

# ASSOCIATED DISORDERS COMMONLY SEEN WITH ADHD

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ADHD: A Survival Guide for Parents and Teachers (Hope Press/2002)

Teaching Young Children with ADHD: Successful Strategies and Practical Interventions for PreK-3 (Corwin Press/2007)

The School Counselor's Guide to ADHD: What to Know and What to Do to Help Your Students (Corwin Press/March/2009)

# Disclosure

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We have no actual potential of conflicts of interest in relation to this program/presentation.

# Comorbid Disorders Associated with ADHD

- ADHD is a disorder that presents itself uniquely in each affected child.
- Some children will present with what professionals refer to as “clean ADHD” – that is ADHD without associated disorders - “comorbid disorders”.
- For the majority of children referred for psychiatric evaluation have ADHD complicated with comorbidity.
- These associated disorders tend to adversely influence a child’s academic and emotional development.

# ASSOCIATED DISORDERS SOMETIMES PRESENT WITH ADHD

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- Oppositional Defiant Disorder (ODD)
- Conduct Disorder (CD)
- Anxiety Disorders
- Mood Disorders
- Bipolar Disorder
- Sleeping Disorders
- Learning Disability
- Execute Function Dysfunction (EFD)

# OPPOSITIONAL DEFIANT DISORDER (ODD) AND CONDUCT DISORDER (CD)

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- Recent research suggests that approximately 2% to 16% of the general population has ODD.
- Up to 50% to 60% of children with ADHD, especially ADHD-HI, meet the criteria for ODD (Bloomquist, 1996)
- Most affected children develop ODD prior to the age of 8 years.
- Up to 70 % of children with ADHD referred to clinics are diagnosed with ODD.
- The longer ODD behaviors persist, the more difficult they are to eliminate.

# OPPOSITIONAL DEFIANT DISORDER (ODD) AND CONDUCT DISORDER (CD)

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- Symptoms: (DSM-IV-TR 2000)
  - Lose their temper
  - Swear
  - Often angry or resentful
  - Easily annoyed by others
  - Extremely stubborn
  - Rarely accept blame for their actions
  - Some ODD children go onto CD
  
- The longer ODD behaviors persist, the more difficult they are to eliminate.

# CONDUCT DISORDER (CD)

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- Conduct Disorder presents a serious pattern of antisocial behavior and violation of rights of others.
- Symptoms: (DSM-IV-TR 2000)
  - They often bully or intimidate others.
  - Can be physically cruel to people and animals.
  - Can lie or break promises to get what they want.
  - They may steal, run away from home, skip school
  - Deliberately destroy others' property and set fires.

# CONDUCT DISORDER (CD)

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- CD is rarely diagnosed in children younger than the ages of five or six years.
- There is some evidence suggesting that CD, unlike ODD, may have a genetic factor which can be expressed through environmental risk factors and stressors.
- Children with ODD and CD are at risk for developing low self-esteem, being expelled from school, isolating themselves from peers, and for being drawn to other children with similar challenges.

# CONDUCT DISORDER (CD)

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- While medications can be effective in extreme cases to decrease the severity of ODD and CD, medication alone will not completely eliminate core behaviors related to ODD and CD.
- Treatment requires home, school, and psychiatric interventions to find maximum benefit.
- ADHD does not directly cause ODD and CD, but the presence of ADHD greatly increases the risk for developing ODD and CD.

# ANXIETY DISORDERS

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- Anxiety disorders can manifest a broad range of signs and symptoms and stem from a number of causes.
- When a problem, young children tend to fear monsters and ghosts and separation from caretakers.
- Older children usually focus on possible natural disasters and family concerns, or have home and school related worries.
- Secondary anxiety disorder is reported to be present in 34% of the ADHD population.

# ANXIETY DISORDERS

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- Separation anxiety is the only anxiety disorder that is specific to childhood. In young children separation anxiety is triggered by a life stress such as a death of a pet, moving to a new home, or a major illness in the family.
- There is a high probability of finding ADHD-I children with comorbid anxiety disorder.
- Stimulant medications can at times help with an anxiety disorder if the primary cause is related to ADHD. However, if anxiety is a separate disorder associated with ADHD, stimulants will often elevate the anxiety symptoms.
- Anxiety can impact on school related tasks such as test taking, homework, and social interactions (especially with Social Anxiety Disorder).

# MOOD DISORDERS

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- Studies find that children with ADHD and a diagnosis of ODD and CD show a higher rate of depression and anxiety, 30% and 34% respectively (August, et. al., 1996).
- ADHD-I type are at more risk for depression than those children with ADHD-C (Anastopoulos & Shelton, 2001).
- Mood disorders often present themselves differently in children than adults. Children typically display severe irritability, underachievement in school, and an exacerbation of their underlying ADHD features.

# MOOD DISORDERS

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- Contributing Factors Leading to Depressive and Anxiety Disorders:
  - ADHD children often experience less academic success in school.
  - They often receive more negative feedback and disciplinary consequences than unaffected children.
  - ADHD traits such as lacking perseverance in the face of failure.
  - Poor behavior inhibition that makes it hard for them to pause and think.
  - Their difficulty regulating their ongoing emotional reactions.

# BIPOLAR DISORDER

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- There is a tremendous overlap of symptoms in children with severe ADHD and in those children diagnosed with bipolar disorder (BD, or manic depression).
- It is not uncommon for children to be initially diagnosed with ADHD and later with BD. Because the symptoms of these disorders overlap so much, a child can sometimes meet the criteria for both diagnosis.
- Children may show some of the same symptoms as adults diagnosed with BD; however younger children commonly display a mixed state, presenting with symptoms of mania and depression.
- Manic state can present itself as uncharacteristic behaviors of extreme enthusiasm, irritability and anger.

# BIPOLAR DISORDER

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- A child with manic symptoms is sometimes referred to as having “bad ADHD” because the most common disturbance in manic children is irritability and *affective storms*, with prolonged and aggressive outbursts.
- Because the symptoms of irritability can vary in degree and result from a number of causes, the disorder can be mistaken for depression, CD, or ADHD.
- Clinicians recommend great caution in diagnosing preschool and early school age children with BD.

# SLEEPING DISORDER

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- Similar symptoms such as inattentiveness, overactivity, and restlessness.
- Children who have a primary sleep disorder could get misdiagnosed with ADHD.
- Sleep problems with children with ADHD are extremely common and strongly associated with poorer quality of life, daily functioning, and school attendance.
- There is a behavioral component to sleep which can extend to bedtime.

# SLEEPING DISORDER

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- 25% to 50% of children and adolescents diagnosed with ADHD have clinically reported sleep problems that could be related to the underlying pathophysiology of the ADHD disorder.
- Sleep problems may be related to ADHD in four ways:
  - ADHD itself may be the cause of the sleep disruption.
  - Insomnia may be related to another disorder that co-occurs with ADHD (e.g., anxiety).
  - Insomnia could be a side effect of stimulant medication.
  - Not related to ADHD, insomnia is “just common in general”.

# SLEEPING DISORDER

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- Children with ADHD may be chronically sleep deprived.
- Children with ADHD may present with intrinsic sleep problems.
- Children with ADHD can have sleep significantly fewer hours than unaffected children.

# SLEEPING DISORDER

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- A sleep loss of 55 minutes each night, for six consecutive nights, can cause children to do poorly on four of the six measures of inattention, including reaction and omission errors.
- If a child with ADHD is having difficulties going to sleep or is sleep deprived, it's important the parent contact the child's pediatrician.

# LEARNING DISABILITIES

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- Estimate that 10% to 40% of children with ADHD have associated learning disorders that meet the criteria for a specific learning disability (Batshaw/2002).
- Typically children with ADHD and learning disabilities exhibit academic underachievement with the most difficulty with reading and written language.

# LEARNING DISABILITIES

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- ADHD children also have high incidence of central auditory processing disorders and visual-motor functioning problems
- Many affected children can be accommodated through Section 504 when they do not meet the criteria for placement in special education.

# LEARNING DISABILITIES

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- New IDEA 2004 regulations now allow states to discontinue the use of the discrepancy model in lieu of Response to Intervention (RTI) model.
- Under the New IDEA/2004, ADHD children can be placed in special education under Other Health Impaired (OHI). ADHD is today seen as other health impairments such as asthma – when the medical condition impacts on a child's educational performance, the child can qualify for special services under OHI.

# EXECUTIVE FUNCTION DYSFUNCTION

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*“I sometimes forget to turn in my homework. Am I stupid? My science teacher told the class that: “I always had an excuse for doing poorly in his class because I had ADHD, but the rest of you don’t”. My teacher thinks I don’t care and I use ADHD as an excuse.”*

*- Ryan, eighth grade student*

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**Educators can, because of misinformation, contribute to an atmosphere where ADHD children are:**

*“in danger of being emotionally traumatized by being called lazy, unmotivated, irresponsible, and other such words implying moral turpitude instead of neurodevelopmental disability or immaturity. Probably the greatest value in recognizing the neurodevelopmental/neurocognitive domain called EF is to protect a sizable minority of children from being traumatized by what amounts to adult name-calling.”*  
(Denckla, M.B., 2007).

# SNAP SHOT OVERVIEW OF EXECUTIVE FUNCTION PROCESSES

(Meltzer, L., & Krishnan, K., 2007)

- Selecting relevant task goals
- Planning and organizing information and ideas.
- Prioritizing and focusing on relevant themes rather than irrelevant details.
- Initiating and sustaining activities

# SNAP SHOT OVERVIEW OF EXECUTIVE FUNCTION PROCESSES

(Meltzer, L., & Krishnan, K., 2007)

Cont.

- Holding information in working memory
- Shifting strategies flexibly
- Inhibiting competing actions
- Self-monitoring, checking, and regulating behavior

# WHAT ARE EXECUTIVE FUNCTIONS?

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- The term *executive functions* refers to an individual's self-directed actions that are used to help that person regulate his or her behavior, that is, actions a person performs that help him or her exert more self-control and better reach his or her goals. Executive functions represent the internalization of behavior that helps us anticipate changes in the environment and events that lie ahead in time. It provides a sense of readiness, the ability to inhibit habitual responses, delaying gratification, and adjusting one's actions to changing conditions. It is, in some ways, a cognitive process that serves as a kind of supervisor or scheduler that helps one select a strategy to integrate information from different sources (Lougry, et. al., 2009).

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# Executive Functions Work Together in Various Combinations (Thomas Brown, Ph.D.)

## Cluster 1: Organizing, Prioritizing, and Activating Tasks

- Difficulty getting started on tasks (completing homework, doing chores, classroom assignments)
- Procrastinating is often a major problem, particularly with tasks not intrinsically interesting.

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## Executive Functions Work Together in Various Combinations (Thomas Brown, Ph.D.)

### Cluster 1, cont.

- Difficulty attending to what is most important to attend to.
- Report recurrent failure to notice critical details (putting name at top of paper, noticing (+) versus (-) in a math quiz.
- Difficulty figuring out how long a project will take or prioritizing and putting items ahead of others.

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## **Executive Functions Work Together in Various Combinations (Thomas Brown, Ph.D.)**

### **Cluster 2: Focusing, Sustaining, and Shifting Attention to Tasks**

- Difficulty sustaining attention long enough on a task to complete it.
- Difficulty with selective attention (listening on the telephone or the words printed on a page).
- Easily drawn away from a project by distractions.

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## Executive Functions Work Together in Various Combinations (Thomas Brown, Ph.D.)

Cluster 2, cont.

- Difficulty ignoring a myriad of thoughts, background noises, or room distractions.
- Unable to stop focusing on one thing so they can redirect their attention to what is important.

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## **Executive Functions Work Together in Various Combinations (Thomas Brown, Ph.D.)**

### **Cluster 3: Regulating Alertness, Sustaining Effort, and Processing Speed**

- Many children with ADHD complain they can hardly keep their eyes open when they have to sit still and be quiet (especially pronounced when classroom teacher uses a lecture format to present information).
- Affected children often are tired because of difficulty in getting a good night sleep.

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## Executive Functions Work Together in Various Combinations (Thomas Brown, Ph.D.)

Cluster 3, cont.

- Difficulty completing certain school tasks because of slow processing speed (particularly noticed in writing tasks)
- Processing speed can be both too slow and too fast. When too fast, they often perform poorly because of carelessness and not attending to details.

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## Executive Functions Work Together in Various Combinations (Thomas Brown, Ph.D.)

### Cluster 4: Managing Frustration and Modulating Emotion

- Affected children have a very low threshold for frustration and chronic difficulty in regulating subjective emotional experiences and expression.
- Disproportionate emotional reaction to frustration, short fuse, and low threshold for irritability.

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## Executive Functions Work Together in Various Combinations (Thomas Brown, Ph.D.)

Cluster 4, cont.

- Emotions are often described as flooding their mind and leaving little room for any other thought.
- Can be overly sensitive and react strongly to even minor slights or criticism.
- Chronic problems in managing frustration and other emotions.

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## Executive Functions Work Together in Various Combinations (Thomas Brown, Ph.D.)

### Cluster 5: Utilizing Working Memory and Accessing Recall

- ADHD children seem to have chronic difficulties with memory. Impairment is generally not in long term memory, but in “working-memory”: holding one bit of information active while working with another. Remembering a telephone number you just heard so you can call the number.
- Communication is hard between individuals when working memory is impaired. It can interfere both in expressive as well as receptive aspects of communication.

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## Executive Functions Work Together in Various Combinations (Thomas Brown, Ph.D.)

Cluster 5, cont.

- ADHD individuals often complain that they have difficulty retrieving information from long-term memory that they need to do a task.
- Proper functioning of working memory is an important component in mastering many school academic core areas: reading, math, and written expression.

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## Executive Functions Work Together in Various Combinations (Thomas Brown, Ph.D.)

### Cluster 6: Monitoring and Self-Regulating Action

- ADHD children and adults tend to act without much forethought, can be restless and hyperactive, and find it very difficult to slow down and control their actions.
- Brown notes that in addition to having difficulty “holding back”, ADHD children also can have difficulty getting started.
- Some children with ADHD can be excessively “focused on how others are reacting and are excessively self-conscious” (Brown, 2007).

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## Executive Functions Work Together in Various Combinations (Thomas Brown, Ph.D.)

Cluster 6, cont.

- Social situations are often among the most challenging for children with ADHD. They often do not measure or assess the expectations or perceptions of others in order to behave appropriately.
- Their decisions and actions often seem random and/or a series of guesses, rather than thought out responses. They often get in trouble because they do not gauge the emotions or intentions of others.

# CLOSING THOUGHTS ON EXECUTIVE FUNCTION

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- Executive functions are very important in accomplishing many daily tasks both at school and in the home.
- Educational and positive peer relationships both depend to a large degree on proper function of the executive function.
- An important contribution to academic and social/emotional adjustment in an ADHD child depends to a large degree on providing academic accommodations and behavioral interventions to minimize core ADHD symptoms.
- Even though EF is very important in academic and social/emotional development, *important* is not *exclusive*. There may be other factors that may be impacting on an affected child's educational performance.

# CLOSING THOUGHTS

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We want to close with a thought from Melvin Levine:

*“The more we involve ourselves with disappointing children, the more we understand the risks they must take during childhood . . . Their lives bear the scars of unjust accusation, chronic feelings of inadequacy, and shamelessly untapped talent. Understanding developmental variation, characterizing it without oversimplifying it, and intervening vigorously on behalf of developing humans experiencing inordinate failure –these are urgent needs.” (Levine, 1993).*

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