



# Challenges in Diagnosing Attention-Deficit Hyperactivity Disorder in Adults - Underdiagnosed, Misdiagnosed, or Overdiagnosed: a Case Report



## Izazovi u dijagnostikovanju poremećaja pažnje i hiperaktivnosti kod odraslih – nedovoljno dijagnostikovano, pogrešno dijagnostikovano ili prekomerno dijagnostikovano: prikaz slučaja

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### Abstract

Attention-deficit hyperactivity disorder (ADHD) is a neurodevelopmental disorder that is sometimes undiagnosed, misdiagnosed, or overdiagnosed, particularly in adults. Although ADHD is typically diagnosed in childhood, its symptoms often persist into adulthood, complicating diagnosis, especially in women. The aim of this case report was to highlight the challenges in diagnosing ADHD in adults. We present a 30-year-old woman with a complex psychiatric history, in whom the diagnosis of ADHD was considered in adulthood. Initially diagnosed with depression and borderline personality disorder, her symptoms of lack of motivation and poor concentration persisted for over a decade. Despite various psychiatric approaches, her functioning remained impaired. After the latest treatment attempts, her symptoms, including impulsivity, showed partial improvement, but her prognosis remains uncertain. The diagnosis of ADHD in adults should be approached with caution, considering the risks of underdiagnosis, misdiagnosis, and overdiagnosis, especially in patients with overlapping symptoms of other mental health disorders.

**Key words:** attention-deficit hyperactivity disorder in adults, diagnostic challenges, suicide attempt

### Apstrakt

Poremećaj pažnje sa hiperaktivnošću (engl. Attention-deficit hyperactivity disorder - ADHD) je neurorazvojni poremećaj koji ponekad ostaje neprepoznat, pogrešno dijagnostikovano ili prekomerno dijagnostikovano, naročito kod odraslih. Iako se ADHD obično dijagnostikuje u detinjstvu, njegovi simptomi često perzistiraju i u odraslom dobu, što otežava postavljanje dijagnoze, posebno kod žena. Cilj ovog prikaza slučaja bio je da ukaže na izazove prilikom postavljanja dijagnoze kod odraslih. Prikazujemo 30-godišnju ženu sa kompleksnom psihijatrijskom istorijom kod koje je razmatrana dijagnoza ADHD u odraslom dobu. Sa prvobitnom dijagnozom depresije i graničnog poremećaja ličnosti, njeni simptomi nedostatka motivacije i loše koncentracije trajali su preko jedne decenije. Uprkos različitim psihijatrijskim pristupima, njeno funkcionisanje je ostalo narušeno. Nakon poslednjih pokušaja lečenja, njeni simptomi, uključujući impulsivnost, pokazali su delimično poboljšanje, ali prognoza ostaje neizvesna. Postavljanju dijagnoze ADHD-a kod odraslih treba pristupiti sa oprezom, uzimajući u obzir rizike od nedovoljno dijagnostikovanih, pogrešno dijagnostikovanih i prekomerno dijagnostikovanih slučajeva, naročito kod pacijenata sa preklapanjem simptoma drugih mentalnih poremećaja.

**Ključne reči:** poremećaj pažnje sa hiperaktivnošću kod odraslih, dijagnostički izazovi, pokušaj samoubistva

## Introduction

Attention-deficit hyperactivity disorder (ADHD) is a neurodevelopmental disorder diagnosed based on specific criteria in both children and adults. It is essential to consider current and past symptoms, personal and family history, and individual development (1). ADHD is characterized by inattention, hyperactivity, impulsivity, emotional dysregulation, lack of motivation, and executive dysfunction (2).

Although usually diagnosed in childhood, 65-90% of children show symptoms in adulthood (2,3). The global prevalence of ADHD in children is 6-10%, with boys affected twice as often as girls (4). In adults, prevalence ranges from 2.58-6.76%, with nearly equal gender distribution (5,6). Recent debates focus on the rising ADHD prevalence, urging a better understanding of its causes (7).

Diagnostic criteria, developed primarily based on male behavioral patterns, create challenges for diagnosing females, resulting in underdiagnosis and misdiagnosis (8). Childhood symptoms may manifest in adulthood as persistent tension, logorrhea, and restlessness. ADHD is highly comorbid, with 75% of adults having at least one additional psychiatric disorder, such as mood disorders, anxiety, personality disorders, or substance abuse. Comorbid conditions are often recognized, while ADHD remains undiagnosed (9).

Overdiagnosis occurs when mental disorders are diagnosed without significant impairment, leading to unnecessary tests, treatments, and higher healthcare costs. This issue is exacerbated by a cultural bias favoring "more is better". The overdiagnosis of ADHD in adults threatens to lead to unnecessary psychostimulant prescriptions (10).

## The Aim of the Case Report

In this case report, we present a patient with a broad range of symptoms, for whom ADHD was considered in adulthood, raising concerns about underdiagnosis, misdiagnosis, and overdiagnosis.

## Case Report

This case involves a 30-year-old woman, single, without children, highly educated and with no significant family history of psychiatric disorders. The patient initially presented to our institution in July 2024 for outpatient evaluation, reporting symptoms of impaired functioning, difficulty concentrating, and a lack of energy and motivation, describing the experience as "feeling like a rainy cloud is hanging over my head". At this time, she was first diagnosed with ADHD.

The patient first consulted a psychiatrist ten years ago due to symptoms of pronounced sadness, tearfulness, and irritability, attributed to the stress of choosing a university major. She was diagnosed with major

depressive disorder and borderline personality disorder. After a few months, she discontinued follow-up visits due to the lack of motivation.

Four years ago, she sought psychiatric help because of poor concentration, particularly during exams, where she had significant difficulties. She passed exams "with great difficulty", and when attempting to focus on her studies, she described the struggle as "feeling like falling down a rabbit hole". Despite ongoing visits, there was no meaningful improvement.

At the beginning of last year, she consulted a psychiatrist at a primary healthcare facility for similar symptoms and was assessed as having an unspecified personality disorder and a mild depressive episode.

In mid-2024, she sought evaluation at our institution, reporting impaired functioning, poor concentration, lack of purpose, persistent procrastination, and a significant lack of energy and motivation. She suspected she had ADHD and wanted to get tested. She was admitted to a partial hospitalization program with a diagnosis of ADHD in obs and a mild depressive episode. The first month of the hospitalization was fully focused on her attention, while she presented a facade of emotional content. After the first month the patient opened up and verbalized persistent suicidal ideas and plans that last for over a decade: "I promised myself when I was twenty years old that if I don't get my life in order by the age of thirty, that is, if I don't find my purpose in life, I will commit suicide. My thirtieth birthday is close, in a few days". She was promptly transferred to the inpatient department for continuous observation to prevent adverse outcomes. There, she realized that "her problem was not insurmountable", though she still "could not recognize her full potential" and struggled to understand suggestions from her environment that she "needed to grow up". She was somewhat satisfied with the prescribed pharmacotherapy (olanzapine, lamotrigine, escitalopram) in terms of reducing impulsivity.

Shortly after discharge, the patient reverted to previous functioning; her days were unstructured, "without a goal to strive toward", waking up was difficult, and she felt overwhelmed by nervousness and tension, as if her "entire body was rigid". Seeing herself as unfulfilled, having not achieved the goal set for her thirtieth birthday, the patient was troubled by thoughts of the future, believing it held no possibilities.

Her struggles necessitated further professional help, and after considering all circumstances, another partial hospitalization was deemed the best course of action.

Upon the latest admission, she reported reduced impulsivity, and stated that "the urge for self-harm had been much stronger before". Suicidal thoughts occasionally emerged, without clear triggers or contributing factors. The patient disclosed a suicide attempt during the interhospital period, after ingesting all of her weekend medication and extra escitalopram tablets under the influence of alcohol. Following the incident, parents were immediately informed, and

she was quickly taken to the toxicology department for management.

During current hospitalization, the patient participates in group activities and is motivated to engage in both group therapy and individual sessions with the psychiatrist. She is assessed as having a moderate depressive episode and is on a treatment regimen including lamotrigine, escitalopram, quetiapine, and bupropion. The outcome of the ongoing hospitalization and the course of treatment remain uncertain, undoubtedly challenging and complex, requiring a multidisciplinary approach moving forward.

## Discussion

This unique case report highlights the challenges of diagnosing ADHD in adults (underdiagnosis – misdiagnosis – overdiagnosis) through the example of a single patient with long-term mental health issues.

Our patient may have been part of the underdiagnosis trend in girls, which is more common than in boys, with symptoms persisting into adulthood (11). Unfortunately, due to lack of medical records and insufficient anamnesis, we cannot make that claim. Similarly, when it comes to adults, some believe that hyperactivity is a necessary symptom for diagnosing ADHD, which leads to individuals with more prominent inattentive symptoms, like our patient, being overlooked (9).

On the other hand, mood disorders and borderline personality disorder are among the most common comorbidities in individuals with ADHD (9,12). These were indeed the diagnoses given to her at the very beginning of her decade-long experience with psychiatric services.

Finally, we highlight the global issue of overdiagnosis (10). Experts underscore the rising trend of ADHD diagnoses in females due to the recent shift in the disorder's conceptualization, emphasizing inattention over hyperactivity, a symptom more common in women (13-15). The change in criteria makes diagnosis significantly more challenging. Without biomarkers, diagnosis relies on symptoms and signs, leaving much to

the clinician's judgment (16). ADHD has also become more prominent in popular culture, causing many to identify with the diagnosis and seek help. However, it is often overlooked that a recent study found half of ADHD content on TikTok to be misleading, with most of it presented by non-medical professionals (17). This may lead to misdiagnosis, by patients recognizing themselves in some symptoms of a "popular" diagnosis, missing the real culprit. For instance, depression is potentially comorbid with ADHD, but also a symptom of depression is inattention. Thus, if it is a prominent symptom, the patient and the physician, might believe that the problem is ADHD, overdiagnosing it in the process, and missing the diagnosis of depression.

The most significant event during her treatment was the suicide attempt, which occurred after the ADHD diagnosis. While some studies suggest ADHD increases suicide risk due to comorbidities, fewer explore the direct link between ADHD and suicidal behavior (18). For example, Ljung et al. state that individuals with ADHD are at increased risk of suicide attempts and completions, independently of comorbidities (19). While this might be the case, serious concern about the above mentioned potential overdiagnosis of ADHD and missing or secondary diagnosis of depression should be considered.

The aim of this case report was to highlight the challenges in the diagnostic process, rather than making a definitive statement about whether the patient has ADHD. By this moment, we remain cautious and reserved about the diagnosis, particularly considering her medical history, with a wide range of symptoms, and the uncertainties unnecessary polypharmacy could cause.

## Conclusion

ADHD diagnosis in adults should be approached thoroughly. The potential impact of assigning the diagnosis to an individual must also be considered. Special effort is needed to ensure that the diagnosis does not fall into any undesirable patterns: underdiagnosis, misdiagnosis, or overdiagnosis.

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