

Cognitive Behavior Therapy for College Students with Attention- Deficit/Hyperactivity Disorder

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ABSTRACT. Attention-Deficit/Hyperactivity Disorder (ADHD) is a developmental syndrome that persists into adulthood for the majority of children with ADHD. Other individuals may not experience the full negative effects of undiagnosed ADHD until they face the demands of adult life. College counseling centers in particular are seeing a rise in the number of students seeking therapeutic services for issues related to ADHD. The purpose of this paper is to provide background information about the prevalence of ADHD on college campuses, its impact on affected students, and to introduce a cognitive behavior therapy approach for college students with ADHD. *[Article copies available for a fee from The Haworth Document Delivery Service: 1-800-HAWORTH. E-mail address: <docdelivery@haworthpress.com> Website: <http://www.HaworthPress.com> © 2006 by The Haworth Press, Inc. All rights reserved.]*

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INTRODUCTION

The purpose of this article is to discuss a cognitive behavior therapy (CBT) approach for treating college students diagnosed with Attention-Deficit/Hyperactivity Disorder (ADHD). Although more research is needed, CBT is emerging as the psychosocial treatment of choice for adults with ADHD (Ramsay & Rostain, in press). College counseling centers in particular are encountering a growing number of students seeking treatment for problems related to ADHD. These students have either been diagnosed in childhood and seek treatment in college as a part of their ongoing coping regimen, or, more often, they are students who had seemingly functioned adequately through high school only to encounter significant problems in their transition to college that go above and beyond difficulties attributable to normal “adjustment to college” issues.

We provide background information about the prevalence and life outcomes of young adults with ADHD, with particular attention to its effects on college students. We then briefly outline the essential components of a comprehensive diagnostic evaluation for ADHD in young adults. Finally, we discuss a CBT treatment approach for use with college students diagnosed with ADHD that is amenable to a semester long course of treatment. In particular, we discuss the CBT conceptualization of ADHD and review special issues encountered when treating college students with ADHD, such as their motivation for change.

ADHD AND COLLEGE STUDENTS: BACKGROUND INFORMATION

ADHD is a highly heritable neurobehavioral disorder that has wide-ranging effects on learning and cognition, behavior, and emotional functioning (Barkley, 2002, 2005; Brown, 2005). ADHD is estimated to affect about 3-10% of school-aged children in the United States (Barkley, 2005; Brown, 2005). Studies of international samples of children yield roughly similar prevalence rates, with existing variability between studies likely being accounted for by the use of diverse symptom measures (Barkley, 2005; Faraone, Sergeant, Gillberg, & Biederman, 2003). It is clear that ADHD is not a uniquely American disorder.

It also is clear that children with ADHD do not inexorably “grow out of” their symptoms. Although there is a decrease in the overt signs of hyperactivity with increased age, problematic symptoms of inattention remain consistent over time (Barkley, 2002, 2005; Brown, 2005). Moreover, even though individuals with ADHD appear less hyperactive with age, many people report a persistent sense of restlessness and mental hyperactivity that can be just as disruptive as physical restlessness. Estimates of the persistence of ADHD into the adult years range from 30 to 70% (Barkley, 2005; Kessler et al., 2005). A recent study of blinded interviews of retrospective and current ADHD symptoms indicated that 36.3% of individuals who had ADHD in childhood continued to fulfill diagnostic criteria in adulthood (Kessler et al., 2005).

The use of full DSM diagnostic criteria as a measure of symptom persistence, however, may underestimate the actual incidence of clinical significant ADHD-related problems in adulthood. The DSM symptom criteria were developed primarily for children and may not adequately reflect developmentally inappropriate symptoms of inattention, impulsivity, and hyperactivity experienced by adults (Brown, 2005). A study using functional criteria for symptom persistence, such as fulfilling partial diagnostic criteria and reporting at least moderate levels of impairment in overall functioning, found that upwards of 90% of children with ADHD experienced continued problems associated with ADHD in young adulthood (Biederman, Mick, & Faraone, 2000). In a survey of ADHD adults, 72% said ADHD has had a lifelong impact on them (Faraone & Biederman, 2005).

The adult outcomes of children diagnosed with ADHD are sobering. Recent longitudinal and survey research indicate that young adults and adults with ADHD, when compared with non-ADHD controls, are more likely to have received special academic help in school; are less likely to finish high school; are less likely to attend college; are less likely to complete college; are less productive at work; are more likely to be fired from jobs; change jobs more frequently; have lower household incomes; are more likely to get divorced; and report higher levels of psychological distress and negative attitudes (Barkley, Murphy, & Kwasnik, 1996; Biederman & Faraone, 2005; Faraone & Biederman, 2005; Murphy, Barkley, & Bush, 2002).

Considering the negative life outcomes associated with a diagnosis of ADHD, it is clear that it is not a “mild” problem. Likewise, its symptoms have a negative impact on college students. In a longitudinal study of young adult outcomes of children with ADHD, only 22% of the sample entered college (as compared with 78% of high school graduates

overall), and of these students only 5% eventually graduated (Barkley, 2002). Similarly, in a recent survey adults with ADHD were significantly less likely than matched controls to finish college (11% v. 18%; Faraone & Biederman, 2005). Even in a sample of ADHD adults with IQs at least 120, 42% reported having dropped out of postsecondary school at least once (Brown, 2005).

Going to college has become a developmental transition during which many young adults with previously undiagnosed ADHD first experience significant problems related to their symptoms (Quinn, 2001). Although these students often report having experienced frustrations related to the core symptoms of inattention, impulsivity, and hyperactivity before college—such as poor concentration in class, disorganization, procrastination, or a sense they were not fulfilling their potential—their impairments, in most cases, had not resulted in significant behavior or academic problems that would have signaled the presence of ADHD to the untrained eye.

In fact, surveys of college populations (including a cross-national study) reveal that about 3 to 6% of college students exhibit significant symptoms of ADHD (DuPaul et al., 2001; Heiligenstein, Conyers, Berns, & Smith, 1998; Smith, Cole, Ingram, & Bogle, 2004; Weyandt, Linterman, & Rice, 1995). Heiligenstein et al. (1998) reported 4% prevalence in a sample of college students when using strict DSM symptom criteria. When the criteria were modified to the number of symptoms required to identify students falling above the 93rd percentile rank in symptoms (i.e., one-and-one-half standard deviations, the commonly used threshold for “clinical significance”), 11% of students exceeded the ADHD cutoff. Smith et al. (2004) obtained a prevalence of 6.4% when using modified symptom cutoffs in a freshman sample.

College students with ADHD are less likely than controls to use adaptive coping skills to manage the academic and social transition to college (Shaw-Zirt, Popali-Lehane, Chaplin, & Bergman, 2005; Turnock, Rosén, & Kaminski, 1998). Interestingly, students with ADHD do not seem to be at greater risk for psychiatric diagnoses than their non-ADHD peers (Heiligenstein, Guenther, Levy, Savino, & Fulwiler, 1999), although presenting reports of depressive or anxiety symptoms, or substance abuse problems among ADHD students are common (Heiligenstein & Keeling, 1995) as are self-esteem issues (Dooling-Litfin & Rosén, 1997; Shaw-Zirt et al., 2005). Heiligenstein et al. (1999) performed a chart review comparing students diagnosed with ADHD and non-clinical students seeking career advice. ADHD students had significantly lower mean GPAs and higher rates of being placed on academic probation.

Thus, children who encounter difficulties related to ADHD early in their primary education may receive assessments and treatment. Many other individuals with ADHD, however, appear to be able to compensate for their symptoms through secondary school by some combination of intelligence, family support, and the good graces of teachers who grant extra credit work and extensions on deadlines (Ramsay & Rostain, 2005-b; Rostain & Ramsay, in press). When students with undiagnosed ADHD move away to college, though, they lose their environmental “collateral” that has been built up during high school. That is, students must “start over,” sometimes in an unfamiliar city or region, and must re-establish a social and academic identity at the same time they face academic work that is more challenging than in high school (Quinn, 2001). Students are also expected to assume responsibility for taking care of many day-to-day responsibilities, such as laundry, managing their schedules, organizing time and paperwork, etc. Of course, such adjustments and responsibilities prove difficult for most students and are considered part of the process of growing up and establishing an adult identity, a process that has been deemed “emerging adulthood” (Arnett, 2000). For students with ADHD, however, even concerted efforts to “get serious” often prove ineffective. We have seen students who have quit sports teams, stopped socializing, and increased time spent studying to no avail. Their difficulties went beyond mere “adjustment” problems or those that could be handled by simply “working harder.”

Furthermore, staff at student health and college counseling centers may be unfamiliar with the diagnosis and treatment of ADHD (Goad & Robertson, 2000; Quinn, 2001). Because many of the symptoms of ADHD are nonspecific, meaning they are common to other disorders, such as poor concentration also being a symptom of depression or anxiety, it is important that college students suspected of having ADHD receive a comprehensive evaluation. In the next section, we briefly outline the essential components of a diagnostic evaluation for ADHD in college students.

DIAGNOSTIC EVALUATIONS FOR ADHD IN COLLEGE STUDENTS

There are no short cuts when trying to assess for ADHD. It requires a full diagnostic evaluation of the nature and history of presenting complaints, including the use of retrospective and current symptom checklists, and objective measures of current ADHD symptoms (Rostain & Ramsay, in press). Additionally, while not used to make the diagnosis,

neuropsychological testing can be useful to observe individuals' performance on a range of cognitive tasks that may shed light on areas of relative strength and weakness that could affect academic functioning.

First, a structured diagnostic interview is recommended for all students seeking psychotherapy. In addition to assessing for the presence of mood, anxiety, and personality issues that may be the primary source of inattention or restlessness instead of ADHD, or that may co-exist with and complicate ADHD, such an evaluation should also review the developmental, psychiatric, and medical histories in order to rule out other sources of current symptoms.

Because structured diagnostic interviews do not typically include modules for assessing symptoms of ADHD in young adult patients, it will be necessary to use other symptom checklists and objective measures. There is no adult onset ADHD. To make the diagnosis requires that there be previous evidence of symptoms in childhood. Thus, we recommend the use of retrospective checklists of childhood symptoms in addition to current symptom checklists, such as those developed by Barkley and Murphy (2005). Because of the inconsistencies inherent with retrospective accounts—including frequent under-reporting of symptoms by young adults (Barkley, 2002)—whenever possible we attempt to get corroborative ratings from students' parents of both past and current symptoms and to inquire about teachers' comments about the students' behavior and academic performance in primary and secondary school (e.g., report cards, reports, previous assessments). Such information can be invaluable in making a differential diagnosis.

We also recommend the use of standardized objective symptom rating scales such as the *Conners' Adult ADHD Rating Scales* (CAARS; Conners, Erhart, & Sparrow, 1999) and the *Brown Attention Deficit Disorder Scale for Adults* (BADDS; Brown, 1996). The CAARS is a self-report instrument that measures a wide variety of symptoms of ADHD in adult patients. The CAARS yields a total score and subscale scores specific to the age and gender of the respondent and measuring a variety of deficits commonly associated with ADHD, with three subscales corresponding to DSM criteria. The BADDS is an instrument that measures a wide variety of symptoms of ADHD in adult patients. It yields a total score and five subscale scores corresponding to different areas of functioning. Despite the usefulness of these symptom checklists and objective measures, it is important to remember there is no single test with which clinicians can reliably and accurately diagnose ADHD. In fact, a study of BADDS scores among students without a history of a formal diagnosis of ADHD in a university population indicated that 30% of the

sample reported symptom levels that fell in the “ADD Highly Probable” range (Harrison, 2004). More than half of the students surveyed who sought services from the campus Psychiatric Service or Counseling Center fell in this range. Furthermore, another study of the BADDs, CAARS, and a continuous performance test found that none of the measures emerged as sensitive or specific enough to discriminate between adults with ADHD and those with internalizing disorders (Solanto, Etefia, & Marks, 2004). Thus, we recommend the use of these measures in the context of a comprehensive evaluation.

In terms of neuropsychological assessments of adults with ADHD, existing research has been mixed in terms of the ability of these tests to consistently differentiate between adults with and without ADHD. Possible reasons for these mixed results is that young adults and adults have probably developed compensatory mechanisms to help them to perform adequately on these novel, time-limited (e.g., lasting several minutes) tests. The day-to-day functional problems described by students with ADHD, on the other hand, often involve difficulties with sustained attention during hour-long lectures, planning and following through on projects, and effectively juggling the multiple demands of life, such as attending class, managing personal affairs, maintaining personal health (including adequate diet and sleep), and maintaining social commitments. That said, a brief battery of tests might be helpful with identifying specific areas of strength or weakness, particularly for college students who may be seeking specific academic accommodations. Such a battery should provide an overview of students’ performances on various subscales of an intelligence test, continuous performance task, auditory working memory, and other executive functions. We consider testing akin to a cognitive decathlon that provides clinically useful information, though, as we said before, it is not used diagnostically.

In terms of treatment, *multimodal treatment*, the combination of different therapeutic and support services, is often recommended for the different areas of functioning affected by ADHD. The common three-legged stool of treatment for college students with ADHD is comprised of pharmacotherapy, academic support and accommodations, and psychosocial treatment. Although pharmacotherapy for young adults with ADHD is not as well studied as it is for their child counterparts, medications, particularly the psychostimulants, have a strong evidence-base for their effectiveness in improving executive functioning and reducing the core symptoms of ADHD (Barkley, 2005; Quinn, 2001; Rostain & Ramsay, 2006; Wilens, Spencer, & Biederman, 2000). While symptom improvement is a crucially important benefit of medications, it does not

necessarily lead to behavioral improvements in students' daily lives, such as attending class or decreasing procrastination. It has been suggested that medications alone is insufficient treatment for upwards of half of adults with ADHD (Wilens et al., 2000).

Academic support or "coaching" involves specialized assistance in organizing and prioritizing students' assignments and study schedules (Quinn, 2001). It may also focus on developing effective study skills and strategies for breaking large projects into manageable sections and reviewing progress during regular meetings with an academic counselor. Such academic coaching strives to develop new coping strategies and environmental supports to circumvent executive dysfunction that interferes with academic functioning, not to mention functioning in daily life. While such coaching techniques make intuitive and theoretical sense, apart from a single case study (Swartz, Prevatt, & Proctor, 2005) they have not been studied.

Academic accommodations are alterations to typical academic practices that are granted when a student has a documented disability that puts them at an unfair disadvantage (Quinn, 2001). Examples of reasonable academic accommodations include extended time in which to complete exams, note-taking services (or access to lecture notes prior to lecture), or a distraction-free environment in which to take tests. The availability of such academic services varies among institutions. Furthermore, similar to academic coaching interventions, the effects of such accommodations on academic performance have not been well studied.

For students with relatively mild impairment, either medications or academic support (or a combination) may prove to be sufficient for helping them cope well in college. A thorough discussion of medication issues for young adults is beyond the scope of this article, though there are many useful resources on the topic (Barkley, 2005; Quinn, 2001; Rostain & Ramsay, 2006, in press; Wilens et al., 2000). Many college students, however, will require additional psychosocial treatment for further symptom reduction, development of coping skills, and to address co-existing problems, including depression, anxiety, or substance abuse. In the next section, we discuss in detail a CBT framework for ADHD in college students.

CBT APPROACH FOR COLLEGE STUDENTS WITH ADHD

Until a few years ago, there were no studies of the effectiveness of psychosocial treatments for adults with ADHD; currently there are eight

published psychosocial outcome studies (see Ramsay & Rostain, in press, for a review). CBT has emerged as the most promising treatment approach, though much more research is needed. Traditional CBT was developed as a treatment for depression (Beck, 1976). It is based upon the cognitive model of psychopathology that proposes that the development and maintenance of psychiatric disorders are significantly influenced by maladaptive cognitions. By no means are we suggesting that negative thinking causes ADHD. It is acknowledged that ADHD and many other disorders are the result of a complicated mix of biological predispositions, environmental stressors, and psychological factors. However, the experience of growing up with ADHD (often undiagnosed) and then encountering unexpected and overwhelming difficulties in college may lead to the development of many self-critical thoughts and potentially maladaptive beliefs about the self, the world, and the future—the traditional cognitive triad. Thus, although not a causal factor in the development of ADHD, the interaction of cognition and behavior becomes a constructive area for intervention (Ramsay & Rostain, 2003, 2005b). In particular, reaching college students with ADHD before they experience significant (though avoidable) setbacks represents an opportunity to help prevent the onset of the negative and corrosive attitudes and problems that might lead to demoralization and similar problems in their future (Faraone & Biederman, 2005; Quinn, 2001).

A key component of the CBT approach for adult ADHD is the *case conceptualization*. The case conceptualization is the integrated understanding of the patient's presenting problems, the relevant developmental history contributing to the specific clinical issues addressed in treatment, and reasonable predictions of appropriate interventions and future functioning (Ramsay & Rostain, 2003, 2005a, b). The conceptualization helps clinicians "see the world through patients' eyes."

More specifically, the conceptualization is an ever-evolving framework for understanding students' reactions and how these reactions are rooted in salient developmental experiences and belief systems. Newly diagnosed students with ADHD may experience their first significant life adversities in college, thus they may not have deep-seated maladaptive belief systems. Considering the effects of the college experience on assuming an adult role (Arnett, 2000), however, academic or social "failures" in college can quickly be internalized as evidence of personal defectiveness. These beliefs may be subsequently triggered when individuals encounter situations in their current lives that resemble previously frustrating situations. In the case of college students with ADHD, some individuals may have encountered academic difficulties before

college that cast doubts on their ability to handle college (“I have a hard time comprehending what I read” or “I have a hard time organizing my thoughts for essays”). These doubts remain dormant, often covered up by more numerous examples of competencies and successes. However, when these same students fail an exam, have to withdraw from a class with a failing grade, take an incomplete, or are placed on academic probation, either a dormant or newfound sense of self-doubt and inadequacy may be activated (e.g., “Maybe I really do not belong in college”). Such self-doubt may lead the student to feel more anxious about schoolwork (e.g., “I’ll work my hardest and it won’t be good enough”). These thoughts and emotions may then contribute to the use of *compensatory strategies*. Compensatory strategies may seem to be somewhat adaptive efforts to deal with negative beliefs but, in fact, they ultimately function as self-defeating behaviors. Thus, the student who is feeling stressed about schoolwork and who thinks his or her efforts will be fruitless may use procrastination to avoid immediate feelings of discomfort and thoughts of inadequacy. However, this strategy, left unchanged, insidiously creates further procrastination, with the student eventually rushing to hand in a substandard project that receives a low grade. This sequence of events may culminate with the student concluding, “I must not be a good student and do not belong in college.”

Thus, as was illustrated above, the case conceptualization accounts for the influence of ADHD symptoms (e.g., not diagnosed until college, presence of previous unidentified difficulties); relevant developmental experiences (e.g., past difficulties in school, current difficulties in college); maladaptive core beliefs (e.g., inadequacy: “I’m not a good student”); compensatory strategies (e.g., self-defeating behaviors, such as procrastination); and how the activation of these factors affects thoughts, feelings, and behaviors in daily college life (e.g., upcoming exam → “I know I won’t do well even if I study hard” → feelings of anxiety, stress → procrastination → low grade). The conceptualization can also be used to identify personal strengths and coping resources that are often obscured by the stress associated with students’ problems.

The case conceptualization helps therapists to consider the interventions and coping skills personalized to the needs of students with ADHD, including issues related to co-existing issues. The conceptualization also helps to anticipate possible roadblocks and resistance that might be encountered in the course of treatment. We have found that most college students who learn they have ADHD, and even many of those who come to college having already been diagnosed and treated,

struggle with coming to terms with the diagnosis and the notion that they may have to make special efforts to get through college. In fact, it is the discussion of students' motivation for treatment that usually marks the start of CBT for ADHD in college students.

Early Semester Sessions

Initial sessions of CBT for college students usually involve identifying specific therapy goals for the semester. The goals are usually focused on academic issues (e.g., class attendance, decrease procrastination on schoolwork), but also may include topics that can be generalized to other aspects of college life (e.g., organizational skills, time management). It is important to help students set realistic goals for therapy. Whereas it is understandable that a student's goal may be to earn an "A" in a class, such an outcome is more than therapy can reasonably promise to deliver. On the other hand, the student can be encouraged to focus on behavioral goals that will increase the likelihood of earning a good grade, such as improving class attendance, making use of academic support services, and completing assigned reading prior to each class.

Clarification of therapy goals lends itself to a discussion of students' motivation for therapy. That is, CBT for ADHD focuses on helping students make changes in their attitudes and in their behaviors, which requires effort on their part. We have found it helpful to perform an informal assessment of students' motivation using the stage of change model (Prochaska & Norcross, 2001), a transtheoretical model of a series of stages of behavior change, with different stages requiring different interventions. The two most commonly encountered stages at the start of psychotherapy are *precontemplation* and *contemplation*. Precontemplation is the same as denial. The student does not view her- or himself as having a problem, or if a problem is acknowledged, the individual is disinterested in the change process (and likely has attended the session at the urging of someone else). Suggested therapeutic approaches include acknowledging students' ambivalence and using motivational interviewing techniques to determine if there are some areas of dissatisfaction in their lives for which they may consider making changes (e.g., problems with friends). Contemplation is the stage at which a student acknowledges the presence of a problem and professes a desire to change but has not yet committed to specific new behaviors. The suggested therapeutic approach is to use Socratic questioning to help the student consider the relative costs and benefits of trying out new patterns. Once a student starts taking some "baby steps" toward changing

patterns (*preparation* stage) or has instituted considerable behavior changes (*action* stage), the therapeutic focus turns to implementing and reviewing behavioral experiments.

Early sessions in CBT focus on specific examples of procrastination and ineffective organization that affect students' lives (Ramsay & Rostain, 2003). That is, students often report putting off doing schoolwork or other priority tasks, and either the absence of or an inefficient organizational system (e.g., scheduling calendar). What is more, students report being aware of effective coping strategies but are unable to implement them (e.g., "I could coach somebody else on what to do, but I cannot do it for myself"). CBT therapists elicit from students specific examples of times when procrastination or disorganization has recently caused a problem. Therapists spend time eliciting details of the cognitive ("What thoughts went through your mind when you thought about doing your reading assignment?"), emotional ("What were your gut level emotions then?"), and behavioral experiences of the student in those instances ("What happened when you tried to read? What did you end up doing other than reading? How did it work out?"). In addition to providing students with a framework for understanding their automatic, seemingly uncontrollable reactions, a similar framework can be expanded to conceptualize longstanding patterns, if relevant ("Are there any similarities between how you handle college work and how you handled similar school assignments in the past? How do you think past school experiences may still affect you now?"). The goal of this approach is to "start small" and illustrate the effects of ADHD on small tasks and small decisions that can have large downstream effects.

In terms of behavior change, students are also encouraged to "start small" and to focus on small, achievable changes in their routines, such as doing schoolwork for ten minutes rather than procrastinating, or experimenting with showing up five minutes early for one class. Such therapeutic "homework" (or "personal experiments," to avoid the negative association with school) creates continuity between sessions and reinforces the notion that CBT strives to help students make changes in their daily lives. The homework is framed as a no lose proposition: if it is completed, the results can be reviewed and assessed; if it is not completed, the lack of follow through can be reviewed and assessed using a similar CBT framework to identify the pertinent thoughts, feelings, and behaviors. Discovering how students *do not* do something is oftentimes as informative as finding out how they do it.

Mid-Semester Sessions

Early semester sessions are usually devoted to clarifying motivational issues and establishing goals for the semester. Subsequent early semester and some mid-semester sessions are spent reviewing the results from therapeutic homework and either building on early treatment gains, or engaging in collaborative problem-solving around difficulties with follow-through. Difficulties may spring from motivational issues, poor choice of homework tasks (e.g., too difficult or not immediately relevant for the student), or negative thoughts about these issues (e.g., “I’ll never be able to keep up with my work”). Rather than being barriers to progress, these issues most likely reflect the very psychological processes that play a role in students’ functional difficulties and are a focus of mid-semester sessions. Furthermore, the stress of the approach of the first major graded assignments and/or mid-term exams may trigger cognitions and emotions that lay dormant during the diagnostic assessment and early semester sessions.

Even for students who find the CBT approach helpful and are able to implement new coping strategies, the pressure associated with mid-semester exams and projects may result in a “drift” away from the use of their coping skills. When this results in an undesired consequence, such as a low grade or a missed appointment, students often fall into a pattern of excessively pessimistic thoughts, such as “I should have known this would not work. I cannot change.” CBT is not designed to respond with the “power of positive thinking.” There may be a grain of truth in students’ negative thoughts (e.g., student went to a party instead of studying the night before an exam). The goal of CBT is to foster balanced, constructive thinking. Thus, the therapist and student use the negative event as a “learning opportunity” to consider the factors contributing to the outcome (including the notion that the coping skills work, but they need to be used consistently), to determine if there are any options for improving the current situation, and to inform how the student handles similar situations in the future. Consequently, cognitive restructuring techniques may help the student gain a different perspective on the outcome (e.g., “I’m disappointed in my grade and I could have done better, but it was a tough test. I could have done much worse”).

For students with comorbid problems, such as depression or substance abuse, CBT also integrates these issues into the overall case conceptualization and treatment plan. In addition to dealing with negative thoughts around ADHD-related issues, cognitive modification can be

employed for depressive thoughts or rationalizations of substance use along with behavior change techniques focused on these issues.

End of Semester Sessions

By this time in the semester, the therapist and student have had many opportunities to conceptualize the student's cognitive, emotional, and behavioral patterns, and for the student to test out various coping strategies. In cases in which a student's ambivalence about therapy has persisted past the early phase of CBT, difficulties encountered during the semester may have helped him or her decide to either try to change or to discontinue sessions. For most students, CBT for ADHD is a "two steps forward, one step back" proposition, with a general trend towards improved coping, but with periodic missteps. Handling the missteps and helping students maintain a resilient, problem-solving attitude is a quintessential feature of CBT for ADHD. During this final phase of CBT during the semester, the effective implementation of coping strategies hopefully reduces the number of problems faced by the student.

Similar to mid-term exams and projects, the end of the semester brings with it the approach of final exams and final projects. Furthermore, there are likely other demands on students' time, such as registering for classes or housing that require immediate attention. Such tasks represent a sort of final exam for the coping skills developed during the semester. Similar to the coping drift experienced after the enthusiasm of the initial sessions, there can be an end of the semester coping fatigue for students with ADHD, and they may benefit from focusing on the need to "finish strong" in terms of using their coping strategies.

In addition to using the repetition of previous academic events to reinforce and consolidate treatment gains and coping strategies, for some students the end of the semester presents an opportunity to reassess how they have come to terms with their diagnosis of ADHD and what is required to manage its symptoms. Some students who arrived at college aware of their diagnosis or who were diagnosed at college but who had mild symptoms, a single semester course of CBT may have been adequate to develop the requisite coping skills required to manage college life or navigate through the problems that led them to seek help. Thus, a final session or two may be spent on termination issues, including issues of relapse prevention, how the student could be his or her "own cognitive behavior therapist" should trouble be encountered in the future.

Other students, however, may require a longer course of CBT. Thus, final sessions of the semester may be spent reviewing the gains achieved

during the semester and the objectives for the upcoming semester. If the student had not already undergone a psychiatric evaluation for medications and/or considered seeking academic support or accommodations, these additional treatment options could be considered and discussed. Likewise, coping issues relevant for how the student handles the between semester break (e.g., handling incomplete courses, managing demands of a summer job) could be discussed in order to review the effects of ADHD on other areas of life. For students who are graduating, final sessions focus on the transition to work and, possibly, the demands of family life. Again, it is useful to consider referrals for therapeutic support for this phase of adult life.

Finally, ADHD symptoms are difficult to manage, particularly for young adults in a college setting. It is important for therapists to help students appreciate their successes, especially the “partial” successes. That is, it is useful to point out to students the changes they have made, even though their efforts may not yet be complete. For example, a student who in previous semesters struggled with poor attendance may have ended up skipping a few classes in a particular course. While the student may have strived for perfect attendance, she or he deserves credit for the effort that resulted in fewer classes being missed than in previous semesters. Such an approach counteracts the tendency of students with ADHD to engage in all-or-nothing thinking (e.g., either success or failure). This approach also reinforces the notion that ADHD requires sustained coping to manage, whether or not the student plans to continue to participate in CBT.

CONCLUSION

Many individuals with ADHD have their symptoms go unrecognized through primary and secondary school. Thus, college and university counseling centers will increasingly become the settings for “early intervention” for adult ADHD. Psychotherapy for adult ADHD has growing empirical support in terms of helping individuals with ADHD develop the requisite coping skills with which to manage its symptoms over the long haul. CBT has emerged as the most promising psychosocial treatment approach for adult ADHD and it would seem to be a particularly useful component of a multimodal treatment approach to help college students with ADHD to navigate their academic and daily lives more constructively.

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