

Reference document
ADHD



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Introduction

ADHD (attention deficit disorder with or without hyperactivity) is a neurological disorder that appears during childhood and is characterized by a set of symptoms related to hyperactivity, impulsivity and inattentiveness. It is one of the most common childhood disorders and, in 60% of cases, it continues into adulthood. It has an impact on the social, family, educational and professional areas of the affected child or adult's life.

ADHD affects approximately 5% of children and 2.5% of adults in most cultures. Parents of preschool-aged children often notice a few early signs of the disorder, but it is mainly once their children start school that it becomes much more obvious and causes difficulties.

The disorder is more common in boys than girls, with a 2-to-1 ratio in children and a 1.6-to-1 ratio in adults. In girls, the disorder often presents as attention problems from the beginning, whereas in boys, hyperactivity is more common.

Symptoms

According to the fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders (DSM-5)*, inattentive and hyperactive-impulsive are the two broad symptom categories for ADHD. The following are the main symptoms for each category:

Inattentive

- Has difficulty paying attention to details; makes careless mistakes
- Has difficulty sustaining attention in tasks, activities or games
- Mind seems elsewhere and doesn't listen when spoken to
- Doesn't follow instructions or doesn't successfully complete tasks
- Has difficulty planning and organizing work or activities
- Has an aversion to, avoids or is reluctant to engage in tasks that require sustained effort
- Often loses things necessary for work or activities

- Is easily distracted by external stimuli
- Is often forgetful during daily activities

Hyperactive-impulsive

- Often fidgets with hands or feet, or squirms in seat
- Often leaves seat in situations when remaining seated is expected
- Often runs about or climbs in situations where it is inappropriate
- Has difficulty playing games or engaging in leisure activities quietly
- Acts as if "mounted on springs"
- Often talks excessively
- Often blurts out answers before questions have been asked in full
- Has difficulty awaiting a turn
- Often interrupts others or intrudes on conversations, games or activities

Motor hyperactivity symptoms tend to be less pronounced in adolescents and adults. Agitation becomes more internalized, but cognitive symptoms related to inattention and impulsivity tend to persist.

Causes

Although ADHD is one of the most studied psychiatric disorders, the exact causes remain unknown. However, it can reportedly be explained in part by genetic heritage. Several genetic variants are thought to be involved, with interactions between each of them. The interaction between genes and the environment also seems to be an agreed upon cause in the scientific community.

ADHD diagnosis

Although there are several questionnaires that directly target ADHD-related symptoms, there are no neuropsychological tests specific to this disorder. A high score on the questionnaires suggests ADHD, but that is not enough to definitively make a diagnosis. That is why a diagnosis is normally made after consultations with both a doctor and a psychologist, with neuropsychologists being particularly specialized in this disorder. CLSCs, hospitals and certain specialized private clinics have the necessary resources to make such a diagnosis.

Several symptoms must be present for at least 6 months in one of the two categories to obtain a diagnosis. Symptoms must interfere with or reduce the quality of social, academic or occupational functioning. Several symptoms must have been present prior to age 12, and the interference must be observed in two or more settings, like at home and at school.

It is important to be wary of diagnoses made by educators and teachers. Parents must also avoid making their own diagnosis. Only the above-mentioned professionals have the skills and qualifications necessary to make an ADHD diagnosis.

Treatments

There is no cure for ADHD, but proper treatment and winning strategies can help people overcome their difficulties and achieve a good quality of life.

Pharmacotherapy

Medication helps improve the ability to concentrate, stay focused on an activity and become better at resisting distractions. It also reduces agitation, whether externalized, like in children,

or internalized, like in adults, and helps enhance inhibition abilities and therefore enables better control of one's impulses.

Medication cannot ensure better grades in school or better performance at work. However, it can contribute to increasing productivity at school and work, and thus promote better self-esteem.

A wide variety of stimulant and non-stimulant medications exist to treat ADHD. Doctors and pharmacists are the main resources to help determine the best molecule for the specific needs of the adult or child.

Loss of appetite and insomnia are among the most common side effects of ADHD medication. However, these effects are often less serious when compared to the experienced benefits.

Psychotherapy

Psychotherapy (primarily cognitive behavioural therapy) can be used to work on several areas, helping the person with ADHD improve their quality of life. Through this type of therapy, it is possible to work on organization and planning, distractibility, cognitive restructuring, procrastination, training in social skills, anger and frustration management, and problem-solving skills, among other things.

Neurofeedback

Many people attest to the benefits of this approach on some of the common symptoms of ADHD, such as feeling more organized, more attentive and less agitated.

Certain studies suggest that neurofeedback produces positive results in the areas of intellect and behaviour among people with ADHD.

However, the methodological weakness of existing studies on the subject is often criticized in the scientific community. Additional studies are therefore needed before deciding on the true effectiveness of this method.

Psychoeducational approaches among parents

These approaches are aimed at teaching parents various ways to help increase good behaviours and lessen problematic ones. They may be provided by a psychoeducator, a psychologist or another health professional specializing in ADHD.

Strategies

For employers

This is a sensitive issue to address, and employers should not jump to conclusions and ascribe an employee's symptoms to ADHD. Many of the symptoms are common with other disorders, and only doctors and psychologists have the skills to properly make the distinction. However, if the person's symptoms are harming their professional functioning, it is possible to ask them whether they've had these difficulties for a long time and whether they've seen a health professional already. It can be suggested that they talk to their doctor or contact the organization's assistance services to get support and tools to reduce the impacts of these difficulties.

For parents

For parents of a child with ADHD, the following behaviours should be favoured:

- Establish a structure with simple, realistic and consistent rules.
- Give clear, short and concise instructions.
- Apply rules consistently.
- Know how to set boundaries and respect them.
- Favour positive reinforcement for good behaviour over punishment for bad behaviour.
- Encourage physical activity to help the child burn off their excess energy.
- Help the child build a positive self-image by regularly pointing out their accomplishments. Be patient with the child. Shouting at or scolding them only fosters and reinforces their hypervigilance.
- Give a reward immediately following the desired action.

- Get them used to completing one action or task before starting another.
- Play one game at a time. Avoid fragmentation.

Establish routines

It is recognized that routines are reassuring for children in general, but they are even more so in the context of ADHD, and equally so for adults. Repeating the same action often makes it an automatic reflex, ensuring that a lower level of attention is required to perform the task in question. This can make life much easier for people with attention difficulties, because the level of energy required to perform the task becomes lessened.

For children, learning routines can be made easier through pictograms. For example, drawings can be glued onto a large piece of cardboard to represent the sequence of steps to take each morning (e.g., eat breakfast, take a shower, brush teeth, get dressed and style hair). Even though the child will have to be directed to the pictograms often in the beginning, they will eventually memorize the sequence through visualizing it and putting it into action.

Engage in physical activity

For children and adults alike, this is an excellent option to release agitation and satisfy the absolute necessity to move. After a good exercise session, it is then easier to stay focused on school or work tasks. Some schools have understood this, hence the introduction of pedal desks for children with hyperactivity.

In addition, homework can go smoother by letting the child burn off steam through a physical activity upon arriving home from school. Jogging or speed walking over the lunch hour can sometimes make a positive difference to help an adult better concentrate on their afternoon tasks at work.

Choose hobbies and activities that provide positive stimulation

Self-esteem is often affected by ADHD. Hobbies and extracurricular activities that correspond to the interests and abilities of the child can help them build self-confidence. This could take the form of exploring the child's creativity through artistic activities like drawing, dance, music or poetry. These activities may also be beneficial for adults. Being "spaced out" is sometimes a sign of a highly developed imagination and creative ideas just waiting to be expressed!

Set up a time management system

Time is often a fuzzy concept for persons with ADHD, but various techniques can help get it under control:

- **Agenda**

An electronic agenda is particularly useful because of its sound reminders and colour codes as well as for planning recurring activities and appointments. It is also recommended to leave some blocks of free time every day for unexpected commitments.

- **Timers, alarms and stopwatches**

It is possible to use the ones integrated in tablets and cellphones. Hourglasses can also be good for children.

- **Calendar**

A magnetized calendar on the refrigerator can be used to write down upcoming events as they arise.

If the pictogram system is used for a child, each task can be associated with an estimated length of time. That way, the child will be able to accomplish the task more easily.

Favour organization

Here are some examples that could help people with ADHD to stay organized:

- Deal with paperwork and file it away as they go.
- Use budgeting software with reminders for payment dates or make a preauthorized payment agreement with the bank.
- Designate a specific location that stays the same, for each object or article of clothing, and put them back in their place immediately after use.
- Use filing systems like colours, drawings, labels or photos.
- Make a list of tasks and break them up into a series of small, realistic and achievable steps. Cross off tasks as soon as they are completed for motivation to move on to the next step.

Conclusion

Although many studies exist, research is still needed to better identify the causes, perfect screening methods and find new avenues for treatment to improve the lives of children and adults living with this disorder.

There are people with ADHD in every professional field, even medicine. People with ADHD must keep their self-esteem up and remember that they are not defined by their disorder. With proper treatments and winning strategies, they can learn to overcome their challenges, lead a satisfying life and succeed in the projects they care about.

Resources

The following resources can also be used:

- Canadian ADHD Resource Alliance: www.caddra.ca
- Mental Health Canada: www.mentalhealthcanada.com
- Regroupement des Associations PANDA du Québec: www.associationpanda.qc.ca/

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