

Real-Life Symptoms, Difficulties, and Interventions for Adult ADHD: A Literature Review

Jingying Chen

Department of Psychology, Lehigh University, Bethlehem, United States

jic324@lehigh.edu

Abstract. Attention-Deficit/Hyperactivity Disorder (ADHD) is a prevalent neurobiological disorder, persisting into adulthood for approximately 5% of the global population. Adults with ADHD often grapple with a spectrum of comorbid challenges, including developmental brain impairments, learning disabilities, increased risks of traffic accidents, addiction, criminal activities, and a range of physical and mental health issues. This research article delves into the multifaceted difficulties faced by adults with ADHD and presents an extensive review of various treatment methodologies. This article critically examines the efficacy and limitations of diverse interventions, such as Cognitive-Behavioral Therapy (CBT), Dialectical Behavioral Therapy (DBT), Mindfulness-Based Cognitive Therapy (MBCT), occupational therapy, physical exercise, goal management training, and innovative digital health interventions. The analysis highlights significant improvements in core ADHD symptoms, executive functioning, emotional regulation, and essential life skills facilitated by these treatments. All findings in the related research underscore the necessity for an integrated, multidisciplinary deeper understanding in treatments and interventions for adult ADHD. This comprehensive evaluation contributes valuable insights to the evolving field of adult ADHD treatment, advocating for holistic, tailored treatment regimens that address the unique needs of this population.

Keywords: Adult ADHD, coping strategies, interventions.

1. Introduction

Attention Deficit Hyperactivity Disorder (ADHD) is a disorder related to immature neurodevelopment of the brain; individuals with ADHD usually show patterns of attention focus problems (cannot balance between inattention and hyperattention) and/or hyperactivity and impulsivity [1]. As a result, individuals with ADHD struggle with time management, controlling temper and word choice, and tasks that require lots of effort.

In recent years, the recognition of ADHD has increased, paralleling a surge in research and understanding of the condition. While ADHD symptoms are most discernible and thus frequently diagnosed in childhood—a time when behaviors tend to be more conspicuous—the disorder does not necessarily abate with age. Studies indicate that approximately 65% of children with ADHD will continue to experience symptoms into adulthood [2]. Song and colleagues have estimated that ADHD affects roughly 5% of the adult population globally [3].

Despite this prevalence, the body of research addressing adult ADHD is relatively sparse compared to that of childhood ADHD, with significant gaps in our understanding of how best to tailor interventions for the adult population. This oversight is critical, as the need for effective treatments is paramount—not only for mitigating the immediate symptoms but also for addressing the long-term psychosocial and occupational challenges that come with the disorder.

This article aims to bridge the current knowledge gap by systematically reviewing the symptoms of adult ADHD and the attendant struggles faced in daily life. It will further analyze current interventions, focusing on their efficacy in addressing the core symptoms of inattention, procrastination, and emotion regulation. By doing so, this review will highlight the significance of developing tailored interventions that are responsive to the unique needs of adults with ADHD, ultimately contributing to the enhancement of their well-being and functional outcomes.

2. Method

To conduct a comprehensive review of the literature about adult ADHD, a systematic search strategy was employed. The primary databases consulted were PsycINFO and Google Scholar, chosen for their extensive coverage of peer-reviewed psychological and medical research. The search terms utilized included “adult ADHD,” “prevention,” “difficulties,” and “stress” to ensure a broad capture of relevant studies encompassing various aspects of the disorder and its management.

The search was restricted to articles published between 2018 and 2023 to prioritize the inclusion of the most current research findings. This time frame was chosen to ensure that the interventions and data reflected the latest advancements in ADHD research and treatment approaches. Nonetheless, to ensure a comprehensive understanding of the topic and to not overlook seminal work, pivotal studies conducted prior to 2018 were also considered when they appeared to be of significant relevance.

Inclusion criteria were set to select studies that focused on adults with ADHD and that provided empirical data on symptoms, risk factors, or interventions. Exclusion criteria ruled out non-peer-reviewed articles, opinion pieces, and studies focusing solely on pediatric populations without follow-up into adulthood. Further filters were applied to select for studies in English, with full-text availability.

3. Literature review

3.1. Symptoms

3.1.1 Inattention

Inattention is one of the three core symptoms of adult ADHD. But, please note that inattention does not imply a lack of intelligence. In fact, many individuals with this symptom are quite intelligent. However, adults with ADHD may experience difficulties in sustaining attention and enthusiasm on tasks and interest, staying organized, and completing tasks, leading to impaired work performance, academic challenges, and strained interpersonal relationships [4]. Moreover, inattentiveness may contribute to increased stress, reduced self-esteem, and feelings of frustration and failure [5].

Inattention manifests in various forms among individuals with ADHD. For instance, some may struggle to differentiate between similar words, such as 'Tuesday' and 'Thursday.' Additionally, a heightened sensitivity to noise is common, often exacerbating their challenges in maintaining focus and attention. Research has suggested that ADHD individuals have reduced sensory gating, leading to an inability to filter out irrelevant sensory information, including auditory stimuli [6]. This lack of filtering can result in increased distractibility and impaired concentration when exposed to noisy environments. Additionally, individuals with ADHD might experience increased stress and agitation in response to noise due to their heightened sensitivity to external stimuli [7].

3.1.2 Procrastination

Individuals with ADHD may experience procrastination as a chronic struggle with initiating and completing tasks, frequently delaying action until the pressure of a deadline escalates to an unavoidable level. However, the more they procrastinate, the stronger the anxiety they experience. This tendency to procrastinate tasks is not merely a time management issue but also reflects difficulties with self-regulation and executive functioning deficits that are symptomatic of ADHD. In academic settings, this can lead to students with ADHD underperforming relative to their intellectual capacities, often resulting in last-minute rushes to meet deadlines. Within the workplace, procrastination may present missed opportunities, unmet goals, and a pervasive sense of underachievement, which can further exacerbate the stress and self-esteem challenges already common in adults with ADHD. Individuals might procrastinate about tasks they feel like they need to put into a great effort, such as replying to emails. Even in personal life, procrastination can disrupt daily routines and long-term planning, making it challenging for individuals to manage household tasks, maintain relationships, and pursue personal goals. Individuals with ADHD could tend to be late

because they procrastinate to go out, or they may even stay up late simply because they want to procrastinate the task of “taking a bath.” The multidimensional impact of procrastination underscores its significance in the management and treatment of ADHD, necessitating targeted interventions that address the unique executive function challenges faced by this population.

3.1.3 Impulsivity

Impulsivity, also one of the three core symptoms, in adults with ADHD is a multifaceted symptom that extends beyond the occasional hasty decision. It is a pervasive and persistent trait that can affect nearly every aspect of life. Impulsivity can mean speaking without thinking, resulting in blunt or socially inappropriate comments that may offend coworkers or friends. And individuals with ADHD are usually haunted by the inappropriate words they say and feel pain about it. In financial decisions, this impulsivity can lead to spontaneous purchases or investments without considering of the long-term repercussions, often causing stress and financial instability. In the realm of personal health, it could be skipping medical appointments or neglecting long-term wellness plans. In relationships, impulsivity can lead to snap judgments and actions that may hurt a partner, such as abrupt decisions that disregard the partner’s feelings or shared plans. At work, impulsivity can disrupt workflow through a hastiness to complete tasks, which can result in errors or incomplete work. The breadth and variability of impulsivity makes it a particularly challenging symptom to manage for adults with ADHD, necessitating control strategies and interventions tailored to each individual’s life context to mitigate its impact effectively.

3.1.4 Emotional dysregulation

Emotional dysregulation is increasingly recognized as a core feature of ADHD, impacting a significant proportion of individuals with the condition. This presents as difficulties in modulating emotional responses, leading to rapid mood swings, intense emotional reactions to everyday stressors, and a struggle to return to a baseline emotional state after an upset. For adults with ADHD, this can result in increased conflict within interpersonal relationships and challenges in professional settings where emotional control is paramount. In the workplace, such challenges may manifest as disproportionate responses to feedback or decisions, potentially leading to strained colleague relationships and misunderstandings. In social contexts, these individuals might struggle to maintain friendships due to unpredictable emotional reactions or perceived overreactions to minor provocations. In romantic relationships, the challenges of managing emotional responses may lead to a pattern of volatility and inconsistency that can strain partnerships. They might have trouble coping with the emotional give-and-take that healthy relationships require, which can result in intense arguments followed by equally intense efforts to reconcile. Emotional dysregulation also contributes to difficulties with self-esteem. It can exacerbate co-occurring conditions such as depression or anxiety, underscoring the importance of addressing this aspect in therapeutic interventions for adults with ADHD.

3.2. Difficulties

3.2.1 Stress From Workplaces and Lives

The three main symptoms of ADHD include inattention, hyperactivity, and impulsivity. Thus, due to the neurodevelopment problems individuals with ADHD have, they also have higher stress levels in workplaces and lives. What makes it worse is that most people lack knowledge about ADHD and thus cannot understand individuals with ADHD. Adults with ADHD may struggle to find a balance between work, play, and family obligations, and they are at a higher risk of developing mental illnesses [8].

During the last two decades, researchers have found an obvious increase in sick leave due to psychiatric diagnoses. Moreover, the reasons behind this might be due to changes in working life, health care, and other aspects of everyday life [9].

In workplaces, adults with ADHD usually have difficulties in time management, organizing work, prioritizing tasks, following instructions, and regulating emotions, compared to normal adults.

Moreover, they report significantly more work impairment in terms of performance and effectiveness, as well as attendance, teamwork, and interaction with supervisors, than do people without the disorder [8].

Combs et al. demonstrated the relationship between symptoms of ADHD and stress, finding out that inattention, rather than hyperactivity, is the most significant predictor of stress [10].

3.3. Therapies and Interventions for Adult ADHD

3.3.1 Cognitive-Behavioral Therapy (CBT)

Cognitive-Behavioral Therapy (CBT) is one such popular approach that helps individuals improve time management, organizational skills, and coping strategies to manage inattention-related difficulties [11-13]. Anastopoulos's research team focused on college students with ADHD and found CBT demonstrates significant improvements in ADHD symptoms, executive functioning, and co-occurring symptoms of depression and anxiety [14-17]. The study highlighted the effectiveness of CBT in improving various dimensions of ADHD. However, variations in sample sizes and methodologies across studies have led to inconsistent findings, underscoring the need for standardized approaches in CBT for adult ADHD. After reviewing 32 CBT studies, Nimmo-Smith concluded CBT to be a noneffective methods since it does not produce significant changes in informant or self-reported ADHD symptoms afterwards [16].

3.3.2 Medication

Additionally, medication, such as stimulants or non-stimulants, has been proven to be beneficial in reducing inattention symptoms and improving overall functioning in adults with ADHD [5]. The primary mechanism underlying medicines used to treat ADHD is altering the levels of neurotransmitters in the brain, especially dopamine and norepinephrine. These neurotransmitters are essential for controlling executive processes like impulse control and attentiveness [12].

3.3.3 DBT Therapy

Dialectical Behavior Therapy (DBT) is a form of cognitive-behavioral therapy that emphasizes the development of mindfulness, emotional regulation, and interpersonal effectiveness skills [18, 19]. And it can be an effective intervention for reducing self-ratings of ADHD symptoms. DBT is especially effective when it is conducted in group settings. A study conducted by Fleming et al. compared DBT with self-help [20]. The results showed that participants receiving DBT had significantly better outcomes in terms of the clinical impact of executive functioning deficits after treatment and at a 3-month follow-up. However, there was no significant effect of the intervention on self-rated symptoms of inattention. The research led by Katharina Bachmann delves into the potential of mindfulness-based cognitive therapy (MBCT) as a treatment for ADHD. The study merges cognitive behavioral therapy techniques with mindfulness meditation practices to address attention control and emotion regulation deficits common in ADHD. The research posits that mindfulness meditation may induce neuroplastic changes in the brain, potentially ameliorating ADHD symptoms. Evidence suggests that among ADHD patients following mindfulness meditation, there is significant improvements in executive functioning and emotion regulation [21].

3.3.4 Digital Health interventions

A newly research led by Biederman has proved that a novel ADHD-centric digital health intervention significantly improved patients' initiative in taking drugs and meeting with doctors on time, and other involvement in the treatment by using SMS text messages [18]. The research team run a participants search using the Partners HealthCare electronic medical records. They found out that in both groups, participants who received SMS intervention performed better, and is not related to race, gender, age, and etc. In the 37-day refill window, participants who received SMS intervention engaged 45% more than participants who receive usual treatments; and in the 45-day refill window, SMS participants engaged 43% more. Even though it remains unclear whether this could be an

effective methods for all adult ADHD patients, the research team has managed to show the significant improvements brought by digital techniques SMS.

3.3.5 Occupational therapy

Traditional therapeutic approaches for ADHD in adults primarily focus on pharmacological and psychological treatments; but in a groundbreaking study conducted by Adamou and his colleagues, occupational therapy has been identified as a vital component in managing adults with ADHD, complementing traditional treatments [19]. The research findings advocate for a personalized approach in occupational therapy, emphasizing the organization of physical and social environments, enhancement of social interactions, and development of stress management strategies like time management. Specifically, the study highlights occupational therapy's role in improving participation, social awareness, and regulation of sensory stimulation. Although the evidence base for these interventions is still evolving, Adamou et al.'s research marks a significant step in recognizing and establishing the role of occupational therapy in adult ADHD management, paving the way for more comprehensive and differentiated treatment plans.

4. Conclusion

This research article examines several therapy methods (i.e., CBT, DBT) and interventions (i.e., digital health intervention, occupational therapy) for adult ADHD: to what extent are they effective to patients and what may be some limitations. Fortunately, ADHD is a special disorder that simply being diagnosed can offer relief to individuals who finally understand their symptoms after many years and push them to make changes. Once being diagnosed, it is crucial for those with ADHD to educate themselves about the condition. A deeper understanding of how ADHD manifests in their lives can guide them to the most suitable treatment options. Unfortunately, systematic accommodations for ADHD are lacking, and some adults find that medication and therapy don't fully address their challenges. This underscores the need for more rigorous research to develop effective therapies.

Nevertheless, there are proactive steps individuals with ADHD can take to mitigate its impact. Openly communicating about their disorders with those around them and educating others about ADHD is vital. In addition, they should embrace strategies for positive change. For instance, learning to resist the urge to procrastinate and adhering to a structured schedule can be beneficial. While therapy and medication are important, they may not suffice on their own. By fostering habit changes and cognitive improvement, individuals with ADHD may lessen its effects and enhance their quality of life.

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