



# Cognitive Behavior Therapy for Adults with ADHD

# 24

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Cognitive behavior therapy (CBT) has been successfully applied to treat a variety of conditions. In the past two decades, this treatment has been adapted to the treatment of adults with attention-deficit/hyperactivity disorder (ADHD). Below, we provide an introduction to basic principles and key characteristics of CBT, discuss the rationale for using CBT to treat adults with ADHD, review and discuss research support for the use of CBT to treat ADHD in adults, and provide a discussion of key treatment components.

## 24.1 Cognitive Behavior Therapy: Theory, Research Support, and Application to ADHD

Early attempts to explain psychopathology emphasized the role of unconscious conflicts. With the rise of behaviorism, the understanding of factors contributing to psychopathology shifted toward explanations based on principles of learned behavior. As the field progressed

further, the role of cognitions (i.e., thoughts) in shaping human experience was increasingly explored and acknowledged.

CBT recognizes the interplay between behaviors, cognitions, and emotions and provides a framework for understanding psychopathology. From this stance, distress and difficulties arise from problematic behaviors, unhelpful cognitions, and painful emotions. At its core, CBT maintains that psychological problems are attributable, at least in part, to both unhelpful thinking patterns *and* learned unhelpful behaviors; also, psychological problems can be treated by teaching individuals better coping strategies and skills, leading to symptom relief.

A person who is suffering from depression, for instance, may experience thoughts that “Nobody likes me” and “Why bother going to work today when I’ll just mess up again?”. These unhelpful thoughts may originate from their depressed mood, but they also serve to cyclically maintain the depression since the thoughts impact how they feel. Furthermore, because of their depressed mood, they struggle to go to work, thus missing opportunities to improve their mood by engaging with coworkers, completing assignments (feeling purposeful), and other naturally rewarding experiences. Thus, their avoidant behavior also serves to reinforce the depression through missed opportunities; instead, this person remains at home where they ruminate on unhelpful thoughts that further decrease their mood.

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The evidence base for CBT is quite strong – this treatment approach has demonstrated efficacy in treating a multitude of mental health disorders in many populations. In a review of 269 meta-analyses, Hofmann et al. (2012) found CBT to be the most effective treatment, or an equally effective treatment compared with others, in nearly 20 different mental health areas of concern. These included substance use, psychotic disorders, mood disorders, trauma, eating disorders, sleep disorders, anger, criminal behavior, general stress, distress due to medical conditions, chronic pain, and pregnancy complications, among others (Hofmann et al., 2012). Furthermore, given the strength of the evidence combined with the cost-effective nature of this treatment, these authors suggested CBT should be the standard first-line approach for mental disorder intervention in most countries (Hofmann et al., 2012).

CBT has several key characteristics – an emphasis on skill-building, a focus on present concerns, standardization in procedures, and active engagement in learning and practicing skills. Each of these is explained in more detail below. First, as noted above, CBT conceptualizes psychopathology as being driven by unhelpful patterns of behavior and unhelpful thinking patterns. Accordingly, a key focus of CBT is teaching skills to address and adjust these patterns. The particular skills included may vary according to the target problem. Some examples of target skills in CBT include relaxation, problem-solving, communication, and social skills (O’Donohue & Fisher, 2012). Second, many CBT approaches are manualized, including a standard number of sessions with particular content and focus. This standardization allows for consistency in the delivery of treatment. Third, CBT emphasizes current distress and concerns rather than focusing on events occurring far in the past. Finally, CBT views therapy as an active process in which practice and implementation of skills are important. For this reason, clients are often asked to complete practice activities outside of the session. Importantly, a collaborative relationship is a key backdrop for the work of CBT - the relationship between therapy providers

and clients provides an important foundation for engaging in the therapeutic work of CBT.

### 24.1.1 Rationale: Why CBT for ADHD?

Before addressing the research support for the use of CBT to treat ADHD in adulthood, it is important to consider *why* CBT might be helpful in the treatment of this lifelong condition. First, as noted above, CBT puts an emphasis on understanding connections between cognitions/thoughts, emotions, and behaviors. In CBT, clients are provided with information, instruction in skills, and guided practice of skills in order to build the ability to cope with symptoms and improve functioning in many areas of life. CBT’s focus on teaching skills to change behavior (which will be referred to as “behavioral skills” from here on) is an excellent fit for the difficulties and challenges experienced by adults with ADHD for several reasons.

### 24.1.2 Limits of Medication

First, it is important to acknowledge that there is ample research evidence to support the use of medication to treat ADHD in adults. Medications, particularly stimulant-class medications, are associated with significant reductions in core symptoms of ADHD and associated impairments (Wilens, 2003; Rostain, 2008). However, it is also true that many adults with ADHD taking medication continue to experience residual symptoms and ongoing difficulties. In fact, findings suggest that medication as a stand-alone treatment may be insufficient in up to 50% of cases (Wilens et al., 2001).

Furthermore, there are some limits to the use of medication. First, some individuals may not be able to tolerate medications due to intrusive side effects (e.g., loss of appetite and sleep disruption). Moreover, it is important to acknowledge that adults with ADHD may make the choice to forego medication as a treatment for ADHD for a variety of reasons. Some may find the side effects too severe. Others may be unable to afford

the ongoing cost of a daily prescription combined with the costs of medication management, which requires regular visits to a prescriber. Individuals may also choose to forego medication as a treatment for ADHD entirely, based on personal preference. In all of these situations, psychosocial treatment in general and CBT in particular are important treatment options for managing the impact of ongoing ADHD symptoms.

Finally, in order to maximize the effectiveness of medication, one must adhere to a regular (daily) regimen and manage ongoing appointments with a prescribing provider. Although this sounds simple enough, these behaviors do require ongoing monitoring of one's own behavior, as well as organization and planning. Of course, these are the exact areas that are often more challenging for adults with ADHD, as some of the core symptoms of ADHD (such as forgetfulness and distractibility) often interfere with planning, organizing, and monitoring one's daily behavior. The skills and strategies that are often the focus of CBT for adults with ADHD can help address these barriers to consistent medication use, thereby maximizing its effectiveness. For instance, an individual could use visual reminders or prompts to cue themselves to take their medication each day after eating breakfast, thus ensuring that they have eaten a solid meal before taking medication. We discuss many more examples and possibilities of such strategies in Sect. 24.2.2.

### 24.1.3 Cognitions

Another key reason for using CBT to treat ADHD is the focus on addressing unhelpful thinking patterns with cognitive techniques. This is important for multiple reasons. First, the core symptoms of ADHD and associated difficulties have often led to experiences of failure or problems with achieving personal goals. For example, academic performance can be impacted by difficulties with sustaining focus, thus limiting educational attainment despite intellectual abilities. This is supported by findings that adults with ADHD attain less education than their intellectual

abilities would suggest (Biederman et al., 2008). Over time, these experiences can contribute to a pattern of self-doubt that is apparent in thoughts such as "I never do well in school" or "I always screw things up." In turn, these thinking patterns increase vulnerability to anxiety and depression (Eddy et al., 2018). Cognitive techniques (discussed in more detail in the section titled "Cognitive Strategies") commonly taught in CBT are designed to help reduce and adjust these types of negative thinking patterns. Accordingly, cognitive strategies as a key component of CBT may play an important role in both reducing ongoing symptoms of comorbid depression and anxiety and preventing the development of comorbid depression and anxiety disorders.

Importantly, addressing comorbid depression and anxiety is not the sole reason for including cognitive strategies in the treatment of ADHD in adults. Historically, cognitive techniques have received less focus in the context of treatment of ADHD in adulthood in comparison to behavioral techniques (for an excellent detailed discussion of this topic, see Ramsay (2017)). In general, the prevailing sentiment has held that managing symptoms of ADHD through the use of medications and behavioral coping techniques is the primary focus of treatment, and the implementation of cognitive strategies has been perceived as a secondary element, important only insofar as it addresses comorbid symptoms of depression and anxiety. In contrast to this view, there is increasing evidence supporting the fact that although unhelpful thinking patterns do not *cause* ADHD, they are certainly associated with ADHD. For example, in comparison to adults without ADHD, adults with ADHD demonstrate higher levels of unhelpful thinking patterns, even in the absence of cooccurring depression (Abramovitch & Schweiger, 2009; Mitchell et al., 2013). Furthermore, particular types of procrastination may be driven by unhelpful thinking patterns. For instance, the thought "I do my best work at the last minute" or variations of this belief have been noted by multiple authors addressing the topic of unhelpful thinking patterns associated with ADHD (Knouse & Mitchell, 2015; Ramsay, 2017). This type of

thought tends to lead to procrastination, which is a common problem for adults with ADHD.

For all of these reasons, cognitive techniques should be viewed as a key component to CBT for adults with ADHD.

#### **24.1.4 Chronic Nature of ADHD**

Finally, ADHD is a chronic condition for a majority of individuals (Biederman et al., 2010), and the symptoms of ADHD can interfere with a variety of areas of life. Building the ability to effectively manage ongoing symptoms is a life-long process for most individuals with ADHD. Skills and strategies can (and should be) applied and used even after treatment has ended. While this is certainly helpful for people struggling with a variety of mental health challenges, it is especially important for those with a chronic condition such as ADHD.

#### **24.1.5 Psychoeducation**

A common component of many of the CBT protocols and approaches designed for the treatment of ADHD in adulthood is an emphasis on psychoeducation. This refers to providing accurate information on the core symptoms, associated difficulties, and treatment options. While the exact content may vary slightly from one treatment protocol to another, the common goal is to increase individual's knowledge and understanding of ADHD in order to best equip them to take an active role in their own treatment. This is particularly important, given that people are exposed to inaccurate and misleading information in the course of daily life. Moreover, CBT offers the chance to provide information tailored to the individual's age and presentation. Many people diagnosed with ADHD are first diagnosed in childhood. As they grow into adulthood, they need updated information on how their ADHD symptoms may present differently later in life. They should also be provided with information on how symptoms can lead to different types of risks that only become relevant later in life. One

excellent example is learning to drive a car. ADHD is associated with greater driving-related problems. For instance, young adults with ADHD are at a higher risk of automobile accidents and speeding citations. While this information is not currently relevant for a six-year-old diagnosed with ADHD, it will become highly relevant later in life. Accordingly, to help people best manage their symptoms, they should be provided with psychoeducation tailored to their particular stage in life. CBT puts a focus on psychoeducation that facilitates a better understanding of this lifelong condition.

#### **24.1.6 Research Evidence**

While the use of CBT in the treatment of conditions such as depression and anxiety is long-standing, the use of cognitive behavioral therapy to treat ADHD in adulthood is a relatively recent development. In recent years, the use of CBT for ADHD in adults has become far more widespread, and it is fair to state that in the realm of psychosocial treatment for ADHD in adults, CBT is considered the first line of treatment based on the research evidence for its efficacy (Knouse et al., 2017; Ramsay, 2010).

In a recent meta-analysis assessing the evidence for the use of CBT to treat ADHD in adulthood, findings suggested that CBT resulted in significant improvements in terms of ADHD symptoms and general functioning with effect sizes ranging from medium to large across outcomes (Knouse et al., 2017). Importantly, the effects of treatment did not vary according to medication status or treatment format. This indicates two things: CBT does not need to be combined with medication treatment in order to be effective and both group and individual treatment approaches are viable formats. Below, we discuss the existing research on CBT for the treatment of ADHD in adulthood in more detail and highlight key components of these treatment approaches in order to help identify important commonalities. Importantly, for the purposes of this review, we have included studies testing

treatment protocols that are either described by the authors as cognitive behavioral treatments or those that are clearly consistent with cognitive behavioral treatment. In addition, we review the treatments designed to be primarily delivered by trained therapists, as opposed to primarily self-directed interventions (e.g., Stevenson et al., 2003; Moëll et al., 2015) or ADHD coaching interventions (e.g., Prevatt & Yelland, 2015). Finally, we have included treatments designed to treat ADHD as the primary area of focus; therefore, approaches designed to treat comorbid symptoms in the context of ADHD (e.g., Bramham et al., 2009) are not discussed. While the results from these studies are certainly promising, they are outside the scope of this chapter. Additionally, it should be noted that dialectical behavioral therapy and mindfulness-based cognitive behavioral therapy, which are considered “third-wave” cognitive behavioral treatments, have been applied to treat ADHD in adults with promising results; however, these topics are addressed in other chapters in this volume. Accordingly, we do not review the research for these treatment approaches here.

#### **24.1.6.1 Individual Therapy**

The earliest trial of cognitive behavioral treatment for adults with ADHD delivered in an individual format was conducted by Rostain and Ramsay (2006). In this study, potential participants were first comprehensively assessed and diagnosed with ADHD, then treated with a combination of CBT and pharmacotherapy/medication. This treatment approach was later published as *Cognitive Behavioral Therapy for Adult ADHD: An Integrative Psychosocial and Medical Approach*. Outcomes included ADHD symptoms, ratings of ADHD severity, overall functioning, and depression and anxiety symptoms. Results were highly promising – participants who completed treatment ( $N = 43$ ) demonstrated significant improvements in all outcomes. This suggested that this combined treatment approach held the potential for the treatment of ADHD in adults. However, given the combined nature of this treatment approach, it was not possible to disentangle

the effects of CBT from the effects of medication. It is interesting to note that the original intent and design of this study was to compare outcomes of adults treated with a combination of CBT and medication, those treated with CBT only and those treated with medication only. However, the vast majority of participants selected combined treatment (CBT plus medication) as their treatment of choice as opposed to medication only or CBT only. Accordingly, the number of participants in these groups was too small to conduct a comparison of treatment effects. This certainly indicates a general interest and openness in this treatment approach.

Safren and colleagues developed and tested a cognitive behavioral treatment protocol for ADHD in adults consisting of 12 individual therapy sessions, which was later published as *Mastering Your Adult ADHD: A Cognitive-Behavioral Treatment Program*. The treatment protocol included psychoeducational information about ADHD, instruction in behavioral strategies designed to facilitate planning, organization, and manage distractibility, and cognitive strategies designed to promote adaptive thinking and reduce thinking patterns associated with distress and problems. Participants were instructed to engage in practice and implementation of skills outside of session. In an initial study of this treatment, 31 adults with ADHD already receiving medication treatment (mean age = 45.5) were randomized to receive either this cognitive behavioral treatment or ongoing medication management (Safren et al., 2005). Results indicated that the group receiving CBT demonstrated significantly lower ADHD symptoms and lower general illness severity (i.e., general functioning as rated by study clinicians) at the conclusion of treatment compared to the control participants. Furthermore, participants in the CBT group reported lower levels of depression and anxiety at the conclusion of treatment. Importantly, these results were observed on self-report measures as well as ratings conducted by independent observers (Safren et al., 2005). Additional evidence for the efficacy of this protocol was provided by a randomized controlled trial testing

this treatment against an active treatment control condition with a sample of 86 adults (mean age = 42.3; Safren et al., 2010). All participants in the study were receiving active and ongoing medication management to treat ADHD and had been identified as patients who might benefit from additional treatment. Participants in the active treatment control condition received relaxation training and educational support. Significantly, more participants in the CBT group responded to treatment, showing improvements across self-rated ADHD symptoms as well as observer-rated ADHD symptoms and general illness severity. For those who responded to CBT, improvements were maintained at 6 months and 1 year posttreatment (Safren et al., 2010).

Weiss and colleagues tested the efficacy of a cognitive behavioral treatment for adults with ADHD, which included a particular focus on problem-solving in a randomized controlled trial conducted across five sites (Weiss et al., 2012). The treatment protocol (nine sessions) included a focus on psychoeducation about ADHD as well as instruction in problem-solving approaches. Importantly, this treatment also included a focus on teaching and implementing strategies such as organizational techniques and prioritizing techniques in order to address key difficulties identified by participants. Finally, participants were instructed to engage in active practice of skills outside of sessions. Treatment occurred every 2 weeks for the first seven sessions, with the final two sessions occurring once monthly. Participants ( $N = 48$ ) were randomized to receive either CBT plus medication (dextroamphetamine) or CBT with a placebo. Further, both participants and therapists administering CBT were blind to treatment condition (i.e., whether participants were receiving medication or a placebo). Thus, this study provided a rigorous direct comparison of the efficacy of this treatment with and without concurrent medication. Further, the fact that both patients and therapists were blind to treatment condition provided a way to control for the impact of both therapist and patient expectations on treatment outcome. Results indicated robust effects of both treatments on both ADHD symptoms and general functioning (effect sizes ranging from

moderate to large). There was no significant difference in outcomes across groups, although there was a trend for the group receiving CBT plus medication to show greater improvement. Furthermore, improvements were maintained as treatment was tapered from biweekly sessions to monthly sessions, which occurred at 15 and 20 weeks after the start of treatment (Weiss et al., 2012).

Van der Oord et al. (2020) tested the effectiveness of a brief (six sessions) cognitive behavioral treatment for college students with ADHD in a controlled trial. This intervention was designed for implementation in college counseling centers. It included a focus on planning and organizational skills, particularly as applied to studying and managing academic works. The treatment also included psychoeducation about ADHD and a focus on goal setting and planning to implement skills. Participants ( $N = 58$ ) were assessed to confirm their diagnosis of ADHD, then randomized to the intervention condition or a waitlist control condition. Importantly, some participants were receiving medication to treat ADHD and others were not – approximately 83% of the overall sample reported taking medication to treat ADHD. The percentage of participants in the waitlist control group taking medication was higher (93%) as compared to the treatment group (73%). Participants were asked to refrain from making changes to their medication treatment during the course of the study. Treatment was provided by licensed therapists working in college counseling center settings who were given an eight-hour training prior to the start of treatment. Thus, these conditions closely mimic the real-world implementation of treatment protocols. At posttreatment, participants in the cognitive behavioral intervention group demonstrated significantly greater improvements in symptoms of inattention but not in measures of study skills or comorbid symptoms (e.g., depression, anxiety; Van der Oord et al., 2020).

Taken together, results from these studies indicate that CBT delivered in individual sessions is associated with improvements in terms of both ADHD symptoms and general functioning. All of the treatment protocols used in the studies

described above were short-term (ranging from 6 to 12 sessions), structured, and included an emphasis on psychoeducation, skill building, and practice/implementation of skills. Furthermore, findings suggest that CBT can result in improvements for adults with ADHD who are *not* receiving concurrent medication for ADHD (Weiss et al., 2012) and for those who are stabilized on a medication regimen but report continued difficulties and impairments (Safren et al., 2005, 2010). Finally, there is evidence that CBT can be effective when implemented outside of highly structured and controlled research studies (Van der Oord et al., 2020).

#### 24.1.6.2 Group Therapy

Solanto and colleagues developed metacognitive therapy, a group cognitive behavioral intervention. The treatment protocol included 12 sessions (2 hours apiece) delivered weekly for 12 weeks. The focus of this treatment included building organization, time management, and planning skills, in addition to recognizing and challenging unhelpful thinking patterns. As with other cognitive behavioral interventions, this treatment included a focus on participants implementing and practicing skills outside of session. Further, the authors note that the group design allowed the modeling of skills by other group members, as well as positive reinforcement from other group members and the therapist. In a randomized controlled trial testing the efficacy of this treatment, 88 adults diagnosed with ADHD were assigned to one of two active treatment conditions: metacognitive therapy or supportive therapy. Supportive therapy consisted of sessions in which general therapeutic skills were utilized but not cognitive behavioral techniques. Participants in the metacognitive therapy group improved significantly more on measures of ADHD symptoms; moreover, a great number of participants in the metacognitive group were categorized as treatment responders. Impressively, improvements were demonstrated both on self-report measures completed by participants themselves, as well as on measures completed by independent observers and by collateral reporters (e.g., participants' partners, roommates, and

friends, who were asked to rate symptoms). Many participants were on a concurrent medication regimen to treat ADHD; however, they were required to be on a stable regimen at least 2 months before starting treatment. Further, changes in medication were tracked and controlled for, and statistical analyses indicated medication status did not impact the results.

Another group CBT approach was tested by Virta and colleagues in an open trial followed by a randomized controlled study (Virta et al., 2010). Results from the initial open trial suggested that this group treatment approach resulted in significant improvements in self-reported ADHD symptoms at posttreatment. On the basis of these findings, a randomized controlled trial was conducted to further assess the efficacy of this approach. In this study, participants ( $N = 29$ ) were randomly assigned to a group CBT treatment ( $N = 10$ ), an individual cognitive training (CT) condition delivered virtually ( $N = 9$ ), or a control condition receiving no treatment ( $N = 10$ ). About half the sample was concurrently receiving medication to treat ADHD (58%). Participants were required to have a medication regimen that was stabilized at least 2 months prior to the start of treatment. The number of participants using concurrent ADHD medication was equivalent in each condition, that is, the rate of medication use was not significantly different across treatment conditions. The group CBT treatment included 10 sessions delivered weekly. Treatment included psychoeducation about ADHD, behavioral skills and strategies, and an emphasis on recognizing and adjusting unhelpful thinking patterns. Participants were given between-session practice assignments, and a review of these assignments was conducted in each session. The CT condition received a total of 20-hour-long sessions in which participants were asked to complete a number of computerized tasks designed to target a variety of cognitive abilities, including attention, executive functioning, and working memory. They received individual feedback on their performance from a psychologist. The sample size used in this study was small, which limited the ability to compare scores across groups with

typical statistical analyses. However, the authors were able to categorize participants as treatment responders or nonresponders based on whether or not participants reported improvements in measures of ADHD symptoms. To be classified as “improved,” participants had to demonstrate reductions in ADHD symptoms on three different self-report measures of ADHD symptoms. At the conclusion of treatment, it was clear that a larger proportion of CBT group participants improved using this definition. Specifically, 6 participants were classified as “improved” in the CBT group compared to 2 in the cognitive therapy group and 2 in the control group. In addition, a larger proportion of CBT group members (7 out of 10) were rated as “improved” on measures of general functioning completed by independent evaluators who were blind to treatment condition. In comparison, only 2 participants in the CT group and 3 participants in the control group were rated as improved. Furthermore, a follow-up study demonstrated that those participants who improved in the original Virta et al. study maintained their improvement at 3 and 6 months after treatment (Salakari et al., 2010). Thus, the positive effects of treatment appeared to be persistent. In sum, results suggested that CBT delivered in a group format tended to result in lasting improvement; however, the small sample size severely limits the conclusions that can be drawn from this study.

Another group-based CBT treatment was tested in a randomized controlled trial conducted in China ( $N = 108$ ; Huang et al., 2019). This study tested the implementation of the Safren and colleagues’ protocol (Safren et al., 2017) in a group format. Participants were randomized to a waitlist control ( $N = 22$ ), a 12-session CBT group ( $n = 43$ ), or a 12-session CBT group plus three booster sessions ( $N = 43$ ). Groups occurred weekly for 12 weeks, with sessions lasting 2 hours. Groups were composed of eight to twelve participants. After 12 weeks, booster sessions were conducted once per month (3 sessions) and treatment concluded after 24 weeks. Of note, the percentage of participants receiving concurrent medication to treat ADHD was fairly low (38.89%). Results indicated that

after 12 weeks, both the CBT and CBT plus booster conditions demonstrated significant improvements in ADHD symptoms and executive functioning difficulties compared to the waitlist control condition. However, significant differences on measures of quality of life, depression, and anxiety were not observed. When groups were compared at 24 weeks (after booster sessions), there was no significant difference between those receiving CBT and those receiving CBT plus booster sessions.

Philipsen and colleagues conducted a large ( $N = 419$ ) randomized controlled trial testing the efficacy of group cognitive behavioral therapy for ADHD against the effects of clinical management, which consisted of weekly individual sessions of supportive, nondirective counseling (15–20 minutes) designed to simulate general practice (Philipsen et al., 2015). Both the CBT group and clinical management sessions occurred weekly for 12 weeks, and then each was tapered to monthly sessions for an additional ten sessions. Furthermore, participants in each condition were separated into groups receiving either concurrent medication to treat ADHD (methylphenidate) or a placebo. Thus, this study was designed to assess the effects of group CBT both with and without medication; moreover, these effects were compared to the effects of clinical management both with and without medication. There was a significant treatment effect associated with methylphenidate - that is, participants who received either medication plus group CBT or medication plus clinical management showed a better treatment response on average than those receiving either treatment plus placebo. However, group CBT did not perform significantly better than clinical management - participants in both groups improved on measures of ADHD symptoms, but this improvement was not significantly stronger in either therapeutic condition (CBT vs. clinical management). It is important to note that group CBT did outperform clinical management on one particular measure - CBT was consistently associated with better ratings on the global assessment of effectiveness scale of the Clinical Global Impression scale (CGI), which indicates changes



on constructs such as improved self-esteem and coping skills (Philipsen et al., 2015).

Finally, LaCount and colleagues tested a brief, three-session intervention for college students with elevated levels of ADHD symptoms and academic difficulties (LaCount et al., 2018). Participants ( $N = 37$ ) were randomized to receive either the group treatment ( $N = 22$ ) or a control (no treatment) condition ( $N = 15$ ). This treatment, adapted from the metacognitive therapy protocol published by Solanto et al., placed a specific focus on organization, time management, and planning skills. Each group session was 1 hour long and focused on instruction in a particular skill. Consistent with other cognitive behavioral treatments, participants were encouraged to apply skills outside of session. At the end of treatment, participants in the group condition reported significantly lower levels of ADHD symptoms and academic problems compared to control group participants. However, although intervention group participants did show gains relative to control participants in organization, time management, and planning skills, these improvements were not large enough to represent reliable change. Further, these findings must be interpreted with caution, given that not all participants in the sample were diagnosed with ADHD (approximately 25% of the sample reported a prior diagnosis of ADHD). Nevertheless, it is certainly notable that improvements were observed after such a brief intervention.

As a whole, these findings suggest CBT delivered in a group format is associated with improvements in core ADHD symptoms. However, it is less clear to what degree this improvement might be attributable to the combination of CBT and medication. For instance, findings reported by Philipsen et al. (2015) suggest a main effect of medication, given that outcomes did not differ according to whether participants received group CBT or individual clinical management. In contrast, medication use did not impact the results reported by Solanto et al. Further, results from the Huang et al. (2019) study suggest improvements associated with CBT, despite the fact that a notably low percentage of participants (38.89%) were receiving concurrent

medication treatment for ADHD. Thus, there is reason to suppose that group CBT can be effective regardless of medication status. Finally, there is preliminary evidence that improvements can be observed after even very brief (e.g., three sessions) interventions (LaCount et al., 2018).

### 24.1.6.3 Combined Approaches

A number of studies have evaluated cognitive behavioral approaches that combine group treatment with varying levels of individual treatment, mentoring, or contact. Often, this combination is designed to allow for the delivery of material and instruction in skills in the group component of treatment, while individual sessions focus on discussion of how to individually apply and tailor skills and strategies.

In the earliest test of this type of combined approach, Stevenson et al. (2002) tested an intervention described as “cognitive remediation,” which included key cognitive behavioral elements such as building skills to improve organization, focus, and task management as well as instruction in recognizing and challenging unhelpful thinking patterns. The treatment included eight sessions (2 hours long each) delivered weekly. Participants were also assigned “support persons” who functioned as coaches and facilitated implementation of skills and strategies taught in groups. In a randomized trial, participants were assigned to either the CBT intervention or a waitlist control condition. At post-treatment, participants in the CBT group demonstrated significant reductions in ADHD symptoms, improvements in organizational skills, and reduced anger. Effect sizes were moderate to large (Cohen’s  $d$  ranging from  $d = 0.5$  to  $d = 1.4$ ). Furthermore, treatment gains on measures of ADHD symptoms and organizational skills were maintained when assessed one-year post-treatment (Stevenson et al., 2002).

Young and colleagues tested a 15-session cognitive behavioral treatment including both group and individual components in a randomized controlled trial. Participants included 95 adults with ADHD, who were already receiving medication to treat ADHD. Participants were randomly assigned to receive either CBT or

treatment as usual. Participants in the CBT group showed significantly greater improvements in ADHD symptoms at the conclusion of treatment, according to both participants' self-report and ratings completed by independent observers. Further, participants did show improvements on quality of life, depression, and anxiety; however, these effects were not specific to the CBT condition.

Another cognitive behavioral approach combining group and individual components was assessed by Emilsson and colleagues. This treatment consists of 15 sessions, conducted twice weekly. Groups were supplemented by individual coaching sessions (30 minutes) conducted in between group sessions. In a randomized controlled trial, participants ( $N = 54$ ) who were already receiving medication to treat ADHD were randomized to receive either this cognitive behavioral group treatment or treatment as usual (i.e., ongoing medication management). Those receiving CBT demonstrated significantly greater improvements on measures of ADHD symptoms at post-treatment. This held true for both self-report measures of ADHD symptoms as well as ADHD symptoms rated by independent evaluators. Interestingly, additional improvements were observed at a three-month follow-up assessment. Specifically, the CBT group demonstrated significant improvement compared to the treatment-as-usual group on measures of depression and anxiety. Improvements in core ADHD symptoms were also maintained.

Some combined treatment approaches were developed specifically for college students with ADHD. Anastopoulos and colleagues developed a combined cognitive behavioral treatment designed for college students with ADHD, later published as *CBT for College Students with ADHD: A Clinical Guide to ACCESS* (Anastopoulos et al., 2020a, b). This treatment includes two phases, conducted over the course of two academic semesters. In the first phase, participants attend eight group meetings and eight to ten individual mentoring meetings. In the second phase of treatment, participants attend

one group meeting and complete four to six individual mentoring meetings. This treatment approach was systematically developed via a pilot study followed by an open trial (Anastopoulos & King, 2015; Anastopoulos et al., 2020a, b). Evidence indicated this treatment resulted in improvements in ADHD symptoms, executive functioning, depression, and anxiety (Anastopoulos & King, 2015; Anastopoulos et al., 2020a, b); furthermore, these improvements were maintained 5–7 months after the start of treatment (Anastopoulos et al., 2020a, b). It was further evaluated via a large, multisite, randomized controlled trial (Anastopoulos et al., 2021). In the randomized controlled trial, 250 participants were randomized to receive treatment immediately or 1 year later (waitlist treatment control condition). Results from this trial indicated this treatment was associated with significant reductions in ADHD symptoms, reductions in executive functioning difficulties (Anastopoulos et al., 2021) as well as significant improvements on functional outcomes. Importantly, significant improvements were demonstrated on key areas commonly targeted in CBT, including the use of behavioral strategies to manage ADHD symptoms, improvement in knowledge of ADHD, and reduction in unhelpful thinking patterns (Anastopoulos et al., 2021). This suggests that this CBT intervention improves hypothesized active mechanisms of treatment.

Another combined cognitive behavioral treatment protocol targeting ADHD in college students was developed by Hartung et al. (2020). This intervention combines six group sessions with two individual sessions. It puts a particular emphasis on organization, time management, and planning skills and specific instruction in applying these skills in academic work. Like other CBT protocols, this treatment also includes psychoeducation about the core characteristics of ADHD. This intervention was first developed and pilot-tested in an open trial with 12 participants (LaCount et al., 2015). In this study, a combined group and individual format was used, including 10 group sessions and

10 individual sessions. Results suggested that this treatment was promising, with improvements in core ADHD symptoms and general functioning in multiple domains of life (LaCount et al., 2015). In an open trial, this treatment was associated with significant improvements from pre- to posttreatment in ADHD symptoms, impairment, self-concept, and use of organization, time management, and planning skills (Hartung et al., 2020).

Consistent with findings discussed in the individual and group therapy sections, there is reason to conclude that cognitive behavioral treatment utilizing a combined approach (i.e., group plus individual treatment elements) is effective in the treatment of ADHD in adulthood. It is notable that two of the studies discussed above tested the efficacy of CBT for adults already receiving medication to treat ADHD. Other studies testing a combined approach included samples in which some, but not all, participants were receiving concurrent medication to treat ADHD (Anastopoulos et al., 2021; Hartung et al., 2020). Importantly, these studies reported significant improvements in a number of outcomes (ADHD symptoms, functional impairment), suggesting that CBT delivered in a group approach can be effective either when delivered without concurrent medication or in combination with medication to treat ADHD. However, it should be noted that these studies either did not include a control group (Hartung et al., 2020) or utilized a waitlist control (Anastopoulos et al., 2021). In addition, both studies were designed to evaluate the efficacy of CBT for young adults with ADHD attending college, in particular (Anastopoulos et al., 2021; Hartung et al., 2020). In sum, there is enough evidence to conclude that CBT delivered in a combined format is effective for treating ADHD in adults receiving concurrent medication to treat ADHD. There is some evidence to support the conclusion that CBT delivered in a combined format is effective for college students with ADHD, regardless of medication status. Additional research including studies testing the effects of combined protocols with and without concurrent medication would be helpful in distinguishing between the effects of

CBT alone and the effects of medication plus CBT.

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## 24.2 CBT for Adults with ADHD: Key Treatment Components

In the previous section, we reviewed the existing research on the use of CBT to treat ADHD in adulthood. Below, we highlight key techniques and strategies that are common to many of the manualized treatments described above. We have organized this section into three major areas: Psychoeducation, Behavioral Strategies, and Cognitive Strategies. This section is not meant to serve as a treatment manual; instead, the goal is to provide an introduction to some of the most commonly used techniques in CBT for ADHD in adulthood.

### 24.2.1 Psychoeducation

The vast majority of cognitive behavioral treatment protocols for adults with ADHD begin with some level of psychoeducation on the topic of ADHD. This generally includes a discussion of the core symptoms of ADHD, with a focus on explaining how the clinical terms reflecting criteria for ADHD (e.g., “trouble sustaining focus) translate into the behaviors, tendencies, and challenges occurring in the lives of adults with ADHD. Depending on the treatment approach, this portion of treatment might also include a discussion of the neurobiological basis of ADHD, and presentation of information about key areas of difficulty for adults with ADHD. The goal of providing such information is to increase understanding and awareness. This is often provided at the start of treatment, since greater understanding and awareness may translate to a stronger belief in the potential of improvement with treatment (i.e., positive outcome expectations). Robust research findings support associations between clients’ outcome expectations early in treatment and posttreatment outcomes (Constantino et al., 2018). Accordingly, strengthening client beliefs in the potential

of improvement with treatment is no small goal, but rather a key pathway through which to positively influence outcomes.

In addition to building accurate knowledge and understanding of ADHD, psychoeducation can also have the overlapping effect of correcting myths and misunderstandings about ADHD. This is no small goal, given the proliferation of inaccurate information about ADHD that is available online. For example, despite the fact that there is no systematic research evidence supporting the use of cannabis to treat ADHD, in an interesting qualitative analysis of posts in online discussion forums, Mitchel and colleagues found that 25% of posts endorsed beliefs that cannabis was useful as a treatment for ADHD. In contrast, only 2% of posts expressed the view that cannabis was neither harmful nor helpful (Mitchell et al., 2016). This serves to highlight the fact that people are exposed to a variety of information relating to ADHD online, and not all of this information will be anchored by accurate sources.

### 24.2.2 Behavioral Strategies

Most, if not all of the treatment protocols used in the research reviewed above includes a focus on techniques that we will refer to as “behavioral strategies.” The theoretical premise of these strategies draws from learning principles commonly used in behavioral therapy. For instance, positive reinforcement, negative reinforcement, and modeling are all key principles that underlie the rationale for many of the following techniques and strategies. These principles are applied in order to understand the reasons for problematic patterns of behavior and also guide the application of intervention techniques to modify problem behavior. For example, adults with ADHD often report difficulty with distractibility – that is, when working on a task they may find their attention wanders to other things – they may look out the window, or check their phone, or get drawn into a conversation with a coworker. This tendency can be understood as having a tendency to be drawn to more *immediate* positive reinforcement (engaging conversation, phones, an interesting

view from the window) at the expense of the (more delayed) reinforcement that follows completion of a task. Understanding this tendency in behavioral terms allows for the application of a number of strategies to alter the problem behavior. For instance, one might make changes in the environment and reduce distracting stimuli by sitting away from the window, putting one’s phone away and silencing it while working, or putting in headphones or closing one’s office door to forestall conversations.

Moreover, one of the consistent themes observed across treatment manuals and protocols is a focus on strategies that promote effective organization, time management, and planning. Many of the key problems associated with ADHD are linked to problems with completing tasks and attaining goals. This can occur in a workplace, in a school environment, at home, or when setting personal goals (e.g., getting adequate sleep and eating a healthy diet). To complete goals, we must engage in planning, organizing, monitoring, and adjusting our own behaviors. The core symptoms of ADHD often interfere with the ability to do so. For instance, difficulties with organization can lead to problems with planning when to complete a task, and difficulties sustaining focus can lead to problems with completing a task in the time required. Although the use of these strategies is not restricted to the realm of CBT, it is certainly highly relevant for adults with ADHD, who commonly struggle with planning, organizing, and monitoring their own behavior in order to meet goals.

In sum, there are numerous strategies and skills within the category of behavioral strategies. Below, we seek to highlight many commonly used strategies, illustrate how these are applied, and discuss the general rationale for each. This is certainly not a comprehensive list of each and every behavioral strategy that can be utilized in CBT for adults with ADHD; rather, this is designed to provide readers with an introduction and a general feel for the topic. Importantly, there is often not one “correct” way to execute each skill. Instead, strategies can be personalized to meet an individual’s needs while utilizing their

strengths. Implementation may look somewhat different across individuals.

#### **24.2.2.1 Calendars and Planners**

A common recommendation in CBT for adults with ADHD is to implement the use of a calendar/planner. In short, this involves the use of a system to keep track of appointments and deadlines and to facilitate general planning. The format used might be digital, paper, or a combination of both. These tools provide a central place to enter deadlines, doctor's appointments, regular meetings, and so forth. This minimizes the chance of overlooking or forgetting deadlines and appointments and allows for more effective planning of time.

#### **24.2.2.2 Task Lists**

Another frequent recommendation is implementing a task list system, which provides a central location for adults with ADHD to keep track of ongoing tasks, projects, and responsibilities. Having a central location in which to record tasks allows better management of the variety of tasks and responsibilities that an individual may have. Further, regular review of a list helps reduce the tendency to procrastinate, which is a commonly reported concern among adults with ADHD.

#### **24.2.2.3 Breaking Down Tasks**

A related strategy is breaking large tasks into smaller parts. In our experience, adults with ADHD often report feeling "overwhelmed" by tasks. This can occur when facing large, complex tasks or when managing multiple tasks at once. In response to this distress, it is common to procrastinate. Procrastination serves as a means to "escape" the distress and is therefore operating according to the principle of negative reinforcement. Since procrastination removes something aversive (distress) it is more likely to continue to occur, despite the fact that it often leads to even more problems and difficulties later. For example, putting off an intimidating project can result in feeling better momentarily, but can lead to rushing to finish work at the last minute, turning in half-completed work, or missing deadlines. To

counteract the possibility of procrastination, it is helpful to break a task into smaller parts which often feel more manageable. This is often referred to as subtasking, or "chunking" tasks into smaller steps. Further, this allows for more immediate reinforcement of on-task behavior. An adult with ADHD using this strategy can integrate some sort of positive reinforcement after completing each subtask. For instance, they might get a coffee after completing the first subtask and take a brief break after completing the second subtask, and so on. Thus, they are positively reinforcing their own on-task behavior.

#### **24.2.2.4 Focusing and Managing Distractibility**

Once a task is identified and broken into steps if necessary, it is still important to sustain attention while working on the task. This can be challenging since the trouble with sustaining attention is a common symptom of ADHD. Further, sustaining attention inherently requires the management of distractibility, another key symptom of ADHD. There are a number of different behavioral strategies that can be applied to help sustain attention. Two common recommendations are setting specific, relatively brief, time-based goals and keeping a notepad or other place to write down and track distracting thoughts.

In contrast to setting a goal of completing one task (i.e., completing a report at work), using time-based goals involves working on one particular task for a certain length of time (e.g., 10 or 25 minutes). The use of a timer is encouraged to track this. At the end of this period, one can take a brief break (e.g., 5 minutes). Different approaches have been used to define the ideal time – some prefer to set a specific length of time such as 25 minutes. It is also possible to tailor the length of time to a particular person's attention span.

To help manage distraction during these focus periods, it can be helpful to keep a place to quickly jot down or note distracting thoughts. Then, these can be reviewed later. This prevents jumping to another task before the first has been completed. For example, when working on a large project, someone may suddenly remember a need to pay their monthly phone bill. Instead of

stopping what they are currently doing, they can write it down and use the upcoming 5-minute break to complete this task. Further, there are now numerous applications that block specific browser URLs or phone apps for select time periods as well as “focus modes” on computers and phones. All these tools aid in preventing distractions during task execution.

#### **24.2.2.5 Prioritization Techniques**

Adults with ADHD may engage in what has become known as “productive procrastination.” In other words, an adult with ADHD may avoid a pressing, important task by working on several other tasks from their task list which are not as important. This represents a breakdown in the ability to prioritize tasks effectively. Accordingly, learning to effectively prioritize tasks is a frequently used strategy in CBT for adults with ADHD. Different prioritization systems have been suggested – the common theme is systematically deciding upon the level of importance for some particular task (e.g., A = must complete today, B = can be put off until tomorrow, and C = can be put off for a few days). This categorization of tasks then guides the order of completion (using the example given above, all “A” tasks are completed first, followed by B tasks and C tasks).

Many of the strategies described above help manage the impact of symptoms in situations where individuals have some control over their activities. However, there are many situations in which people may be required to sit and focus for a sustained period of time (e.g., during a work meeting or in class). In such cases, behavioral cues can be used to build associations and bring awareness to this unconscious process of becoming distracted.

#### **24.2.2.6 Cues, Prompts, and Reminders**

In order to change problem behaviors and build more effective behaviors, one can construct and implement various types of cues that prompt certain behaviors. This is consistent with behavioral principles. Specifically, cues serve as “stimuli” that prompt a learned behavior. For example, to address forgetfulness (a common complaint

among adults with ADHD) the use of visual cues can be helpful. Visual cues can take the form of colored notes, drawings, objects, and so forth. To promote consistent medication use, placing a medication bottle on top of a bathroom sink in clear view can prompt the behavior of taking a medication. Similarly, post-it notes or reminders linked to smartphones can prompt a variety of adaptive behaviors. Instead of relying on one’s ability to remember to complete the behavior, we alter the environment (build a visual cue) and therefore increase the likelihood the behavior will actually occur.

It is also possible to use actions or events as “cues” to engage in certain behaviors. This can be particularly helpful in trying to alter or reduce problem behavior. For example, an adult with ADHD may report frequently becoming distracted in office meetings. They report having trouble catching this behavior before it occurs – instead, they often become aware they have lost track of the meeting after having missed importation material. This adult typically has a cup of coffee or water in these meetings. To help reduce their distractibility, they use their awareness of becoming distracted as a “cue” to reach for the cup, take a sip, and refocus their attention on the meeting. Therefore, the recognition of losing focus cues a specific behavior (reach for cup, take a sip) and prompts them to refocus their attention.

### **24.2.3 Cognitive Strategies**

In addition to the behavioral strategies described in detail above, CBT typically includes a focus on identifying, challenging, and adjusting unhelpful thinking patterns. This is particularly useful and relevant for adults with ADHD for a number of reasons. In many cases, unhelpful thinking patterns have developed, which lead to sadness and frustration. As documented in other chapters of this volume, adults with ADHD experience impairment in a number of life domains. Often, this impairment stretches back to childhood. As a result, individuals with ADHD may develop beliefs such as “I never do well in school” or “I

never complete projects” as a result of academic- or work-related difficulties. Similarly, struggles in relationships due to symptoms of ADHD such as difficulty focusing on conversations, interrupting others, or general impulsivity may lead to beliefs such as “I’m a terrible friend” or “People don’t like me.” Importantly, these kinds of beliefs represent misinterpretations of reality or at least extreme exaggerations.

As with CBT for other conditions, the process of identifying unhelpful thinking patterns increases awareness of how thinking patterns influence both behaviors and emotions. This increased self-awareness then leads to the ability to challenge and adjust particular thoughts, thereby leading to associated changes in behaviors and emotions over time. Common tools and techniques used in this process include (among others) Socratic questioning (in which the therapist questions the beliefs or assumptions voiced by a client in order to help shift these beliefs and assumptions in a more helpful direction), instruction in recognizing common “thinking errors,” and the use of thought records to record, assess, and challenge thoughts.

### **24.2.3.1 Socratic Questioning**

The use of Socratic questioning is certainly not unique to CBT, but the use of this technique is important for several reasons. First, this technique creates an interactive dialogue between the therapist and client. For example, if a client expresses the belief that “I’m a mess, and everyone knows it,” then the therapist might gently question “What does it mean that you’re a mess?” and “What makes you say everyone knows it?” This line of questioning is designed to help the client recognize that there are often multiple other ways to interpret or view a situation. Typically, this alleviates distress and helps lay the foundation for generating more adaptive thoughts (e.g., I’m having trouble managing things right now as a result of having many responsibilities).

### **24.2.3.2 Identifying and Categorizing Unhelpful Thoughts**

One common technique used in CBT is to identify the particular automatic thought triggered by

a situation, then categorizing this thought into one of a number of groups or classes of “cognitive errors.” For instance, common types of cognitive errors include all-or-nothing thinking (viewing things in extreme terms), jumping to conclusions (making assumptions about how events will play out or making assumptions about what others are thinking or feeling), and overgeneralization (viewing singular events as indicative of some general fact).

### **24.2.3.3 Thought Records**

Another technique used in cognitive restructuring is thought records. In its simplest form, this includes listing three columns on a piece of paper: one for the situation, one for the automatic thoughts triggered by the situation, and a final column for behaviors and emotions occurring after the thought. This process allows an examination of how situations can trigger a series of automatic thoughts. In turn, these thoughts contribute to emotions and influence behavior. Teaching clients how to complete a thought record helps illustrate connections between thoughts, emotions, and behavior. Further, it allows for the process of challenging and modifying unhelpful automatic thoughts. Once clients know how to identify automatic thoughts, additional columns can be added to the initial three. These columns provide a place to record more helpful, adaptive thoughts to replace the unhelpful automatic thoughts. Finally, clients can assess how these adaptive thoughts impact later behavior and emotions.

### **24.2.3.4 Connections to Behavioral Techniques**

Finally, although we have discussed behavioral and cognitive techniques in separate sections, the use of these strategies can and should overlap. This is not surprising, given the emphasis on connections between thoughts, feelings, and behaviors that is inherent to CBT. Nevertheless, it warrants a specific explanation.

For instance, cognitive techniques can be key to helping someone actually engaging in the use of many of the behavioral strategies described above. For example, when facing a large,

complex task that will require focusing for a long period of time, an adult with ADHD may have thoughts such as “this will take too long” or “this is going to be so boring/unbearable.” Given the difficulties with focusing/sustaining attention that are at the heart of ADHD, such thoughts are understandable. However, they are not *helpful*. These thoughts increase the likelihood that the individual will avoid the task entirely, put it off until the last minute, or rush through it to get it over with as fast as possible.

How might cognitive techniques help with the situation described above? A therapist utilizing cognitive techniques/strategies might help a client with ADHD first identify the underlying belief that is likely at the root of thoughts such as “this will take too long” or “this is going to be so boring.” These thoughts might reflect beliefs such as “I can’t do this” or “This is too much for me” or even “I’ve never been able to do things like this.” Then, a therapist can challenge these thoughts with the use of Socratic questioning (i.e., “Is it really true that you can’t do this?” or “Is there truly no way for you to accomplish this task?”). They might also help the client categorize these thoughts as overgeneralizations or jumping to conclusions.

Similarly, it is important to acknowledge that the behavioral strategies discussed in the prior section will also serve to influence thinking patterns. For example, engaging in these types of behavioral skills can serve as “evidence” to help challenge unhelpful thinking patterns. For instance, a client who reports “I always wait until the last minute” can be encouraged to challenge this belief by using the behavioral strategies described above to get started on a task ahead of the deadline. From a broader perspective, changing patterns of behavior represent new learning, which in turn influences cognitions.

Regardless of the specific technique, the ultimate goal is to adjust these kinds of thoughts and generate more adaptive, helpful thoughts. For instance, a more helpful and balanced thought might be “This is a challenge that may require more planning than usual” or “It’s going to be hard, but I’ve done hard things before.” Over time, a client with ADHD is able to more easily

and independently challenge their thoughts “in the moment” and shift toward more balanced, helpful thinking patterns. This in turn allows them to better utilize the behavioral strategies described above, such as breaking tasks down into subtasks, planning out particular days and times to complete certain steps, and blocking time to work on specific tasks. Thus, tendencies to avoid, procrastinate, or rush through tasks can be reduced. In the long term, this both reduces impairment and builds a sense of confidence in one’s ability to successfully accomplish tasks and goals. This self-confidence can be a momentous resource that allows someone to effectively navigate times when they face increased challenges, which are an inevitable part of life. This brings up a related point - CBT as a treatment approach fosters the building of self-awareness and insight.

#### **24.2.4 Enhancing Insight and Self-Awareness**

Insight and self-awareness are not commonly discussed in CBT research. However, these factors are often natural by-products of CBT intervention, even without explicit identification (for a more detailed discussion on this topic, see Grosse Holtforth et al., 2007).

For instance, psychoeducation can serve to increase knowledge and awareness of symptoms and their impact on various areas of life. Further, the emphasis on practice that is key to CBT requires engaging in implementation of strategies (both behavioral and cognitive). These processes have the natural effect of facilitating self-awareness and increasing insight.

Moreover, many CBT treatment protocols for ADHD in adults include sessions focused specifically on maintenance – demarking a shift from introducing new material to a focus on effectively sustaining the use of both cognitive and behavioral skills learned in treatment. At this stage, the goal is to support the client’s transition to an increasingly independent role. By specifically encouraging this shift, CBT helps promote increased self-awareness and insight. Further,



these can serve as powerful tools in promoting ongoing management of ADHD.

Throughout life, an individual may face periods of greater stress or change. During such times, symptoms are more likely to cause problems as challenges increase. Higher levels of insight and self-awareness results in more effective recognition of such challenges, which in turn allows for more effective management of the same. Finally, the process of navigating such challenges can result in additional learning and self-awareness.

## 24.3 Conclusions

The basic principles of CBT and key characteristics of this treatment make this treatment a strong fit for the treatment of ADHD in adulthood. In addition, there is ample evidence to support the use of CBT to treat ADHD in adults. CBT has been tested in a number of formats (individual, group, and combined) and the bulk of the evidence suggests this treatment is effective in treating core symptoms and difficulties associated with ADHD. Evidence is particularly strong for the use of CBT combined with medication. This treatment should be considered a primary option when considering psychosocial treatments for adults with ADHD.

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