

ECHO Idaho: Behavioral Health in Primary Care

ADHD in Children and Adolescents

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The speaker has no significant financial conflicts of interest to disclose.

Learning Objectives

- Define and identify the underlying the core deficits in Attention Deficit Hyperactivity Disorder
- Learn to diagnose ADHD more reliably by identifying the essential symptoms
- Identify medication best practices and review medication management options and strategies.

ADHD Definition

- First described in late 19th century by a pediatrician, George Still MD1890s - Defect in Moral control
- 1930s- “Organic driveness”
- 1950s- “Hyperkinetic impulsive disorder”
- 1960s’ “Minimal Brain dysfunction”
- 1980’s ADD
- 1990’s ADHD

ADHD Definition

- “Attention-deficit/Hyperactivity disorder is a developmental disorder characterized by developmentally inappropriate degrees of inattention, overactivity, and impulsivity. These often arise in childhood; are relatively chronic, and are not readily accounted for on the basis of gross neurological, sensory, language, or motor impairment, mental retardation, or severe emotional disturbance. These difficulties are typically associated with deficits in rule governed behavior and in maintaining a consistent pattern of work performance over time”

ADHD Diagnosis

- Clinical history form various informants and examination.
- **No test** to diagnose ADHD
- Inattentive subtype most common, most often kids and these kids referred as “lazy”
- May have other comorbid conditions, phonological/language delays and other learning disorders

Essential Symptoms

- HIDE
 - Hyperactivity
 - Inattention
 - Impulsivity
 - Emotionality

ADHD subtypes and core deficits

- ADHD, inattentive subtype more common in girls and often not recognized until junior high age.
- ADHD, combined type more common in boys
- ADHD , hyperactive and impulsive sybtype

ADHD associated symptoms

- Deficits in Social Cognition and Social Perception
- Executive Dysfunction, i.e. difficulty planning, concentrating (sustaining), self monitoring (inhibiting), and shifting (cognitive flexibility)
- Interpersonal difficulties/Social behavior

Differential Diagnosis

- Depression and anxiety disorders
- Learning disabilities
- Medical or neurological disorders
- Often these disorders co-exist with ADHD and need to be recognized and treated as well.

ADHD medication treatment

- Stimulants: Up to 90% response to one of 3
- Methylphenidate products: First line and most effective medication treatments in patients with no sig. substance use history:
- Methylphenidate products about a mg/kg
 - Ritalin, Concerta, Daytranan, Focalin
- Second line
- Amphetamines: Half the dose in mg/kg than methylphenidate
 - Dexedrine, Adderall, Vyvanse

Non stimulants in ADHD

- In patients who have failed or only partially responded to stimulants.
- In patients with substance use histories
- Clonidine, Guanfacine, Atomoxetine
- Bupropion
- Imipramine, Nortriptyline, Desipramine

Key Points

- ADHD usually presents in childhood, 1-3rd grade
- Inattentive subtype most common, more common in girls, presents in junior high,
- Core symptoms: HIDE and executive functioning deficits. Planning, initiating, sustaining, inhibiting, and shifting.
- Stimulants first line drugs in patients without substance use and effective in 80-90% of children
- Look for other co-morbid psychiatric and learning disorders
- Markedly improved prognosis and outcomes when successfully treated; including lower rates of substance use disorders.
- Motivational Deficit Disorder