



Diagnostic methods and treatment of ADHD in children: A review

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ABSTRACT

INTRODUCTION: Attention deficit hyperactivity disorder (ADHD) is classified as a neurodevelopmental disorder that affects several children. It is a public health problem and is characterized by behavioral changes of inattention, hyperactivity, and impulsivity.

OBJECTIVES: In view of the relevance of the theme, the present study aims to address the diagnostic methods and treatment of ADHD in children.

METHODOLOGY: The work was developed from an integrative literature review, through searches in the Virtual Health Library (VHL) and SciELO databases. The following words were chosen as guiding terms for the search:

"ADHD", "Children", "Clinical Diagnosis" and "Treatment Protocol". **RESULTS:** Early diagnosis is of paramount importance for treatment and prognosis. For the child to be diagnosed with the disorder, he must have a persistent pattern of inattention and hyperactivity and treatment is done through efficient non-pharmacological measures, such as cognitive behavioral therapy.

CONCLUSION: It is important that the diagnosis is made correctly to provide the child with a good quality of life and reduce the impacts and symptoms of the disorder.

Keywords: ADHD, Diagnosis, Treatment.

INTRODUCTION

Attention deficit hyperactivity disorder (ADHD) is classified as a neurodevelopmental disorder that affects several children. It is a public health problem and is characterized by behavioral changes of inattention, hyperactivity and impulsivity (LARROCA; DOMINGOS, 2012). In other words, it is understood that patients with this disorder have difficulty paying or maintaining attention and containing impulsive actions (DAVELA; ALMEIDA, 2016).

Regarding epidemiology, ADHD is the most common psychiatric neurodevelopmental disorder of childhood and one of the main causes that lead parents to seek assistance in the health system. According to data from the Ministry of Health, 5% to 8% of the population has ADHD (MINISTRY OF HEALTH, 2022), and the disorder affects males up to 3 times more often (FARAOONE, et al 2015). In addition, studies show that about 67% of children with ADHD remain with symptoms of the disorder during adulthood (LOPES; BIRTH; BANDEIRA, 2005).

It is known that the etiology of the disorder is multifactorial, however, there are known risk factors for its development. Among the most studied factors, the genetic component is one of the main ones associated with ADHD. In addition, the use of licit and illicit drugs during pregnancy play a role in the appearance of symptoms of the disorder. Also, a higher prevalence of ADHD is observed in children who suffered complications during the fetal period than in the general population (DAVELA; ALMEIDA, 2016).

The symptoms of ADHD manifest themselves in a pattern and the main ones observed are: agitation, lack of control, logorrhea, distraction, difficulty memorizing, losing objects and disorganization. In addition, authors state that children with ADHD have repercussions in the



social sphere, since they have difficulty following rules, have problems in interpersonal relationships and, sometimes, may present aggressiveness (GUIDOLIM, et al. 2013).

Therefore, the importance of early diagnosis and the institution of appropriate treatment to improve the child's quality of life is understood, since the disorder has repercussions in several areas, both social, family and, above all, school.

OBJECTIVES

In view of the relevance of the disorder, especially in pediatrics, the present study aims to address the diagnostic methods and treatment of ADHD in children.

METHODOLOGY

The work was elaborated from an integrative literature review, through searches in the Virtual Health Library (VHL) and SciELO databases. The following words were chosen as guiding terms for the search: "ADHD", "Children", "Clinical Diagnosis" and "Treatment Protocol", registered in the DeCS platform (Health Sciences Descriptors). Articles published in English and Portuguese, published in full, that addressed the proposed theme were included in the search. As exclusion criteria, articles found in abstract format, which individually addressed the subtypes of ADHD, were disregarded. Thus, 9 articles were chosen for the preparation of the work.

RESULTS

DIAGNOSIS

The diagnosis of ADHD is made based on the criteria listed by the Diagnostic and Statistical Manual of Mental Disorders (DSM V). For the child to be diagnosed with the disorder, he must have a persistent pattern of inattention and hyperactivity. Among the patterns of inattention (TABLE 1) and hyperactivity/impulsivity (TABLE 2), children must meet 6 criteria for diagnosis (AMERICAN PSYCHIATRIC ASSOCIATION, 2022)

TABLE 1. Criteria for diagnosing the pattern of inattention (AMERICAN PSYCHIATRIC ASSOCIATION, 2022).

1.	Lack of attention to detail or makes careless mistakes.
2.	Difficulty maintaining attention on tasks and activities.
3.	He does not pay attention if he is not spoken to directly.
4.	He does not follow instructions and cannot finish activities.
5.	It is difficult to organize tasks and activities.
6.	Avoids or does not like to perform tasks that require mental effort for a long time.
7.	He loses objects necessary for his daily chores.
8.	Easily distracted by external stimuli.

9.	Forgetfulness in relation to daily activities.
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TABLE 2. Criteria for diagnosing the pattern of hyperactivity and impulsivity (AMERICAN PSYCHIATRIC ASSOCIATION, 2022).

1.	Has restlessness with hands and feet, or squirms in the chair.
2.	It is difficult to remain seated at times when there is a need.
3.	Runs or climbs on objects at inappropriate times.
4.	Inability to play or perform leisure activities calmly.
5.	Anxiety.
6.	Excessive talking.
7.	Answers questions before they are finalized.
8.	Difficulty in waiting.
9.	He often interrupts others.

In addition, the diagnostic criteria addressed in the DSM V involve the appearance of symptoms of inattention or hyperactivity before the age of 12, the presence of symptoms in at least two environments, impairment in social, school, and professional functionality. Finally, symptoms should not occur in the presence of other psychiatric disorders.

TREATMENT

The treatment of ADHD in children involves a multidisciplinary approach and is composed mainly of non-pharmacological measures. It is known that, among the approaches, behavioral intervention is of great value for reducing the symptoms of the disorder, through cognitive behavioral therapy (CBT). Such intervention aims to reduce erroneous behaviors and improve social interaction, especially family interaction (FERRIN, et al. 2016). In addition, the practice of exercises in the treatment of hyperactivity is proven to be beneficial for the child. The child must also have school interventions and educational support. It is noteworthy that guidance to parents and family members about the child's diagnosis is of paramount importance in the treatment.

Finally, regarding the use of medications, Conitec does not recommend the use of methylphenidate and lisdexamfetamine for the treatment of ADHD in children, taking into account mainly efficacy, safety, and expenses (MINISTRY OF HEALTH, 2022).

CONCLUSION

It is concluded, therefore, that ADHD is classified as a neurodevelopmental disorder that affects several children. It is a public health problem and is characterized by behavioral changes of inattention, hyperactivity, and impulsivity. It is noted that early diagnosis is of paramount importance for treatment and prognosis. For the child to be diagnosed with the disorder, he must



have a persistent pattern of inattention and hyperactivity and treatment is done through efficient non-pharmacological measures, such as CBT.



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