



OTMASTERY.com

Adult ADHD



Introduction.....2

Section 1: Diagnostic Criteria, Symptoms, Outcomes 1,2,3,4,5,6,7,8.....2

 Section 1 Personal Reflection12

 Section 1 Key Words.....12

Section 2: Occupational Therapy Assessment of ADHD
6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,2512

 Section 2 Personal Reflection19

 Section 2 Key Words.....19

Section 3: OT Interventions for Adult ADHD
26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42.....20

 Section 3 Personal Reflection42

 Section 3 Key Words.....42

Section 4: Case Study #1.....43

Section 5: Case Study #1 Review44

Section 6: Case Study #2.....46

Section 7: Case Study #2 Review47

References49

Introduction

According to the National Institute of Mental Health, an estimated 8.1% of adults will experience ADHD between the ages of 18 to 44 years. Adult ADHD impacts an individual's abilities to participate in their work, education, and personal lives. Additionally, adults with ADHD are more likely to experience depression, mood or conduct disorders, and substance use disorders. Due to the effects of ADHD across the lifespan, adults with this condition are at risk of experiencing limitations in functioning at work, school, in relationships, and in their home lives. The role of occupational therapy is evident in children with ADHD, but growing evidence shows that occupational therapists are well equipped to intervene with adults as well. Occupational therapists can provide intervention for adults in the areas of skill building, executive function, self-esteem, emotion regulation, and more, which are all of great value to adults of any age who have ADHD.

Section 1: Diagnostic Criteria, Symptoms, Outcomes 1,2,3,4,5,6,7,8

Attention-deficit/hyperactivity disorder, also known as ADHD, is a common behavioral health condition that causes individuals to experience continual inattention and/or impulsive, hyperactive behaviors. The most recent statistics show that 6.76% of adults across the world are living with ADHD and 2.58% of the global adult population is living with ADHD that began in childhood. These figures equate to over 366 million and 139 million adults, respectively. Between 2.5% and 4.4% of American adults are living with ADHD with numbers varying based on those who have official diagnoses and those who do not. Additional studies show that less than 20% of adults who have ADHD are aware that they have the condition. Moreover, about 25% of the adults who are aware of their ADHD diagnosis and limitations actually seek treatment for the condition.

More males (5.4%) are diagnosed with ADHD than females (3.2%) are. However, the prevalence rates are likely more even than data shows. Males often have a more obvious presentation of ADHD (with more impulsivity, especially during adolescence) that may lead them to get diagnosed more quickly and more frequently. Studies show that females demonstrate more ADHD-related impairments than men in the areas of stress management, emotion regulation, social functioning, and time perception. Conversely, males with ADHD usually experience more limitations in working memory and academic performance than females with the condition.

ADHD is not to be confused with Attention-Deficit Disorder (ADD), which is a diagnosis that is no longer in use. ADD was a condition that individuals would be diagnosed with if they experienced chronic inattention that disrupted their functioning. When ADD was removed from the Fifth Edition of the Diagnostic and Statistical Manual in 2013, the diagnostic criteria for ADHD was also revised. The main changes to the ADHD diagnosis included the distinction of two subtypes that cover the primary symptoms of both ADHD and ADD, which are hyperactivity and persistent inattention.

While symptoms of hyperactivity and inattention do not necessarily indicate a problem, such symptoms are characteristic of ADHD when they interfere with a person's ability to function. This condition can impact individuals of all ages and may even affect someone across their lifespan. However, it can be difficult to diagnose because it presents differently in various age groups.

Children who have ADHD may present with what is seen as hyperactivity, while this same symptom may manifest as restlessness in adults. In addition, this restlessness reported by adults with ADHD may not be outwardly shown and can present as internalized anxiety. This is yet another reason why ADHD is sometimes underdiagnosed in adults. Children with ADHD typically experience the most symptoms around the ages of 7 or 8, which means this may also be when they have the most difficulty in school. Studies show that childhood ADHD symptoms

often decline in severity and frequency after this age, but many children with ADHD continue to experience symptoms into adulthood – whether or not they receive treatment for the condition.

According to the DSM-5, there are two main diagnostic criteria for ADHD. There are many components within each of these two criteria, which is why a specific number of each must be met in order to diagnose someone with ADHD. Children who are 16 years old and under must meet at least six symptoms of both inattention **and** hyperactivity in order to receive a diagnosis of ADHD. Adolescents 17 years and older along with adults must meet at least five symptoms of both inattention **and** hyperactivity in order to be diagnosed. The diagnostic criteria for ADHD are as follows:

- Inattention
 - Has difficulty focusing on details, which often leads to careless mistakes in tasks at work or school
 - Cannot sustain attention when playing or participating in other tasks
 - Struggles to listen well, even when being addressed directly
 - Has difficulty following through on instructions, which may result in unfinished tasks and projects at work, school, or within the home due to getting distracted
 - Has trouble getting and staying organized when performing tasks of any nature
 - Gets distracted often and easily
 - Procrastinates, dislikes, or hesitantly does tasks that necessitate prolonged mental effort
 - Frequently misplaces objects that are needed for basic daily tasks; for example, keys, wallet, school books, cellphone, etc.

- Demonstrates poor memory when performing routine daily activities
- Hyperactivity and/or impulsive behaviors
 - Struggles to remain seated, even when they are expected to
 - Has difficulty with silent, sedentary leisure activities
 - Appears to always be 'on the go' (children with ADHD appear this way outwardly, while adults with ADHD report these feelings internally)
 - Talks constantly
 - Has difficulty waiting their turn during group discussions or games
 - Commonly responds to someone or answers questions quickly and before the other person finishes their thought
 - Fidgets with clothing, objects, or body parts and squirms or adjusts posture frequently
 - Intrudes personal space (either with boundaries or objects), interrupts conversations, or inserts oneself into situations they were not part of
 - Runs, moves quickly, or demonstrates restlessness, even in situations where it is not appropriate

In order to qualify as symptoms of ADHD, any inattention and hyperactivity must be present for at least 6 months, be disruptive to a person's life, and be considered inappropriate according to the person's developmental level. In addition, a child or adult can only be diagnosed with ADHD if the symptoms cannot be attributed to a different mental health condition (such as depressive disorders or anxiety disorders) and if the symptoms are displayed in two or more settings such as work, school, home, community settings, and social settings. Adults who receive an ADHD diagnosis must also have demonstrated some

concerns related to inattention and/or hyperactivity before they were 12 years old.

These criteria are an important part of diagnosing ADHD, but providers must also remember that a patient's presentation may vary over time. A child who is diagnosed with ADHD may need treatment for different ADHD-related concerns once they enter adulthood. Similarly, an adult who is diagnosed with ADHD after adolescence may not look the same or fall into the same categories as younger people with the same condition do. There are three main categories or presentations of ADHD:

- A patient will be given the **predominantly inattentive presentation** if they have mainly symptoms of inattention (and not as much hyperactivity or impulsivity) over a period of 6 months.
- A patient is diagnosed with the **predominantly hyperactive/impulsive presentation** if their main symptoms are that of hyperactivity and impulsivity (and not as much inattention) over a period of 6 months.
- To be considered a **combined presentation**, patients must demonstrate an equal amount of inattentive and hyperactive/impulsive symptoms over a span of 6 months.

Many clinicians and researchers note the most recent set of diagnostic criteria for ADHD in the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) is not sensitive enough for an adult population. These experts suggest that much of this criteria's verbiage refers too much to children and academic-related tasks and does not give much reference to adults and their contexts. Some clinicians feel that, based on their experience in working with adults who have ADHD, the diagnostic criteria should be modified and expanded to include other areas such as executive dysfunction and disinhibition. Many adults with ADHD experience executive dysfunction in the form of time blindness, which means they have difficulty recognizing the need to attend to and prepare for events in the future.

Other ways that executive dysfunction manifests in adults with ADHD is in their difficulty resisting distractions that do not pertain to their goals and the trouble they have independently reengaging or being redirected back to tasks after they first lose focus. In terms of disinhibition, this clinical presentation changes with age. Children with ADHD usually demonstrate motor disinhibition, which includes compulsive actions. This type of disinhibition usually becomes less prominent with age, which is why adults with ADHD often experience more verbal disinhibition. Verbal disinhibition can lead adults with ADHD to verbally express their feelings, rude thoughts, or other unfiltered communication impulsively and without concern for who is around.

Different forms of impulsivity are other standout characteristics of adult ADHD that should be included in the criteria. For instance, cognitive impulsivity may prevent adults with ADHD from engaging in the proper thought processes needed to make sound decisions. Motivational impulsivity can cause adults to have difficulty finding the drive to perform or complete certain tasks if the associated reward is far off. Emotional impulsivity often leads adults with ADHD to struggle with regulating strong feelings. Unlike emotional impulsivity in conditions like borderline personality disorder or disruptive mood dysregulation disorder, situations that magnify someone's weaknesses or impact their confidence and self-image are more likely to trigger this symptom in adults with ADHD. While these are not officially part of the diagnostic process for adults with ADHD, anyone involved in the care of adults with this condition should be aware of these symptoms along with how they impact a person's treatment progress and function.

Any number of these symptoms, especially motivational impulsivity and poor frustration tolerance, can cause adults with ADHD to discontinue therapy or avoid it altogether. For this reason, therapists should be aware of the adverse outcomes that adults with ADHD are at risk of if they do not get treatment:

- Irregular achievement or performance, underachievement in the workplace; this may entail leaving or losing jobs frequently, changing careers often, or starting but not pursuing side projects intended to generate income
 - Studies show that adults with ADHD are far more likely to not be in any kind of vocational training, employment, or education.
- Difficulty managing standard daily tasks, such as paying bills, making and keeping appointments, organizing one's belongings, keeping up with household chores, performing home maintenance, etc.
- Interpersonal struggles, including relationship problems and conflicts between friends due to memory concerns and other symptoms
 - Adults with ADHD experienced negative social outcomes regardless of their family structure, sex, and comorbidities. These outcomes were also not connected to whether or not the adults were diagnosed with ADHD during childhood.
- Choosing not to pursue continuing education despite wanting to due to fear of failure or an inability to commit
- Chronic emotional distress stemming from feelings of guilt, shame, or blame along with low confidence, poor self-image, and low frustration tolerance in response to symptoms such as misplacing belongings and forgetting important things
- Mental health concerns such as depression, chronic stress, and anxiety, which may specifically align with times when they cannot meet their goals or fulfill responsibilities
- A history of academic underachievement and learning difficulties, such as being held back a grade and failing classes

- Domestic violence and other issues with individuals they live with, e.g. roommates, spouses, significant others, and family members
- Losing one's driver's license or being unable to obtain one
- Risky behaviors, such as reckless/distracted driving, smoking, hypersexual activity and unprotected sex, criminal activities, overeating, and excessive drinking and overuse or misuse of other substances
 - Research also shows that adults with ADHD have significantly higher arrest rates and are more frequently charged, convicted, and commit aggressive offenses; studies also show that adults with ADHD more likely experience recidivism
 - Studies suggest that adults with ADHD who also smoke have more difficulty weaning off cigarettes and onto nicotine.
 - Some research explores a link between adults with ADHD, overeating habits, obesity, and sleep-disordered breathing.
- Accidental injuries, either minor such as burning oneself while cooking or major such as those that result from distracted driving or distracted walking
 - There is also a higher rate of adults with ADHD who are hospitalized due to accidental injuries.
- Difficulty with parenting, especially when one's children are young due to the added stress of sleep deprivation and frequent need for multi-tasking

Depending on the person and the exact symptoms they present with, there are many differential diagnoses for adult ADHD. Some examples include:

- Autism Spectrum Disorder
- Neurodevelopmental disorders

- This category may include Fragile X syndrome, Fetal alcohol syndrome, Klinefelter syndrome, and Resistance to Thyroid Hormone (RTH).
- Epilepsy
- Injuries to the central nervous system, including infections (like bacterial meningitis) or physical trauma
- Metabolic disorders
- Developmental coordination disorder (DCD)
- Mental health concerns
 - Common examples include depressive disorders, adjustment disorder, anxiety disorders, conduct disorder, obsessive-compulsive disorder, post-traumatic stress disorder, oppositional defiant disorder, substance use disorders, bipolar disorder, reactive attachment disorder, and borderline personality disorder.
- Hearing, speech, or vision impairments
- Thyroid conditions, including hyperthyroidism and thyrotoxicosis
- Traumatic brain injury
- Post-traumatic encephalopathy
- Lead poisoning
- Chronic constipation
- Liver disease
- Sensory processing disorder (SPD)
- Tourette syndrome

- Sleep disorders, including restless leg syndrome and obstructive sleep apnea
- Medication side effects
 - In particular, corticosteroids, sedatives, antipsychotics, diabetes medications, dopamine agonists (used to treat Parkinson's), and anticonvulsants may cause side effects such as impulsivity and inattention, which may be construed as ADHD in adults without a diagnosis.
 - Early antibiotic use in childhood increases a child's risk of developing ADHD, which may persist through adulthood if they do not receive treatment.
 - In addition, antidepressants (specifically SSRIs) can exacerbate symptoms of ADHD.

There is some overlap between the differential diagnoses for ADHD and other health conditions that individuals with ADHD commonly experience. The following conditions - many of which are cognitive, emotional, and sensory in nature - are known to exist in people who have ADHD:

- Tourette syndrome
- Antisocial personality disorder
- Obsessive-compulsive disorder
- Anxiety disorders
- Learning disabilities
- Disruptive behavior disorders, including both conduct disorder and oppositional defiant disorder

- Conduct disorder is shown to impact males with ADHD more often than females with the condition
- Intermittent explosive disorder
- Depression
 - Mood disorders such as depression impact males with ADHD more often than females with ADHD
- Speech and/or hearing problems

Section 1 Personal Reflection

While occupational therapists do not have diagnostic capabilities, they are a valued part of an interdisciplinary team and should communicate any concerns they have to other healthcare professionals. If a therapist suspects their patient may have ADHD but was incorrectly diagnosed with a condition that presents similarly, what steps should they take and who should they contact?

Section 1 Key Words

Differential diagnosis - A condition that may be mistaken for other health conditions with similar symptoms, signs, and presentations

Recidivism - When convicted criminals leave prison or jail, reoffend, and return to similar correctional facilities

Section 2: Occupational Therapy Assessment of ADHD

6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25

According to the most recent edition of the Occupational Therapy Practice Framework, an occupational therapist's role is to address a person's client factors, strengths, routines, performance patterns, habits, and rituals all within their

natural contexts. While therapists should focus on enhancing a patient's strengths regardless of their diagnosis and presenting problems, this type of approach is especially central to the work OTs do with adults who have ADHD. Strengths-based treatment for ADHD involves placing a strong emphasis on a patient's assets and abilities rather than focusing on their weaknesses or deficits. While therapists must identify a patient's weaknesses and document measurable progress in those areas in order to receive insurance reimbursement for services, it is important that the treatment itself focuses on what a person is able to do as a way to help them function better.

Since strengths-based treatment is holistic and multidisciplinary in nature, it includes a person's internal strengths along with their support networks. For children with ADHD, this often includes family training and education on community resources. However, adults with ADHD may have assistance available to them in the form of programs, physical tools, friends, mentors, social settings, support groups, and other types of alternative strengths outside of their existing personal abilities.

In order to use this type of approach on adults who have ADHD, occupational therapists must begin with an occupational profile, which does a great job of outlining a patient's strengths in preparation for treatment. Standardized assessments are another important part of the evaluation process for adults with ADHD. Some standardized assessments that are specific to ADHD and can be used to identify an adult patient's ADHD symptoms, weaknesses, level of engagement, areas of functioning, and more include:

- Adult ADHD Clinical Diagnostic Scale (ACDS)
- Adult ADHD Investigator Rating Scale (AISRS)
- Adult ADHD Quality of Life Scale (AAQoL)
- Adult ADHD Self-Report Scale (ASRS-v1.1)

- Adult ADHD Self-Report Screening Scale for DSM-5 (ASRS DSM-5) Screener
- Adult ASRS Symptom Checklist v1.1
- Attention-Deficit/Hyperactivity Disorder Rating Scale IV (ADHD-RS-IV)
- Barkley Adult Attention-Deficit/Hyperactivity Disorder Rating Scale (BAARS-IV)
- Brown Attention-Deficit Disorder Symptom Assessment Scale (BADDS) for Adults
- Conners' Adult Attention-Deficit/Hyperactivity Disorder Rating Scales (CAARS)
- Diagnostic Interview for ADHD in Adults (DIVA)
- Wender-Reimherr Adult Attention-Deficit Disorder Scale (WRAADDS)
- Wender Utah Rating Scale (WURS)
 - This is a self-report checklist for adults with ADHD that asks patients to retrospectively record potential or actual ADHD symptoms that were present when they were a child. This serves as a method for comparison and can help therapists determine what interventions may be best for the patient.
- Women's ADHD Self-Assessment Symptom Inventory (SASI)

The above assessments were all designed specifically for the evaluation of individuals who have an ADHD diagnosis or demonstrate signs/symptoms of ADHD. While such tests are of great help to adults with ADHD, there are a range of other standardized assessments that can benefit this population and help identify areas to be addressed in treatment. The most useful standardized assessments in this category include those that evaluate cognitive processes found to be of concern in individuals with ADHD, including executive function, impulsivity,

attention, cognitive flexibility, memory, and more. In addition, some standardized assessments – such as the Driving Behavior Survey – focus on giving providers an idea of the impact such abilities have on a person’s functional performance. Many of these assessments also serve the purpose of helping rule out other conditions that may present similarly to ADHD, such as anxiety disorders. Some examples of these related assessments include:

- Auditory Processing Abilities Test (APAT)
- Auditory Target Detection Test (ATDT)
- Barratt Impulsiveness Scale (BIS-11)
- Behavior Rating Inventory of Executive Function 2 (BRIEF-2)
- Brown Attention and Executive Function Scales
- Clinical Global Impression (CGI)
 - This is a generic assessment, but it is often used with adults who have ADHD because it allows therapists to rate the severity of a patient’s condition and symptoms at the time of evaluation.
- CogniFit
- Comprehensive Executive Function Inventory (CEFI)
- Delis-Kaplan Executive Function System (D-KEFS)
- Depression Anxiety Stress Scale (DASS-21 and DASS-42)
- Driving Behavior Survey (DBS)
- Figural Visual Scanning Test (FVST)
- Generalized Anxiety Disorder Scale (GAD-7)
- Go/no-go Test

- Hamilton Anxiety Rating Scale (HAM-A)
- The Mood Disorder Questionnaire (MDQ)
- Moss Attention Rating Scale (MARS)
- Rey Osterrieth Complex Figure (ROCF)
- Sensory Integration and Praxis Tests (SIPT)
- Sensory Processing Measure (SPM)
- Stop-Signal Test
- The Concentration Cognitive Assessment (CAB-AT)
- The Inattention Test (FOCU-SHIF)
- Test of Auditory Processing Skills-Fourth Edition (TAPS-4)
- Test of Everyday Attention (TEA)
- The Sensory Profile
- Test of Memory and Learning Second Edition (TOMAL-2)
- Test of Variables of Attention-9 (TOVA-9)
- Test of Visual and Auditory Attention (IVA-2)
- Wisconsin Card Sort Test (WCST)
- Work Productivity and Activity Impairment Questionnaire General Health
- Young Mania Rating Scale (YMRS)
- Zung Self-Rating Anxiety Scale (SAS)

Many of these standardized assessments are well-known and cater to rehabilitation professionals by offering information that can be used to help

patients therapeutically. However, providers may also wish to complete more in-depth testing, specifically those focused on academic achievement and cognitive abilities. This additional testing can help providers rule out learning disabilities, which often have symptoms that mimic those of adult ADHD.

Though an occupational profile and standardized assessments are a large part of the evaluation process for adults with ADHD, there are several other components that are important in helping therapists gain better insight into a patient's needs and strengths. Aside from symptom checklists and behavior rating scales, therapists should also interview the patient to get a detailed history of their current functional abilities and past levels of functioning. Some patients will be able to provide this information themselves, yet, with consent, it's always helpful to speak with their friends, family members, spouses/significant others, employers, and other relevant figures to get a more complete picture of their life. Self-awareness is often limited in adults with ADHD - especially as it pertains to the way their behaviors impact others around them. For this reason, it's doubly important that providers verify a patient's account of their life with others who know them well. While some of these interviews may be completed separately, therapists often find it important to sit down with the patient and their significant other together. This not only helps the significant other learn accurate information about the condition and how it impacts their loved one, but it also allows them to ask questions and hopefully take a more empathetic stance toward the person they live with. This can also be a good springboard for marriage or relationship counseling if the relationship is one of the chief challenges an adult with ADHD is experiencing. While the latter offshoot is more often addressed by licensed mental health professionals such as professional counselors or marriage and family therapists, a thorough occupational therapy evaluation process may play an important role in identifying the need for further counseling and making appropriate referrals.

Other aspects of the evaluation process for adults with ADHD include questions about drug and alcohol use (or misuse), work and/or academic experience, driving history, childhood development (including adverse childhood experiences, developmental delays, etc.), and general health history. Driving history is important since a history of accidents of any kind are common in individuals who have ADHD. While many such accidents may be minor and not medically treated or even disclosed by adults with ADHD, there is also a higher risk of major injuries taking place. Studies show that up to 6.18% of trauma surgery patients also have diagnoses of ADHD. Accident victims who have ADHD self-report more frequent distractibility, overconfidence, and stress in a general sense than accident victims who do not have ADHD. Each of these factors can lead to a greater risk of accidental injury. Many adults with ADHD also have a history of multiple accidents over the course of many years.

In addition to accidents and other aspects of a patient's history, it's also important for providers to cover a patient's social history. This should include friendships, marital/romantic life, family relationships, and interactions with peers in school and/or work settings. Providers take a close look at this information to check if there are patterns developing in the life of an adult with ADHD. This also helps therapists identify any contributing factors in someone's life that may lead them to experience symptoms similar to ADHD that are not actually attributed to the condition.

Once therapists learn about a patient's health history through their questioning, they can also complete screening for co-occurring conditions. Research shows that ADHD rarely occurs alone, especially in adulthood. Data shows that more than 66% of all people with ADHD are living with one or more co-occurring health conditions. Some of the most common co-occurring conditions for individuals with ADHD include learning disabilities, anxiety disorders, depression, and substance use disorders. Studies suggest that up to 21% of individuals who are receiving treatment for substance use disorders are

also living with ADHD. Other research shows that up to 15% of all adults receiving outpatient psychiatric care also have ADHD.

Ruling out medical concerns should also be a part of the assessment process for adults with ADHD, since certain medical conditions have symptoms that can mimic ADHD. While it is not within an occupational therapist's scope of practice to diagnose patients, it is their duty to gather information and make informed decisions pertaining to that data. In some cases, therapists may uncover certain patterns during their evaluation such as patients reporting that ADHD-like symptoms started around the time of an injury or other health concern. Therapists who notice this should communicate with other members of the patient's interdisciplinary team before beginning any treatment for ADHD. While occupational therapy treatment focuses on a patient's strengths and functional areas of need, it may still be ineffective if the patient has a medical diagnosis that has not been identified or addressed. Therapists can also suggest that patients get a recent physical to rule out any medical conditions that may be the cause of their symptoms.

Section 2 Personal Reflection

What aspects of an OT evaluation may need to be modified for a patient who demonstrates inattention due to a TBI? How would this differ from evaluation modifications for a patient whose inattention is the result of ADHD?

Section 2 Key Words

Strengths-based treatment - An approach that can structure therapeutic treatment for a range of conditions; this type of care utilizes the patient's assets and current abilities to maximize treatment potential rather than strictly focusing on someone's deficits

Section 3: OT Interventions for Adult ADHD

26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42

There are several occupational therapy frameworks that can help guide OTs in treating adults with ADHD. Some examples include the Canadian Model of Occupational Performance and Engagement (CMOP-E), Person-Environment-Occupation-Performance Model (PEOP Model), Model of Human Occupation (MOHO), and Cognitive Behavioral Therapy (CBT) – both the traditional CBT and a modified version.

CMOP-E focuses on a person, their main occupations, and the environment to best treat adult ADHD. Addressing the person involves looking at their spirituality and surrounding aspects of their persona, including cognitive, affective, and physical skills. To address the person's occupation, therapists must look at productivity, self-care, and leisure, which are all important because they can be limited in adults who have ADHD. Lastly, the environment is impacted by cultural, social, physical, and institutional factors, all of which impact someone's daily performance. This type of CMOP extends beyond the standard format to include occupational engagement, which is at the core of the OT profession. By using this model, occupational therapists can better help their patients choose and participate in meaningful environments in their given environments. When OTs use CMOP-E to evaluate patients with ADHD, they should be sure to learn how difficult and/or satisfying patients find each task and occupation. Therapists will then take this information in combination with their observations of a patient's functional performance, and determine where improvements can be made.

While the PEOP Model has the same main components as CMOP-E, this framework goes into greater depth regarding the characteristics of a person's occupations, tasks, and roles. The PEOP Model also includes reciprocal consequences that are created when someone interacts with their environment. Therapists can use the PEOP Model to help adults with ADHD form a better fit between themselves and the environment in a way that encourages occupational

success and overall well-being. This model also aligns with the strengths-based approach by allowing patients to set the goals they will work toward in collaboration with their provider.

The Model of Human Occupation is another fitting framework for occupational therapists to use with adult patients who have ADHD. Its person-centered nature aligns well with strengths-based therapy, as it also takes a top-down approach that involves breaking functional tasks down into smaller parts to address specific concerns. MOHO consists of three main components: volition (someone's internal motivation for occupation), performance capacity (cognitive and physical capabilities required for occupational performance), and habituation (the act of completing occupations in routines or patterns). Occupational therapists can use MOHO to understand how to motivate patients for certain tasks, what client factors are impacting their performance both positively and negatively, and the ways that scheduling and consistency can help their engagement. Each of these aspects can be largely helpful for adults with ADHD, which helps therapists get to the root of their occupation-based concerns.

Cognitive behavioral therapy, which is a blend between traditional cognitive therapy and behavior modification, is another helpful tool for adults with ADHD. CBT is intended to modify negative automatic thoughts a person experiences in response to certain stimuli (events, situations, etc.). By altering these negative thoughts and replacing them with more positive ones, CBT aims to also remediate nervousness, sadness, and other feelings someone may experience along with harmful behaviors they may have developed to cope with such emotions. Some examples of negative thoughts that may arise in adults with ADHD include:

- **All-or-nothing thinking:** The belief that you are either all good or all bad, especially in terms of your abilities; this often leads to perfectionistic tendencies, which are common in adults who have ADHD
- **Catastrophizing:** Believing the worst will happen if you don't do something

- **Comparative thinking:** Analyzing how you are different from other people and using it to feel worse about yourself, even when the comparison is not realistic
- **Emotional reasoning:** Feeling that any negative emotions you have will be reflected in real-time events
- **Fortune telling:** Predicting situations will go wrong, even though there is no evidence to make you believe that
- **Magnification:** Excessively worrying about minor mistakes, problems, or situations
- **Mental filtering:** Honing in on the negative aspects of a situation, both minor and major
- **Mind-reading:** Assuming that others only have negative thoughts about you and what you have done
- **Minimization:** Downplaying your accomplishments and the good things you have done
- **Overgeneralization:** Viewing one event as a pattern or an absolute, even though it actually only happened once or twice; for example, missing an appointment once and being upset with yourself for 'always being forgetful'
- **Personalization:** Feeling overly responsible and blaming yourself for negative events that you did not cause or have control over
- **'Should' statements:** Focusing on the way you would like things to be/be done or how you feel they should be/be done, which can cause criticism of yourself and hostility towards others

Adults with ADHD can also use CBT to shift their attention from negative events to positive outcomes that are also likely present. Research shows that CBT is most effective for adults with ADHD when used in combination with medication. In

particular, research shows that a combination of CBT and ADHD medication increases self-esteem, lowers symptoms of depression and anxiety, and improves the overall level of function in adults with ADHD when compared with medication alone. Other studies suggest that the same combination of CBT and ADHD medication led to both short-term and long-term improvements between 12 and 48 weeks after CBT programming ended. Specifically, significant gains were seen in the areas of emotion regulation, executive function, self-esteem, quality-of-life, brain function, and core symptoms of ADHD (inattention and hyperactivity). There is also a range of research supporting the use of CBT alone for adults with ADHD. Either way, the general consensus is that ADHD medication tends to be more effective in managing symptoms of impulsivity, distractibility, and limited attention, whereas CBT helps adults with ADHD to create skills and routines for self-management, interpersonal relationships, and emotion regulation.

There is another type of CBT that is also helpful for adults with ADHD, and that is mindfulness-based cognitive behavioral therapy (MBCT) or mindfulness-based cognitive therapy. This involves many of the same principles as traditional CBT, but they are paired with training on mindfulness practices, the idea of accepting one's flaws while trying to improve, and persistence to help someone better cope with their condition. One large-scale research study showed that MBCT helped adults with ADHD experience less symptoms along with partial improvements in emotion regulation and executive function. Participants in this particular study also reported improvements in quality of life, ability to be more mindful in their daily lives, cognitive function, and grade point average in adult education settings. Additional research suggested that, when compared to pharmacological ADHD treatment, MBCT improved self-compassion in adults with ADHD. These improvements led to an overall increase in mental health up to 6 months post-implementation. This study did not find a notable link between greater mindfulness/self-compassion and fewer ADHD symptoms. However, results showed that more inhibition was one of the biggest improvements in symptomatology.

An additional study that compared participants who received MBCT to participants on a waiting list noticed fewer ADHD symptoms in the treatment group along with improvements in mindfulness skills and executive functioning. This study did not show that the intervention had any impact on overall functioning or symptoms of depression and anxiety. Much of the research on ADHD treatment suggests that MBCT and mindfulness awareness practice (MAP) were more popular protocols for adults with the condition; MBCT and mindfulness based stress reduction (MBSR) were more commonly implemented with adolescents and children who have ADHD. MAP involves more targeted practice of mindfulness skills in isolation, whereas MBSR often involves a combination of mindfulness and yoga. The latter approach emphasizes physical practices that aim to improve someone's ability to be present in order to ease stress.

The treatment of adults with ADHD should be based on a therapist's assessment of occupational roles. This will help therapists determine the activities and skills that are most important to patients and allow them to target interventions effectively. Therapists should be aware that much of the guidance below is highly individualized and, while therapists make tailored recommendations for patients based on their assessments, there is a chance patients will not find success with certain strategies. Patients should be encouraged to report these outcomes to their therapist and collaborate to find new ways to improve their symptoms and function.

- Time management
 - Use a planner, physical notebook, digital calendar, or other scheduling apps to keep track of appointments and other commitments
 - Overestimate the time that all tasks will take; for example, when making a schedule, add at least 10 minutes to the time block for each task

- Use a wristwatch to keep time, preferably a digital or analog one without smartphone capabilities; this will prevent the need to rely on a phone to keep time, since this comes with many other distractions
- Therapists must work on the symptom of distractibility along with habits that lead someone to overcommit themselves, since these are both primary causes of chronic lateness
- Financial management
 - Use calendars and other consistent reminders for bills and other payment due dates
 - Use online banking, budgeting tools, and other related features available through banking institutions; there are also independent budgeting apps and software tools that serve the same purpose; this also helps cut down on paper clutter to make organization easier
 - Use electronic devices (phone, apps, other software) to track all spending; some people may prefer to manually keep a tally of these totals to further simplify the process, which can be done by keeping a notebook on your person or in the car each time you go out; another option is keeping a small plastic baggie in the car to hold receipts from physical purchases and dedicating a computer folder to online receipts
 - There are several strategies that can assist with impulse shopping, which is often a concern for adults with ADHD:
 - Shop with cash only
 - Limit the amount of credit card accounts you have to 1 or 2; close ones that are unused or unnecessary
 - Make shopping lists before leaving the house and stick to them

- Use a physical calculator or phone calculator to tally your order total before you reach the register
 - Unsubscribe from physical mailing lists and email lists sent by retailers where you spend more than you like or more than you need to
 - Before each purchase you make, ask yourself 'Where will this item live?'; take this one step further by visualizing its physical place in your life to help determine whether it's necessary or not
- Task management and mental organization
 - Adopt planning mode rather than reacting mode; therapists can coach patients to do this by developing a pre-planned schedule for each day, adhering to the schedule (while remembering that distractions may impact one's plans), and understanding when and where to exercise flexibility when other action items present themselves
 - The best way for patients to see functional results in the realm of task management is to adopt this planning mode across all areas of their lives until it becomes so routine that it's considered habitual.
 - Use checklists to create a routine that helps you stay on task; these can also help with special events like packing for a trip, when stress is especially high and symptoms may be more prevalent
 - After they are completed, keep checklists for about a week so you can double check if and when certain tasks were completed
 - If you are not good at making lists or don't know where to start, use list templates for multiple areas within your life; for

example, have a standing list of staples you need at the grocery store (start with bread, eggs, butter, and milk, then add items you find yourself frequently in need of) and then do a scan of your pantry and fridge to add other items before leaving to shop

- Check your planner each night before making a dedicated schedule for the following day; based on that list, sort tasks into groups based on their priority: those that are time sensitive, those that are the most important, and those that can be done later
 - When making each list, be sure your schedule has some wiggle room for unexpected tasks that come up, such as family emergencies
 - Write down appointments as 15 minutes earlier than they are so you have enough time to get there
 - Pencil in times for breaks to prevent procrastination from occurring and impacting your productivity
- Make realistic deadlines for all tasks, whether they are work-related, household projects, or leisure activities; this will help avoid procrastination
- Accept that there will be times when you may need to get two things done at once, but this doesn't have to be a difficult thing nor do both of the things have to be done well and with a lot of thought; for example, sometimes going on a walk or jogging while you brainstorm some writing ideas or how to plan out an upcoming project may make sense for your schedule, your creative thinking, and your problem-solving abilities

- Try your best to use schedulers and planners for most of your schedules, but use your phone for important reminders since it's always with you and is reliable
- When attending work meetings or classes in school, get an advance copy of materials so you can use that to guide your listening and note-taking
- When someone gives you instructions, either verbally or written, repeat them out loud to ensure you understand them and can clarify areas of confusion, if needed
- When you need to focus during certain sedentary or mentally-taxing activities, be sure you have the space and tools you need to fidget, move around, and improve your attention
- Scan paper documents (especially important ones) and move them to the cloud so they can be placed into folders, labeled, and color-coded for better organization
- Use note-taking tools such as smart pens and Evernote, file organization tools such as Google Drive and Dropbox, and voice assistants including Siri and Alex both at work and home
- Create a rotating menu using favorite meals for which you are familiar with the recipes and steps involved; keep most of the ingredients you need for the meals on-hand
 - To ease your workload, you can also add takeout nights to the weekly menu or nights when each person in your household cooks for themselves
- Immediately jot down any ideas that come to you in a dedicated space (such as a journal, notebook, or pad of sticky notes) and add

some time to your schedule to address them later after your high priority tasks are completed

- Check and sort the mail at specific times each week; make piles for important mail (bills, paperwork to complete, etc.) and unimportant mail (magazines, flyers, and other advertisements); use color coding to further sort bills from paperwork and others, then add those color coded items to your schedule if they require action
- Focus on task simplification at work and at home
 - Only start new projects when existing ones have been completed
 - This may not always be possible at work depending on your role, but try to keep this mantra as much as possible across all areas of your life
- Avoid overscheduling by taking a look at your current obligations and tasks before saying yes to new duties; work with others to role play scenarios where you decline certain duties or work if you have difficulty saying 'no' to others
- Use noise-canceling headphones while working on important, tedious, or mentally-taxing tasks
 - Depending on the person, it may be helpful to use these headphones to block out all sound, play white noise, or play music
 - Some people may not be able to do this for certain jobs such as retail workers, but it is recommended that they work with their supervisor to determine other accommodations that can help their focus

- Turn off notifications on your phone and computer while you are working on important and/or time-sensitive tasks
- If you are able to, adjust your work hours to accommodate your peak hours, when you are most productive; consider changing job roles entirely if general ADHD accommodations, including scheduling changes and focus breaks, are not possible in your current setting
- Schedule regular chores for certain days and times of the week so it's easier to remember and you don't get behind on any one task; for example, consistently do dishes at 6 pm each night or do laundry on Friday each week
- Try not to look at your daily schedule too much, rather make it a point to check your schedule three times during each day (morning, midday, and early evening) to be sure you are not forgetting anything
- Group small and similar tasks together under the same time slot (such as returning phone calls and answering emails once in the morning back-to-back and once in the afternoon back-to-back) so you don't need to interrupt other - possibly larger and more important - tasks to do that
- Break down big projects into smaller tasks so it's easier to get started on projects and continually work on them; if you continue to have difficulty with tasks, break them down again and again until they are more manageable
- Use a timed lock box for your phone or other temptations that are too distracting; you can also use focus assist apps and/or software to prevent you from using certain apps and websites on your phone and computer when you need to get work done

- When completing any task, keep close tabs on your final goal and break down any smaller steps underneath them to ensure you are on the right track; this will help you remain focused on the smaller goals but also reassess the larger ones to make sure you are not working for nothing
- Use the Pomodoro technique to help with incremental work and make larger tasks easier
 - If you are avoiding a certain task for whatever reason, commit to working on it for 20 minutes to help you get past the starting point
 - If you need a break at any time, set a timer for 5 minutes and do another 20 minutes of work immediately after that
 - Repeat this cycle until you are done or feel you need a longer break
 - After completing one cycle (a 20-minute work period and a 5-minute break), give yourself a check mark in your schedule, which can further help with motivation
- Avoid multitasking altogether to improve your productivity
- Place important or frequently-needed items in visually obvious places; for example, put your schedule on the fridge or on the wall in your home office; you can also place a whiteboard in your family room where you jot things down as they come to you
- Write important things on paper and place them in your pant's pocket on your dominant side so you notice it more often
- Use the idea of body doubling, which involves having someone else present while you work

- This helps keep yourself accountable and also serves as a physical reminder of the task at hand, since they can also help you with certain parts if you are having difficulty
- Organizational strategies
 - One of the most important strategies for physical organization is decluttering both home and work spaces in order to find and organize things more easily
 - Therapists can help patients determine whether they will be able to accomplish this task with some guidance or if it makes sense to consult a professional organizer to lead the initial process; if the latter is the better option, be sure to facilitate the patient being present so they can learn organizational strategies to maintain the new environment
 - Be sure you have cleaning supplies and storage materials ready before you start this process
 - During this process, it can help to use separate boxes for items that will be thrown out, items that will be donated, and items that will be kept
 - Go throughout your space gradually (if at work, take one drawer at a time; if at home, take one room at a time); choose the smallest and most manageable locations first, such as one drawer from a dresser or file cabinet
 - Once you are done each day, immediately make time in your schedule to deal with the boxes by driving them to a donation center and taking them to the trash; placing the 'keep' items in their new spots will prevent them from piling up and causing further disorganization

- Once you have made a decision on each item in that outlined area, you can put it back with organizational principles in mind
 - Keep similar items nearby each other so they are easier to find
 - Designate specific spots for certain items, which is where they will live any time they are not being used; for example, create a landing pad by the front door for your backpack/purse, wallet, keys, and phone so you remember to take them on your way out; at work, keep sticky notes and a pen directly under your computer monitor so you can jot down notes throughout the day whenever the need arises and quickly grab them on your way to a meeting
- Use pops of color (highlighters, bright-colored papers, colored sticky notes, stickers, etc.) to make important or frequently used items stand out
- Have designated spots for work (or more focus-oriented tasks) and leisure activities to help separate duties more effectively and improve focus
- Create a 24-hour zone somewhere in your home where you can place any incoming items that need attention; if you place something there, get in the habit of checking it within the day and either completing it or adding it to your schedule to complete another time so it doesn't get overlooked
- Carry a colorful wallet, phone, keys, and other important items so it's easier to find them in a large bag or other busy space

- Don't be afraid to make regular changes to your environment; this can keep your brain working better, as studies show that adults with ADHD have better focus for things that are new; this includes the physical environment along with work roles that involve a variety of tasks, new leisure activities, etc.
- Move your work environment away from distractions (e.g. break room, people who like to engage in outside conversations, etc.)
- Change up your work environment often to keep yourself stimulated; depending on the level of flexibility your work allows you and your work location, you may be able to move your desk, change offices, or take your laptop to other spots like an atrium, quiet spot in a library, etc.
- Face your desk towards a wall to cut down on visual distractions while you do computer work
- Hang a 'do not disturb' sign on your door or utilize 'busy' statuses in online meeting rooms when you have tasks you need to focus on
- Whenever possible, use a combination of natural lighting and task lighting (desk lamps, floor lamps) to get the best amount of light; studies show that dim lights reduce cognitive abilities such as information processing and overall arousal, so consider this when adjusting your environment
- Lifestyle redesign
 - Get regular exercise; long walks can be especially helpful for adults with ADHD because the act of walking triggers more mental organization and clarity
 - Start by choosing an exercise that is of interest to you and add that to your schedule, but remember that it's okay to switch to

different types of exercise to keep yourself interested and consistently do it

- Get 7-8 hours of sleep consistently
 - Sleep hygiene education should be included in this, so therapists should educate patients to: avoid caffeine after lunch; not exercise within an hour of bedtime; create a healthy/relaxing routine before bedtime such as journaling, reading, or taking a warm bath; stick to a regular sleep/wake schedule each day regardless of your commitments; only use the bed for sleep, which is a type of stimulus control therapy part of CBT
 - Those who still struggle with getting good sleep should try melatonin; the most effective dose for adults to start with is .3 mg, but this can be increased if needed though it's recommended patients speak with their doctors first, especially if they are taking medications or supplements that may interact with it
 - Since melatonin is a naturally-occurring substance in the body, patients can also incorporate more melatonin-inducing snacks (such as nuts, eggs, fish, and tart cherry juice) to increase their levels
 - Get 20 minutes of early morning light exposure to help the circadian rhythms and encourage better sleep; if this is not possible use a LED therapy lamp as a substitute
- If patients are prescribed medication to help with symptoms of ADHD or related conditions, medication management should be one of the major habits/routines therapists help patients establish

- Incorporate mindfulness practices as a part of each day; this can include mindfulness meditation, gratitude journaling, and more
- Executive function training
 - Cognitive-Functional Intervention for Adults (Cog-Fun A), a metacognitive-functional occupational therapy tool for the improvement of occupational performance (OP) and quality of life (QoL) in adults with ADHD
 - Therapists can work with adults who have ADHD to develop or improve skills including but not limited to recalling and following multi-step directions, focus, short-term memory, working memory, organization, motivation, self-awareness, self-management, frustration tolerance, planning, judgment, task initiation, task sequencing, task execution, task completion, critical thinking, and prioritization. Some of these are purely executive functions while others are related cognitive functions that are often impacted in adults who have ADHD. Therapists must remember that not all adults with ADHD will have difficulty with all of these skills nor will the treatment for these skills look the same, since it will be based on the functional impact they have on a patient.
- Education on sensory patterns and their impact on function
 - Adults with ADHD may have co-occurring sensory concerns, which should be addressed as part of comprehensive, client-centered care. However, sensory integration therapy is not used to address symptoms of ADHD since there is no evidence of its effectiveness for that purpose.
 - It is part of an occupational therapist's role to help adults with ADHD recognize the connection between sensory stimulation, mood, and performance. OTs can coach patients through situations that cause

overstimulation or understimulation to avoid negative outcomes. When an adult patient is in a regulated, calm, and alert state, therapists can engage them in conversations about triggers that lead to over- and under-stimulation. This can then be supplemented with visual imagery to assist in the educational process. Therapists can teach patients to monitor the type and amount of sensory input they receive in order to better regulate their mood and performance.

- Therapists can instruct adults with ADHD in the use of activities that offer proprioception, vestibular, tactile, olfactory, gustatory, auditory, and visual input. This is also a good opportunity for therapists to help adults incorporate such activities into their routines through scheduling and consistency.
- For example, some adults with ADHD may find that symptoms of hyperactivity (along with impulsive behaviors, poor focus, and emotional lability) are directly related to sensory overstimulation from an overwhelming environment. Other adults with ADHD may struggle with symptoms such as inattention and restlessness along with feelings of boredom if they lack the appropriate sensory stimulation to maintain their alertness.
- Coping skills and communication techniques
 - Occupational therapists should help adults with ADHD use coping skills in combination with other organizational techniques so they can remain in planning mode rather than entering reacting mode. This will not only minimize impulsivity and manage stress, but it will help redirect someone to more constructive, action-focused responses.
 - Exercise self-compassion and avoid comparisons with neurotypical people

- Practice mindfulness meditation and breathwork to improve focus and regulate mood
- Joining support groups to interact with like-minded people
- Educate family and friends to gain more support and understanding from them
- Train yourself to envision a stop sign that causes you to pause and think before speaking or doing something; this can help with impulsive behaviors and even strong emotions like anger
- Plan ahead so you can use certain coping skills when you feel you might be restless; for example, if you know you'll be on a long car ride, plan out the ride depending on if you're a passenger or drive – schedule rest stop breaks every hour, download some podcasts, talk on the phone with a friend, and bring travel puzzles or fidgets to keep your mind and hands busy
- Regularly journal to get to the root cause of certain emotions and manage them in a healthy way
- Use mantras to set your intentions for certain tasks, days, and life as a whole; use affirmations to reframe situations and reduce negative self-talk along with anxiety; both of these techniques help with self-acceptance, personal improvement, and goal fulfillment
 - 'Now is not forever, so stay here in the moment before it passes'
 - 'Nothing and no one is perfect'
 - 'I tried my best and did a lot and that is enough'
 - 'I can get through anything'

- Reframing can look as such: 'There's too much work to do and I can't get it all done' > 'I'll have less to do tomorrow if I start this today and it will make me feel more relieved'
- Identify your own triggers as they come up to plan your responses and avoid bad situations
- Learn to say no and give yourself permission to relax and/or sit some things out; this will help you set good boundaries and learn your personal limits
 - You can start by regularly taking stock of what's on your plate and saying 'no' whenever you recognize you are overtaxed
 - As time goes on, you can train yourself to turn down certain commitments from the start
- Imagine you are turning an imaginary key in your pocket to 'lock' your mouth when you feel the urge to speak impulsively
- Take a picture of purchases at the store that you want, look at them later, and then make a decision about if you still want them
- If you tend to be emotion-driven when having sensitive or important conversations, try to mentally erase someone's face when you are talking to them so you focus on the issue at hand and not the person
- If you struggle to find the words to say during important conversations and want to avoid impulsivity, jot down what you want to say before you say it
- Prepare specific coping skills and a plan for the moments following a big success

- Many adults with ADHD feel sad or lost after large accomplishments, which is mostly due to the lack of stimulus that they got so used to
- Know who to take advice from and listen to about certain topics
 - Adults with ADHD can have trouble with self-awareness, so be ready to take feedback from some trusted people who are close to you and can call out certain behaviors or situations before they become a problem
- Before responding to people you are speaking with, paraphrase what they have said to you before moving forward with your response; this helps clarify any misunderstandings and gives you a minute to prepare what you want to say
- Practice labeling your impulsivity by writing out what the situation at hand is, how you felt before you did something, and what you should have done or want to do the next time you wish to stop an impulsive behavior
- Plan some time each day for daydreaming and non-productive leisure
 - Meditation can be difficult and requires extended focus, so daydreaming time should be separate from that and is important because so much of ADHD management requires planning and scheduling
- At the end of each day, mentally gather each of the good things that happened and file them away on a 'floppy disk' then delete the bad things to prevent yourself from focusing on them
- Place an elastic band on your wrist and snap it when you feel the urge to do or say something impulsive

- Apologize when you recognize that you have cut someone off with an impulsive response
- Anticipate and prepare yourself for failure with a certain number of projects you undertake; accept that this is not always the product of your abilities or how much effort you put in, rather it's the law of percentages

In accordance with the above treatments and techniques, it's important that therapists discuss each patient's occupational roles. These roles offer clearly defined activities and patterns that can then materialize into occupational choices. This may allow adults with ADHD to continue in existing occupational roles or find and enter new ones that develop into habits.

Both children and adults with ADHD may also look to alternative treatments to manage ADHD symptoms. When individuals use treatments exclusively outside of the medical field to treat conditions, the modalities are referred to as alternative treatments or alternative medicine. When individuals use outside treatments in addition to traditional medical intervention, the modalities are referred to as complementary treatments or complementary medicine. Therefore, the same modality can be considered either alternative or complementary depending on whether or not it is supplemented by medical treatments.

While all individuals have the autonomy to make their own medical choices, many alternative ADHD treatments lack evidence supporting their efficacy for that purpose. Some examples of such therapies that lack include:

- Acupuncture
- Aromatherapy, specifically using lavender
- Chiropractic care
- Computer brain training programs

- Dietary and herbal supplements such as omega 3 fatty acids/fish oil, ginkgo biloba, St. John's Wort, pycnogenol (French Maritime Pine Bark), zinc, L-carnitine, iron, Vitamin C, Vitamin B6, magnesium, ginseng, and passionflower
- Elimination diets, specifically those that involve cutting out all artificial colorings, flavorings, and preservatives
- High-protein diets
- Vision therapy
 - Some sources note that faulty eye movements can lead to symptoms of inattention, so vision therapy is indicated for those with ADHD. While different types of vision therapy may be helpful for people who have identified vision problems, there is no evidence to support the use of vision therapy for the management of ADHD symptoms.
- Yoga

Section 3 Personal Reflection

How might a therapist help an adult with ADHD who feels overwhelmed by the amount of scheduling that their management will likely entail?

Section 3 Key Words

Affirmation - A simple saying used to reframe situations and minimize negative self-talk, anxiety, and other negative emotions; an affirmation can focus on a range of topics and be used for a variety of purposes, and they also typically lead to more self-acceptance, goal fulfillment, and personal improvement

Alternative modalities/medicine - Treatments that are used in lieu of traditional medical treatment and supervision

Complementary modalities/medicine - Treatments that are used alongside traditional medical treatment and supervision

Emotional lability - Rapid mood changes that involve strong emotions and an exaggeration of both positive and negative feelings

Mantra - A simple saying used to set intentions for your life or certain days, tasks, and situations; a mantra can center on any topic you'd like and can serve a range of purposes; mantras may result in more self-acceptance, goal fulfillment, and personal improvement

Section 4: Case Study #1

A 23-year-old female who recently graduated from college just took her first job in New York City as a marketing associate. During her college years, she was actively involved in her sorority, several extracurricular activities, academic societies, and volunteer work. Overall, she did well academically and received average grades. For the past 3 months, she has been experiencing increased difficulty sleeping, trouble focusing for longer than 30 minutes on work-related tasks, an increase in restlessness, and a spike in generalized feelings of anxiety. Her performance reviews are consistently excellent, but she is finding it harder to meet deadlines and block out distractions as they come up. She has coworkers who like to have side conversations, which takes time away from her work. She has tried using standard headphones to block out some of the noise and kindly give off the impression that she is not able to talk, but this hasn't been very effective. Her cubicle is right at the end of a row, so it's also in a high traffic area that sees a lot of activity.

1. What is the first step she should take to ensure these concerns do not impact her work?
2. How can this patient adjust her environment to make it more conducive to work?

3. Is it possible that this patient has ADHD that was not apparent before?

Section 5: Case Study #1 Review

This section will review the case studies that were previously presented. Responses will guide the clinician through a discussion of potential answers as well as encourage reflection.

1. What is the first step she should take to ensure these concerns do not impact her work?

This patient would benefit from a combination of environmental modifications and organizational strategies. The first step would be to implement organizational strategies to help her function better, since those are some of the easier aspects to control. She should start with using (or revamping) her calendar with color-coding, blocks of time for each task she has, and - most importantly - breaking down projects of any size into smaller tasks that she can handle more easily. This will help with deadlines and overall task completion. She can also begin using the Pomodoro technique to help keep her on task. She is already able to work for 30 minutes at a time, so this technique may mainly serve as positive reinforcement that she can keep working at this interval as long as she adds in breaks to maintain her focus. Another helpful strategy for this patient is earmarking several specific times each day to answer emails and phone calls (and adding those times to her schedule), since these can often serve as a distraction. Outside of the scheduled times, the patient should silence her phone and use focus assist features to mute the sound of incoming emails. Since her current attempts to focus (by using standard headphones) did not help minimize distractions from nearby coworkers, this patient should also exercise some boundary setting. She can start off by telling her coworkers that she cannot talk at certain times because she needs to focus

on work. If she wishes to maintain her relationship with these coworkers, she can pencil in some brief times each day to engage in conversations with her coworkers. She can also suggest getting lunch together or going for a happy hour after the work day ends. Otherwise, she can maintain a cordial working relationship by politely saying 'no' to these distractions when they arise.

2. How can this patient adjust her environment to make it more conducive to work?

The location of her desk (and what it exposes her to) may be another factor that contributes to her difficulty working. She should start by using noise-canceling headphones to more effectively cut out the auditory distractions. If this does not work or she finds a need to also cut down on visual distractions, she can use a room divider or something similar to block her workspace off from the hall where people frequently walk through. If these are not effective, she can ask her supervisor to move her workspace to a quieter area or simply ask for additional flexibility in terms of her working area. For example, if there is an atrium or small conference room she could use during off-hours, that would help her focus more.

3. Is it possible that this patient has ADHD that was not apparent before?

Due to the busy undergraduate experience this patient had, it's very likely that she has had at least some of these symptoms for a few years. It's possible that the high level of involvement she had in college gave her enough mental and physical stimulation and variation that she could focus on everything when needed and got good sleep at night. Any feelings of anxiety or restlessness that arose during her college years were likely naturally kept under control by her full schedule because she was doing so much that there wasn't much of an opportunity for those emotions to arise. While we don't know much about her childhood, it's possible that

something similar was happening then and that prevented her symptoms from being more apparent.

Section 6: Case Study #2

A single 35-year-old male diagnosed with ADHD was recently laid off from his job as an operations manager. This job departure was simply due to the company downsizing and was not the result of his performance. Due to this job loss and a depressive episode at the start of his unemployment, this patient's health insurance lapsed. As a result, he has not had access to his ADHD medication for 8 weeks now. He was diagnosed with ADHD when he was a sophomore in college because his symptoms began impacting his grades and attendance. It was at this time he was prescribed stimulants, which have been effective and taken consistently without concern for the past 13 years. He has begun self-medicating with alcohol and cocaine to manage his depressive symptoms along with feelings of being a failure and a sense of hopelessness due to difficulty in the job hunt. He lives alone and his home has become very disorganized in the past few months, which is preventing him from finding the paperwork he needs to regain his insurance and contact any of his healthcare providers.

1. What is the first priority for this patient?
2. In the event the patient does enter a program to detox from alcohol and cocaine use, what factors must be taken into consideration?
3. Once the patient has stabilized on ADHD medication again, what is the next step a therapist can help him with?

Section 7: Case Study #2 Review

This section will review the case studies that were previously presented. Responses will guide the clinician through a discussion of potential answers as well as encourage reflection.

1. What is the first priority for this patient?

This patient must prioritize getting in touch with his prescribing provider so he can get back on his medications. This is a safety concern, so it's prioritized above most other areas. For simplicity's sake and the essence of time, he can look his doctor's information up online and then save the contact in his phone for future reference. However, another priority is to declutter his home in a way that makes it more accessible. When he does contact his provider, he should ask about grant programs or other funding sources to assist with paying for his medications until he is able to get health insurance again. A therapist can then begin coaching this patient through the insurance process to renew their old plan or obtain another plan. Simultaneously, the therapist should instruct the patient in the use of coping strategies to replace alcohol and recreational drug use, which will not be an effective, long-term way to manage his symptoms.

2. In the event the patient does enter a program to detox from alcohol and cocaine use, what factors must be taken into consideration?

If the patient needs help with the medical detoxification process from these substances, he can bring that up when he visits his provider to get more medication. If and when the patient enters a residential rehab program, he should be sure to find a dual diagnosis program that can effectively treat his substance misuse while taking his ADHD into account. These new providers should also be aware of the circumstances that led up to this hospitalization, since a comprehensive treatment plan with ongoing case management is likely the key to preventing relapse and further concerns.

After his time in residential rehab, the patient should also look into outpatient psychotherapy to address the underlying feelings that led to this depressive episode and self-medication.

3. Once the patient has stabilized on ADHD medication again, what is the next step a therapist can help him with?

A therapist can then help this patient with the job search by teaching him organizational strategies and reinforcing the use of positive coping strategies to handle any negative feelings that arise during the process.



References

- (1) Centers for Disease Control and Prevention. (2022). Symptoms and Diagnosis of ADHD. Retrieved from <https://www.cdc.gov/ncbddd/adhd/diagnosis.html>
- (2) Cortese S. (2019). The Association between ADHD and Obesity: Intriguing, Progressively More Investigated, but Still Puzzling. *Brain sciences*, 9(10), 256. <https://doi.org/10.3390/brainsci9100256>
- (3) Riglin, L., Todd, A., Blakey, R., Shakeshaft, A., Stergiakouli, E., Davey Smith, G., Tilling, K., & Thapar, A. (2023). Young-Adult Social Outcomes of Attention-Deficit/Hyperactivity Disorder. *The Journal of clinical psychiatry*, 84(2), 22m14379. <https://doi.org/10.4088/JCP.22m14379>
- (4) Seattle Children's Hospital. (2020). Differential Diagnosis of ADHD Throughout the Lifespan. Retrieved from https://ictp.uw.edu/sites/default/files/didactic_files/UWPACC_2020_08_20_Diagnosing_ADHD_Mark_Stein_PhD.pdf
- (5) Slob, E. M. A., Brew, B. K., Vijverberg, S. J. H., Dijs, T., van Beijsterveldt, C. E. M., Koppelman, G. H., Bartels, M., Dolan, C. V., Larsson, H., Lundström, S., Lichtenstein, P., Gong, T., Maitland-van der Zee, A. H., Kraneveld, A. D., Almqvist, C., & Boomsma, D. I. (2021). Early-life Antibiotic Use and Risk of Attention-deficit Hyperactivity Disorder and Autism Spectrum Disorder: Results of a Discordant Twin Study. *International Journal of Epidemiology*, 50(2), 475–484. <https://doi.org/10.1093/ije/dyaa168>
- (6) Song, P., Zha, M., Yang, Q., Zhang, Y., Li, X., & Rudan, I. (2021). The Prevalence of Adult Attention-deficit Hyperactivity Disorder: A Global Systematic Review and Meta-analysis. *Journal of Global Health*, 11, 04009. <https://doi.org/10.7189/jogh.11.04009>

- (7) American Psychiatric Association. (2022). What is ADHD? Retrieved from <https://www.psychiatry.org/patients-families/adhd/what-is-adhd>
- (8) Prakash, J., Chatterjee, K., Guha, S., Srivastava, K., & Chauhan, V. S. (2021). Adult Attention-deficit Hyperactivity Disorder: From Clinical Reality Toward Conceptual Clarity. *Industrial Psychiatry Journal*, 30(1), 23–28. https://doi.org/10.4103/ipj.ipj_7_21
- (9) Lidestam, B., Selander, H., Vaa, T., & Thorslund, B. (2021). The Effect of Attention-deficit/Hyperactivity Disorder (ADHD) on Driving Behavior and Risk Perception. *Traffic Injury Prevention*, 22:2, 108-113, DOI: [10.1080/15389588.2020.1847282](https://doi.org/10.1080/15389588.2020.1847282)
- (10) Harrison, A. G., Nay, S., & Armstrong, I. T. (2019). Diagnostic Accuracy of the Conners' Adult ADHD Rating Scale in a Postsecondary Population. *Journal of Attention Disorders*, 23(14), 1829–1837. <https://doi.org/10.1177/1087054715625299>
- (11) Weibel, S., Bicego, F., Muller, S., Martz, E., Costache, M. E., Kraemer, C., Bertschy, G., Lopez, R., & Weiner, L. (2022). Two Facets of Emotion Dysregulation Are Core Symptomatic Domains in Adult ADHD: Results from the SR-WRAADDs, a Broad Symptom Self-Report Questionnaire. *Journal of Attention Disorders*, 26(5), 767–778. <https://doi.org/10.1177/10870547211027647>
- (12) Ramos-Quiroga, J. A., Nasillo, V., Richarte, V., Corrales, M., Palma, F., Ibáñez, P., Michelsen, M., Van de Glind, G., Casas, M., & Kooij, J. J. S. (2019). Criteria and Concurrent Validity of DIVA 2.0: A Semi-Structured Diagnostic Interview for Adult ADHD. *Journal of Attention Disorders*, 23(10), 1126–1135. <https://doi.org/10.1177/1087054716646451>
- (13) Khemiri, L., Brynte, C., Konstenius, M., Guterstam, J., Rosendahl, I., Franck, J., & Jayaram-Lindström, N. (2021). Self-rated Impulsivity in Healthy Individuals, Substance Use Disorder and ADHD: Psychometric Properties of

- the Swedish Barratt Impulsiveness Scale. *BMC Psychiatry*, 21(1), 458. <https://doi.org/10.1186/s12888-021-03462-1>
- (14) Cunha, P., Silva, I. M. C., Neiva, E. R., & Tristão, R. M. (2019). Auditory Processing Disorder Evaluations and Cognitive Profiles of Children with Specific Learning Disorder. *Clinical Neurophysiology Practice*, 4, 119–127. <https://doi.org/10.1016/j.cnp.2019.05.001>
- (15) Omidvar, S., Duquette-Laplante, F., Bursch, C., Jutras, B., & Koravand, A. (2023). Assessing Auditory Processing in Children with Listening Difficulties: A Pilot Study. *Journal of Clinical Medicine*, 12(3), 897. <https://doi.org/10.3390/jcm12030897>
- (16) Tatar, Z.B., & Cansız, A. (2022). Executive Function Deficits Contribute to Poor Theory of Mind Abilities in Adults with ADHD, *Applied Neuropsychology: Adult*, 29:2, 244-251, DOI: [10.1080/23279095.2020.1736074](https://doi.org/10.1080/23279095.2020.1736074)
- (17) Hallelund, H. B., Sørensen, L., Posserud, M.-B., Haavik, J., & Lundervold, A. J. (2019). Occupational Status Is Compromised in Adults With ADHD and Psychometrically Defined Executive Function Deficits. *Journal of Attention Disorders*, 23(1), 76–86. <https://doi.org/10.1177/1087054714564622>
- (18) Helene Bergly, T., & Julius Sømhovd, M. (2018). The Relation Between ADHD Medication and Mild Cognitive Impairment, as Assessed by the Montreal Cognitive Assessment (MoCA), in Patients Entering Substance Use Disorder Inpatient Treatment. *Journal of Dual Diagnosis*, 14(4), 228–236. <https://doi.org/10.1080/15504263.2018.1496305>
- (19) Fuermaier, A. B. M., Tucha, L., Guo, N., Mette, C., Müller, B. W., Scherbaum, N., & Tucha, O. (2022). It Takes Time: Vigilance and Sustained Attention Assessment in Adults with ADHD. *International Journal of Environmental Research and Public Health*, 19(9), 5216. <https://doi.org/10.3390/ijerph19095216>

- (20)Guo, N., Koerts, J., Tucha, L., Fetter, I., Biela, C., König, M., Bossert, M., Diener, C., Aschenbrenner, S., Weisbrod, M., Tucha, O., & Fuermaier, A. B. M. (2022). Stability of Attention Performance of Adults with ADHD over Time: Evidence from Repeated Neuropsychological Assessments in One-Month Intervals. *International Journal of Environmental Research and Public Health*, 19(22), 15234. <https://doi.org/10.3390/ijerph192215234>
- (21)Faheem, M., Akram, W., Akram, H., Khan, M.A., Siddiqui, F.A., & Majeed, I. (2022). Gender-based Differences in Prevalence and Effects of ADHD in Adults: A Systematic Review. *Asian Journal of Psychiatry*, 75: 103205. <https://doi.org/10.1016/j.ajp.2022.103205>
- (22)Dobrosavljevic, M., Solares, C., Cortese, S., Andershed, H., & Larsson, H. (2020). Prevalence of Attention-deficit/Hyperactivity Disorder in Older Adults: A Systematic Review and Meta-analysis. *Neuroscience & Biobehavioral Reviews*, 118. <https://doi.org/10.1016/j.neubiorev.2020.07.042>
- (23)Rohner, H., Gaspar, N., Philipsen, A., & Schulze, M. (2023). Prevalence of Attention Deficit Hyperactivity Disorder (ADHD) among Substance Use Disorder (SUD) Populations: Meta-Analysis. *International Journal of Environmental Research and Public Health*, 20(2), 1275. <https://doi.org/10.3390/ijerph20021275>
- (24)Adamis, D., Flynn, C., Wrigley, M., Gavin, B., & McNicholas, F. (2022). ADHD in Adults: A Systematic Review and Meta-Analysis of Prevalence Studies in Outpatient Psychiatric Clinics. *Journal of Attention Disorders*, 26(12), 1523–1534. <https://doi.org/10.1177/10870547221085503>
- (25)Kittel-Schneider, S., Wolff, S., Queiser, K., Wessendorf, L., Meier, A., Verdenhalven, M., Brunkhorst-Kanaan, N., et al. (2019). Prevalence of ADHD in Accident Victims: Results of the PRADA Study. *Journal of*

- Clinical Medicine*, 8(10), 1643. MDPI AG. Retrieved from <http://dx.doi.org/10.3390/jcm8101643>
- (26) Adamou, M., Asherson, P., Arif, M. *et al.* Recommendations for Occupational Therapy Interventions for Adults with ADHD: A Consensus Statement From the UK Adult ADHD Network. *BMC Psychiatry* 21, 72 (2021). <https://doi.org/10.1186/s12888-021-03070-z>
- (27) Kastner, L., Velder-Shukrun, Y., Bonne, O., Bar-Ilan, R.T., & Maeir, A. (2022). Pilot Study of the Cognitive–Functional Intervention for Adults (Cog-Fun A): A Metacognitive–Functional Tool for Adults With Attention Deficit Hyperactivity Disorder. *Am J Occup Ther*, 76(2), 7602205070. doi: <https://doi.org/10.5014/ajot.2022.046417>
- (28) Altit, T.P., Shor, R., & Maeir, A. (2019). Occupational Identity, Competence, and Environments Among Adults With and Without Attention Deficit Hyperactivity Disorder. *Occupational Therapy in Mental Health*, 35:2, 205-215, DOI: [10.1080/0164212X.2019.1588833](https://doi.org/10.1080/0164212X.2019.1588833)
- (29) Gutman, S. A., Balasubramanian, S., Herzog, M., Kim, E., Swirnow, H., Retig, Y., & Wolff, S. (2020). Effectiveness of a Tailored Intervention for Women With Attention Deficit Hyperactivity Disorder (ADHD) and ADHD Symptoms: A Randomized Controlled Study. *The American Journal of Occupational Therapy*, 74(1), 7401205010p1–7401205010p11. <https://doi.org/10.5014/ajot.2020.033316>
- (30) National Institute of Mental Health. (2021). Attention-Deficit/Hyperactivity Disorder in Adults: What You Need to Know. Retrieved from <https://www.nimh.nih.gov/health/publications/adhd-what-you-need-to-know>
- (31) University of Illinois Chicago. (2021). Kielhofner’s Model of Human Occupation. Retrieved from <https://moho.ahs.uic.edu/about/>

- (32) Lopez, P. L., Torrente, F. M., Ciapponi, A., Lischinsky, A. G., Cetkovich-Bakmas, M., Rojas, J. I., Romano, M., & Manes, F. F. (2018). Cognitive-behavioural Interventions for Attention Deficit Hyperactivity Disorder (ADHD) in Adults. *The Cochrane Database of Systematic Reviews*, 3(3), CD010840. <https://doi.org/10.1002/14651858.CD010840.pub2>
- (33) Young, Z., Moghaddam, N., & Tickle, A. (2020). The Efficacy of Cognitive Behavioral Therapy for Adults With ADHD: A Systematic Review and Meta-Analysis of Randomized Controlled Trials. *Journal of Attention Disorders*, 24(6), 875–888. <https://doi.org/10.1177/1087054716664413>
- (34) Pan, M. R., Zhao, M. J., Liu, L., Li, H. M., Wang, Y. F., & Qian, Q. J. (2020). Cognitive Behavioural Therapy in Groups for Medicated Adults with Attention Deficit Hyperactivity Disorder: Protocol for a Randomised Controlled Trial. *BMJ Open*, 10(10), e037514. <https://doi.org/10.1136/bmiopen-2020-037514>
- (35) Harper, K., & Gentile, J. P. (2022). Psychotherapy for Adult ADHD. *Innovations in Clinical Neuroscience*, 19(10-12), 35–39.
- (36) Poissant, H., Mendrek, A., Talbot, N., Khoury, B., & Nolan, J. (2019). Behavioral and Cognitive Impacts of Mindfulness-Based Interventions on Adults with Attention-Deficit Hyperactivity Disorder: A Systematic Review. *Behavioural Neurology*, 5682050. <https://doi.org/10.1155/2019/5682050>
- (37) Geurts, D. E. M., Schellekens, M. P. J., Janssen, L., & Speckens, A. E. M. (2021). Mechanisms of Change in Mindfulness-Based Cognitive Therapy in Adults With ADHD. *Journal of Attention Disorders*, 25(9), 1331–1342. <https://doi.org/10.1177/1087054719896865>
- (38) Hepark, S., Janssen, L., de Vries, A., Schoenberg, P. L. A., Donders, R., Kan, C. C., & Speckens, A. E. M. (2019). The Efficacy of Adapted MBCT on Core Symptoms and Executive Functioning in Adults With ADHD: A Preliminary

Randomized Controlled Trial. *Journal of Attention Disorders*, 23(4), 351–362. <https://doi.org/10.1177/1087054715613587>

- (39)Oliva, F., Malandrone, F., di Girolamo, G., Mirabella, S., Colombi, N., Carletto, S., & Ostacoli, L. (2021). The Efficacy of Mindfulness-based Interventions in Attention-deficit/Hyperactivity Disorder Beyond Core Symptoms: A Systematic Review, Meta-analysis, and Meta-regression. *Journal of Affective Disorders*, 292, 475–486. <https://doi.org/10.1016/j.jad.2021.05.068>
- (40)Janssen, L., Kan, C. C., Carpentier, P. J., Sizoo, B., Hepark, S., Schellekens, M. P. J., Donders, A. R. T., Buitelaar, J. K., & Speckens, A. E. M. (2019). Mindfulness-based Cognitive Therapy v. Treatment as Usual in Adults with ADHD: A Multicentre, Single-blind, Randomised Controlled Trial. *Psychological Medicine*, 49(1), 55–65. <https://doi.org/10.1017/S0033291718000429>
- (41)Slater, J. L., & Tate, M. C. (2018). Timing Deficits in ADHD: Insights From the Neuroscience of Musical Rhythm. *Frontiers in Computational Neuroscience*, 12, 51. <https://doi.org/10.3389/fncom.2018.00051>
- (42)UC Davis Health: Mind Institute. (2023). Complementary and Alternative Treatment of ADHD. Retrieved from <https://health.ucdavis.edu/mindinstitute/research/about-adhd/adhd-cam-treatments.html>



The material contained herein was created by EdCompass, LLC ("EdCompass") for the purpose of preparing users for course examinations on websites owned by EdCompass, and is intended for use only by users for those exams. The material is owned or licensed by EdCompass and is protected under the copyright laws of the United States and under applicable international treaties and conventions. Copyright 2023 EdCompass. All rights reserved. Any reproduction, retransmission, or republication of all or part of this material is expressly prohibited, unless specifically authorized by EdCompass in writing.