

# DETECTION, DIAGNOSIS AND INTERVENTION IN STUDENTS WITH ADHD: GUIDE FOR STUDENTS OF EDUCATIONAL SCIENCES

Mari Carmen Flores-Piñero<sup>1</sup>, Javier Mula<sup>2</sup>, Javier de la Hoz-Ruiz<sup>1</sup>

<sup>1</sup> University of Granada, Spain

<sup>2</sup> University of Cádiz, Spain

DOI: <https://doi.org/10.5281/zenodo.12634117>

Published Date: 03-July-2024

---

**Abstract:** Attention deficit hyperactivity disorder (ADHD) is a neurodevelopmental disorder, whose main symptoms are inattention, hyperactivity and impulsivity. This disorder is associated with an alteration in the harmonious development of the affected individuals, being associated with alterations in the family environment, school environment and in the social environment. Three types of ADHD are described: hyperactivity, attention deficit or mixed (combines the two previous types). It must be taken into account that each boy and girl with ADHD may present different symptoms since each one may present a combination of difficulties and strengths. This disorder affects both the academic, social and family spheres. In the family environment, a series of strategies can be carried out such as: Increase self-confidence and self-esteem; help you interpret the behaviors of others and your own; promote the autonomy of the child, avoiding all types of overprotection; accept the minor as he is; expand the attention span of boys and girls by asking them to perform simple and calm tasks.

**Keywords:** ADHD; educational-intervention, students, detection, diagnosis, intervention, teachers.

---

## I. INTRODUCTION

The Instructions of March 8, 2017 define students with specific educational support needs as “students who require, for a period of their schooling or throughout it, educational attention different from ordinary due to having special educational needs; learning difficulties; high intellectual abilities; or require compensatory actions. For these purposes, educational attention other than ordinary will be considered the application of specific measures that may or may not involve specific resources for its development” [1].

Below are detailed several definitions, classification of the disorder, etiology, psychopedagogical evaluation instruments and educational response to be carried out.

## II. ADHD: GUIDELINES FOR DIAGNOSIS AND INTERVENTION

### A. Definition

Attention deficit hyperactivity disorder (ADHD) is classified as a neurodevelopmental disorder that presents symptoms from an early age [2]. In the DSM-IV, ADHD is defined more completely as: “Persistent pattern of inattention and/or hyperactivity/impulsivity or inhibition, which is more frequent and severe than what is usually observed in a subject of a similar level of development. ADHD manifests itself in problems with attention, impulse control, and excessive activity. Affected children have difficulty following rules, which can cause discomfort to their peers. In addition, they present associated problems such as learning difficulties, anxiety and affect disorders. This disorder significantly impacts the subject's cognitive and social functioning chronically [3].” ADHD has also been defined as an evolutionary disorder of genetic origin that affects self-regulation, generating problems in sustained attention, impulse control, and activity [4].

There are three primary symptoms to identify this disorder: inattention, hyperactivity and impulsivity. Furthermore, these primary symptoms are accompanied by other cognitive, emotional, academic, and interpersonal difficulties [5].

In the Instructions of March 8, 2017, of the General Directorate of Participation and Equity [1], which updates the detection protocol, identification of students with specific needs for educational support and organization of the educational response, Deficit Disorder is defined of Attention with or without hyperactivity as: “Persistent pattern of inattention and impulsivity with or without hyperactivity. It involves alterations in some of these areas, although to different degrees, significantly affecting school learning and social and family adaptation” (p.159).

### ***B. Classification***

For classification purposes, three groups are considered [1]:

- Predominance of attention deficit: there are symptoms of inattention that last for at least 6 months.
- Predominance of impulsivity/hyperactivity: there are symptoms of impulsivity and hyperactivity that last for at least 6 months.
- Combined type: there are symptoms of both inattention, impulsivity and hyperactivity for at least 6 months.

These three groups are explained in more detail below [6]:

- Attention deficit hyperactivity disorder, with predominance of attention deficit (ADHD/I): characterized by not maintaining the same level of commitment as other students, difficulty concentrating on details, seeming not to listen, difficulty organizing tasks and they do not usually finish them, they avoid prolonged mental effort, they misplace objects, they are easily distracted by irrelevant stimuli and they tend to forget things. The main problem is the slowness in information processing, due to an inconsistent state of alert and surveillance. Regarding social behavior, these minors tend to have a more passive attitude, have limited social knowledge, but do not present obvious emotional control problems.
- Attention deficit hyperactivity disorder, with hyperactive/impulsive predominance (ADHD/HD-I): it is characterized by symptoms of hyperactivity and impulsivity. According to impulsivity, students tend to respond hastily, have difficulty waiting their turn and interrupt others. Regarding hyperactivity, they talk excessively, continually move their hands and feet, leave their seat in the classroom, run or jump at inappropriate times, difficulty playing calmly, they seem to be driven by a motor. It usually occurs especially in children in Early Childhood Education, but it is considered the precursor of the combined type.
- Attention deficit hyperactivity disorder, combined type (ADHD/C): the main problems occur in inhibitory control, which negatively affects the management of attentional resources. This subtype is the most serious, as it affects both behavior and the learning process. This is reflected in performance problems, repetition of an academic year or the need for constant help to be able to complete schoolwork.

### ***C. Etiology***

Although the origin of ADHD is neurobiological and its predisposition is hereditary, it has also been related to prenatal and perinatal factors, environmental factors and psychosocial factors [7]:

- Neurobiological: it is related to the imbalance of norepinephrine and dopamine, affecting attention and motivation and generating impulsivity. In addition, it is linked to areas of the brain responsible for the perception of sounds and images.
- Hereditary: the genetic load in ADHD is very relevant, since children of parents with this disorder have up to a 50% chance of suffering from it. Likewise, in studies with twin brothers, it has been observed that if one of the twins presents symptoms of ADHD, the risk that the other also has it ranges between 80% and 90%.
- Psychosocial: although ADHD has a hereditary component, the school, family and social environment have a great influence.
- Prenatal and perinatal: some of them are premature birth, low birth weight, consumption of substances such as alcohol or tobacco by the mother during pregnancy and maternal psychological stress.

### ***D. Instruments for identification (psycho-pedagogical evaluation)***

Some of the instruments to evaluate ADHD are:

- Behavioral Assessment System for Children and Adolescents (BASC).

- Children's problems questionnaire. Achenbach scales (CBC).
- Conners Rating Scale for Parents (CPRS-48) and Teachers (CPTR-28).
- Scales for the evaluation of attention deficit hyperactivity disorder (EDAH).
- Difference perception test (CARAS-R).
- Sustained Attention Test for Children Revised (CSAT-R).

### ***E. Educational Response***

In accordance with the Order of May 30, 2023, the general measures for students to pay attention to diversity that may be beneficial for students with ADHD are:

- Schedule short activities appropriate to attention and control capacities.
- Divide tasks into parts, clearly indicating a time limit to complete each of these. Always praising the correct execution of each one.
- Prioritize the quality of tasks over the quantity (Select the most important thing before requesting a large number of tasks).
- Find the most appropriate place in the classroom, where you have good eye contact with the teacher and away from possible distractions. (Decrease class noise).
- Good organization that can be reinforced by hanging the day's program and class rules on the wall.
- Use graphs that provide students with information about their behavior.
- Intersperse tasks that require a more passive response, such as, for example, a theoretical presentation, with other types of more active tasks that require the intervention of the students.
- Use a calm and direct tone, and help the student realize that their learning interests the teacher.
- Make them aware of their active involvement in the class.

Regarding the specific measures [8] to address diversity, the following would be applied to students with ADHD:

- Adaptations of access to the curriculum.
- Significant curricular adaptations.
- Specific program to improve impulsivity.
- Specific program to improve behavior control in the classroom.
- Specific self-regulation program.
- Specific program to improve attentional control.
- Specific program to work on motivation and management of emotions.
- Specific program to improve social skills.

Regarding human resources, the professionals who would intervene with these students are:

- Teacher of Therapeutic Pedagogy.
- Hearing and Language Teacher.
- Technical professional of social integration (PTIS).

### **III. CONCLUSION**

ADHD is a neurodevelopmental disorder that affects a part of the child population. This does not mean that these boys and girls cannot have correct academic performance or adequate socio-affective development. As we have seen, there is a wide range of general measures and specific measures to carry out. It is important that all education professionals who work with this group carry them out so that the student's learning is as rewarding as possible.

ADHD not only affects the academic environment, but also the family environment. Therefore, to complete this work, a series of measures and guidelines that families can carry out at home are presented.

- Pay attention to the minor, listen to him and talk to him calmly.
- Explain the problem and the plans to help you overcome it.
- Always act as positive role models.
- Be calm and relaxed, since the behavior of the family members will be imitated by the minor.
- Establish clear and well-defined rules, which will have a level of demand in line with the ability of the son or daughter.
- Provide the subject with a situation of maximum structure and organization in the home.
- Communicate to the minor with sufficient advance notice any possible modification of the routine so that he or she can adapt.
- Observe good behaviors and skills, praise and reinforce them.
- Pay attention to him when he shows desirable behaviors and try to ignore excessive movement or hustle and bustle.
- When it is necessary to address the son or daughter for disruptive behavior, act firmly, but without losing serenity or calm.
- Allow the boy or girl to vent their excess energy, but prevent them from becoming excessively tired, and try not to stimulate them unnecessarily.

The advantages of this work are that there is a lot of research and information about this disorder and the literature is increasingly enriched, also providing quality of life to the minor.

#### REFERENCES

- [1] Instrucciones del 8 de marzo de 2017, de la Dirección General de Participación y Equidad, por las que se actualiza el protocolo de detección, identificación del alumnado con necesidades específicas de apoyo educativo y organización de la respuesta educativa.
- [2] Rusca-Jordán, F. & Cortez-Vergara, C. (2020). Trastorno por déficit de atención con hiperactividad (TDAH) en niños y adolescentes. Una revisión clínica. *Revista de Neuro-Psiquiatría*, 83(3), 148-156.
- [3] American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA: American Psychiatric Publishing.
- [4] Barkley, R. (1995). *Taking Charge of ADHD*. New York: Guilford Press.
- [5] Korzeniowsk, C., & Ison, M. S. (2008). Estrategias psicoeducativas para padres y docentes de niños con TDAH. *Revista Argentina de Clínica Psicológica*, 17(1), 65-71.
- [6] Servicio de Programas Educativos y Atención a la Diversidad. (s.f.). *Guía para la Atención Educativa del Alumnado con Trastorno por Déficit de Atención con Hiperactividad*. Con la colaboración de: Asociación CALMA (Asociación para la atención de personas que presentan Trastornos con Déficit de Atención por Hiperactividad). Consejería de Educación, Ciencia y Tecnología, Dirección General de Formación Profesional y Promoción Educativa.
- [7] Crespo Crespo, C. (s.f.). *Área formativa de Educación: Trastorno por Déficit de Atención e Hiperactividad*. Instituto Superior de Estudios Psicológicos.
- [8] Orden de 30 de mayo de 2023, por la que se desarrolla el currículo correspondiente a la etapa de Educación Primaria en la Comunidad Autónoma de Andalucía, se regulan determinados aspectos de la atención a la diversidad y a las diferencias individuales, se establece la ordenación de la evaluación del proceso de aprendizaje del alumnado y se determina el proceso de tránsito entre las diferentes etapas educativas.