

Attention Deficit/Hyperactivity Disorder (ADHD) in workers: Scoping review and case study

Transtorno de Déficit de Atenção/Hiperatividade (TDAH) em trabalhadores: Revisão de escopo e estudo de caso

Trastorno por Déficit de Atención e Hiperactividad (TDAH) en trabajadores: revisión de alcance y estudio de caso

Literature Reviews

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Moura, J. A., & Cruz, R. M. (2025). Attention Deficit/Hyperactivity Disorder (ADHD) in workers: Scoping review and case study. *Revista Psicologia: Organizações e Trabalho, 25*, e25628. https://doi.org/10.5935/rpot/2025.256 28 **Abstract:** Attention-Deficit/Hyperactivity Disorder (ADHD) has a significant impact on social and occupational functioning. This scoping review aimed to analyze the characteristics and challenges faced by individuals with ADHD in the workplace and career. The review was conducted across six databases, adhering to the PRISMA-ScR protocol, with no restrictions on publication period or language, up to July 2023. A total of 605 studies were identified, of which 26 met the eligibility criteria. Additionally, a case study of a 27-year-old physician diagnosed with ADHD at the age of 15 was analyzed in conjunction with the review findings. The combined analysis of the scoping review and case study highlighted the occupational challenges faced by individuals with ADHD, including their impacts on job performance, workplace effectiveness, and professional relationships. These findings underscore the importance of fostering more inclusive and supportive work environments for employees with ADHD, offering hope for improved outcomes and better integration into the workforce.

Keywords: Attention Deficit/Hyperactivity Disorder, workers, job performance, inclusion at work, career.

Resumo: O Transtorno de Déficit de Atenção/Hiperatividade (TDAH) afeta significativamente o desempenho social e no trabalho. Esta revisão de escopo teve como objetivo analisar as características e os desafios enfrentados por indivíduos com TDAH no local de trabalho e na carreira. Foi realizada uma revisão de escopo, em seis bases de dados, seguindo as diretrizes do protocolo PRISMA-ScR, sem restrições de período de publicação e idioma, até julho de 2023. Foram recuperados 605 estudos, dos quais 26 responderam aos critérios de elegibilidade. Foi analisado conjuntamente um estudo de caso de uma médica de 27 anos com diagnóstico de TDAH desde os 15 anos. A análise dos resultados da revisão e do estudo de caso permitiram identificar desafios ocupacionais enfrentados pelos indivíduos com TDAH no local de trabalho e seus impactos no desempenho, na eficácia e no relacionamento profissional. Além disso, apontam a necessidade de estratégias organizacionais para promover ambientes de trabalho inclusivos de trabalhadores com TDAH.

Palavras-chave: Transtorno de Déficit de Atenção/Hiperatividade, trabalhadores, desempenho no trabalho, inclusão no trabalho, carreira.

Resumen: El Trastorno por Déficit de Atención con Hiperactividad (TDAH) afecta significativamente el desempeño social y laboral. Esta revisión de alcance tuvo como objetivo analizar las características y los desafíos que enfrentan las personas con TDAH en el lugar de trabajo y la carrera. Se realizó una revisión del alcance en cinco bases de datos, siguiendo las pautas del protocolo PRISMA-ScR, sin restricciones de período de publicación e idioma, hasta julio de 2023. Se recuperaron 605 estudios, de los cuales 26 cumplieron los criterios de elegibilidad. Se analizó conjuntamente un estudio de caso de un médico de 27 años diagnosticado con TDAH desde los 15 años. El análisis de los resultados permitió identificar los desafíos ocupacionales que enfrentan las personas con TDAH en el lugar de trabajo y sus impactos en el desempeño, la efectividad y las relaciones profesionales. Además, señalan la necesidad de estrategias organizativas para promover entornos laborales inclusivos para los trabajadores con TDAH.

Palabras clave: Transtorno de Déficit de Atención/Hiperatividade, trabajadores, desempenho no trabalho, inclusión en el trabajo, carrera.

Introduction

Attention-Deficit/Hyperactivity Disorder (ADHD) is a prevalent neurodevelopmental disorder that affects millions of children and adults globally. It is defined by persistent patterns of inattention, hyperactivity, and impulsivity, which can lead to significant challenges in learning, relationships, and occupational functioning (American Psychiatric Association, 2013; Thapar & Cooper, 2016). The presentation and severity of symptoms vary widely among individuals, with ADHD classified into three primary subtypes: predominantly inattentive, predominantly hyperactive-impulsive, and combined. Although the precise causes of ADHD are not fully understood, research suggests it arises from a complex interplay of genetic and environmental factors (Adler et al., 2017).

ADHD is often associated with children, but it is increasingly recognized as a significant issue for adults as well. ADHD in adults can present differently than in children and may be characterized by symptoms such as difficulty with organization, time management, and task completion. It can also impact social relationships, impulse control, and overall quality of life (Krauss & Schellenberg, 2022; Weibel et al., 2020).

Various epidemiological studies have been carried out, utilizing diverse methodologies and sample sizes to determine the prevalence rates of ADHD (Fayyad et al. 2017; Van Wijk & Firfirey 2020). The prevalence rates of ADHD in adults exhibit a wide range, estimated to be between 2% and 5% of the general population. Over the last two decades, there has been a notable surge in research on the prevalence of ADHD in the adult population, highlighting that ADHD is not confined to childhood but persists in affecting a significant segment of adults. (de Graaf et al., 2008; Lauder et al., 2022; Schein et al., 2023).

ADHD symptoms have many negative impacts on life. About 70 to 80% of people with ADHD have at least one other mental disorder. ADHD in adults is often associated with depression and bipolar disorder, learning disorders, language disorders, anxiety disorders, as well as substance abuse and suicide attempts (Carucci et al., 2022; Krauss & Schellenberg, 2022). Although ADHD diagnoses are defined categorically, ADHD traits are continuously distributed in the general population, and individuals with ADHD exist at the extreme ends of the continuum of ADHD traits (Rotta, 2016; Durand & Arbone, 2022). Diagnosing ADHD in adults can pose challenges due to subtle symptoms that may overlap with other mental health conditions. Nevertheless, a comprehensive evaluation by a mental health professional, involving a thorough review of symptoms and personal history, can aid in determining the appropriateness of an ADHD diagnosis (Schein et al., 2023; Simon et al., 2020).

Treatment options for adult ADHD typically involve medication, therapy, or a combination of both. Medications, including stimulants and non-stimulants, can improve attention and reduce impulsivity, while therapy sessions focus on enhancing crucial skills like time management, organization, and social abilities (Kolar et al., 2008; Nagata et al., 2019; Rostain & Ramsay, 2006; Wolraich et al., 2019). Therapy also targets behaviors and thoughts that hinder overall functioning (Assunção, 2019). It is common for individuals with ADHD to reach adulthood without receiving proper diagnosis and treatment, with the majority remaining untreated (Durand & Arbone, 2022).

Overall, ADHD in adults is a complex condition that can impact many aspects of life, including work. However, with proper diagnosis and treatment, as well as support from employers and coworkers, individuals with ADHD can lead fulfilling and productive lives (Kessler et al., 2009; Lauder et al., 2022; Schein et al., 2023). In the workplace, ADHD can present unique challenges for adults. Individuals with ADHD may struggle with completing tasks on time, staying organized, and staying on task during meetings. However, with appropriate support and accommodations, many individuals with ADHD can thrive in a variety of work environments (LeFevre-Levy et al., 2023; Weber, 2022).

ADHD significantly impacts job performance by impairing key aspects of work effectiveness. Adults with ADHD often struggle with attention, organization, time management, and impulsivity, which can result in decreased productivity, increased errors, and difficulties in maintaining positive relationships with colleagues. These challenges frequently lead to job dissatisfaction, underemployment, and workplace conflicts (Kessler et al., 2009; Nikolas & Nigg, 2013; Suzuki et al., 2023). Research by Halmøy et al. (2009) highlights that adults with ADHD experience reduced productivity, higher rates of absenteeism, and an increased likelihood of workplace accidents, all of which contribute to significant financial costs for both individuals and organizations.

However, workplace accommodations, such as flexible schedules, assistive technologies, structured workflows, and clear communication, can help mitigate these challenges and enhance job performance. Additionally, some individuals with ADHD excel in dynamic, fast-paced environments where they can harness their energy, creativity, and problem-solving skills effectively, demonstrating that ADHD-related traits can also be strengths in the right context.

This scoping review aims to examine the characteristics and results of research conducted on Attention-Deficit/Hyperactivity Disorder (ADHD) in workers. In addition, a case study was discussed. The question that guided our study was: What are the characteristics of ADHD studies in workers?

Method

A scoping review was conducted to map the existing knowledge on an emerging topic, as this method is inherently exploratory and well-suited for identifying research gaps (Peters et al., 2020). The review adhered to the PRISMA-P (Preferred Reporting Items for Systematic Reviews and Meta-Analysis Protocols) checklist during the planning phase, where objectives and methodology were defined in advance. To report the findings, the PRISMA-ScR guidelines, a PRISMA extension specifically recommended for scoping reviews (Tricco et al., 2018), were followed. The use of international protocols in literature reviews enhances methodological rigor and ensures transparency (Peters et al., 2015; Peters et al., 2020).

The databases Scopus, Web of Science (WOS), PsycINFO (APA), PubMed/Medline, and Scielo were searched in July 2023. These databases were selected for their international scope, scientific relevance, and inclusion of journals focused on psychology and health, among other criteria. No filters were applied for publication period or language. The search strategy was developed with the assistance of a librarian, guided by the research question, and informed by a preliminary search of commonly used keywords in relevant studies. This resulted in the following search string: ("attention deficit hyperactivity disorder" OR ADHD) AND (work* OR occupat* OR career).

Eligibility criteria were established during the planning phase. Studies were included if they met the following criteria: (1) specifically addressed Attention-Deficit/Hyperactivity Disorder (ADHD) in the context of work, occupation, or career; (2) employed empirical or non-empirical methodologies; and (3) were published in journal article format. Titles and abstracts of the retrieved studies were screened, and ineligible studies were excluded. Full texts of the remaining studies were read to confirm their inclusion. A data extraction form was developed in Excel, containing predefined fields to systematically collect only the information necessary for synthesizing the selected studies.

The initial search retrieved 605 studies across the six databases. Of these, 285 duplicate records were removed, leaving 320 unique studies for screening. Based on their titles and abstracts, 284 studies were excluded for not aligning with the review's theme. Consequently, 36 studies were selected for full-text review. Of these, 12 were excluded for not meeting the eligibility criteria, and one was unavailable for retrieval. Scoping reviews also allow for the inclusion of studies identified in the reference lists of selected articles if they meet the eligibility criteria (Peters et al., 2020). As a result, two additional studies were included during the full-text review phase due to their relevance to the topic. Ultimately, 26 studies were selected for qualitative analysis following the screening process.

The selection process is shown in Figure 1.

Results and Discussion

The reviewed studies examined ADHD in adult workers across international contexts, spanning 25 years (1998-2023). However, research output significantly increased after 2019, with over half the studies published in this period. The studies employed both theoretical (systematic and comprehensive reviews) and empirical approaches (surveys, correlational, and quasi-experimental designs). Their key contributions are summarized in the following text (or remove if unnecessary) (Table 1).

In general, it is possible to highlight four main topics around which systematized studies emphasize their contributions regarding ADHD in workers in different contexts:

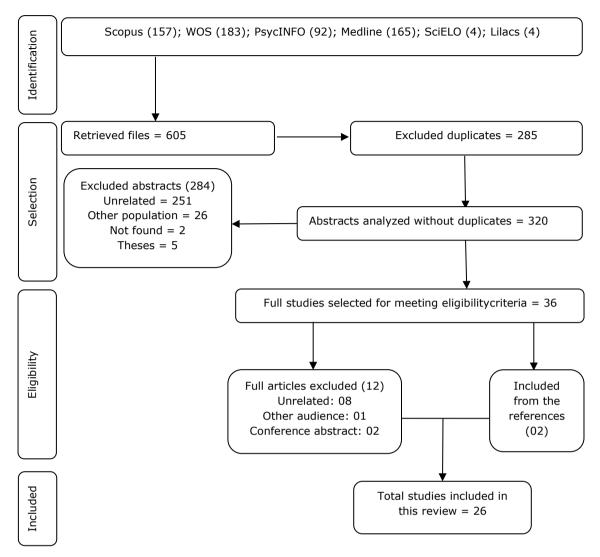
Prevalence of ADHD and Impacts on Mental Health: The prevalence of ADHD is significant in various working populations across the world. ADHD traits have shown significant associations with depression and anxiety, especially among medical workers during the COVID-19 pandemic (El Hayek et al., 2019; de Graaf et al., 2008; Lauder et al., 2022; Matsui et al., 2021; Van Wijk, 2020).

Impacts of ADHD on Work and Career: ADHD has a significant impact on job performance and the workplace, leading to challenges such as underperformance, job loss, and difficulties in the job application and retention process. ADHD can also impact career progression, with individuals potentially facing obstacles in promotion and advancement opportunities (Carroll & Ponterotto, 1998; LeFevre-Levy et al., 2023; Painter et al., 2008; Suzuki et al., 2023).

Adjustments in the Workplace: Workplace adjustments, such as organizing spaces, reducing noise, and managing light sensitivity, can improve productivity, job retention, and well-being for employees with ADHD (Barkley, 2013; Lauder et al., 2022; Weber et al., 2022). Additionally, using validated tools during hiring to detect ADHD symptoms can guide effective tasks and environmental adaptations (Van Wijk, 2020).

Effectiveness of interventions: Several strategies support adults with ADHD in the workplace: a) maintaining task focus (H. Christiansen et al., 2019; Suzuki et al., 2023); b) improving time management to address tardiness and task completion (Lauder et al., 2022); c) regulating impulsivity and emotional responses to enhance relationships and career stability; and d) accessing mental health services, such as therapy or medication. Supportive supervisors, regular feedback, flexible work hours, remote work options, and workplace accommodations can improve productivity and well-being. Additional interventions include psychotherapy, ADHD support networks, and strong client-patient relationships (Lauder et al., 2022; Oscarsson et al., 2022; Van Wijk & Firfirey, 2020).

Figure 1. Flowchart of the study screening process based on the PRISMA model



However, review studies highlight a lack of context-specific research on workplace support for adults with ADHD (Suzuki et al., 2023). Despite ADHD affecting 3.5% of the global workforce, most studies focus on pharmacological treatments, reflecting the dominance of medical approaches (El Hayek et al., 2019; Gordon & Fabiano, 2019; Lauder et al., 2022; Van Wijk, 2020; Weber et al., 2022).

ADHD significantly affects work performance and the workplace environment, leading to challenges like poor performance, job loss, and difficulties in job applications due to attention deficits (Küpper et al., 2012; Christiansen et al., 2019; Suzuki et al., 2023). Adults with ADHD face higher unemployment rates and, when employed, encounter reduced productivity, behavioral issues, and increased risks of accidents, including traffic-related injuries (Brunkhorst-Kanaan et al., 2021; M. S. Christiansen et al., 2021; Gordon & Fabiano, 2019; Küpper et al., 2012). The literature underscores the significance of implementing appropriate job selection processes that capitalize on ADHD-related strengths, such as creativity. Additionally, it highlights the use of strategies like note-taking and task breakdown to effectively manage symptoms in the workplace (Nagata et al., 2019; Weber et al., 2022).

Research on ADHD workplace interventions is limited, but key mechanisms have been identified that boost the success of psychosocial interventions, including group therapy, active participation within ADHD networks, and a strong client-therapist relationship. Cognitive Behavioral Therapy (CBT) is often cited as an effective approach for ADHD, using psychoeducation and specific techniques to develop necessary skills and set individual goals (Lauder et al., 2022; Weber et al., 2022).

Table 1. The characteristics of studies included in the scope review

Author/ year	Focus/Method	Main outcomes
LeFevre-Levy et al. (2023)	The concept of neuroatypicality and its implications for workplace diversity/A theoretical paper	As work dynamics transform and job roles become more specialized, the importance of neurodiversity within organizational diversity will increase prominence. This shift will profoundly impact on individual well-being, performance outcomes, and the overall success of the organization.
Schein et al. (2023)	To describe symptoms associated with ADHD/treatment- related adverse side effects among adults with ADHD in the US and assess their impact on quality of life (QoL) and work productivity/Online survey among workers	Symptoms and side effects related to ADHD treatment are prevalent and significantly affect the quality of life (QoL), reducing the likelihood of employment among patients. However, better management of these symptoms and side effects, along with more tolerable treatment options, could potentially enhance QoL and work productivity in adults with ADHD.
Suzuki et al. (2023)	The association between ADHD traits and sociodemographic characteristics among university-educated Japanese workers/Online survey (n=1240)	High levels of ADHD traits among workers were consistent with previous studies for adults diagnosed with ADHD, despite all participants being university graduates. Assessing these ADHD traits may support the prevention of health deterioration related to these traits.
Lauder et al. (2022)	It was synthesizing interventions aimed at supporting adults with ADHD in the workplace/ A systematic review of 143 studies.	There is a significant lack of context-specific research on how to best support adults with ADHD at work. Despite the high prevalence of ADHD in the global workforce, most studies have focused on the effectiveness of pharmacological interventions, highlighting the dominance of the medical approach.
Weber et al. (2022)	It evaluates the evidence for physical workplace adjustments and their link to occupational longevity, performance, and health/well-being in neurodivergent workers/ A systematic review (2000 to 2021).	Physical workplace adjustments like managing sound distractions and light sensitivity can potentially improve work longevity, performance, and health/well-being for neurodivergent workers. There is a need for more robust, theoretically grounded research to explore this potential and its implications for workplace inclusion.
Oscarsson et al. (2022)	It explores the general experience of working with ADHD, including stress and work-related mental illness/ Semi- structured telephone interviews were conducted with 20 working adults with ADHD.	Adults with ADHD experience specific challenges, negative consequences, and aggravating circumstances related to their work, such as emotional dysregulation, social hypersensitivity, anxiety, stress, exhaustion, and work-family balance. There are needs and support for working with ADHD such as clear job descriptions, explicit routines, consistent implementation, pharmacological treatment, and disclosure of diagnosis.
Matsui et al. (2021)	The association between the characteristics of medical work and anxiety and depression after the COVID-19 outbreak was examined/ An online cross-sectional questionnaire survey	Healthcare workers with higher ADHD traits may require special support during the COVID-19 pandemic. Around half reported increased physical burdens. ADHD traits were significantly linked to depression and anxiety, with factors such as physical and psychological strain, gender, healthcare roles, fear of COVID-19, and discrimination contributing to these mental health outcomes.
Fuermaier et al. (2021)	The study investigated the impact of ADHD on adults' work performance/ A community sample of 1231 individuals and a clinical sample of 134 adults diagnosed with ADHD.	Work-related problems were found in both groups, particularly in not meeting their own standards and potential. ADHD symptoms, especially inattention, were strongly associated with these problems, while neuropsychological test performance was not a significant predictor. It highlights the need to consider ADHD-related difficulties in workplace evaluations and screenings.
Van Wijk (2020)	To provide preliminary prevalence estimates of Adult ADHD in a South African workplace sample guided by DSM-5 criteria/ Workers aged 18 to 44 years (N = 1,917) completed an adult ADHD self-report scale and participated in an interview with a psychologist.	The study on ADHD in the South African workplace found that 10.2% of the sample of 1,022 working adults met the criteria for adult ADHD using the ASRS (compared to the global average of about 4.4%). Adult ADHD was associated with lower education levels, reduced income, lower job satisfaction, increased absenteeism, higher presenteeism, and greater perceived stress among workers.

Author/ year	Focus/Method	Main outcomes
Van Wijk & Firfirey (2020)	The aim was to address the under-recognition of ADHD in adults in the workplace, given its prevalence and associated risks such as accidents and injuries at work/ Secondary data were used to identify key features of ADHD that could be used as screening criteria for adult ADHD.	The frequency of ADHD in adults in the sample was 3.2%. Four symptoms exhibited high sensitivity and negative predictive value. The two most sensitive symptoms were difficulty maintaining attention and restlessness, which could serve as screening criteria for ADHD in adults in work settings. This approach can help identify individuals who may benefit from a more thorough assessment and suitable therapeutic interventions.
El Hayek et al. (2019)	To estimate the prevalence and workplace consequences of adult attention-deficit/hyperactivity disorder (ADHD)/ A survey screening for ADHD and clinical interviews was conducted.	In the Arab World, studies indicate a high prevalence of adult ADHD, which is associated with significant impairment. Many affected workers do not receive sufficient treatment or accommodations for their condition. The study indicates that increasing understanding and offering help and adjustments to employees with ADHD can result in positive outcomes for both the individuals themselves and the broader community.
Nagata et al. (2019)	To examine how ADHD symptoms play an interaction effect on the association between psychosocial work environments and health among workers/ A cross-sectional study of 2,693 employees at a pharmaceutical company.	Workers exhibiting ADHD symptoms experienced less psychological distress when they had greater job control and workplace social support, compared to those without ADHD symptoms. ADHD symptoms do not significantly influence the interplay between job demands, job control, social support, and work engagement.
Gordon & Fabiano (2019)	It discusses the occupational, educational, and financial challenges faced by individuals with childhood ADHD that persist into adulthood/A systematic review	Adults with ADHD often face occupational challenges, including lower job status and income, and more job instability. Potential interventions like flexible work hours and cognitive-behavioral therapy could improve their occupational outcomes but require rigorous evaluation.
Wymbs & Dawson (2019)	The Prevalence of Amazon Mechanical Turk (MTurk) Workers Reporting Being Diagnosed as Children and Adults and Suitability of MTurk for ADHD Research/ An online screening survey (n=f 6,526) of MTurk workers.	The prevalence and persistence of ADHD among MTurk workers were consistent with offline samples. Workers diagnosed with ADHD as children differed from those diagnosed as adults in gender, education, and comorbidity.
Abbasi-Ghahramanloo et al. (2019)	To identify subgroups of workers based on risk-taking behaviors and to evaluate the independent impact of ADHD on the classification of participants into these subgroups/ A cross-sectional study conducted on a random cluster sample of 2434 workers from Kaveh Industrial City.	Four classes of workers were identified based on risk-taking behaviors: very low risk (65.6%), low risk (27.8%), moderate risk (4.1%), and high risk (2.5%). The presence of ADHD significantly increased the likelihood of being in the moderate and high-risk classes. Additionally, having anxiety also increased the likelihood of being in the higher risk classes compared to the very low risk class.
Rietveld & Patel (2019)	To examine the association between attention-deficit hyperactivity disorder (ADHD) and labor market outcomes in later life in the US/ The polygenic risk score (PRS) for ADHD was used in a cohort, in which diagnosis and treatment of ADHD were generally not available.	Higher ADHD genetic risk scores are associated with lower odds of employment, income, and wealth, while also increasing the likelihood of receiving disability benefits and other government assistance. Early interventions could improve educational and career outcomes.
Fabiano et al. (2018)	To compare the workplace behavior of 26 young adults without ADHD to 24 young adults with ADHD / It evaluated participants on a job application completion task, in a job interview, and on job performance tasks in a simulated pizza restaurant and delivery setting.	There were significant differences in masked ratings of job interview performance, favoring the performance of individuals without ADHD. No significant differences were obtained for job applications and job performance. Results suggest that job interviewing skills may be an important area to address for individuals with ADHD entering the workforce.
Mackenzie (2017)	It explores the relationship between adverse occupational experiences, executive dysfunction, and perceived job competency among individuals with ADHD/ A theoretical paper.	Individuals with ADHD often face challenges in the workplace due to their symptoms and cognitive difficulties. Executive dysfunction can lead to inflated self-perceptions of professional competence. Interventions targeting executive dysfunction and occupational stress may help improve work performance and well-being for adults with ADHD.

Author/ year	Focus/Method	Main outcomes
Barkley (2013)	It discusses the impact of ADHD in adults on workplace performance and occupational success/ A theoretical paper.	Adults with ADHD often face challenges such as poorer job performance, difficulties with workplace interactions, higher rates of job turnover, lower wages, and increased workplace injuries. Recognizing and supporting the needs of workers with ADHD can harness their creativity, energy and enthusiasm, benefiting the workplace.
Küpper et al. (2012)	To explore the negative effects of ADHD in adolescence and adulthood on work productivity and occupational health/ A review was carried out to identify direct and indirect effects of ADHD on work, employment, and occupational health.	Adults with ADHD face higher unemployment rates, workplace challenges, reduced productivity, behavioral issues, and increased risks of accidents and injuries. Indirect effects on occupational health include lower educational attainment, substance abuse, and criminality, leading to significant economic impacts. Treatment typically includes psychoeducation and stimulant medications.
Kessler et al. (2009)	To assess the prevalence and correlates of adult ADHD and its impact on work performance, sickness absence, and workplace accidents-injuries/ A survey was administered to employees of a large manufacturing company.	Adult ADHD significantly affects workers, leading to high human capital costs and low treatment rates. Evidence suggests that treatment can reduce ADHD-related impairments. Therefore, it would be beneficial to conduct workplace trials to evaluate the cost-effectiveness of ADHD treatments from the employer's perspective.
Halmøy et al. (2009)	To determine the impact of symptom profiles and treatment on occupational performance in adults with ADHD, a sample of adult patients with ADHD ($N = 414$) completed questionnaires evaluating ADHD symptoms, comorbidities, treatment history, and employment status.	Early recognition and treatment of ADHD is a strong predictor of being in work as an adult, regardless of comorbidity, substance abuse, and current treatment. Factors such as having the combined subtype of ADHD, a history of substance abuse and a history of depression or anxiety are associated with unemployment.
de Graaf et al. (2008)	To estimate the prevalence and workplace consequences of adult attention-deficit/hyperactivity disorder (ADHD)/ Ten surveys were conducted, screening 7,075 employed individuals for ADHD, validated by blinded clinical reassessment interview	ADHD is a prevalent condition among working individuals in the studied countries and is linked to significant work impairment. Given the low treatment rates and the existence of cost-effective therapies, ADHD stands as a suitable candidate for focused workplace screening and treatment initiatives.
Painter et al. (2008)	To evaluate dysfunctional career beliefs and subsequent low job satisfaction in adults reporting significant symptoms of ADHD/A psychological assessment and statistical analysis.	Adults with significant ADHD symptoms show more dysfunctional career beliefs, resulting in lower job satisfaction. Career counselors should address these beliefs in adults with ADHD symptoms to improve their career development and satisfaction by assisting them in developing coping strategies and self-regulation skills.
Murphy & Barkley (2007)	To understand the occupational functioning of adults with ADHD and determine whether ADHD symptoms persist into adulthood and affect work performance/ A theoretical paper.	Adults with ADHD often face lower educational attainment, income, job satisfaction, and higher rates of job turnover, unemployment, and underemployment. However, they may excel in creativity, innovation, entrepreneurship, and resilience. Evidence-based interventions include cognitive-behavioral therapy, coaching, medication, and workplace accommodations.
Carroll & Ponterotto (1998)	To provide an overview of the challenges employment counselors face when counseling adults with ADHD/ A comprehensive literature review and synthesis of existing research.	The significance of counseling strategies for adults with ADHD concerning their careers, drawing insights carefully from literature on counseling adults with learning disabilities, and detailed guidelines for employment counselors, highlighting the unique challenges and considerations when supporting adults with ADHD.

People with ADHD face challenges in the workplace due to symptoms like attention deficits, time management issues, and difficulty with organization. However, with the right support and strategies, such as choosing suitable jobs, using positive aspects of ADHD, and managing time and relationships effectively, they can be successful and efficient in their work (Oscarsson et al., 2022; Rietveld & Patel, 2019). Diagnosis and treatment from childhood, continued into adulthood, along with medication, psychology, and work support are crucial. The recommended first-line treatment for adults with ADHD involves psychoeducation and, if necessary, stimulant medications (M. S. Christiansen et al., 2021; Küpper, et al, 2012; Murphy & Barkley, 2007).

Highlights of Review

This scope review reveals the characteristics and key findings of research on ADHD in workers. The studies consistently highlight the challenges faced by workers with ADHD, their impact on work performance, and the importance of workplace accommodations and interventions.

Impact of ADHD Traits Among Workers. ADHD traits or diagnosis are prevalent among workers across different countries and sectors. These traits are associated with various indicators of mental health, work performance, and satisfaction. Workers with ADHD often face challenges such as lower job status and income, and more job instability.

Challenges and Needs of Workers with ADHD. Adults with ADHD face specific challenges and negative consequences related to work. Workers with ADHD often struggle with job demands, emotional regulation, social interactions, stress management, and work-life balance. These challenges can lead to poor work performance, inability to meet deadlines, and conflicts with coworkers.

Potential Interventions and Accommodations for Workers with ADHD. There are several potential interventions and accommodations that could support workers with ADHD. These include pharmacological treatment, psychological therapy, workplace adjustments, and disclosure of diagnosis. These strategies can help improve the occupational outcomes for adults with ADHD.

Gaps and Limitations in Current Research on ADHD and Work. Despite the high prevalence of ADHD in the global workforce, there are still many gaps and limitations in the current research on ADHD and work. There is a need for more context-specific, theoretically grounded, and empirically validated studies. This will help in developing effective strategies and interventions to support workers with ADHD.

Research on ADHD in workers has shed light on the unique challenges faced by individuals with ADHD in the workplace and the potential impact on occupational functioning. The findings underscore the importance of implementing appropriate accommodation, providing support, and developing targeted interventions to optimize the work experience for individuals with ADHD.

Case Study

Maria (pseudonym) is a 27-year-old doctor who was diagnosed with ADHD at the age of 15 and has been on medication since then. Currently, she takes 50mg of lisdexamfetamine daily, although her initial dose was 80mg. A psychiatrist, who was overseeing her case, referred her to psychotherapy. She began psychotherapy during her medical studies and is now in a maintenance and follow-up phase. Maria is currently undertaking her medical residency at a large hospital, which involves a very intense workload. Before this, she worked at Basic Health Units (UBS) and held other medical positions.

Maria, who had been diagnosed with ADHD a few years prior, arrived for psychotherapy. The evaluation process aimed to rule out or identify the presence of comorbidities, as well as to accurately describe her ADHD functioning profile throughout her life and its main impacts on her daily life. To achieve this, various instruments were used to assess symptoms of depression, anxiety, and ADHD, in addition to attention testing and the diagnostic criteria described in DSM-5.

A clinical interview was also conducted using psychological anamnesis, which covers clinical data on physical and mental health, family health, routine, diet, sleep-wake cycle, personal and school development history, and family and social relationship history. In the initial sessions, information was also collected for Maria's cognitive conceptualization, which included the identification of core beliefs, intermediate beliefs of the "rules" type, and some developed compensatory strategies, as the psychotherapeutic approach was Cognitive Behavioral Therapy (CBT).

Anamnesis revealed key aspects of ADHD's course and etiology, including heredity, as Maria's father and sister were also diagnosed with ADHD. During childhood and adolescence, she experienced learning impairments, particularly in mathematics, chemistry, and physics, requiring subject recovery, private tutoring, and reinforcement classes. She underwent three years of speech therapy, six months of psychotherapy in adolescence, and treatment with medications such as Ritalin, Concerta, and, more recently, Venvanse.

Neurological exams ruled out other clinical conditions, while psychological assessments identified anxiety in high-demand situations but excluded major comorbidities like mood disorders. The primary diagnosis of predominantly inattentive ADHD was confirmed through psychological

evaluation, thorough differential diagnosis, and psychiatric assessment. The findings highlighted Maria's significant struggles with sustained attention, reward sensitivity, inhibitory control, time management, planning, organization, problem-solving, working memory, self-activation, concentration, and preparedness.

Main repercussions on life and professional activities

The main challenges faced by individuals with ADHD, like Maria, are related to academic life, relationships, and professional life. Despite medication being essential for daily functioning, difficulties persist in areas such as work memory, time management, impulse control, and financial management. These challenges lead to procrastination, inefficient study habits, and prolonged study time. Over time, these difficulties can result in significant losses and contribute to a negative self-perception.

Maria's Cognitive Behavioral Psychotherapy process began with the definition of goals, which were translations of her mapped difficulties. The Safren protocol was used as the basis for intervention, however, several other CBT techniques were incorporated, including study strategies and applications. Maria learned to organize and plan her routine with the use of a weekly agenda, in which all her activities are described. This task allowed them to self-assess and become aware of various dysfunctional behaviors. In addition, the use of the notebook to write down everything she needed to remember, from the important test to the seamstress. She learned to classify her tasks in order of priority (red, yellow, and green tasks), to divide complex tasks into smaller ones, to study in blocks of time (mapped out as much as she can stay focused), and to use some applications that made them easier to manage. She achieved excellent academic performance and graduated in medicine.

After starting her professional life, Maria faced new challenges in her work at the hospital, such as delays, overlapping tasks, staying on task, and distractions. Balancing her high workload with personal and self-care activities was her biggest challenge. However, developing greater metacognition helped Maria reduce impulsive actions, improve relationships, and make better decisions. She can now more easily identify difficulties and take autonomous actions for improvement. Maria showed a significant reduction in the ADHD scale and maintained low scores on the anxiety and depression scales. She also made important changes in her belief system related to ADHD, leading to a healthier self-view, more functional perfectionism, and significantly reduced procrastination.

Conclusions on case study and relationship to the review

The challenges faced by Maria in her work align with findings from the reviewed studies. Her work performance highlights difficulties in time management, multitasking, prioritization, organization, and planning to meet weekly job demands. Numerous studies have identified these factors as key obstacles to the professional success of individuals with ADHD across various work settings, resulting in issues like reprimands, interpersonal conflicts with supervisors and colleagues, task delays, and errors (Oscarsson et al., 2022; Suzuki et al., 2023).

The review provided an overview of studies dedicated to exploring ADHD and its impact on employees and work environments. Common interventions identified focused on pharmacological and individual-centered psychosocial approaches, such as Cognitive Behavioral Therapy (CBT). Psychoeducation had emerged as a significant strategy and was recognized as a potential organizational intervention as well (Lauder et al., 2022).

In Maria's case, psychoeducation had played a crucial role as a foundation for her learning process. It involved not only utilizing existing literature but also incorporating specific content derived from her initial assessment. This approach enabled Maria to gain insights into ADHD, including its etiology, prevalence, potential impacts, symptomatology, and preserved functions within the spectrum of ADHD heterogeneity.

Maria's case study highlights the benefits of early ADHD diagnosis and treatment. Early intervention allowed her to develop coping strategies and self-awareness before entering the workforce. However, literature reviews indicate that many adults exhibiting ADHD symptoms start their professional careers without adequate diagnosis or treatment, emphasizing the critical need for early intervention and support (Durand & Arbone, 2022; El Hayek et al., 2019).

ADHD often coexists with other mental disorders, as highlighted by research (Durand & Arbone, 2022; El Hayek et al., 2019). Untreated comorbidities can lead to additional impacts beyond the symptoms of ADHD, complicating the treatment process. In the specific case discussed, heightened symptoms of anxiety were noted during certain periods, although a clear co-occurrence was not confirmed. This observation could be linked, in part, to Maria's early access to professional support and a strong family network. Research suggests that fostering a supportive and encouraging environment can enhance the effectiveness of interventions (Lauder et al., 2022).

However, contrary to Maria's experience, many adults with ADHD symptoms enter the workplace without adequate diagnosis or treatment, as identified in the reviewed studies. Incorporating ADHD screening in the hiring process could lead to a more accurate assessment of

potential employees. This could facilitate task allocation and workplace adaptation for those confirmed with ADHD, while ensuring confidentiality and respect. However, such initiatives require financial and personnel resources and should be backed by supportive outcomes.

Intervening with individuals with ADHD during their academic training, such as in Maria's case, helps cultivate behaviors essential for future professional success. Furthermore, implementing environmental adaptations, as suggested in various studies, can enhance their workplace functioning, leading to improved performance, reduced absenteeism, and increased job satisfaction (El Hayek et al., 2019). It is common to observe a history of significant academic and educational challenges among workers with ADHD, which correlates with increased work-related difficulties. Therefore, emphasizing early treatment and implementing support and intervention strategies for these professionals in the workplace is crucial (Gordon & Fabiano, 2019). Early intervention upon entering the workforce is associated with a decreased risk of performance issues and mitigates the negative effects mentioned earlier (Halmøy et al., 2009).

The combination of individual psychotherapy and psychiatric medical treatment provided Maria with the opportunity to enhance and refine skills essential for her professional and personal life. In this collaborative process, the therapist and patient delve into requirements, comprehend the work environment, tasks, regulations, and institutional dynamics to develop and implement strategies that align well with the individual's reality. Recent studies emphasize the significance of implementing psychosocial interventions within workplaces to offer self-development opportunities to individuals, thereby maximizing their performance (Gordon & Fabiano, 2019; Weber et al., 2022).

Conclusion

This scoping review offers a comprehensive analysis of ADHD in the workplace, addressing its prevalence among employees, its impact on job performance and satisfaction, challenges faced by individuals with ADHD, and effective support strategies. By integrating findings with a case study, the review highlights the importance of combining psychosocial interventions with medication to help young adults with ADHD overcome career obstacles and achieve professional success.

ADHD symptoms, such as hyperactivity, impulsivity, and inattention, often disrupt key cognitive functions like working memory, planning, and anticipation, leading to challenges in maintaining employment or performing optimally. While individuals with ADHD possess valuable skills, they may struggle to meet workplace demands. However, tailored coping mechanisms and appropriate support can empower them to manage symptoms and thrive professionally.

The strengths of ADHD, including creativity, hyperfocus, and innovative thinking, can be harnessed to foster high levels of functioning and well-being. With proper strategies, individuals with ADHD can excel by selecting roles that align with their strengths, effectively managing time, and building positive workplace relationships.

The transition to the workforce is a critical period for young people with ADHD, shaping their long-term career trajectories. Early treatment should focus on preventive strategies to enhance job performance and facilitate fulfilling careers. As many individuals may enter the workforce unaware of their diagnosis, organizations can benefit from screening for ADHD symptoms during recruitment, implementing psychosocial intervention programs, and adapting work environments to support employees with ADHD.

This review underscores the need for effective workplace policies and practices to support employees with ADHD. While the reviewed studies provide valuable insights, they also reveal gaps requiring further exploration to inform improvement initiatives. Future research should focus on developing practical, evidence-based interventions tailored to workplace settings, enabling organizations to integrate these strategies into employee development programs. By fostering inclusive environments, organizations can enhance the well-being, productivity, and professional fulfillment of workers with ADHD.

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Research data are available upon request to the authors.

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