

ADHD... OR IS IT?
 BEHAVIOR OR COGNITIVE DISORDER

Financial Disclosure:

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- **Financial disclosure statement:**
 Scientific Learning is covering travel expenses in exchange for her presentation. She suggests SLC products when appropriate and is reimbursed for her time training students by their families.
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ATTENTION DEFICIT HYPERACTIVITY DISORDER

Involves, according to theory, an underlying impairment of executive function—the cognitively based control system that regulates behavior.

ADD(H) EXECUTIVE FUNCTION MEMORY
COMPROMISED BEHAVIOR

- Inattention, hyperactivity, and impulsivity.
- Difficulty following multi-step directions or staying engaged in class
- A need for more time and repetition; inconsistent performance
- Poor time management, constantly switching focus, unable to plan and organize
- Can't remember details... often say or do the wrong thing

ADHD

Research indicates that from 30-50% of children with ADHD also have a specific learning disability, and that the two conditions can interact to make learning extremely challenging.

WHAT IS A COGNITIVE MIND?

The set of all mental abilities/processes related to knowledge:

- attention
- memory & working memory
- judgment & evaluation
- reasoning & "computation"
- problem solving & decision making
- comprehension & production of language

WHAT IS A COGNITIVE DEFICIT?

Deficits in intellectual functioning in global disorders (eg, mental retardation). Sometimes used to describe specific deficits in cognitive abilities (e.g., certain *learning disabilities such as dyslexia*)

COGNITIVELY IMPAIRED?

Trouble remembering, learning new things, concentrating, or making decisions that affect everyday life. Ranges from mild to severe.

THE APPLE DOESN'T FALL FAR FROM THE TREE



EXECUTIVE FUNCTION DISORDER

USE A TEAM APPROACH TO MAKE YOUR DIAGNOSIS

WHICH ONE HAS WHAT?



INEFFICIENCY IN COGNITIVE MANAGEMENT SYSTEMS

- Planning
- Strategizing
- Remembering details
- Managing time/space
- Organization
- Attention to task

Different patterns of weakness in executive functioning are **OFTEN** seen in the learning profiles of individuals who have specific learning disabilities or ADHD.

DYSLEXIA

- Affects reading and related language-based processing skills.
- The severity can differ in each individual.
- Can affect reading fluency, decoding, reading comprehension, recall, writing, spelling, and sometimes speech and can exist along with other related disorders.
- Dyslexia is sometimes referred to as a **Language-Based Learning Disability**.

Auditory Processing Disorder (APD)

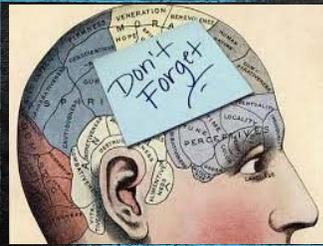
- Affects how sound that travels unimpeded through the ear is processed or interpreted by the brain.
- Affects recognition of subtle differences between sounds in words, even when the sounds are loud and clear enough to be heard.
- Makes it difficult to tell where sounds are coming from, to make sense of the order of sounds, or to block out competing background noises.

SPEECH APRAXIA (DYSPRAXIA)

Although not a learning disability, dyspraxia often exists along with dyslexia, dyscalculia, or other EF problems.

- Characterized by difficulty in muscle control, which causes problems with movement and coordination, language, and speech, and can affect learning.

MEMORY



- Working memory,
- Short-term memory
- Long-term memory

Processing of both verbal & nonverbal information

Deficits in the ability to store and retrieve information required to carry out tasks

CHRISTOPHER ROBIN
SCHIZOPHRENIA
AUDITORY HALLUCINATIONS



PIGLET
ANXIETY DISORDER

OWL
DYSLEXIA

EYORE
DEPRESSIVE DISORDER

TIGGER
ATTENTION DEFICIT
HYPERACTIVITY DISORDER

RABBIT
OBSESSIVE COMPULSIVE DISORDER

EXECUTIVE FUNCTION HELPS YOU:

- Manage time
- Pay attention
- Switch focus
- Plan and organize
- Remember details
- Avoid saying or doing the wrong thing
- Do things based on your experience
- When executive function isn't working as it should, your behavior is less controlled.

IMPACT OF ADHD

Executive Functions Deficits

- Difficulties inhibiting (e.g., Geurts, 2004)
- Working memory difficulties (e.g., Martinussen et al., 2005)
- High comorbidity between language impairment and ADHD has been documented (Redmond, 2005; Cohen, Vallance, Barwick, Im, Menna, Horodezky, & Isaacson, 2000), suggesting a possible relationship between attention and language.
