

Published, 2010

Canadian Family Physician, 56, 761 – 765.

ADHD documentation for students requesting accommodations at the post-secondary level: An
update regarding standards and diagnostic concerns

Harrison, A.G & Rosenblum, Y.

Abstract

OBJECTIVE: To update primary health care providers regarding the guidelines and standards for documentation of Attention Deficit Hyperactivity Disorder (ADHD) at the post-secondary level.

QUALITY OF EVIDENCE: The authors synthesized information from consultations with other experts at post-secondary disability offices and from relevant research in this area. Specifically, PsycLIT, PsychINFO and MEDLINE databases were searched for systematic reviews and meta-analyses from January 1990 to June, 2009 using keywords related to ADHD, Hyperactivity, adults, accommodation, diagnosis, and post-secondary education. Most evidence included was at level III.

MAIN MESSAGE: Symptoms of ADHD may occur for many reasons, and primary health care providers need to be cautious when making this diagnosis in young adults. Diagnosis alone is not sufficient to guarantee academic accommodations. Documentation of a disability presented to post-secondary-level service providers must address all aspects of the DSM-IV criteria for diagnosis of ADHD, and must also clearly demonstrate how recommended academic accommodations were objectively determined. Canadian post-secondary disability service providers have agreed that these guidelines require dissemination.

CONCLUSION: Students with ADHD require comprehensive documentation of their disability to obtain accommodations at the post-secondary level. Implementing the guidelines proposed here would improve access to appropriate services and supports for young adults with ADHD, while also reducing the risk of misdiagnosis due to other psychological causes, and minimize the opportunity for students to obtain stimulant medications for illicit use.

ADHD documentation for students requesting accommodations at the post-secondary level:

An update regarding standards and diagnostic concerns

Attention-Deficit/Hyperactivity Disorder (ADHD) is a commonly diagnosed childhood behavioural disorder whose core symptoms include inappropriate levels of attention, concentration, activity and distractibility (1). It is estimated that between 3-10% of children are affected by this disorder, but that less than half of these individuals will go on to demonstrate clinically significant symptoms of ADHD in adulthood (2). Despite the fact that ADHD symptoms become less debilitating with age, research estimates that about 20% of the disabled college student population are diagnosed with ADHD (3), and post-secondary institutions have witnessed a dramatic increase in the number of students presenting to disability services offices (DSOs) with a diagnosis of ADHD from a family physician (4). This may reflect the fact that family physicians are now increasingly faced with adult patients coming to their offices with questions related to the diagnosis and treatment of ADHD. However, in such instances there is no accompanying test data to objectively demonstrate that the student is substantially impaired in performing academic tasks, or that medications fail to effectively alleviate academic impairments. This causes difficulties for DSO staff charged with providing academic accommodations to these students, as it is not clear in which areas and to what extent ADHD is affecting learning. Indeed, there is no one typical accommodation profile for those diagnosed with ADHD, and so DSO staff cannot use a diagnosis alone to determine appropriate accommodations. Further, accommodations must mitigate an impairment but not provide an unfair advantage to the individual relative to others at the post-secondary level. The following is a review of the challenges facing clinicians, physicians and disability service providers when

determining which, if any, accommodations should be provided to students diagnosed with ADHD at the post-secondary level.

Diagnostic Criteria and Challenges:

Confirmation of symptoms. In order to be diagnosed with ADHD, the student must first demonstrate at least 6 of 9 symptoms of inattention, and/or 6 of 9 symptoms of hyperactivity/impulsivity, as outlined in the *DSM-IV* (5). However, some research has suggested that in the adult population, this criterion is overly restrictive and relies on child-centric symptoms (6). At minimum, in addition to confirming that the patient met the diagnostic criteria in childhood, the adult student must currently demonstrate at least 5 symptoms in one of the aforementioned areas (7). The presence of these symptoms alone, however, is not sufficient for diagnosis, as research has shown that a large proportion of students (8), and adults (9) report experiencing at least five ADHD symptoms on a regular basis. While clinicians or medical doctors employ self-report scales to measure the frequency and severity of symptoms, this alone is not sufficient for a diagnosis (2).

Impairment. The second criterion necessary for adult diagnosis of ADHD is that these symptoms must significantly impair the person's ability to function in more than one major life area (i.e., not just in school). Symptoms must also be shown to occur more frequently than is typical for others of the same age (10). Distinguishing between normal and abnormal behaviour is extremely difficult when evaluating adolescents and young adults (i.e., differentiating between developmentally normal levels of procrastination, disorganization, distractibility, academic underachievement and school problems secondary to poor attendance or low self-esteem) (11). As such, it is important that the evaluator conduct a comprehensive

assessment to determine whether the intensity and frequency of reported symptoms is abnormal relative to the peer group in question, and whether these behavioural problems substantially impair the person in performing *major* life functions.

Furthermore, there has been much recent controversy about the ‘average person standard’ as a benchmark for determining the presence of cognitive disabilities in post-secondary education (12, 13). This involves the requirement that an individual be substantially impaired “relative to the average person” in the population as opposed to being impaired relative to other above average abilities possessed by the individual herself (e.g. above average intelligence but only average reading skills), or relative to those with whom the individual is being compared educationally (e.g. performing less well than other Medical students as opposed to all individuals in the population) (12, 13). In other words, the question is whether documentation must demonstrate the existence of attention impairments relative to the average person in the general population, a person’s own general intellectual ability, or relative to peers at the same educational level. This becomes an issue insofar as disability services offices at the post secondary level are mandated to provide accommodations to those who have impairments that interfere substantially with their ability to perform a major life function (7,8,9).

In Canada, no guidelines currently exist to assist professionals in determining at what point an impairment becomes disabling to an individual and how the term “impairment” should be operationalized. In the U.S., courts have ruled in support of both the ‘average person standard’ and the ‘educational peer standard’ for high stakes, post-secondary testing (14, 15). Currently, most disability service offices in Canada will provide some services for students based on comparisons with education-appropriate peers or intra-personal comparisons, but

prefer documentation that meets the ‘average person standard’. If documentation does not meet the ‘average person standard’, fewer services will typically be provided.

Longstanding nature of symptoms. As noted above, the third criterion for diagnosis is that the disorder has been longstanding, such that the student also met diagnostic criteria in childhood. Currently, *DSM-IV* requires that the symptoms be present prior to age 7, but other researchers have suggested that inattentive symptoms may not be evident until later in childhood (7, 16). At the very least, there must be evidence to clearly demonstrate that the symptoms existed prior to age 12, that they have been longstanding (have been present consistently and chronically), and caused impairments in childhood functioning.

Exclusion clause. The final criterion for diagnosis, and one that is often overlooked, is that other causes for the reported symptoms must be objectively ruled out (5, 17 – 19). Many psychiatric disorders have inattention as a common symptom, and so inattentiveness, in and of itself, is non-specific. Inattention and concentration problems are very common in the general student population (8), and also in persons who have suffered from abuse or Post Traumatic Stress Disorder (PTSD) (20). Additionally, many other psychiatric disorders tend to co-occur with ADHD, and it is often the impact of these secondary disorders, rather than ADHD itself, that requires more substantial academic accommodation and other supports. ADHD is frequently co-morbid with mood disorders, anxiety disorders, learning disabilities and substance abuse disorders. The rate of co-morbidity ranges between 20-50% and typically increases in adulthood, making diagnosis of ADHD even more difficult (21, 22). In all cases, the diagnostician must determine which disorder is the primary cause for impairment. It is therefore critical to perform a comprehensive assessment to ensure that symptoms of inattention are in fact due to ADHD rather than another disorder. Physicians who are

unfamiliar with making mental health diagnoses should consult with either a psychiatrist or psychologist who is trained in diagnosis of such disorders to assist with differential diagnosis.

Recency of documentation. While not listed in DSM-IV as a criterion, post-secondary DSOs require that disability documentation reflect the current functioning of the student. The symptoms of ADHD change and frequently become less debilitating as the person ages (23, 24). Therefore, it is also necessary in students who come with a diagnosis from childhood to demonstrate that the symptoms continue to cause impairments that disable the individual in their present academic and other life functions (10). Consequently, documentation to demonstrate the need for academic accommodations and supports must be no more than 5 years old if conducted prior to age 18. This recent information should more accurately reflect the student's current level of functioning and the present impact of the impairment(s) on academic achievement. After age 18, research has not clearly demonstrated that any substantial neurologically-based changes in cognitive or information processing occur, and therefore, testing conducted after age 18 is likely still valid (25 – 28).

Symptom exaggeration or feigning. An issue causing growing concern in the post-secondary sector is the possibility that students may feign or exaggerate symptoms of ADHD for personal gain. Recent research (29 – 35) suggests that students may be motivated to feign ADHD in order to receive academic accommodations or other types of secondary gain such as tax benefits, access to government funded programs and services, or even have their student loan repayments waived. Furthermore, students may be motivated to receive extra time on high stakes testing, with the belief that this will improve their scores and give them a competitive edge over fellow students when applying to graduate school or other specialized programs (36).

Another reason that students may be motivated to feign symptoms of ADHD is to access stimulant medication for illicit purposes (29, 31, 37), as stimulants can be ground up and inhaled or injected to produce a cocaine-like high. Recent studies show how easy it is to fake symptoms of ADHD, especially when filling out self-report checklists (32, 38, 39), a concern for physicians who rely exclusively on self-report when making this diagnosis. Family physicians must therefore be aware that some students may be motivated to obtain a diagnosis of ADHD for reasons of secondary gain, and should educate themselves about ways to identify such exaggeration when it occurs. Physicians may wish to consider including multiple symptom validity measures when assessing for ADHD, as these may help identify those individuals exaggerating or feigning symptoms of this disorder (40).

What is needed by post-secondary Disability Service Providers?

ADHD is not a necessarily a disability; rather, it a “*disorder*” or syndrome (41). Hence, meeting the criteria for a “disorder” does not necessarily imply a disability in the legal sense, and as such may not qualify a student for accommodations at the post-secondary level. Additionally, the manner in which a student demonstrates symptoms of ADHD and the circumstances under which the symptoms occur often differs between individuals (2), so there is no typical accommodation profile required to deal with this condition. Furthermore, family physicians should know that simply diagnosing a student as having ADHD is not, in and of itself, synonymous with a requirement for academic accommodation. It simply confirms the presence of a disorder, which may or may not be disabling.

Due to the inconsistencies in ADHD documentation provided by students requesting accommodations at the post-secondary level, the Consortium on ADHD Documentation

collaborated with various respected professionals in order to develop *Guidelines for Documentation of Attention-Deficit/Hyperactivity Disorder in Adolescents and Adults* (42).

These outline components to be included within ADHD documentation and allow service providers to be certain that accommodations are warranted based upon level of impairment. Since their development, the Consortium's guidelines are being utilized by a growing number of institutions and national testing agencies in the United States (43).

Canadian disability service providers may only provide academic accommodations to students at the post-secondary level if presented with documentation supporting a formal diagnosis of a disability (44). As noted above, in order to advocate for academic accommodations, this documentation should reflect the current level of functioning of the student, and verify the extent to which the disorder currently impairs academic and other major life functions. This normally requires the administration of objective tests, along with corroborating reports from multiple sources (i.e., parents, teachers, significant others). If another disability is responsible for the academic impairment in question, it is important that accommodations be specifically designed to address the most pertinent causes for the observed difficulties. Documentation should also note the degree to which symptoms are causing impairment, so that suitable accommodations may be provided (e.g., how much extra time). Finally, if stimulant medication is already being taken or recommended, it is important to document how academic functioning is still impaired while on this medication.

Who can diagnose?

Family physicians are able to diagnose adult ADHD using all of the criteria outlined in DSM-IV(5). However, as noted above, a diagnosis alone is not sufficient to

identify what accommodations would be reasonable or equitable for a student at the post-secondary level. DSO's require evidence that identifies the actual level of impairment experienced secondary to a diagnosed disability, Family physicians typically do not administer any objective, standardized tests of function to document the degree to which the ADHD is impairing academic achievement, or evaluate the extent to which the medication has improved attention or schoolwork. Many physicians use response to medication as a means of supporting ADHD diagnosis; however, stimulant medication has been shown to improve working memory and attention in healthy subjects as well as impaired individuals (45)., Hence, even with a medical diagnosis of ADHD from a family physician, the DSO still does not know how the condition impacts the student at school, which accommodations to provide (if any), or the types of technologies that might help to address any cognitive impairments caused by ADHD. Ideally, accommodations should be tailored to the needs of the individual student (46). This can only be accomplished if sufficient documentation is provided to indicate specific areas of functioning that are being affected, along with the causes for impairment. Faraone, Spencer, Montano and Biederman (47) found that primary care physicians were more likely than psychiatrists to seek outside consultation before making a diagnosis of ADHD in adults, however only 15% of these individuals made a referral to another professional for testing.

Registered Psychological service providers (Ph.D. or Master's -level practitioners, depending on provincial guidelines) have the specific tests to evaluate: (a) how the disorder is impairing academic functioning relative to what would be expected based on intelligence, (b) if previously prescribed medication improves ability to

process information and pay attention (using standardized tests), (c) whether other psychological conditions or disorders might better explain the reported symptoms, (d) if symptom exaggeration or feigning is occurring, and (e) if academic accommodations are warranted on the basis of obtained test scores. Psychometric testing of this sort is typically necessary to allow students with ADHD full access to disability services. Many students arrive at university or college with only a brief physician's note as documentation of ADHD. With such minimal documentation, disability service providers are able to justify only limited, interim services.

Recommendations

Family physicians can now access web-based support and information to aid in diagnosis and treatment of adult ADHD (e.g., Canadian Attention Deficit Hyperactivity Disorder Resource Alliance guidelines (48), ADHD Consortium (42)). It is important for primary health care providers to be aware of the pitfalls in diagnosis of adult ADHD, and to recognize that diagnosis alone does not guarantee accommodations at the post-secondary level. Due to variation in the way that ADHD disorders may affect a student's performance, a report from a qualified specialist is required to provide definitive information on which to base accommodations. Based on the complexity of ADHD diagnosis, as well as the types of information that disability service providers require in order to implement appropriate accommodations for students diagnosed with ADHD, it is advised that physicians refer students who wish to receive accommodations to psychological services providers within their communities. In Ontario, provincially-funded assessment centres such as the Regional Assessment and Resource Centre (RARC) and the Northern Ontario Assessment and Resource

Centre (NOARC) are available to assist such students by providing comprehensive assessments including neuropsychological tests that help identify specific cognitive processes responsible for reported impairments. Furthermore, the fee for such assessments is geared to income, assuring that all students can obtain appropriate investigation of their symptoms. In other provinces, staff at the DSOs will be able to advise students regarding the best ways to access appropriate assessment services in the community and whether bursaries or other subsidies are available to offset the cost for such testing. By providing evidence for the cognitive underpinnings of specific impairments, disability documentation will properly inform service providers as to which accommodations are reasonable and necessary, and help determine to what degree these accommodations should be implemented.

References

1. West J, Taylor M, Houghton S, Hudyma S. A comparison of teachers and parents knowledge and beliefs about Attention-Deficit/Hyperactivity Disorder (ADHD). *Sch Psychol Int.* 2005 May; 26(2): 192-208.
2. McCann BS, Roy-Byrne P. Screening and diagnostic utility of self-report attention deficit hyperactivity disorder scales in adults. *Compr Psychiatry.* 2004 May; 45(3): 175-83.
3. DuPaul GJ, Schaugency E, Weyandt LL, Tripp G, Kiesner J, Ota K, et al. Self-report of attention-deficit/hyperactivity disorder symptoms in university students: Cross-national prevalence. *J Learn Disabil.* 2001 Jul; 34: 370-9.
4. Allsopp DH, Minskoff EH, Bolt L. Individualized course-specific strategy instruction for college students with learning disabilities and ADHD: Lessons learned from a model demonstration project. *Learn Disabil Res Pract.* 2005 May; 20(2): 103-18.
5. American Psychiatric Association. Diagnostic and statistical manual of mental disorders. 4th ed. Washington, DC: Author; 1994.
6. Wender P. Attention deficit hyperactivity disorder in adults: A wide view of a widespread condition. *Psychiatr Ann.* 1997; 27(8): 556-62.
7. Barkley RA. A critique of current diagnostic criteria for attention deficit hyperactivity disorder: Clinical and research implications. *J Dev Behav Pediatr.* 1990 Dec; 11(6): 343-52.
8. Harrison AG. An investigation of reported symptoms of ADHD in a university population. *ADHD Report.* 2004; 12(6): 8-11.

9. Gordon M, Antshel K, Faraone S, Barkley RA, Lewandowski L, Hudziak J, et al. Symptom versus impairment: The case for respecting DSM-IV's Criterion D. *J Atten Disord*. 2006 Feb; 9(3): 465-75.
10. Barkley RA. Issues in the diagnosis of attention-deficit/hyperactivity disorder in children. *Brain Dev*. 2003 Mar; 25: 77-83.
11. ADHD Consortium. Appendix B: The Consortium guidelines for documentation of attention-deficit/hyperactivity disorder in adolescents and adults. In Gordon M, Keiser S. *Accommodations in higher education under the Americans with Disabilities Act (ADA): A no-nonsense guide for clinicians, educators, administrators, and lawyers*. New York: Guilford Press; 2000. 222 p.
12. Mather N, Gregg N, Simon JA. The curse of high stakes tests and high abilities: Reactions to *Wong v. Regents of the University of California*. *Learning Disabilities: A Multidisciplinary Journal*. 2005; 13(4): 139-44.
13. Brinckerhoff LC, Banerjee M. Misconceptions regarding accommodations on high-stakes tests: Recommendations for preparing disability documentation for test takers with learning disabilities. *Learn Disabil Res Pract*. 2007 Nov; 22(4): 246-55.
14. Giovingo LK, Proctor BE, Prevatt F. Use of grade-based norms versus age-based norms in psychoeducational assessment for a college population. *J Learn Disabil*. 2005 Jan; 38(1): 79-85.
15. Barksdale-Ladd M, Thomas K. What's at stake in high-stakes testing: Teachers and parents speak out. *Journal of Teacher Education*. 2000 Nov; 51(5): 384-97.

16. Faraone S, Biederman J, Spencer T, Mick E, Murray K, Petty C, et al. Diagnosing adult attention deficit hyperactivity disorder: are late onset and subthreshold diagnoses valid? *Am J Psychiatry*. 2006; 163: 1720-9.
17. Nahlik, JE, Searight, HR. Diagnosis and treatment of attention deficit hyperactivity disorder. *Primary Care Reports* 1996; 2: 65.
18. Searight HR, Burke JM, Rottnek F. Adult ADHD: Evaluation and treatment in family medicine. *Am Fam Physician*. 2000; 62: 2077-92.
19. Sparks RL, Javorsky J, Philips L. Comparison of the performance of college students classified as ADHD, LD, and LD/ADHD in foreign language courses. *Lang Learn*. 2005 Mar; 55(1): 151-77.
20. Harrison AG, Wilson JB. Inattention and Dissociation: Overlapping constructs? ADHD Report. 2005; 13(3): 9-12.
21. Biederman J. Attention-deficit/hyperactivity disorder: A selective overview. *Biol Psychiatry*. 2005 ; 57: 1215-20.
22. Fischer AG, Bau CHD, Grevet EH, Salgado CAI, Victor MM, Kalil KLS, et al. The role of comorbid major depressive disorder in the clinical presentation of adult ADHD. *J Psychiatr Res*. 2007 Dec; 41(12): 991-6.
23. Brook U, Boaz M. Attention deficit and hyperactivity disorder/learning disabilities (ADHD/LD): Parental characterization and perception. *Patient Educ Couns*. 2005 Apr; 57(1): 96-100.
24. Wender EH. Attention-deficit hyperactivity disorders in adolescence. *J Dev Behav Pediatr*. 1995 Jun; 16(3): 192-5.

25. Bunge SA, Wright SB. Neurodevelopmental changes in working memory and cognitive control. *Curr Opin Neurobiol.* 2007 Apr; 17(2): 243-50.
26. Crone EA, Wendelken C, van Leijenhorst L, Honomichl RD, Christoff K, Bunge SA. Neurocognitive development of relational reasoning. *Dev Sci.* 2009 Jan; 12(1): 55-66.
27. Crone EA, Wendelken C, Donohue S, van Leijenhorst L, Bunge SA. Neurocognitive development of the ability to manipulate information in working memory. *Proc Natl Acad Sci U S A.* 2006 Jun 13; 103(24): 9315-20.
28. Bunge SA, Dudukovic NM, Thomason ME, Vaidya CJ, Gabrieli JDE. Immature frontal lobe contributions to cognitive control in children: Evidence from fMRI. *Neuron.* 2002; 33(2): 301-11.
29. Conti R. Malingered ADHD in adolescents diagnosed with conduct disorder: A brief note. *Psychol Rep.* 2004; 94: 987-8.
30. Frazier TW, Frazier AR, Busch RM, Kerwood MA, Demaree HA. Detection of simulated ADHD and reading disorder using symptom validity measures. *Arch Clin Neuropsychol.* 2008 Sep; 23(5): 501-9.
31. Harrison AG. Adults faking ADHD: You must be kidding! *ADHD Report.* 2006; 14(4): 1-7.
32. Harrison AG, Edwards ME, Parker KP. Identifying students faking ADHD: Preliminary findings and strategies for detection. *Arch Clin Neuropsychol.* 2007 Jun; 22(5): 577-88.
33. Osmon D, Plambeck E, Klein L, Mano Q. The Word Reading Test of Effort in adult Learning Disability. *Clin Neuropsychol.* 2006 Jun; 20(2): 315-24.

34. Suhr J, Hammers D, Dobbins-Buckland K, Zimak E, Hughes C. The relationship of malingering test failure to self-reported symptoms and neuropsychological findings in adults referred for ADHD evaluation. *Arch Clin Neuropsychol*. 2008 Sep; 23(5): 521-30.
35. Sullivan B, May K, Galbally L. Symptom exaggeration by college adults in ADHD and Learning Disorder assessments. *Appl Neuropsychol*. 2007; 14(3): 189-207.
36. Mullis C. Faking it: Using learning disabilities to boost SAT scores. *Psychol Today* [internet]. 2003 [cited 2006 Feb 17]; 36(1): 24. Available from <http://www.psychologytoday.com/articles/>
37. Svetlov SI, Kobeissy FH, Gold, MS. Performance enhancing, non-prescription use of ritalin: A comparison with amphetamines and cocaine. *J Addict Dis*. 2007; 26(4): 1-6.
38. Jachimowicz G, Geiselman RE. Comparison of ease of falsification of attention deficit hyperactivity disorder diagnosis using standard behavioural rating scales. *Cognitive Science Online*. 2004; 2: 6-20.
39. Quinn CA. Detection of malingering in assessment of adult ADHD. *Arch Clin Neuropsychol*. 2003 May; 18(4): 379-95.
40. Nelson NW, Boone K, Dueck A, Wagener L, Lu P, Grills C. Relationships between eight measures of suspect effort. *Clin Neuropsychol*. 2003 May; 17(2): 263-72.
41. Ingram S, Hechtman L, Morgenstern G. Outcome issues in ADHD: Adolescent and adult long-term outcome. *Ment Retard Dev Disabil Res Rev*. 1999 Aug; 5(3): 243-50.
42. McGuire JM, Brinckerhoff LC. Independent consortium issues new ADHD documentation guidelines. *ALERT*. 1998 Apr; 22: 19-20.

43. Byron J, Parker DR. College students with ADHD: New challenges and directions. In Brinckerhoff LC, McGuire JM, Shaw SF. Postsecondary education and transition for students with learning disabilities. 2nd ed. Austin, TX: PRO-ED; 2002. 335 p.
44. Ontario Human Rights Code, R. S. O. Chapter H. 19. 1990.
45. Mehta MM, Owen AM, Sahakian BJ, Mavaddat N, Pickard JD, Robbins TW. Methylphenidate enhances working memory by modulating discrete frontal and parietal lobe regions in the human brain. *J Neurosci*. 2000; 20(6): 1-6.
46. Ranseen JD. Lawyers with ADHD: The special test accommodation controversy. *Prof Psychol Res Pr*. 1998 Oct; 29(5): 450-9.
47. Faraone SV, Spencer TJ, Montano B, Biederman J. Attention-deficit/hyperactivity disorder in adults - A survey of current practice in psychiatry and primary care. *Arch Intern Med*. 2004; 164(11): 1221-6.
48. Canadian Attention Deficit Hyperactivity Disorder Resource Alliance (CADDRA). Canadian ADHD practice guidelines 2007/2008. Retrieved May 23, 2009, from http://www.caddra.ca/english/phys_guide.html.