." (citing studies from the American Academy of Child and Adolescent Psychitary and the New England Journal of Medicine)); *see also AACAP Practice Parameters*, *supra* note 24, at 903 (discussing research reviews of phar-

ulates the brain allowing for super-enhanced focus with a simple pill."[41] Adderall (Amphetamine-dextroamphetamine) is the most common ADHD psycho-stimulant prescribed.[42] Since its approval by the Food and Drug Administration in 1996, its usage has steadily increased.[43] "Amphetamines, such as Adderall and Ritalin, mimic the dopamine neurotransmitter in the brain,"[44] and it has a time-release formula that allows for an individual to be medicated for an entire day, a change from previous intermediate-release formulas that required multiple dosages.[45] Adderall is also listed as a Schedule II Drug in the Controlled Substances Act which provides:

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macological and non-pharmacological treatments and noting "the superiority of the stimulant over the nondrug treatment").

41 Jennifer Schiffner, *Harder, Better, Faster Stronger: Regulating Illicit Adderall Use Among Law Students and Law Schools* 2 (January 2010) (unpublished manuscript) *available at* http://works.bepress.com/jennifer_schiffner/1 (emphasis removed); *see infra* Part I for a discussion of health care professionals' tendency to prescribe medication for ADHD sufferers.

42 *See Dextroamphetamine and Amphetamine*, NAT'L INST. OF HEALTH U.S. NATIONAL LIBRARY OF MEDICINE, http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0000166/# (last visited Nov. 12, 2012). The combination of dextroamphetamine and amphetamine are classified as central nervous system stimulants that alter natural substance amounts within the brain. Ritalin (Methylphenidate) was the drug of choice for ADHD treatment prior to Adderall but was found to be less effective in controlling the negative behaviors of ADHD. *See* William E. Pelham, et al, *A Comparison of Ritalin and Adderall: Efficacy and Time-Course in Children With Attention-Deficit/Hyperactivity Disorder*, 103 PEDIATRICS 1, 1 (1999) ("The doses of Adderall that were assessed produced greater improvement than did the assessed doses of Ritalin, particularly the lower dose of Ritalin, on numerous but not all measures.").

43 *See* Garreau, *supra* note 9 ("Total sales have increased by more than 300 percent in only four years, topping $3.6 billion last year . . . .").

44 Shawn Romer, Note, *Combatting the Unfair Competitive Edge: Random Drug Testing Should Be Implemented in Standardized Testing to Deter Illicit and Unfair Use of Prescription Stimulants*, 21 J.L. & HEALTH 151, 156 (2008) (citing Nora Volkow et al., *Evidence That Methylphenidate Enhances the Saliency of a Mathematical Task by Increasing Dopamine in the Human Brain*, 161 AM. J. PSYCHIATRY 1173–80 (2004)). Volkow also notes that increased dopamine levels correlate with a heightened interest and focus in the task at hand which explains the augmented academic functioning. *Id.* at 1173, 1179; *see also* Jessica Feinstein, *Adderall: The Academic Steroid*, YALE DAILY NEWS (Jan. 24, 2005), http://www.yaledailynews.com/news/2005/jan/24/adderall-the-academic-steroid/ ("It comes in dosages of 5, 10, 20, 25[,] and 30 milligrams, is relatively inexpensive and lacks both the harsh up and down—as well as the street stigma—of the better-known ADHD drug Ritalin.")

45 *See AACAP Practice Parameter*, *supra* note 24, at 904 (2007) ("Immediate-release stimulant medications have the disadvantage that they must be taken two to three times per day to control ADHD symptoms throughout the day."). Extended release formulas allow for medication to be released at a gradual rate, controlling how much medication enters the body. Long-acting formulas allow the medication to remain in the body for longer periods of time. *Attention-Deficit/Hyperactivity Disorder*, NAT'L INST.

(2) Schedule II.—

(A) The drug or other substance has a high potential for abuse.

(B) The drug or other substance has a currently accepted medical use in treatment in the United States or a currently accepted medical use with severe restrictions.

(C) Abuse of the drug or other substances may lead to severe psychological or physical dependence.[46]

"[P]ossession of Schedule II drugs can result in up to one year in prison and a maximum fine of $1,000 for the first offense."[47] Because of Adderall's placement in the Schedule II category, the Attorney General issues an annual quota and drug manufacturers apply for a certain portion of the quota.[48] Adderall also has "the desired effect" of enhancing concentration and energy levels on any user regardless of the presence of ADHD symptoms and/or a diagnosis.[49] Any user can acquire a "super human ability to focus for long periods of time,"

OF MENTAL HEALTH,http://www.nimh.nih.gov/health/publications/attention-deficit-hyperactivity-disorder/complete-index.shtml#pub6 (last visited Nov. 12, 2012).

46 Controlled Substances Act, 21 U.S.C. § 812(b)(2) (2006). Other drugs included under Schedule II are cocaine (and its derivatives) as well as opium and opiates. 21 U.S.C. §812(c) (2006); *see Ritalin among Youth: Examining the Issues and Concerns, Before the Subcomm. on Early Childhood, Youth, and Families of the Comm. on Educ. and the Workforce*, 106th Cong. (2000) (statement of Terrence Woodworth, Deputy Director, Office of Diversion Control, Drug Enforcement Agency Office of Diversion Control, Drug Enforcement Agency), *available at* http://commdocs.house.gov/committees/edu/hedcew6-109.000/hedcew6-109.htm ("[Adderall has been classified under] Schedule II of the CSA since 1971. Schedule II of the CSA contains those substances that have the highest abuse potential and dependence profile of all drugs that have medical utility.").

47 *See* Romer, *supra* note 44, at 157–58 (citing 21 U.S.C.S. § 844 (LexisNexis 2006)). Romer addresses the abuse of prescription stimulants upon entrance exams for educational institutions and proposes drug testing as a solution. *See infra* Part IV.

48 21 U.S.C. § 826 (2006). In May 2011, an Adderall shortage was reported by the Wall Street Journal. *See* Peter Loftus, *Attention Disorder Drug Shortage Prompts Finger-Pointing*, WALL ST. J., (May 5, 2011), available at http://online.wsj.com/article/SB10001424052748703992704576305482186274332.html. The shortage has continued through the fall and affected both legal and illegal use of the drug. *See* Amanda Gardner, *ADHD Drug Shortage Has Patients, Parents Scrambling*, HEALTHDAY, May 11, 2011, http://health.usnews.com/health-news/family-health/brain-and-behavior/articles/2011/05/12/adhd-drug-shortage-has-patients-parents-scrambling; Foster Kramer, *The Great Adderall Shortage of 2011 Rages On*, N.Y. OBSERVER, (Nov. 16, 2011), http://www.observer.com/2011/11/adderall-shortage-2011-new-york-city-11152011/;.

49 Lerner, *supra* note 12, at 1069 (quoting SUZANNE H. STEVENS, THE LD CHILD AND THE ADD CHILD: WAYS PARENTS AND PROFESSIONALS CAN HELP 176 (1996)).

only contributing to the widespread abuse of these drugs in post-secondary education and beyond.[50]

II. One Pill a Day Keeps Failure Away?: Adderall Misuse & Abuse in Academics

> "I'm constantly being bombarded with requests. People can get desperate."
>
> —Libby[51]

Alcohol use by college students has continued at a steady pace in recent years, yet "nontherapeutic use of prescription drugs has soared—now second only to marijuana as a form of illicit drug use."[52] Because Adderall produces positive effects, especially in an academic setting, the potential for misuse and abuse is very high. Students without the disorder take advantage of the cognitive enhancement Adderall provides to those diagnosed with ADHD: increased levels of concentration and productivity, longer periods of undistracted work, and the heightened ability to focus.[53] Students interviewed about their illicit use of Adderall during a 2005–06 research study mentioned that Adderall was a miracle drug that allowed them to "grasp ideas . . . be[ ] smarter[, and] . . . recall information quicker."[54] Overall, these students, and other participants in similar studies,[55] stress

50 Romer, *supra* note 44, at 155 (quoting Andrew Conte, *More Students Abusing Hyperactivity Drugs*, PITTSBURGH TRIB. REV. (Oct. 25, 2004), *available at* http://www.pittsburghlive.com/x/pittsburghtrib/print 265518.html.).

51 Andrew Jacobs, *The Adderall Advantage: Abuse of Prescription Drugs Is More Than Common, It's Hip. But Is It Fair?*, N.Y. Times (July 31, 2005), http://www.nytimes.com/2005/07/31/education/edlife/jacobs31.html?pagewanted=all. Libby was diagnosed with ADHD when she was in first-grade. She now sells her pills to classmates as she only uses Adderall infrequently. This is a common and frightening occurrence among higher-education students who were diagnosed with ADHD at a young age and now "recycle" their pills for other students.

52 Matt Lamkin, *A Ban on Brain-Boosting Drugs Is Not the Answer*, Chron. of Higher Educ. (Feb. 27, 2011), http://chronicle.com/article/A-Ban-on-Brain-Boosting-Drugs/126523.

53 DeSantis et al., *supra* note 1, at 317–20.

54 *Id.* at 319 (internal quotation makes omitted). This study took place at a large, public southeastern research university during the 2005–06 school year where the researchers conducted surveys and in-depth interviews with a select number of students. *See also* Joshua Foer, *The Adderall Me: My Romance with ADHD Meds*, Slate Mag. (May 10, 2005), http://www.slate.com/articles/health_and_science/medical_examiner/2005/05/the_adderall_me.html ("I felt like I was clearing away underbrush that had been obscuring my true capabilities.").

55 *See* Christian Teter et al., *Illicit Use of Specific Prescription Stimulants Among College Students: Prevalence, Motives, and Routes of Administration*, 26 Pharmacotherapy 1501 (2006); Kristy Kaloyanides et al., *Prevalence of Illicit Use and Abuse of Prescription Stimu-*

that "ADHD stimulants [are] a salient part of their university culture," a "normal" activity that pervades college campuses across the country.[56] At this particular university, 34% of student respondents had taken Adderall illegally while only 4% had a legitimate prescription for the medication.[57] Though the drive behind illicit use of Adderall centers on the ability to work harder and essentially become "smarter," many students also took advantage of the nonacademic "perks" the drug can offer, from appetite suppression to additional energy for long nights spent partying.[58]

Surprisingly, the supply of this wonder drug is not usually a problem for students as "the stuff [Adderall] is everywhere."[59] About 89% of student respondents obtained Adderall from friends who had a legal prescription, paying anywhere from nothing to ten dollars per pill.[60] Though a small percentage of students have actual prescriptions (in comparison to those using the drug without a prescription), the supply remains constant because those diagnosed with ADHD take their medications strategically rather than following the prescribed dosage.[61] Because some of the students surveyed experienced the adverse side effects (increased heart rate, sweating, loss of appetite, etc.) of daily use, they simply took the pills as needed and sold or gave away the surplus.[62] Though Adderall is a Schedule II Controlled Sub-

lants, Alcohol and Other Drugs Among College Students: Relationship with Age at Initiation of Prescription Stimulants, 27 PHARMACOTHERAPY 666 (2007); Sean Esteban McCabe et al., *Non-Medical Use of Prescription Stimulants Among U.S. College Students: Prevalence and Correlates from a National Survey*, 99 ADDICTION 96 (2005).

56 DeSantis et al., *supra* note 1, at 317.

57 *Id.* at 316.

58 *Id.* at 319–20.

59 *Id.* at 320; *see also* Garreau, *supra* note 9 (noting that this abuse goes relatively unnoticed because "[t]hese 'drug users may be at the top of the class, instead of the ones hanging around the corners'" (quoting Richard Restak, a Washington neurologist and president of the American Neuropsychiatric Association)).

60 DeSantis et al., *supra* note 1, at 320–21.

61 *Id.* at 321.

62 *Id.* In 2007, the FDA required ADHD drug manufacturers to include information about possible psychiatric and cardiovascular side effects, especially for individuals with preexisting heart problems. The psychiatric problems range from hallucinations and hearing voices to having suicidal thoughts. Cardiovascular problems include increased risk of stroke or heart attack. NAT'L INST. OF MENTAL HEALTH, ATTENTION DEFICIT HYPERACTIVITY DISORDER (ADHD), http://www.nimh.nih.gov/health/publications/attention-deficit-hyperactivity-disorder/complete-index.shtml#pub3 (last visited Nov. 12, 2012). Other harmful effects include the high potential for abuse because the medication increases dopamine levels in a similar fashion to cocaine, leading to increased addiction. *Prescription Drug Abuse: What Is Being Done to Address This New Drug Epidemic?: Hearing Before the Subcomm. on Crim. Justice, Drug Policy, & Human Res.*, 109th Cong. 27 (2006).

stance and can only be obtained in thirty-day doses,[63] individuals create a large supply by taking the medication on an as-needed basis and making a profit off non-ADHD users.[64] As a surveyed student eloquently put it, "[w]hat am I going to do with all those pills? So I figure, if I can help out some friends and make some beer money, life is good."[65] Based on numerous research studies done on college campuses, Adderall misuse and abuse appears to be "stigma free" for both the suppliers and illicit consumers, providing a barrier to traditional methods of deterrence.[66] Margaret Talbot explored the growing misuse of Adderall, noting the ease with which a supply could be obtained in a *New Yorker* article.[67] Talbot highlighted student comments made at the BoredAt Websites, including, "I have Adderall for sale 20mg for $15," and "I have some Adderall—I'm sitting by room 101.10 in a grey shirt and headphones."[68] During interviews with Columbia University students in 2005, Andrew Jacobs found that "the prevailing ethos is that Adderall, the drug of choice these days, is a legitimate and even hip way to get through the rigors of a hectic academic and social life."[69]

In addition to violating federal law, these individuals are cheating their way into colleges, graduate schools, and professional careers. As Jennifer Schiffner highlights, Adderall abusers gain "[h]eightened senses during testing time combined with an increased ability to focus" and can therefore access their "learned knowledge faster and more efficiently than their peers, giving them a particular advantage during timed exams."[70] Most admissions programs rely on standardized tests to weigh and differentiate between candidates coming from

63 21 U.S.C. § 812(b)(2) (2006); *see* SUBSTANCE ABUSE & MENTAL HEALTH SERVS. ADMIN., *Adderall & College Students*, http://www.samhsa.gov/samhsanewsletter/Volume_17_Number_3/Adderall.aspx (last visited Nov. 12, 2012) ("Adderall is among the group of legally approved drugs classified as having the highest potential for dependence or abuse.").

64 U.S. DRUG ENFORCEMENT ADMIN., *Drug Scheduling*, http://www.justice.gov/dea/druginfo/ds.shtml (last visited Nov. 12, 2012).

65 DeSantis et al., *supra* note 1, at 321.

66 *Id.* at 322. The idea of actual ADHD sufferers selling or giving their medication to other students is not only alarming but also unintelligent. Adderall combats the impulsivity and inattention that ADHD causes and ADHD sufferers are simply widening the gap between their learning capacity and those who do not suffer every time they "share" their extra Adderall.

67 Talbot, *supra* note 2.

68 *Id.*

69 Jacobs, *supra* note 51.

70 Schiffner, *supra* note 41, at 28. Schiffner specifically looks at the abuse of Adderall within a law school setting and examines this abuse in the context of the ethical standards of the legal profession.

various schools, backgrounds, and geographical areas. Yet, with candidates abusing Adderall and other psycho-stimulants during test administrations, scores can no longer be considered accurate, posing a problem for schools and students.[71] In addition, students continue to abuse the drugs while enrolled in undergraduate and graduate programs in order to compete for honors and jobs. This presents an even more vexing problem as many programs rank students based on how they compare to their classmates—a system thrown off by Adderall misuse and abuse. As Benedict Carey noted in the *New York Times*, a survey conducted by the journal *Nature* addressed abuse (use for non-medical purposes) of prescription drugs, including Adderall, by academia.[72] Though the abuse by academia is not as widespread—or at least has not been determined to be as widespread—the high percentage of abuse by current higher education students will most likely pervade academia and other professions in the near future.[73] The temptation to use Adderall and similar medications stems from a culture that values cognitive enhancement, possibly more so than physical beauty or athletic prowess.[74] Because obtaining Adderall and other psycho-stimulants is relatively easy with such a saturated market, students without disabilities can obtain a "quick-fix" of neuro-enhancement, propelling them ahead of non-users at a low cost. In addition, the abuse of psycho-stimulants by off-label users threatens the integrity and success of students who truly suffer from ADHD. By most standards, it constitutes cheating. Finally, non-sufferers who misuse medications like Adderall can set themselves up for possible problems with addiction as Adderall has a high likelihood of abuse.[75]

71 *See* Greg Crapanzano, *Cracking Down on Academic Steroids*, CAVALIERDAILY.COM (Sept. 3, 2007), http://www.cavalierdaily.com/2007/09/03/cracking-down-on-academic-steroids/ ("It would be almost impossible to say that pulling an all-nighter is cheating and very difficult to argue that the use of coffee or caffeine pills are methods of cheating[.] But using a prescription drug without a doctor's approval quickly crosses the line into submitting work that is not of the student's own merit because they used an illegal performance enhancer to do the work. The line of cheating is not necessarily where the law makes a product illegal, but where the effects of these drugs become the primary factor in a student's ability to perform the work."). *But see* Phillip Brettschneider, *Adderall Aids Studying, Not Academic Steroids*, REDANDBLACK.COM (Mar. 18, 2010), http://redandblack.com/2010/03/18/adderall-aids-studying-not-academic-steroids/.

72 Benedict Carey, *Brain Enhancement Is Wrong Right?*, N.Y. TIMES, Mar. 9, 2008, at WK1. This article also discussed the abuse of narcolepsy drugs, specifically Provigil, by academics and the "era of doping [that] may be looming." *Id.*

73 *Id.*

74 *Id.*

75 One of the reasons Adderall is a Schedule II substance is because it has the high likelihood of addiction and abuse. 21 U.S.C. § 812 (2006); *see also* Carroll, *supra*

III. ACCOMMODATING ADHD: CURRENT LEGISLATION

> "Statistically speaking, two out of every 30 children in an elementary level classroom[ ] have an ADD/ADHD diagnosis."[76]

This Part will discuss the passage of IDEA and the implications of a diagnosis of ADHD. In addition, it will also highlight the § 504 plan and its importance in the diagnosis and provision of services to individuals suffering from ADHD.

The Individuals with Disabilities in Education Act (IDEA) was enacted "to ensure that all children with disabilities have available to them a free appropriate public education that emphasizes special education and related services designed to meet their unique needs and prepare them for further education, employment, and independent living."[77] IDEA covers children between the ages of three and twenty-one with specifically identifiable disabilities and grants them an education in the least restrictive environment possible.[78] Students who are deemed appropriate for services under the act are given an Individualized Education Plan (IEP) that outlines the disability and any services they will receive while in school.[79] To satisfy the requirements of IDEA, educational personnel must play an active role in determining if a student has a disability and in administering appropriate services if specific criteria are satisfied. Not all students with learning disabilities are covered under IDEA and therefore do not receive services. IDEA defines a student with a disability as one having "mental retardation, hearing impairments (including deafness), speech or language impairments, visual impairments (including blindness), serious emotional disturbance (referred to in this chapter as 'emotional disturbance'), orthopedic impairments, autism, traumatic brain injury, other health impairments, or specific learning disabilities."[80] In addition, IDEA requires that a student's disability have an adverse effect on the child's academic success in order for educational services to be provided.[81] ADHD does not fall under the narrow scope of enumer-

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note 8 (mentioning an individual who abused Adderall to succeed in medical school, then flunked out because of a subsequent addiction to the medication).

76 Jennifer Orr, *Adderall Use a Growing Problem Among Students: Pill-Popping Epidemic Spreads to Suffolk*, SUFFOLK J. (Apr. 14, 2010), http://suffolkjournal.net/2010/04/adderall-use-a-growing-problem-among-students/.

77 20 U.S.C. § 1400(d)(1)(A) (2006).

78 20 U.S.C. § 1411(a)(2) (2006).

79 20 U.S.C. § 1414 (2006).

80 20 U.S.C. § 1401(3)(A)(i) (2006).

81 20 U.S.C. § 1401(3)(A)(ii) (2006).

ated disabilities outlined in IDEA; students suffering from this disorder can obtain services under the category of Other Health Impairments if the ADHD symptoms "adversely affect[ ] a child's educational performance."[82] Students who are denied services under IDEA may still qualify under § 504 of the Rehabilitation Act.[83] In order to obtain § 504 services, students must show that their impairment "substantially limits one or more . . . life activities,"[84] requiring that the "disability interferes with" a major life function including breathing, seeing, learning, hearing, speaking, working, and performing manual tasks.[85] However, placement in this category does not provide a clear method for diagnosing ADHD—it simply allows students with this diagnosis, who would otherwise be denied services under IDEA, to receive services in an educational setting. Federal special education laws allow for school personnel to initiate an evaluation for a learning disability or ADHD,[86] but this is simply for the allocation of services within the school setting. The actual medical diagnosis and treatment with psychotropic drugs—the main concern of this Note—fall outside the purview of IDEA and § 504, as neither statute focuses on the medical diagnosis. By connecting the diagnosis of ADHD with federal special education laws, we can achieve consistency in diagnosis and effective treatment and thwart off-label usage.

IV. A New Kind of Prescription: Altering the Diagnostic Procedures

> "There are big cultural pressures to get these drugs. . . . That's because everyone is in an arms race of accomplishment."[87]

As mentioned above, the misuse and abuse of ADHD medications is a large problem affecting various areas of society from young school children to the adult workforce.[88] Abuse and misuse present ethical

82 34 C.F.R. § 300.8(c)(9)(i) (2009).

83 29 U.S.C. § 794(a) (2006) (providing for nondiscrimination in education for all individuals).

84 29 U.S.C. § 705(20)(B)(i) (2006).

85 Connie Lenz, *Prescribing a Legislative Response: Educators, Physicians, and Psychotropic Medication for Children*, 22 J. Contemp. Health L. & Pol'y 72, 86 (2005).

86 20 U.S.C. § 1414(b) (2006).

87 Carroll, *supra* note 8 (quoting Dr. Anjan Chatterjee, a professor of neurology at the University of Pennsylvania).

88 Amphetamine abuse has been around for many years and not just among the younger generations. *See* Foer, *supra* note 54 ("The drug also has a distinguished literary pedigree. . . . James Agee, Graham Greene, and Philip K. Dick all took the drug to increase their output. Before the FDA made Benzedrine [an over-the-counter

issues regarding how society views cognitive enhancement.[89] One primary concern focuses on the unfair professional or academic advantage that non-ADHD sufferers obtain while taking Adderall.[90] As previously discussed,[91] Adderall provides all users—those with ADHD and those without—a heightened ability to focus and complete tasks at a faster rate. This increased efficiency is instrumental in an academic or high-pressured work environment. Students and professionals are usually rewarded through scholarship and bonuses based upon achievement. But if the achievement is dependent upon an illegal prescription, should it be rewarded?[92] Should cognitive-enhancement drugs be an acceptable method of attaining academic success? Specific professions might actually benefit from Adderall use, "such as . . . air-traffic controllers, surgeons and nurses who work long shifts."[93]

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amphetamine similar to Adderall] prescription-only in 1959, Jack Kerouac got hopped up on it and wrote *On the Road* in a three-week 'kick-writing' session. 'Amphetamines gave me a quickness of thought and writing that was at least three times my normal rhythm,' another devotee, John-Paul Sartre, once remarked."). Though these Adderall substitutes aided the creative development of these literary giants, many psychologists and researchers believe that Adderall use stifles creativity. *See* Talbot, *supra* note 2 ("Cognitive psychologists have found that there is a trade-off between attentional focus and creativity. And there is some evidence that suggests that individuals who are better able to focus on one thing and filter out distractions tend to be less creative." (quoting Martha Farah, a psychologist at the University of Pennsylvania and the director of its Center for Cognitive Neuroscience)).

89 *See generally* Barbara Sahakian & Sharon Morein-Zamir, *Professor's Little Helper*, 450 NATURE 1157, 1159 (2007) (presenting ethical dilemmas stemming from cognitive enhancement medications including unfair advantages in academics and the fear of "an overworked 24/7 society pushed to the limits of human endurance"); Romer, *supra* note 44, at 159 ("Anyone [abusing or misusing] prescription stimulants are [sic] put at an unfair competitive edge vis-à-vis those who take the tests in a legal manner.").

90 *See* Crapanzano, *supra* note 71 ("Much like baseball's new rule banning performance-enhancing drugs, Adderall and similar drugs, when used without a prescription, violate the tenets of honor because they create an unfair advantage for the users who are willing to break the law in order to gain an edge.").

91 *See supra* Part II.

92 *See* Nicholas W. Schieffelin, *Maintaining Educational and Athletic Integrity: How Will Schools Combat Performance-Enhancing Drug Use?*, 40 SUFFOLK U. L. REV. 959, 974 (2007) ("Students, who illegally use performance-enhancing drugs in classes, exams, standardized tests, and athletic competition, are cheating the educational system and other students by gaining an unfair advantage and breaking the law."); *see also* Michelle Trudeau, *More Students Turning Illegally to "Smart" Drugs*, NAT'L PUB. RADIO (Feb. 5, 2009), http://www.npr.org/templates/story/story.php?storyId=100254163 ("It takes away your own coping skills and your own ability to evolve your own study skills and work ethic. So it's kind of an easy way out." (quoting a college senior interviewed for the article)).

93 Sahakian & Morein-Zamir, *supra* note 89, at 1158.

Some commentators draw correlations between Adderall use and the consumption of caffeine and other energy drinks[94] or the use of tutors in an academic setting,[95] but caffeine is not classified as a Schedule II substance under the CSA and tutors are not illegal without a valid prescription. Similarly, not all advantages that individuals can gain constitute a form of cheating. An analogy can be drawn to anabolic steroid use in athletics, where, though steroids increase strength and size, an athlete's ability to play depends on skill. However, these drugs are banned within athletics through anti-doping regulations.[96] Adderall provides the same advantage within the academic context—it aids in the ability to focus and study for long periods of time—yet, in the end, success is dependent upon the student's knowledge and thinking ability. If athletic and academic steroids provide the same advantage, why are athletic steroids stigmatized while academic ones are lauded and used pervasively? The carefree, unprescribed, and "stigma-less" use of cognitive enhancers like Adderall among students and adults eviscerates standards of conduct in academic and professional settings as doping does in the athletic arena.

Because the prevalence of abuse across college campuses in particular is so high, some colleges and universities have amended their discipline policies to address the problem.[97] Though changes have

94 *Id.*; *see also* Lerner, *supra* note 12, at 1070 ("In fact, students have for some time recognized that Ritalin [as well as Adderall] stimulates the brain and promotes alertness more than substitutes such as caffeine and nicotine . . . ."); Schiffner, *supra* note 41, at 29 (countering arguments that Adderall is equal to test preparation courses or tutors by asserting that "[u]nlike the tennis coaches and tutors of opponents' queries, Adderall imparts a direct and immediate physical benefit to its user, allowing them to perform more efficiently").

95 *See* Michael Ruse, *Are Tutors the Academic Equivalent of Steroids?*, CHRON. OF HIGHER EDUC. (June 10, 2011, 9:04 AM), http://chronicle.com/blogs/brainstorm/are-tutors-the-academic-equivalent-of-steroids/36121 (pondering the "moral difference between a baseball player on steroids and a high-school kid stuffed to the gills to achieve higher results on the SAT's or grades in class").

96 *See* U.S. ANTI-DOPING AGENCY, http://www.usada.org/ (last visited Nov. 12, 2012). The Agency notes that its mission encompasses "preserv[ing] the integrity of competition," which should inspire a legislative response to preserve the integrity of academic institutions in a similar vein. *Id.*

97 Duke University has altered its discipline policy to include prescription drug abuse as cheating rather than just as a drug policy violation. "[T]he unauthorized use of prescription medication to enhance academic performance constitutes cheating." DUKE UNIV., NOTEWORTHY CHANGES FOR 2011–12 TO THE DUKE COMMUNITY STANDARD IN PRACTICE: A GUIDE FOR UNDERGRADUATES (2011). This type of prescription drug abuse also violates the University of North Carolina's drug policy. *See* THE UNIV. OF N.C. AT CHAPEL HILL, POLICY ON ILLEGAL DRUGS, (2000), *available at* http://www.unc.edu/campus/policies/illegal_drugs.html.

been made to extend the definition of cheating to include the use of prescription drugs for academic enhancement, these policies will be incredibly difficult for school officials to enforce.[98] Many other solutions have been proposed to manage distinct aspects of this issue from random drug testing prior to standardized tests,[99] more training for health care professionals about ADHD,[100] as well as regulatory measures for prescriptions.[101] One solution that is similar in nature to the one proposed here recommends that state legislation create and implement guidelines for physicians in diagnosing ADHD as well as other neurobehavioral disorders in children.[102] A state-centered solu-

98 *See* Lauren Carroll, *Conduct Policy Changes Reflect Drug Abuse*, THE CHRONICLE (Sept. 6, 2011), http://dukechronicle.com/article/conduct-policy-changes-reflect-drug-abuse. ("Enforcement is difficult, and the students who proposed this addition recognize this. They wanted to at least symbolically make a statement." (quoting Associate Dean of Students and Director of the Office of Student Conduct Stephen Bryan) (internal quotation marks omitted)); *see also* Schiffner, *supra* note 41, at 36–38 (proposing heightened disciplinary consequences for violators as well as drug abuse and prevention focus groups, student coalitions, and orientation activities to combat the illegal prescription drug use).

99 *See* Schieffelin, *supra* note 924, at 979 (advocating for the expansion of "suspicionless drug testing programs to detect and regulate drugs that deprive un-enhanced students from enjoying an educational and athletic experience where their skills are judged on natural ability and not according to what drugs they are abusing"). *But see* Lamkin, *supra* note 52 (arguing that prohibitions and penalties for prescription drug use is not an adequate solution).

100 *See* Lenz, *supra* note 85, at 104 ("Legislation should address training required for physicians who will diagnose and treat children with ADHD and other neurobehavioral disorders. This training should include all facets involved in the diagnosis and treatment of neurobehavioral disorders, including the prescription of psychotropic medications as well as alternative treatments.").

101 DeSantis et al., *supra* note 1, at 322. DeSantis proposes focusing on the students with actual legal prescriptions of ADHD in combating misuse by non-sufferers. One component of this solution would be to "limit[ ] the monthly allotment of pills to 20—except in cases where patients can clearly show the need for daily use. *Id.* In addition, DeSantis also advocates for information programs such as "campus-wide campaigns that educate the student population about the health risks and legal penalties associated with illegal stimulant use." *Id.*; *see also* White et al., *supra* note 10, at 266 ("Medical personnel, university leadership, parents, and students should take steps . . . to ensure that university students are informed about the dangers of stimulant medications . . . ."). Another solution mentioned by many involves lessening the demands of the academic environment—however, this is not the answer. There are students who can handle rigorous course loads, activities, and personal lives without dependence upon stimulant medication—success does not (and should not) depend upon a little orange pill.

102 The idea of legislation requiring guidelines for physicians when diagnosing ADHD and other neurobehavioral disorders has been suggested. *See* Lenz, *supra* note 85, at 104 (arguing that "state law should require state medical boards or panels to

tion is distinct from the current proposal because it focuses on physician training and the harmful effects of psychotropic drugs on children. The federal standard aims at ensuring accurate diagnosis across the country rather than on a state-by-state basis as well as addressing the increased use and abuse among older students. Though states play an active role in the identification of individuals with disabilities, a federal standardized test is necessary to adequately combat the problem of misuse and abuse of ADHD medications.[103] In addition, this Note's proposal is not limited to children diagnosed with neurobehavioral disorders and prescribed psychotropic medication. Instead, the concern lies with older students who manufacture symptoms or obtain medication for misuse or to pass along to fellow non-sufferers. The state legislative solution addresses the concern that educators require children to be placed on psychotropic medication without adequate informed consent from parents.[104] This Note argues that because there has been such a drastic increase in the rate of diagnosis of ADHD in older children as well as adults, in addition to an increase in the manufacturing of ADHD symptoms,[105] health care professionals should adhere to federally-mandated testing measures at all age levels to curb incorrect usage of medication.[106]

This Note proposes an amendment to IDEA to add ADHD to the list of disabilities covered under the act specifically because it is one of

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adopt and implement policies regarding training of physicians who prescribe psychotropic medication as well as guidelines and procedures for diagnosis and treatment").

103 In addition, there are discrepancies in the prescription of ADHD medications across age, ethnic, gender, and geographic barriers suggesting that a national mandatory test is needed to maintain consistency among diagnoses. *See* Statement of Terrence Woodworth, *supra* note 46 ("ARCOS [Automation of Reports and Consolidated Orders System] data indicates that there is wide variability in the use of methylphenidate and amphetamine from one state to another and from one community to another within the states. This variability are noted in a number of data sources and suggests both under and over-identification of ADHD."); Press Release, *supra* note 29 ("These persistent differences in prescribed stimulant use related to age, racial and ethnic background, and geographical location indicate substantial variability in how families and doctors approach ADHD treatment throughout the United States." (quoting Dr. Zuvekas) (internal quotation marks omitted)).

104 *See* Lenz, *supra* note 854, at 104–05.

105 *See* Carroll, *supra* note 8 (noting that many adults who believe they have ADHD are struggling "simply [because of] depression, anxiety or lack of sleep" or are having a difficult time dealing with their workloads and lives (quoting Paul Marshall, a clinical neuropsychologist with Hennepin Faculty Associates)).

106 A federal diagnostic measure will also aid in curbing post-secondary misuse by preventing inconsistent diagnostic standards across the nation.

the most common neurobehavioral disorders in children.[107] Though § 504 provides for services if an individual's learning is substantially impacted by his or her mental or physical impairment—which includes ADHD[108]—IDEA specifically requires an adverse effect on the individual's education and covers the most widely diagnosed disabilities. This will alter the current structure of including ADHD under the umbrella term of Other Health Impairments and reinforce the requirement of having an adverse effect on education before a diagnosis and medication are obtained. In conjunction with including ADHD within § 1401 of IDEA, Congress should implement a standardized diagnostic test for ADHD to be used by health care providers who diagnose ADHD and prescribe medication in both children and adults. This federal measure would go hand-in-hand with IDEA—and be required for services under IDEA as well as for outside diagnosis—in that a student may not obtain an ADHD diagnosis or corresponding medication without satisfying the requirements of the diagnostic test, providing more accuracy in diagnosis and treatment with prescription medications. This diagnostic test will correlate directly with the IDEA amendment, as the statute will require satisfaction of the testing measure prior to both a diagnosis and the rendering of services in the academic environment. Any standardized measure should be created along the lines of the DSM-IV-TR criteria promulgated by the APA, a nationally known and well-regarded rubric for psychological disorders. Though guidelines exist for the diagnosis of ADHD,[109] they do not demand adherence before medication is prescribed; instead they are non-mandatory rubrics. By implementing a mandatory standardized diagnostic test, physicians will be better able to identify ADHD symptoms accurately and prescribe medication only when necessary—cutting off the source of improper use of Adderall

107 *See CDC Facts About ADHD*, *supra* note 4. This may be due to the fact that, as I am arguing, ADHD is misdiagnosed, and a diagnosis is relatively easy to obtain under current physician practice. However, irrespective of this fact, ADHD should be included under IDEA. To illustrate, Autism Spectrum Disorders, a specified disorder under IDEA, occurs in about one percent of children in the United States. *Autism Spectrum Disorders (ASDs)*, CTRS. FOR DISEASE CONTROL (June 19, 2012), http://www.cdc.gov/ncbddd/autism/research.html. ADHD occurs in one in ten children. Mike Stobbe, *1 in 10 Kids in U.S. Has ADHD, New Study Says*, A.P. (Nov. 10, 2010), http://www.msnbc.msn.com/id/40113826/ns/health-childrens_health/t/kids-us-has-adhd-new-study-says/.

108 *See Protecting Students with Disabilities, Frequently Asked Questions About Section 504 and the Education of Children with Disabilities*, U.S. DEP'T OF EDUC. (Mar. 17, 2011), http://www2.ed.gov/about/offices/list/ocr/504faq.html#protected.

109 *See infra* Part I.

and its counterparts.[110] Though there is no perfect solution to Adderall abuse, by only prescribing medication to individuals who require it, the amount available for consumption would be limited. Because those who obtain an unnecessary prescription tend to use Adderall in specific circumstances, they have a larger quantity available for sale. Removing this Adderall supply reduces the opportunities for individuals to obtain the pills without a prescription and can curb abuse substantially. These proposed mechanisms will prevent students from obtaining unnecessary medication while also ensuring that students who truly suffer an adverse educational impact will obtain the services and medication that they need. When students are correctly diagnosed, the educational system can better serve their needs through classroom services, and health care professionals can accurately and safely prescribe medication. This will also provide a barrier to students trying to secure an ADHD diagnosis by "faking" symptoms and then violating the CSA by distributing medication to others without a prescription.

In creating a standard diagnostic test for ADHD, educational professionals, physicians, and psychologists must collaborate to effectively identify the primary and essential symptoms necessary for a diagnosis.[111] The guidelines from both the APA and AAP contain the necessary information for accurate diagnosis.[112] By creating a mandatory procedure to follow prior to diagnosis, individuals truly suffering from ADHD will be identified and provided services, including medication, and malingerers will be turned away. As the DSM-IV-TR criteria are included in the AAP guideline, this would be the necessary starting point in finalizing a standardized measure. As explained above,[113] most guidelines identify a variety of factors to be taken into account when diagnosing ADHD. These range from parent/teacher surveys,

110 One other component of this standard diagnostic measure should be a validity scale to screen out those individuals who are faking symptoms. *See* Harrison et al., *supra* note 31, at 586 (suggesting that there is a need "to develop a validity scale to embed within a self-report inventory, composed of items that look similar to the symptoms of ADHD, and yet are not often endorsed by individuals with this disorder").

111 This will most likely be a long, protracted process. However, it is necessary to ensure accurate diagnosis and treatment especially when ADHD medication is involved. The Schedule II classification for the active ingredient in Adderall places an even higher importance on designing correct prescription procedures. *See supra* notes 46–49.

112 Because the AAP Practice Guideline contains the DSM-IV-TR criteria, it measures displayed behaviors of inattention, hyperactivity, and impulsivity over a specific period of time in addition to requiring presence of these behaviors in two or more settings. *See* DSM-IV-TR, *supra* note 6, at 92–93.

113 *See supra* Part I.

behavior scales, and interviews with the individual all focused on identifying ADHD outside the biological context. One factor that must be included in a new ADHD diagnostic test is the adverse effect on the child's education—a factor utilized by both IDEA and § 504 and included within the DSM-IV-TR and AAP criteria.[114]

In addition, a new standardized diagnostic test must include a mechanism for reevaluation of symptoms within a specific time frame.[115] Typically symptoms dissipate as a child reaches adulthood, though the disorder can persist throughout a person's lifetime.[116] Though this measure will most likely be published and made widely available to the public, the requirement of the adverse effect on education will be an adequate safeguard against manufactured diagnoses. Students would have to demonstrate a marked decrease in achievement over a period of time no less than six months in order to obtain a diagnosis. For those seeking a cognitive boost without suffering from ADHD, they would have to perform poorly in school—a contradictory move for a student concerned about academic success.

Since IDEA is a federal mandate for educational institutions, creating a standardized mechanism for diagnosing and treating ADHD will aid in the detection and appropriate treatment of children and adolescents with ADHD. Because Congress has already placed federal strictures on the treatment of individuals with disabilities,[117] amending IDEA to enumerate ADHD as a covered disability is merely an extension of current policy. This amendment and the creation of a standardized diagnostic measure will aid in the effectiveness of IDEA to extend services to those students who need them, while enabling health care professionals to navigate an increasingly difficult disorder to identify and treat effectively.

Amending IDEA to include ADHD as an enumerated disability and to require use of the standardized diagnostic measure—which itself will demand a showing of an adverse effect on education—will adequately address the issue of k–12 students misusing or abusing Adderall. However, a large segment of the population—college and university students as well as adults not enrolled in an academic pro-

114 See AAP PRACTICE GUIDELINE, *supra* note 13; DSM-IV-TR, *supra* note 6.

115 Rushton et al., *supra* note 25, at e27 ("[L]ittle attention has been paid to the ongoing evaluation and long-term treatment of children and adolescents . . . ."). Therefore, more research is necessary to ensure that those diagnosed with ADHD are accurately monitored and treated to effectively manage their symptoms.

116 *See* CDC *Facts About ADHD*, *supra* note 4.

117 *See* 20 U.S.C. § 1400 (2006).

gram—obtain ADHD diagnoses and medication at a high rate.[118] By standardizing the diagnostic procedures, physicians and health care professionals can accurately diagnose individuals regardless of age and restrict the amount of Adderall prescribed. Though the standardized measure would include a provision mandating that ADHD cause an adverse effect on one's education, this can easily be adapted for adults in the workforce (for instance, requiring a decrease in performance at work over an extended period).[119]

V. SIDE EFFECTS: IMPLICATIONS ON MEDICAL PROFESSIONALS

"Ultimately, it's a clinical diagnosis. You can interpret an individual patient's symptoms any way you want."[120]Amending IDEA and implementing a standardized diagnostic test will combat future misdiagnosis and abuse of ADHD medications; however, it will not be able to make a drastic impact upon current misusers and abusers. In order to curb current off-label usage, health care professionals should reevaluate individuals with an ADHD diagnosis and/or a medication treatment plan to determine if they truly require the ADHD label. Once the standardized diagnostic measure is in place, physicians will be able to retest their patients of all ages to screen out individuals who do not require medication. For those individuals who already have a diagnosis of ADHD, a modified version of the diagnostic measure can be used for reevaluation and an assessment of the current diagnosis. Rather than requiring these individuals to demonstrate an adverse effect on education, physicians can evaluate their performance on attention-related tasks without the use of their prescriptions. This modified test can assist physicians in monitoring patients with ADHD and in correctly re-diagnosing them.

By implementing a national standardized measure, physicians will lose some discretion in the diagnosis and treatment of ADHD. Because an ADHD diagnosis (and subsequent treatment with medication) will require satisfaction of federally mandated standards, health

118 *See* Garreau, *supra* note 9 ("[M]ore than 7 million Americans used bootleg prescription stimulants, and 1.6 million of those users were of student age.").

119 The measure focuses on an educational impact because the majority of diagnoses and prescriptions are obtained by individuals currently enrolled in elementary, high schools, and post-secondary programs and because the ethical implications are so high in these environments. In addition, educational impact can encompass social impairment as well which can be recognized in adults. There are various ways to evaluate adult behavior in the workplace, specifically through social interactions, overall focus, attention to detail, and ability to complete tasks.

120 Feinstein, *supra* note 44 (quoting Dr. Carl Baum, director of the Center for Children's Environmental Toxicology at Yale-New Haven Children's Hospital).

care professionals will gain a bright-line measure at the expense of professional decision-making. However, the diagnostic test does not require physicians to certify a diagnosis or prescribe medication; instead it only requires that prior to diagnosing ADHD, the strictures of the test be satisfied. After the test is satisfied, a physician can deny an ADHD diagnosis, choose to prescribe medication, regulate the dosage, or devise a different treatment plan. This standardized test will simply provide the necessary guidance for medical professionals as they navigate an uncertain area of psychopathology. Professionals in the field will still maintain a level of discretion and judgment when developing a treatment plan for an individual presenting with the standardized symptoms of ADHD.

Conclusion

Adderall misuse and abuse is increasing across the nation through both the misdiagnosis of ADHD and the procurement of the medication illegally. The cognitive boost that individuals gain while taking Adderall has driven students, as well as professional adults, to misuse the drug to gain an advantage in concentration and focus over non-users. Though Adderall provides treatment for individuals who truly suffer from ADHD, its overuse in recent years is problematic and raises ethical issues for society. Numerous measures have been proposed to combat this staggering increase in both ADHD diagnoses and prescriptions for Adderall and its relative drugs. However, none of these adequately address the vast nature of the problem and the need for a federal response. Because Adderall is a Schedule II drug under the Controlled Substances Act due to its highly addictive nature, it is imperative that nationwide standards be adopted and included under IDEA so that accurate diagnosis and treatment of ADHD can follow. Though other neurobehavioral disorders do not require mandatory diagnostic tests, the medications for these are not as highly regulated, nor is the abuse level as high as that of Adderall. By requiring physicians and other health care professionals to follow a national testing rubric to diagnose, and therefore prescribe, Adderall and other ADHD medications, individuals who truly suffer from ADHD will receive the necessary treatment and non-sufferers will be unable to circumvent the testing procedures to obtain a fake diagnosis and subsequent medication. Finally, these measures will begin to combat the unethical, illegal, and dishonest abuse of ADHD medications within the academic and professional climate.