Reducing Suicide Risk by Improving ADHD Identification and Care

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Learning Objectives

Following this lecture, participants will be able to:

- Describe the epidemiology, defining attributes, and sequelae of Attention-Deficit/Hyperactivity Disorder (ADHD), recognizing that its textbook features (i.e., inattention, hyperactivity, and impulsivity) do not do justice in capturing the experience of living with ADHD.

- Explain the American Academy of Pediatrics' (AAP) expectations of primary care providers in the identification and management of ADHD, including comorbidity assessment and linkage to educational and behavioral health services.

- Discuss the roles of early identification, timely intervention, and routine and ongoing collaboration between families, pediatric providers, school personnel, and mental health clinicians in improving outcomes, including the reduction of suicidality risk.

Help is Available: Locating Early Intervention Services to Reduce Risk of Suicide for Children and Youth with ADHD

- **ACCESS Mental Health Connecticut (via Pediatrics)**
  - Hartford Hospital Hub – 855-561-7135
  - Wheeler Clinic, Inc. Hub – 855-631-9835
  - Yale Child Study Center Hub – 844-751-8955
- **Connecticut Children's Center for Care Coordination**
  - Empowers families to advocate for their children, provides care coordination services, and connects families to a full range of services
  - 877-835-5768
- **The Connecticut Family Support Network (CTFSN)**
  - Helps families raising children with disabilities and special healthcare needs
  - 877-376-2329, www.ctfsn.org
- **Help Me Grow**
  - Assists to identify resources for families
  - Call the Child Development Infoline and ask for a Help Me Grow care coordinator: 800-505-7000
- **Beacon Health Options/CT Behavioral Health Partnership (Medicaid recipients)**
  - Assists to identify referral resources for families
  - 1-877-552-8247; ctbhp.com (Online Provider Directory)

What percent of children/adolescents and their families are affected by ADHD?

ADHD: Prevalence

As many as 11%

OF CHILDREN AGES **4 TO 17**
HAVE RECEIVED THIS DIAGNOSIS[1]
WITH AVERAGE ESTIMATES AT 7%[2,3]

- Ratio of diagnosed boys to girls: ~3:1 to 4:1
- Some evidence that African American and Latinx children are less likely to be diagnosed[4]
- Upwards of 80% with the diagnosis continue to meet criteria into adulthood

ADHD in Pediatric Primary Care

ADHD IS ONE OF THE **4** MOST COMMON
CHRONIC DISORDERS SEEN IN PEDIATRIC PRIMARY CARE[1]
The others being obesity, asthma, and chronic otitis media

Behavioral Health and Functional Comorbidities of ADHD are Prevalent and Wide-Ranging

- Up to half are at risk of a mood disorder (depression or bipolar disorder).
- Oppositional defiant disorder and conduct disorders can occur in up to half of untreated children.
- Increased rates of substance use disorders.
- Heightened incidence of issues with bullying, school truancy, retention, academic failure, and dropout.
- Half struggle with sleep disorders.
- Increased incidence of mishaps/head injuries/motor vehicle accidents, and job loss.
- Higher rates of teen pregnancy, early marriage, divorce, domestic violence.
- **Higher risk of suicide attempts and completion.**

ADHD and Risk of Suicidality

- Those with untreated behavioral health comorbidities are at the greatest risk[1,2]
- Impulsivity significantly correlates with suicidal ideation and attempts[1]
- Girls with the combined form of ADHD (Inattentive/Hyperactive-Impulsive Type) have a markedly elevated risk for suicide *attempts* by the end of adolescence as compared to girls with the predominantly inattentive form of ADHD or those deemed typically developing[3]
  - Exacerbating factors: comorbidities including anxiety, depression, peer rejection
- Adolescent males with ADHD are at greater risk of death by suicide[4]
- Adults with ADHD have a higher risk compared to other adults[4]
  - Risk increases with a comorbid diagnosis of depression or conduct disorder

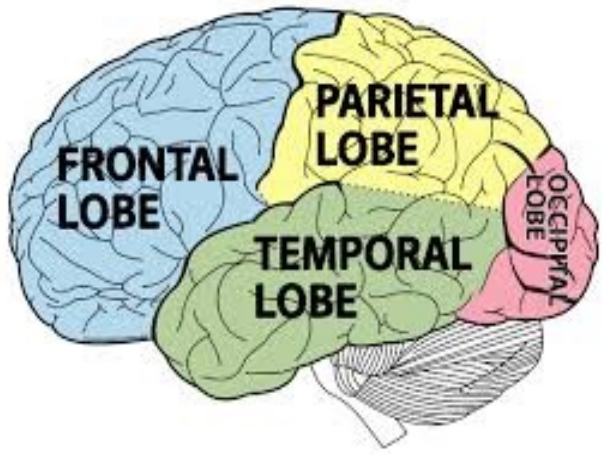
ADHD is related to heightened suicidality rates in all age groups for both males and females[5]

- **Assessment for suicidality, with immediate linkage to treatment when warranted, is critical**
- **NEW preliminary findings: ADHD pharmacotherapy is associated with less suicidality (ideation and attempts) in children with externalizing symptoms[1]**

The State of the Science

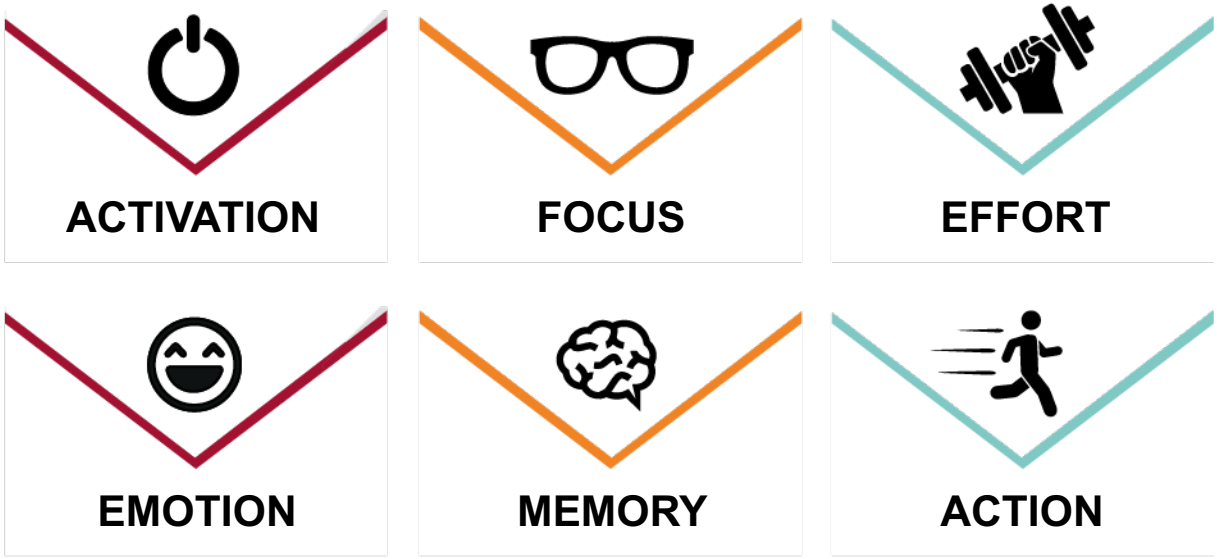
ADHD is a Chronic, Complex Neurobiological Disorder

- **A disorder of the frontal lobe[1]**
  - Frontal lobe makes up 1/3rd of the brain and is responsible for a broad range of functioning that includes and extends beyond attention
    - Children with ADHD show less activity in their frontal lobe than those without the disorder
    - The connections between neurons in the brains of children with ADHD are underdeveloped
    - Four circuits in the prefrontal cortex (i.e., the front portion of the frontal lobe) related to ADHD:[2-5]
      - **WHAT** (working memory)
      - **WHEN** (timeliness)
      - **WHY** (planning)
      - **WHO** (self-awareness)



Frontal Lobe Circuitry and ADHD: A.K.A. Executive Functioning

- Executive functions are compromised in the ADHD syndrome, resulting in self-dysregulation:[1,2]



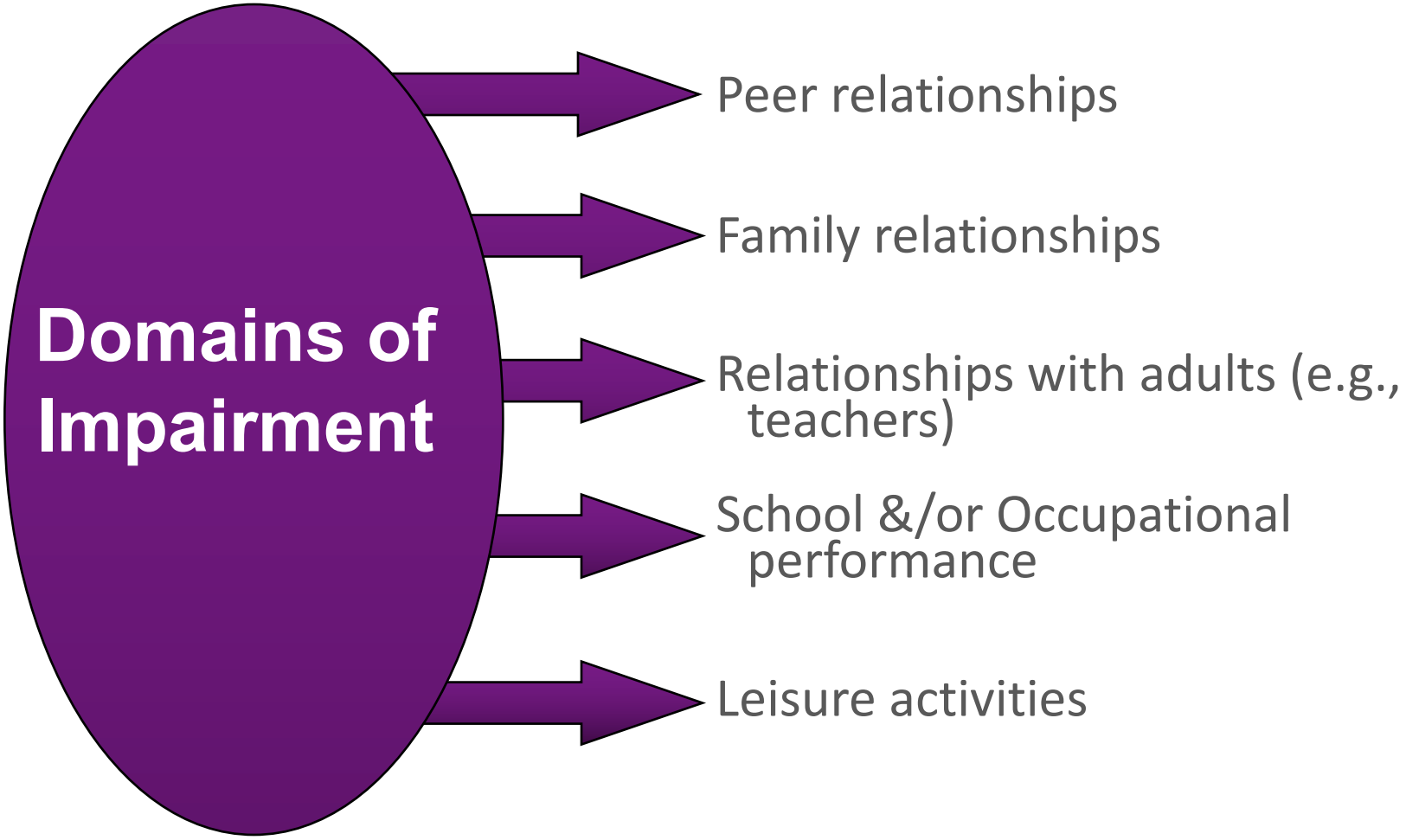
EXECUTIVE FUNCTION DEFINED:
Involves organizing and setting priorities, adapting to time constraints, focusing and shifting focus, regulating alertness, sustaining effort, regulating processing speed and output, managing frustration and other emotions, recalling facts, using short-term memory, and monitoring and self-regulating action to refrain from risk-taking.

ADHD is not a lack of attention, it is an inability to *control* attention.

Three Defining Features of ADHD[1]

- 1. **An interest-based nervous system**
  - Attention is only activated under certain circumstances, e.g., novelty, competition, a sense of urgency
  - Attention is not activated by importance, rewards, and consequences
- 2. **Emotional hyperarousal**
  - Situation-specific intense thoughts and emotions
    - Higher highs and lower lows
- 3. **Rejection sensitivity**
  - Intense vulnerability to the perception (not necessarily the reality) of being rejected, teased, or criticized
    - Causes **extreme** emotional pain
  - Failure to meet the expectations of others or oneself can also trigger a sense of devastation

Domains of Functional Impairment



The Impact of ADHD on Health Outcomes[1,2]

- ADHD undermines healthy living and contributes to shortened life expectancy from causes other than accidental injury and suicide
  - Predisposes to unhealthy lifestyle behaviors*
  - Increases risks for medical conditions*

  *Greatest risk is for those who go untreated in adulthood

- Important to pay as much attention to children's health-related behaviors as to school, social, and family activities
  - Promote healthier lifestyles
  - Increase behavioral inhibition
    - Ongoing Use of Medication
    - Cognitive Behavioral Therapy (CBT)

It Takes a Village to Accurately Identify and Effectively Treat & Manage ADHD!

What is the Role of Pediatrics in Identifying and Treating ADHD?

American Academy of Pediatrics'(AAP) Recommendations for Assessment[1]

- Children and adolescents presenting with symptoms consistent with inattention &/or hyperactivity should be evaluated via a multimodal assessment
- Diagnostic and Statistical Manual of Mental Disorders 5th edition (DSM-5) criteria to be met for diagnosis
- Assessment requires direct evidence from parents *and* teachers as well as child/adolescent self-reports
  - Core symptoms and duration
  - Degree of impairment
  - Possible underlying or alternative causes
  - Comorbid (co-occurring) conditions
- Data Sources Include: rating scales, interviews, and observations

Sample Brief Assessment Tools

Name of Scale	Age Range (norm group)	Versions	Availability
ADD Evaluation Scale (ADDES-3)	4-18	Parent & teacher	www.hes-inc.com/hes.cgi/00850.html
ADHD Rating Scale- IV (ADHD-RS)	5-17	Parent, teacher, & clinician	www.addwarehouse.com
ADHD Rating Scale IV-Preschool	3-5	Parent & teacher	www.wyomingpal.org
Conners Rating Scale	6-18, 8-18 (SR)	Parent, teacher, & self-report (SR)	www.mhs.com
SNAP-IV-R (Swanson Nolan And Pelham-IV)	6-18	Parent & teacher	www.adhd.net
Vanderbilt ADHD Diagnostic Scales	6-12	Parent & teacher	www.vanderbiltchildren.com or www.brightfutures.org

DSM-5 Diagnostic Criteria

- ✓ Persistent pattern of inattention and impulsivity that interferes with functioning.
- ✓ Three predominate types: Impulsive/Hyperactive, Predominantly Inattentive, and Combined Presentation.
- ✓ Six or more symptoms must be present for at least 6 months and are not developmentally appropriate (5 for older adolescents):
  - ✓ Symptoms of inattention/impulsivity emerge up to age 12 although patient does not have to present for treatment prior to 12.
  - ✓ Symptoms are present in two or more settings.
  - ✓ There is clear evidence that symptoms reduce quality of life functioning socially, academically, and/or occupationally.
  - ✓ The symptoms do not occur exclusively during the course of another illness (e.g., schizophrenia, substance use).
  - ✓ Changes from DSM-IV include: older adolescents and adults only need 5 symptoms and age of onset increased from 7 to 12.

Assess for Comorbidities if ADHD Screen is Positive[1,2]

Coexisting	Mood and Behavior	Physical	Developmental	Situational
C O	Anxiety	Sleep Disorder	Learning Disorder	Adjustment
N D	Depression	Seizure Disorder	Language Disorder	Stress
I T I	Oppositional Defiant Disorder	Tic Disorder	Autism Spectrum	Trauma
O N S	Conduct Disorder	Hearing Deficit	Intellectual Disorder	Substance Use

AAP's Recommendations for Management: Education, Behavioral Treatment, Medication, Care Coordination[1]

- If assessment positive for ADHD, pediatric providers offer:
  - ❑ Psychoeducation for parents and children
  - ❑ Team-based behavioral health services for children and families in the practice OR assistance to link children and families to community-based services if integrated behavioral health care not available
  - ❑ A medication consult
    - ❑ ***Referring parents of preschool children to parent training in behavior management prior to prescribing medication***
  - ❑ Assistance initiating a school Accommodation Plan under section 504 of the Rehabilitation Act,[2] or for children requiring Individualized Education Programs, through the Individuals with Disability Education Act
  - ❑ Routine & ongoing monitoring, anticipating changes across development

Behavioral Health Providers Assist with Differential Diagnoses

- IS IT TRULY ADHD *AND* A COMORBID DISORDER … *OR* … IS IT SOLELY ANOTHER DISORDER WHOSE SYMPTOMS OVERLAP WITH THE SYMPTOMS OF ADHD?

EXAMPLE:
Careful History-Taking and Targeted Assessment Measures Help Differentiate ADHD from Trauma Symptoms/PTSD

BEHAVIORAL HEALTH PROVIDERS HELP TEASE OUT THE DIFFERENCES AND OVERLAPS OF VARIOUS CONDITIONS

Interprofessional Treatment Considerations (Medical/Behavioral Health/Educational)[1-3]

PRESCHOOLERS

Those with ADHD should be provided evidence-based behavioral interventions prior to a medication trial
(e.g., parent training - such as Triple P - for behavior management)

Methylphenidate (Ritalin) is only to be considered for moderate to severe symptoms if the behavior management techniques fail

CHILDREN/YOUTH

Those with comorbid learning disabilities require school evaluation and treatment planning; Medication; Family and individual training and behavioral interventions

Comorbid mental health conditions may limit treatment options.
For example, mania or substance abuse may impact use of medication to treat

BEST OUTCOMES

Generally result from a combination of **medication** *and* **behavioral health treatment** over the course of development

Families Need Support: The Experience of Being a Parent of a Child with ADHD[1-3]

General Parental Guidance

- Encourage parents to be honest with their child about ADHD
  - ✓ Stress that it is not the child's fault!
  - ✓ Emphasize that with hard work on the child's part and good supports at home and at school they will succeed!
  - ✓ Externalize the problem, "glitches in your brain," we can battle these together

- The child's ADHD symptoms should not be allowed to overshadow their well developing skills or define who they are

- Establish realistic expectations and then hold the child accountable; ADHD is not an excuse for inappropriate behavior but rather should prompt careful consideration of appropriate expectations and need for support

Useful Resources for Families:

- CHADD parent/caregiver support page http://www.chadd.org/understanding-adhd/for-parents-caregivers.aspx
- The ADDitude Solution Center: www.additudemag.com

Communication and Collaboration are Keys to Good Care

- **Effective care requires coordination across the *Health Neighborhood***
- Care Plan to Include:
  - Specific and achievable goals
  - Interventions with assignment of responsibilities
  - Methods for assessing progress
  - Revisions based on changing needs
  - A meeting/communication schedule
- Efficient and Routine Communication Mechanisms Are Necessary –
  - Capitalizing on technology
  - Based on working relationships
  - Enabled by organizational support

A TEAM APPROACH is best, facilitated by a coordinated Care Plan, Developed, Implemented, Monitored, & Modified by the family, child, medical provider(s), school personnel, behavioral health clinician (and any others deemed important for a particular child)

Take Home Points

- ADHD is a lifelong neurobiological disorder that impacts functioning in every life domain – but does so differently across individuals.
- Compromised executive functions at the core of ADHD extend beyond the commonly identified symptoms of inattention, hyperactivity, and impulsivity.
- Comorbid conditions are prevalent and wide-ranging, increasing the risk of poor outcomes including suicidality.
- The likelihood of positive outcomes are increased by early identification, psychoeducation, and treatment, with progress assessed routinely and interventions adjusted regularly to meet evolving needs across development.
- It takes a village of coordinated 'partners,' including well-informed and supported families, medical providers, school personnel, behavioral health providers, and others deemed of importance (e.g., coaches), to foster positive outcomes and prevent poor outcomes.
- A gradual decrease of external supports working in concert to nurture strengths and prevent problems, allowing individuals time to master self-management and adaptation strategies, will help to ensure more functional and healthier lives for those with ADHD.

Resources for Families

Fact Sheets

- American Academy of Child & Adolescent Psychiatry: Facts for Families ADHD http://www.aacap.org/aacap/fffprint/article_print.aspx?dn=Children-Who-Cant-Pay-Attention-Attention-Deficit-Hyperactivity-Disorder-006
- CHADD: Parenting a Child with ADHD http://www.chadd.org/Portals/0/Content/CHADD/NRC/Factsheets/parenting2015.pdf
- Centers for Disease Control and Prevention: ADHD Fact Sheet https://www.cdc.gov/ncbddd/adhd/documents/adhdfactsheetenglish.pdf

Resources for Families

Online

- American Academy of Child & Adolescent Psychiatry: ADHD Resource Center: http://www.aacap.org/aacap/Families_and_Youth/Resource_Centers/ADHD_Resource_Center/Home.aspx
- Parent to Parent Training: http://www.chadd.org/Training-Events/Parent-to-Parent-Program.aspx
- A.D.D. Warehouse: ADDWareHouse.com
- Children and Adults with Attention-Deficit/Hyperactivity Disorder: www.chadd.org
- American Academy of Pediatrics: healthychildren.org
- CHADD National Resource Center on ADHD: Help4ADHD.org
- National Attention Deficit Disorder Association: www.add.org
- The ADDitude Solution Center: www.additudemag.com
- Centers for Disease Control and Prevention: ADHD - Focus for the Future: www.cdc.gov

Resources for Practitioners

Clinical Practice Guideline for the Diagnosis, Evaluation, and Treatment of Attention-Deficit/Hyperactivity Disorder in Children and Adolescents:

https://pediatrics.aappublications.org/content/early/2019/09/26/peds.2019-2528

The ADDitude Solution Center:

www.additudemag.com

San Diego ADHD Project (SANDAP):

www.research.tufts-nemc.org/help4kids/forms.asp

CHADD, The National Resource on ADHD:

http://www.chadd.org/Understanding-ADHD/For-Professionals/For-Healthcare-Professionals.aspx

Resources for Practitioners

- DSM 5's full list of ADHD symptoms:
- http://additu.de/kids-signs

- Your Complete ADHD/ADD Diagnosis Guide:
- http://additu.de/tdg

- Free Webinar – Emotional Distress Syndrome and ADHD:
- http://additu.de/eds

- Video – ADHD and the Interest-Based Nervous System:
- http://additu.de/brainchemistry

- Video – The Emotional Symptoms of ADHD:
- http://additu.de/esymptoms