PEDIATRIC ATTENTION-DEFICIT/HYPERACTIVITY DISORDER IN PRIMARY CARE

Assessment, Diagnosis, & Management

Emily Morgan, PhD she/her
Pediatric Psychologist
PMG Southwest Pediatrics

Ashlee von Buttlar, PhD she/her
Pediatric Neuropsychologist
PMG Child & Adolescent Psychiatry West

DISCLOSURES

- We have no actual or potential known conflicts of interest in relation to this presentation

AGENDA

- What is ADHD?
  - DSM-5 diagnostic criteria
  - Prevalence, incidence
  - Neuropsychology of ADHD
- Why use best practice assessment and treatment in primary care?
  - Systemic Racism
  - Complicating factors
  - Overlapping symptomology and comorbidity
- How do we assess in primary care?
  - Preschool aged
  - Elementary school and adolescence
  - Commonly used assessment tools
- How do we treat in primary care?
  - Preschool aged
  - Elementary school and adolescence
  - Over time

DSM-5

Inattention (6 or more in children/adolescents; 5 or more in adults 17+):

- Often fails to give close attention to details or makes careless mistakes in schoolwork, at work, or with other activities.
- Often has trouble holding attention on tasks or play activities.
- Often does not seem to listen when spoken to directly.
- Often does not follow through on instructions and fails to finish schoolwork, chores, or duties in the workplace (e.g., loses focus, side-tracked).
- Often has trouble organizing tasks and activities.
- Often avoids, dislikes, or is reluctant to do tasks that require mental effort over a long period of time (such as schoolwork or homework).
- Often loses things necessary for tasks and activities (e.g. school materials, pencils, books, tools, wallets, keys, paperwork, eyeglasses, mobile telephones).
- Is often easily distracted
- Is often forgetful in daily activities.

DSM-5

Hyperactivity and Impulsivity (6 or more in children/adolescents; 5 or more in adults 17+):

- Often fidgets with or taps hands or feet, or squirms in seat.
- Often leaves seat in situations when remaining seated is expected.
- Often runs about or climbs in situations where it is not appropriate (adolescents or adults may be limited to feeling restless).
- Often unable to play or take part in leisure activities quietly.
- Is often "on the go" acting as if "driven by a motor".
- Often talks excessively.
- Often blurts out an answer before a question has been completed.
- Often has trouble waiting their turn.
- Often interrupts or intrudes on others (e.g., butts into conversations or games)

DSM-5

In addition, the following conditions must be met:

- Several inattentive or hyperactive-impulsive symptoms were present before age 12 years.
- Several symptoms are present in two or more settings, (such as at home, school or work; with friends or relatives; in other activities).
- There is clear evidence that the symptoms interfere with, or reduce the quality of, social, school, or work functioning.
- The symptoms are not better explained by another mental disorder (such as a mood disorder, anxiety disorder, dissociative disorder, or a personality disorder). The symptoms do not happen only during the course of schizophrenia or another psychotic disorder.
- Symptoms are not solely a manifestation of oppositional behavior, defiance, hostility, or failure to understand tasks or instructions.

DSM-5

- **Based on the types of symptoms, three kinds (presentations) of ADHD can occur:**
  - *Combined Presentation*: if enough symptoms of both inattention and hyperactivity-impulsivity were present for the past six months
  - *Predominantly Inattentive Presentation*: if enough symptoms of inattention, but not hyperactivity-impulsivity, were present for the past six months
  - *Predominantly Hyperactive-Impulsive Presentation*: if enough symptoms of hyperactivity-impulsivity, but not inattention, were present for the past six months.

NEUROPSYCHOLOGY OF ADHD

- Some theories...
  - Executive dysfunction?
  - Motivational differences?
  - Delay aversion?
  - Response variability/processing speed?
  - More than one thing...? (Probably!)
- Insufficient evidence on brain imaging or EEG to diagnose ADHD
- Neuropsych measures can reliably tell us who has attention problems, but not necessarily who has ADHD
- Rating scales are stronger predictors of ADHD diagnosis than measures of attention or EF (e.g., Vanderbilt, BRIEF)*

ADHD STATS

- 7.2% of children worldwide; CDC estimates 9.8% of US children ages 3-17
- More than half of children were first diagnosed by a primary care clinician
- Of children and adolescents with current ADHD, almost 2/3 were taking medication and 1/2 had received behavioral treatment
- Nearly 1/4 had received neither treatment
- Boys are 2x more likely than girls to be diagnosed with ADHD
- There is very limited research on ADHD in transgender and gender nonconforming children and adolescents
- Cross-cultural validity of DSM-5 ADHD diagnostic criteria is questionable

SYSTEMIC RACISM IMPACTS DETECTION AND TREATMENT

- Systemic racism in the medical community and schools
  - Self-report measures will always have bias
  - Overdetection of BIPOC youth
  - Undertreatment of BIPOC youth
  - BIPOC youth are more likely to be classified as having behavior problems than white peers
  - Bias, discrimination etc. at school can lead to student disengagement leading to lower academic performance and inattention
- Mistrust of medical and mental health professionals
- Cultural attitudes and beliefs
  - About ADHD generally
  - Modes of treatment
  - Cultural display rules (i.e., attitudes and rules about specific behaviors such as making eye contact)
- Trauma (generational trauma) misdiagnosed as ADHD

FACTORS COMPLICATING ASSESSMENT & DIAGNOSIS

- Diagnostic criteria are imperfect
- Inadequate training of providers and location of trained providers (e.g., medical centers and urban centers)
- Comprehensive evaluations are not feasible in primary care
- Parent and caregiver urgency for answers and help
- More than 2/3 of people with ADHD also have at least one coexisting condition
- ADHD can look like a lot of other things and vice versa

	Fails to give close attention/ makes careless mistakes	Trouble holding attention	Seems not to listen when spoken to	Does not follow through on instructions/ fails to finish tasks	Trouble organizing tasks	Avoids, dislikes, reluctant to do mentally effortful tasks	Loses necessary things	Easily distracted	Forgetful
Anxiety	✓	✓	✓	✓	✓	✓		✓	✓
Depression		✓		✓		✓			✓
ODD	✓		✓	✓		✓			
ASD	✓	✓	✓		✓	✓		✓	
FASD	✓	✓	✓	✓	✓	✓	✓	✓	✓
Sleep Issues	✓	✓	✓	✓	✓	✓	✓	✓	✓
Trauma	✓	✓						✓	

	Fidgets, taps, squirms	Leaves seat	Runs or climbs	Troubles playing/ relaxing quietly	"On the go" or "driven by motor"	Excessive talking	Blurts out	Trouble waiting their turn	Interrupts
Anxiety	✓			✓		✓			
Bipolar Disorder	✓	✓	✓	✓	✓	✓	✓	✓	✓
ODD		✓	✓				✓	✓	✓
ASD	✓	✓	✓	✓	✓	✓		✓	✓
FASD	✓	✓	✓	✓	✓	✓	✓	✓	✓
Sleep Issues	✓						✓	✓	✓
Trauma	✓			✓					

WHEN TO SEND FOR A MORE COMPREHENSIVE EVALUATION

- Different presenting concerns may warrant different referrals:
  - Psychological
  - Neuropsychological
  - Psychiatric

WHY ASSESSMENT AND TREATMENT ARE IMPORTANT IN PRIMARY CARE

- Families tend to first seek help in primary care
- Medication management
- Access to care
- We need to implement best practice procedures

PRESCHOOLERS ASSESSMENT

- Interview parents
- Observational data
- Obtain information via rating scales from parents **and teachers**
- Can be difficult to obtain ratings of symptoms in multiple settings
  - **Clinicians are encouraged to recommend that parents complete parent training/behavior management (PTBM) before assigning an ADHD diagnosis in this population**

ELEMENTARY AGE AND ADOLESCENT ASSESSMENT

- Interview parent and child (and ideally teachers/ other adults)
- Observational data (e.g., FBA and momentary time sampling)
- Multi-informant (i.e., parents, teachers, coaches, patient)
- Multi-measure (i.e., Vanderbilt, Conners, BASC)
- Assess for comorbidities and complicating factors (e.g., depression, anxiety, sleep)
- Assess age of onset (symptoms present prior to age 12)
- Assess impairment (e.g., social impacts, academic failure, car accidents)

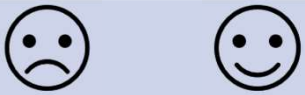
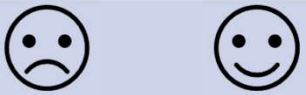
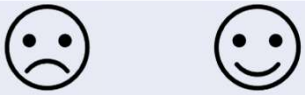
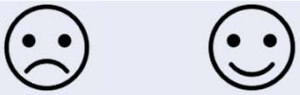
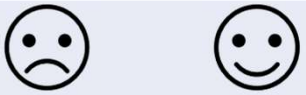
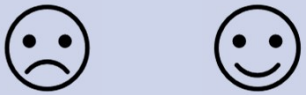
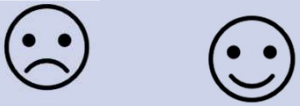
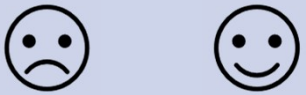
Assessment Tool	Age Ranges	Cost	Parent Form	Teacher Form	Languages	Time to Administer
Vanderbilt Assessment Scale	6-12 years	Free	Yes	Yes	English, Spanish, may be validated in other languages online	10 minutes
Conners Comprehensive Behavior Rating Scales (CBRS)	6-18 years	Online kits start at $430	Yes	Yes	English, Spanish	20 minutes
Conners, Third Edition (Conners-3)	6-18 years	Scoring kits start at $599	Yes	Yes	English, Spanish, French	Long Version = 20 minutes; Short version = 10 minutes
SNAP-IV Checklists	6-18 years	Free	Yes	Yes	English	
ADHD Rating Scale, Fourth Edition Preschool Version (ADHD RS-IV Preschool)	3-5 years	Free online	Yes	Yes	English, Spanish, may be validated in others online	5-10 minutes
DuPaul ADHD Rating Scale, Fifth Edition (ADHD RS-5)	5-17 years	$180 for the book, free to reproduce	Yes	Yes	English, Spanish, may be validated in others online	5-10 minutes
Behavior Assessment System for Children, Third Edition (BASC-3)	2-25 years	Kits start at $134	Yes	Yes	English, Spanish	10-20 minutes

PRESCHOOLERS MANAGEMENT

- Parent training/behavior management (PTBM) and behavioral classroom interventions are the first line of treatment in children 4-6 years (grade A: strong recommendation)
- Methylphenidate ***if*** behavioral interventions do not improve symptoms in 4- to 5-year-olds
- Evidence-based PTBM may include:
  - Parent-Child Interaction Therapy (PCIT)
  - Incredible Years
  - Daycare/classroom interventions

ELEMENTARY AGE AND ADOLESCENT MANAGEMENT

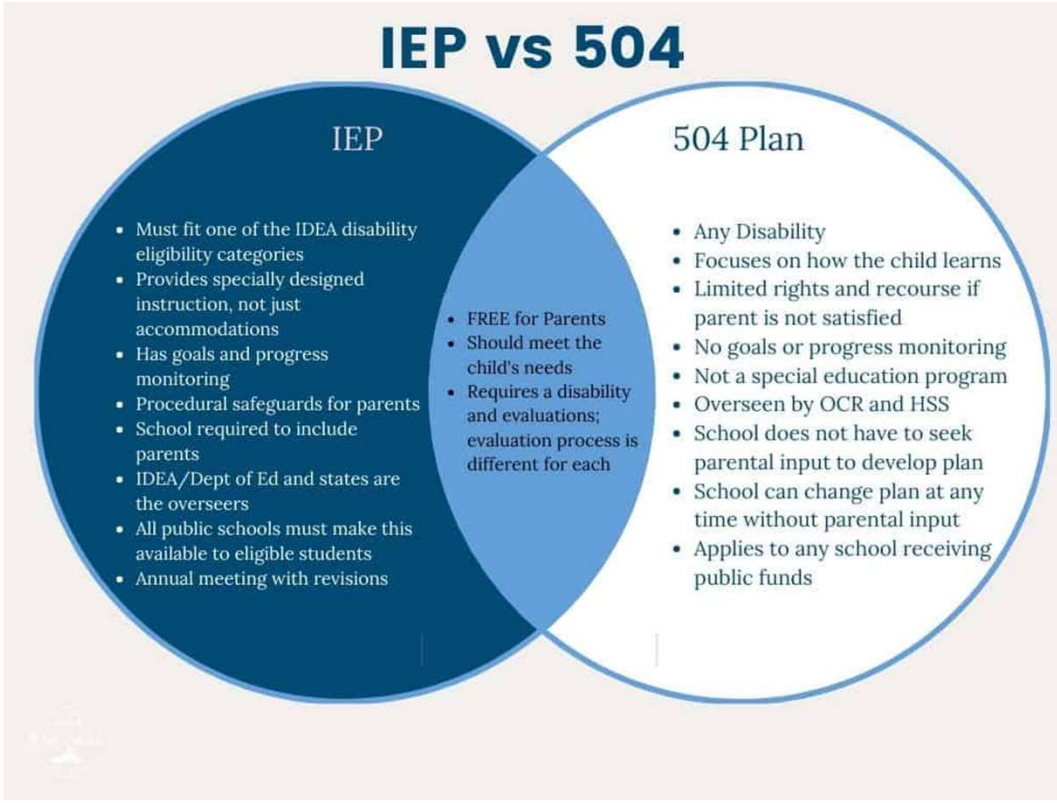
- Pharmacotherapy
- Behavior therapy:
  - Parent-Child Interaction Therapy (PRIDE skills and discipline)
  - Parent training re: behavior management (ABCs of behavior)
  - Adolescent/ Child characteristics
  - Daily Report- School/Home Note w/ Token Economy
- Medication only
- IEP/ 504 accommodations

	Reading	Math	Science	Music
Hands to self/ Gentle hands				
Stayed in seat				
Raised hand to talk				
TOTAL				

Smiles earned: _____

- 3-5: Piece of candy
- 6-8: 5 minutes of computer time
- 9-11: Lunch with teacher
-12: Lunch with friend and teacher

SCHOOL SUPPORTS



MANAGEMENT OVER TIME

- Acceptance and Commitment Therapy (ACT)
  - Reduction in ADHD symptoms (inattention, impulsivity, and hyperactivity)
  - Reductions in academic procrastination
  - Reduction in symptoms of associated anxiety and depression
  - Improvements in quality of life
- Ongoing behavior therapy

RESOURCES

CDC

https://www.cdc.gov/ncbddd/adhd/documents/adhd-behavior-therapy-overview-all-ages.pdf

https://www.cdc.gov/ncbddd/adhd/documents/adhd-behavior-therapy-healthcare-fact-sheet.pdf

https://www.cdc.gov/ncbddd/adhd/behavior-therapy.html

CHADD: https://chadd.org/

ADHD Treatment Algorithm: https://chsciowa.org/sites/chsciowa.org/files/resource/files/3_-_adhd_algorithm.pdf

Smart but Scattered by Peg Dawson & Richard Guare

Taking Charge of ADHD by Russell Barkley

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