

Attention deficit hyperactivity disorder (ADHD): What do we know?

Jia Kumari

1st Year MBBS, Islamabad Medical and Dental College, Islamabad Pakistan

Key points

- Introduction to ADHD
- Types of ADHD
- Causes and Treatment of ADHD
- Behavior Therapy

Attention deficit hyperactivity disorder (ADHD) is one of the most common mental disorders affecting children. ADHD is considered a mentally and physically straining long-term disorder and is known to influence many aspects of an individual's life, including academic and professional accomplishments, personal relationships, and daily life. ADHD may result in poor self-esteem and low confidence in children when not treated accurately. Similarly, Poor self-worth, sensitivity toward criticism, and increased self-criticism are the prominent features in adults with ADHD.¹

Types of ADHD:

ADHD can be divided into two types, depending on the dominant types of symptoms in the individual.

Predominantly Inattentive Presentation:

This type encompasses the following features: organization or completing a task, being attentive, and following instructions can be difficult for a person suffering from this type of ADHD. A person can easily get distracted or forget details of their daily routines.

Predominantly Hyperactive-Impulsive Presentation:

In this type of ADHD, the person is highly talkative and fidgets often. Tasks such as sitting for a long time, talking, speaking at appropriate times, and listening to others become difficult for an individual with this particular syndrome because of their restless and impulsive nature. Smaller children may run, jump or climb constantly. A person with impulsiveness may experience more accidents and injuries than a healthy individual.²

Causes:

ADHD is affected by multiple genes and non-inherited factors, and their interplay is similar to that of other medical and psychiatric disorders (e.g., asthma and schizophrenia).³

Moreover, Gene-environment interaction is a special type of interaction between genes and environmental conditions that enhances the sensitivity to environmental risk factors, for example, environmental toxins or psychosocial adversity are the perfect examples of this type of interactions.⁴

Treatment:

Stimulants might not be the best option for the patient, but stimulants such as Ritalin and Adderall are mostly prescribed for ADHD; however, they are certainly not the sole treatment; they also demand other strategies.

They may help their child concentrate better or sit still, at least in the short term. Evidence has proven that they improve the

academic status, relationships, and behavioral issues in the long term. Along with medication, activities such as dance, gymnastics, martial arts, and skateboarding require mindfulness toward body movements and are particularly good for children with ADHD. Other treatments include encouraging children with ADHD to play outdoors for a minimum of 30 minutes each day, if possible. Finally, increasing the amount of minerals in the diet, such as iron, may be particularly helpful. One study found that iron supplementation improved symptoms almost as much as stimulant medication did.

Behavior therapy:

This involves reinforcing desired behaviors with prizes and praises, and minimizing problematic behaviors by setting limits and consequences. One intervention might be that children with ADHD are rewarded by the teacher to take small steps toward raising their hands before talking in class. The initiative behind the thought is that rewarding the struggle toward change encourages the full new behavior.⁵

References:

1. American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5). 2013. Austerman J. Cleve Clin J Med. 2015 Nov;82(11 Suppl 1): S2-7
2. Faraone, S. V., Banaschewski, T., Coghill, D., Zheng, Y., Biederman, J., Bellgrove, M. A., Wang, Y. (2021). The World Federation of ADHD International Consensus Statement: 208 evidence-based conclusions about the disorder. *Neuroscience & Biobehavioral Reviews*. doi: 10.1016/j.neubiorev.2021.01.022
3. Thapar A, Langley K, Asherson P, et al. Gene-environment interplay in attention-deficit hyperactivity disorder and the importance of a developmental perspective. *Br J Psychiatry* 2007; 190:1-3
4. Rutter M, Thapar A, Pickles A. Gene-environment interactions: biologically valid pathway or artifact? *Arch Gen Psychiatry* 2009; 66:1287-9
- Kemper, A. R., Maslow, G. R., Hill, S., Namdari, B., Allen LaPointe, N. M., Goode, A. P., Coeytaux, R. R., Befus, D., Kosinski, A. S., Bowen, S. E., McBroom, A. J., Lallinger, K. R., & Sanders, G. D. (2018). Attention Deficit Hyperactivity Disorder: Diagnosis and Treatment in Children and Adolescents. Agency for Healthcare Research and Quality, (US). 18-EHC005-EF, 2018 Jan.