True Colors – Understanding ADHD

SPIN Conference 2026

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This session is for you

- So ask questions or make comments throughout my talk

Prominence of ADHD

- Attention-deficit/hyperactivity disorder (ADHD) is the most common neurobehavioral disorder of childhood.
- ADHD is also among the most prevalent chronic health conditions affecting school-aged children
- An estimated 7 million (11.4%) U.S. children aged 3–17 years have ever been diagnosed with ADHD, according to a national survey of parents using data from 2022*

*Danielson ML, Claussen AH, Bitsko RH, et al. ADHD Prevalence Among U.S. Children and Adolescents in 2022: Diagnosis, Severity, Co-Occurring Disorders, and Treatment. J Clin Child Adolesc Psychol. Published online May 22, 2024.

Work with Your Physician on This If Worried

- Early recognition, assessment, and management of this condition can support the educational and psychosocial development of most children with ADHD

It’s Normal to Have Some Inattention or Impulsivity

- It is normal to have some inattention, unfocused motor activity and impulsivity, but for people with ADHD, these behaviors:
  - are more severe
  - occur more often
  - interfere with or reduce the quality of how they functions socially, at school, or in a job

Measurement of Core Symptoms

- Behavioral Rating Scales
  - Vanderbilt Assessment Scales
    - http://www.nichq.org/childrens-health/adhd/resources/adhd-toolkit
  - Conners Rating Scales
  - Achenbach (Child Behavior Checklist or CBCL)
  - etc.

DSM-5 TR Definition

- “Persistent pattern of inattention and/or hyperactivity-impulsivity that interferes with functioning or development, has symptoms presenting in two or more settings (e.g. at home, school, or work; with friends or relatives; in other activities), and negatively impacts directly on social, academic or occupational functioning. Several symptoms must have been present before age 12 years”

DSM-5 TR Definition

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Items 1 to 9 – Inattention

NICHQ Vanderbilt Assessment Scale—PARENT Informant

Today's Date: _____ Child's Name: _____ Date of Birth: _____

Parent's Name: _____ Parent's Phone Number: _____

Directions: Each rating should be considered in the context of what is appropriate for the age of your child. When completing this form, please think about your child's behaviors in the past 6 months.

Is this evaluation based on a time when the child ☐ was on medication ☐ was not on medication ☐ not sure?

Symptoms	Never	Occasionally	Often	Very Often
1. Does not pay attention to details or makes careless mistakes with, for example, homework	0	1	2	3
2. Has difficulty keeping attention to what needs to be done	0	1	2	3
3. Does not seem to listen when spoken to directly	0	1	2	3
4. Does not follow through when given directions and fails to finish activities (not due to refusal or failure to understand)	0	1	2	3
5. Has difficulty organizing tasks and activities	0	1	2	3
6. Avoids, dislikes, or does not want to start tasks that require ongoing mental effort	0	1	2	3
7. Loses things necessary for tasks or activities (toys, assignments, pencils, or books)	0	1	2	3
8. Is easily distracted by noises or other stimuli	0	1	2	3

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DSM-5 TR Definition

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Items 10 to 18 – Hyperactive/Impulsive

8.	Is easily distracted by noises or other stimuli	0	1	2	3
9.	Is forgetful in daily activities	0	1	2	3
10.	Fidgets with hands or feet or squirms in seat	0	1	2	3
11.	Leaves seat when remaining seated is expected	0	1	2	3
12.	Runs about or climbs too much when remaining seated is expected	0	1	2	3
13.	Has difficulty playing or beginning quiet play activities	0	1	2	3
14.	Is "on the go" or often acts as if "driven by a motor"	0	1	2	3
15.	Talks too much	0	1	2	3
16.	Blurts out answers before questions have been completed	0	1	2	3
17.	Has difficulty waiting his or her turn	0	1	2	3
18.	Interrupts or intrudes in on others' conversations and/or activities	0	1	2	3
19.	Argues with adults	0	1	2	3
20.	Loses temper	0	1	2	3

DSM- 5 TR: Persistence at Least Six Months

- A persistent pattern of inattention and/or hyperactivity-impulsivity that interferes with functioning or development:
  - Six or more of the symptoms have persisted for at least six months to a degree that is inconsistent with developmental level and that negatively impacts directly on social and academic/occupational activities.

DSM-5 TR Definition

- “Persistent pattern of inattention and/or hyperactivity-impulsivity that interferes with functioning or development, has symptoms presenting in two or more settings (e.g. at home, school, or work; with friends or relatives; in other activities), and negatively impacts directly on social, academic or occupational functioning. Several symptoms must have been present before age 12 years”

Performance Section of Vanderbilt

Performance	Excellent	Above Average	Average	Somewhat of a Problem	Problematic
48. Overall school performance	1	2	3	4	5
49. Reading	1	2	3	4	5
50. Writing	1	2	3	4	5
51. Mathematics	1	2	3	4	5
52. Relationship with parents	1	2	3	4	5
53. Relationship with siblings	1	2	3	4	5
54. Relationship with peers	1	2	3	4	5
55. Participation in organized activities (eg, teams)	1	2	3	4	5

Comments:

DSM-5 TR Definition

- “Persistent pattern of inattention and/or hyperactivity-impulsivity that interferes with functioning or development, has symptoms presenting in two or more settings (e.g. at home, school, or work; with friends or relatives; in other activities), and negatively impacts directly on social, academic or occupational functioning. Several symptoms must have been present before age 12 years”

Parent Vanderbilt

NICHQ Vanderbilt Assessment Scale—PARENT Informant

Today's Date: _____ Child's Name: _____ Date of Birth: _____

Parent's Name: _____ Parent's Phone Number: _____

Directions: Each rating should be considered in the context of what is appropriate for the age of your child. When completing this form, please think about your child's behaviors in the past 6 months.

Is this evaluation based on a time when the child ☐ was on medication ☐ was not on medication ☐ not sure?

Symptoms	Never	Occasionally	Often	Very Often
1. Does not pay attention to details or makes careless mistakes with, for example, homework	0	1	2	3
2. Has difficulty keeping attention to what needs to be done	0	1	2	3
3. Does not seem to listen when spoken to directly	0	1	2	3
4. Does not follow through when given directions and fails to finish activities (not due to refusal or failure to understand)	0	1	2	3
5. Has difficulty organizing tasks and activities	0	1	2	3
6. Avoids, dislikes, or does not want to start tasks that require ongoing mental effort	0	1	2	3
7. Loses things necessary for tasks or activities (toys, assignments, pencils, or books)	0	1	2	3
8. Is easily distracted by noises or other stimuli	0	1	2	3

Teacher Vanderbilt

D4 **NICHQ Vanderbilt Assessment Scale—TEACHER Informant**

Teacher's Name: _____ Class Time: _____ Class Name/Period: _____

Today's Date: _____ Child's Name: _____ Grade Level: _____

Directions: **Each rating should be considered in the context of what is appropriate for the age of the child you are rating and should reflect that child's behavior since the beginning of the school year. Please indicate the number of weeks or months you have been able to evaluate the behaviors: _____.**

Is this evaluation based on a time when the child ☐ **was on medication** ☐ **was not on medication** ☐ **not sure?**

Symptoms	Never	Occasionally	Often	Very Often
1. Fails to give attention to details or makes careless mistakes in schoolwork	0	1	2	3
2. Has difficulty sustaining attention to tasks or activities	0	1	2	3
3. Does not seem to listen when spoken to directly	0	1	2	3
4. Does not follow through on instructions and fails to finish schoolwork (not due to oppositional behavior or failure to understand)	0	1	2	3
5. Has difficulty organizing tasks and activities	0	1	2	3
6. Avoids, dislikes, or is reluctant to engage in tasks that require sustained mental effort	0	1	2	3
7. Loses things necessary for tasks or activities (school assignments, pencils, or books)	0	1	2	3
8. Is easily distracted by extraneous stimuli	0	1	2	3
9. Is forgetful in daily activities	0	1	2	3
10. Fidgets with hands or feet or squirms in seat	0	1	2	3
11. Leaves seat in classroom or in other situations in which remaining seated is expected	0	1	2	3
12. Runs about or climbs excessively in situations in which remaining	0	1	2	3

DSM-5 TR Definition

- “Persistent pattern of inattention and/or hyperactivity-impulsivity that interferes with functioning or development, has symptoms presenting in two or more settings (e.g. at home, school, or work; with friends or relatives; in other activities), and negatively impacts directly on social, academic or occupational functioning. Several symptoms must have been present before age 12 years”

Performance Section of Vanderbilt – Parents Form

Performance	Excellent	Above Average	Average	Somewhat of a Problem	Problematic
48. Overall school performance	1	2	3	4	5
49. Reading	1	2	3	4	5
50. Writing	1	2	3	4	5
51. Mathematics	1	2	3	4	5
52. Relationship with parents	1	2	3	4	5
53. Relationship with siblings	1	2	3	4	5
54. Relationship with peers	1	2	3	4	5
55. Participation in organized activities (eg, teams)	1	2	3	4	5

Comments:

Performance Section of Vanderbilt – Teachers Form

Performance ***Academic Performance***	**Excellent**	**Above Average**	**Average**	**Somewhat of a Problem**	**Problematic**
36. Reading	1	2	3	4	5
37. Mathematics	1	2	3	4	5
38. Written expression	1	2	3	4	5

Classroom Behavioral Performance	**Excellent**	**Above Average**	**Average**	**Somewhat of a Problem**	**Problematic**
39. Relationship with peers	1	2	3	4	5
40. Following directions	1	2	3	4	5
41. Disrupting class	1	2	3	4	5
42. Assignment completion	1	2	3	4	5
43. Organizational skills	1	2	3	4	5

Comments:

DSM-5 TR Definition

- “Persistent pattern of inattention and/or hyperactivity-impulsivity that interferes with functioning or development, has symptoms presenting in two or more settings (e.g. at home, school, or work; with friends or relatives; in other activities), and negatively impacts directly on social, academic or occupational functioning. Several symptoms must have been present before age 12 years”

  DSM-IV TR: symptoms needed to be present before age 7 years

Scoring on Vanderbilts Criteria for Type of ADHD

Parent Assessment Scale	Teacher Assessment Scale
Predominantly Inattentive subtype ■ Must score a 2 or 3 on 6 out of 9 items on questions 1–9 AND ■ Score a 4 or 5 on any of the Performance questions 48–55	**Predominantly Inattentive subtype** ■ Must score a 2 or 3 on 6 out of 9 items on questions 1–9 AND ■ Score a 4 or 5 on any of the Performance questions 36–43
Predominantly Hyperactive/Impulsive subtype ■ Must score a 2 or 3 on 6 out of 9 items on questions 10–18 AND ■ Score a 4 or 5 on any of the Performance questions 48–55	**Predominantly Hyperactive/Impulsive subtype** ■ Must score a 2 or 3 on 6 out of 9 items on questions 10–18 AND ■ Score a 4 or 5 on any of the Performance questions 36–43
ADHD Combined Inattention/Hyperactivity ■ Requires the above criteria on both inattention and hyperactivity/impulsivity	**ADHD Combined Inattention/Hyperactivity** ■ Requires the above criteria on both inattention and hyperactivity/impulsivity
Oppositional-Defiant Disorder Screen ■ Must score a 2 or 3 on 4 out of 8 behaviors on questions 19–26 AND ■ Score a 4 or 5 on any of the Performance questions 48–55	**Oppositional-Defiant/Conduct Disorder Screen** ■ Must score a 2 or 3 on 3 out of 10 items on questions 19–28 AND ■ Score a 4 or 5 on any of the Performance questions 36–43
Conduct Disorder Screen ■ Must score a 2 or 3 on 3 out of 14 behaviors on questions 27–40 AND ■ Score a 4 or 5 on any of the Performance questions 48–55	**Anxiety/Depression Screen** ■ Must score a 2 or 3 on 3 out of 7 items on questions 29–35 AND ■ Score a 4 or 5 on any of the Performance questions 36–43
Anxiety/Depression Screen ■ Must score a 2 or 3 on 3 out of 7 behaviors on questions 41–47 AND ■ Score a 4 or 5 on any of the Performance questions 48–55	

Types of ADHD

- Inattention and hyperactivity/impulsivity are the key behavioral areas of ADHD.
- Some people with ADHD only have problems with one of the behavior areas.
- Others have both inattention and hyperactivity-impulsivity. Most children have this combined type of ADHD.

OK, We've Discussed Vanderbilts – What Age Can We Use These?

- The NICHQ Vanderbilt Assessment Scales are used by health care professionals to help diagnose ADHD in children between the ages of **6- and 12-years**.

Preschoolers (4 to 5 years)

- AAP recommends behavior therapy before medication is considered

Action statement 5a: For *preschool-aged children (4–5 years of age)*, the primary care clinician should prescribe evidence-based parent- and/or teacher-administered behavior therapy as the first line of treatment (quality of evidence A/strong recommendation) and may prescribe methylphenidate if the behavior interventions do not provide significant improvement and there is moderate-to-severe continuing disturbance in the child's function. In areas in which evidence-based behavioral treatments are not available, the clinician needs to weigh the risks of starting medication at an early age against the harm of delaying diagnosis and treatment (quality of evidence B/recommendation).

Behavioral Therapy

- Behavior therapy usually is implemented by training parents and teachers in specific techniques of improving behavior.
- Behavior therapy involves providing rewards for demonstrating the desired behavior (eg, positive reinforcement) or consequences for failure to meet the goals (eg, punishment).

Behavioral Therapy Strategies

- Positive reinforcement - Providing rewards or privileges contingent on the child's performance.
  - Example - Child completes an assignment and is permitted to play on the computer.
- Time-out - Removing access to positive reinforcement contingent on performance of unwanted or problem behavior.
  - Example - Child hits sibling impulsively and is required to sit for 5 minutes in the corner of the room.

Behavioral Therapy Strategies

- Response cost - Withdrawing rewards or privileges contingent on the performance of unwanted or problem behavior.
  - Example - Child loses free time privileges for not completing homework.
- Token economy - The child earns rewards and privileges contingent on performing desired behaviors and loses the rewards and privileges based on undesirable behavior.
  - Example - Child earns stars for completing assignments. The child cashes in the sum of stars at the end of the week for a prize.

From the AAP ADHD Guideline

TABLE 1 Evidence-Based Behavioral Treatments for ADHD

Intervention Type	Description	Typical Outcome(s)	Median Effect Size[a]
Behavioral parent training (BPT)	Behavior-modification principles provided to parents for implementation in home settings	Improved compliance with parental commands; improved parental understanding of behavioral principles; high levels of parental satisfaction with treatment	0.55
Behavioral classroom management	Behavior-modification principles provided to teachers for implementation in classroom settings	Improved attention to instruction; improved compliance with classroom rules; decreased disruptive behavior; improved work productivity	0.61
Behavioral peer interventions (BPI)[b]	Interventions focused on peer interactions/relationships; these are often group-based interventions provided weekly and include clinic-based social-skills training used either alone or concurrently with behavioral parent training and/or medication	Office-based interventions have produced minimal effects; interventions have been of questionable social validity; some studies of BPI combined with clinic-based BPT found positive effects on parent ratings of ADHD symptoms; no differences on social functioning or parent ratings of social behavior have been revealed	

[a] Effect size = (treatment median − control median)/control SD.

[b] The effect size for behavioral peer interventions is not reported, because the effect sizes for these studies represent outcomes associated with combined interventions. A lower effect size means that they have less of an effect. The effect sizes found are considered moderate.

Adapted from Pelham W, Fabiano GA. *J Clin Child Adolesc Psychol*. 2008;37(1):184–214.

What is Not Behavioral Therapy

- Behavioral therapy is different from psychological interventions directed to the child and designed to change
  - the child's emotional status (eg, play therapy) or
  - thought patterns (eg, cognitive therapy or cognitive-behavior therapy).

Psychological Interventions

- They have little documented efficacy in the treatment of children with ADHD, and gains achieved in the treatment setting usually do not transfer into the classroom or home.
- By contrast, parent training in behavior therapy and classroom behavior interventions have successfully changed the behavior of children with ADHD.

Medication

- For school-age children, stimulants continue to be recommended as the first-line agent, followed by the nonstimulants atomoxetine, extended-release guanfacine, and extended- release clonidine

Stimulant Medications

- Past developments for stimulant treatments for ADHD have been formulation changes to extend duration of action.
- The longer-acting formulations allow for simplification of dosing, increased adherence, and the potential for once-daily dosing.

Stimulant medications are the gold standard for treating ADHD!

1. Amphetamine class (FDA-approved ages 3+)
- Amphetamine
- Dextroamphetamine
- Lisdexamfetamine

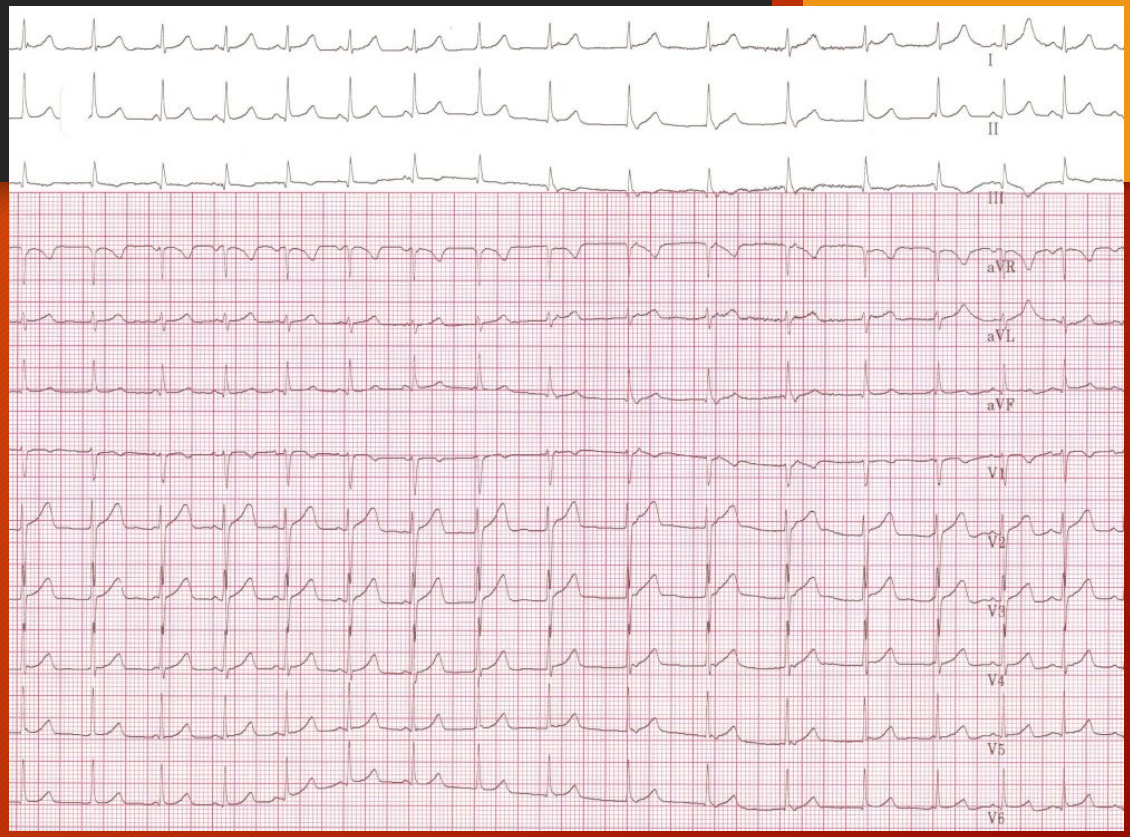
2. Methylphenidate class (FDA-approved age 6+)
- Methylphenidate
- Dexmethylphenidate

Side Effects

- The stimulant medications and atomoxetine have been shown to decrease appetite and can cause growth delay.
- It is thought that reduced caloric intake and lack of proper nutrition due to the decreased appetite cause the growth delay seen in children treated with medications for ADHD.
- Loss of appetite with both MPH and atomoxetine can be long term and may not attenuate over time. Providers should monitor the patient's height and weight and body mass index at least every 6 months.

American Heart Association

- Came out with very controversial recommendation in 2009 to have EKG done on all children about to be started on stimulant medication



No EKG necessary

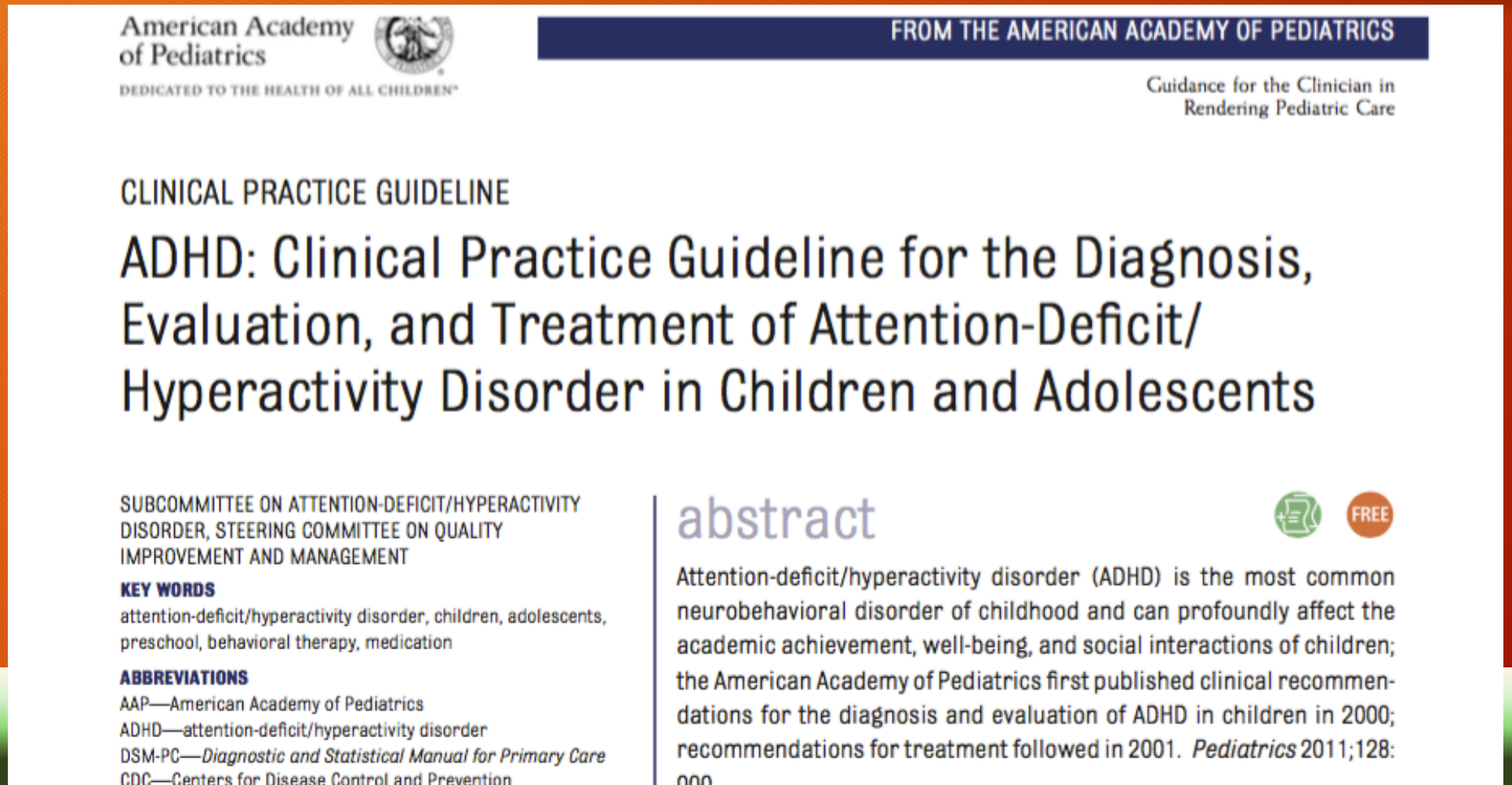
- Cooper et al conducted a retrospective cohort study to determine if children and young adults given ADHD medications were at an increased relative risk for cardiac events compared with nonusers.
- In the study, medical records of 1.2 million children and young adults (ages 2 to 24) were reviewed, and it was determined that ADHD medication users were not at increased risk for cardiovascular events

Cooper WO, Habel LA, Sox CM, et al. ADHD drugs and serious cardiovascular events in children and young adults. N Engl J Med 2011;365:1896–1904.

Audience Discussion

- Should a family tell the school if their child is diagnosed with ADHD?
- Advantages?
- Disadvantages?

American Academy of Pediatrics Practice Guidelines



American Academy of Pediatrics
DEDICATED TO THE HEALTH OF ALL CHILDREN™

FROM THE AMERICAN ACADEMY OF PEDIATRICS

Guidance for the Clinician in Rendering Pediatric Care

CLINICAL PRACTICE GUIDELINE

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

SUBCOMMITTEE ON ATTENTION-DEFICIT/HYPERACTIVITY DISORDER, STEERING COMMITTEE ON QUALITY IMPROVEMENT AND MANAGEMENT

KEY WORDS
attention-deficit/hyperactivity disorder, children, adolescents, preschool, behavioral therapy, medication

ABBREVIATIONS
AAP—American Academy of Pediatrics
ADHD—attention-deficit/hyperactivity disorder
DSM-PC—*Diagnostic and Statistical Manual for Primary Care*
CDC—Centers for Disease Control and Prevention

abstract

FREE

Attention-deficit/hyperactivity disorder (ADHD) is the most common neurobehavioral disorder of childhood and can profoundly affect the academic achievement, well-being, and social interactions of children; the American Academy of Pediatrics first published clinical recommendations for the diagnosis and evaluation of ADHD in children in 2000; recommendations for treatment followed in 2001. *Pediatrics* 2011;128: 000

www.pediatrics.org/cgi/doi/10.1542/peds.2011-2654

ADHD is a Chronic Condition

- Attention-deficit/hyperactivity disorder is one of the more common chronic conditions of childhood.
- Studies using parent reports indicate persistence of ADHD of 60% to 80% into adolescence.

Including Holbrook JR, Cuffe SP, Visser SN, Danielson ML, McKeown RE. Persistence of parent-reported ADHD symptoms from childhood through adolescence in a community sample. *Journal of Attention Disorders*. 2016;20(1):11-20

Chronic Condition Management

- Obtain information about the condition
- Increase your family's knowledge and understanding on a periodic basis
- Counseling for your family's response to the condition

Chronic Condition Management

- Developmentally appropriate education of the child or teen about ADHD, with updates as the child or teen grows
- Have your questions answered
- Ensure coordination of health and other services

Chronic Condition Management

- Set specific goals in areas related to the child's or teen's condition and the effects on daily activities
- Link with other families that have children with similar chronic conditions as needed and available

Target Outcomes

- Target outcomes should follow from the key symptoms the child or teen manifests and the specific impairments these symptoms cause.
- The process of developing target outcomes requires input from clinicians and teachers, as well as other school personnel where available and appropriate.

Target Outcomes

- The goals should be realistic, attainable, and measurable.
- The methods of treatment and of monitoring change will vary as a function of the target outcomes

Target Outcomes - Examples

- Improvements in relationships with parents, siblings, teachers, and peers
- Decreased disruptive behaviors
- Improved academic performance, particularly in volume of work, efficiency, completion, and accuracy
- Increased independence in self-care or homework
- Improved self-esteem
- Enhanced safety in the community, such as in crossing streets or riding bicycles.

Comorbid Conditions

- Conduct Disorder/Oppositional Defiant Disorder
- Mood Disorders/Depression
- Anxiety Disorders
- Learning Disabilities

Conduct Disorder/ Oppositional Defiant Disorder

- Oppositional defiant or conduct disorders coexist in ~35% of children with ADHD.

Oppositional Defiant Disorder

- Oppositional defiant disorder (a less severe condition) includes persistent symptoms of "negativistic, defiant, disobedient, and hostile behaviors toward authority figures.”
- Frequently, children and adolescents with persisting oppositional defiant disorder later develop symptoms of sufficient severity to qualify for a diagnosis of conduct disorder.

Conduct Disorder

- The diagnostic features of conduct disorder include "a repetitive and persistent pattern of behavior in which the basic rights of others or major age-appropriate social norms or rules are violated.”

If Have Conduct Disorder and ADHD - Watch Out!

- For example, one study has reported the highest rates of police contacts and self-reported delinquency in children with ADHD and coexisting conduct disorder (30.8%) relative to their peers diagnosed with ADHD alone (3.4%) or conduct disorder alone (20.7%).

Ingrams S, Hechtman L, Morganstern G. Outcome issues in ADHD: adolescent and adult long term outcome. In: *Mental Retardation and Developmental Disabilities*. In press

Items 19 to 26 – ODD
Items 27 to 40 – Conduct Disorder

17. Has difficulty waiting his or her turn	0	1	2	3
18. Interrupts or intrudes in on others' conversations and/or activities	0	1	2	3
19. Argues with adults	0	1	2	3
20. Loses temper	0	1	2	3
21. Actively defies or refuses to go along with adults' requests or rules	0	1	2	3
22. Deliberately annoys people	0	1	2	3
23. Blames others for his or her mistakes or misbehaviors	0	1	2	3
24. Is touchy or easily annoyed by others	0	1	2	3
25. Is angry or resentful	0	1	2	3
26. Is spiteful and wants to get even	0	1	2	3
27. Bullies, threatens, or intimidates others	0	1	2	3
28. Starts physical fights	0	1	2	3
29. Lies to get out of trouble or to avoid obligations (ie, "cons" others)	0	1	2	3
30. Is truant from school (skips school) without permission	0	1	2	3
31. Is physically cruel to people	0	1	2	3
32. Has stolen things that have value	0	1	2	3

This is for the Parent Vanderbilt, the Teacher items for ODD and conduct are slightly different in number

Items 27 to 40 – Conduct Disorder

NICHQ Vanderbilt Assessment Scale—PARENT Informant

Today's Date: _____ Child's Name: _____ Date of Birth: _____

Parent's Name: _____ Parent's Phone Number: _____

Symptoms (continued)	Never	Occasionally	Often	Very Often
33. Deliberately destroys others' property	0	1	2	3
34. Has used a weapon that can cause serious harm (bat, knife, brick, gun)	0	1	2	3
35. Is physically cruel to animals	0	1	2	3
36. Has deliberately set fires to cause damage	0	1	2	3
37. Has broken into someone else's home, business, or car	0	1	2	3
38. Has stayed out at night without permission	0	1	2	3
39. Has run away from home overnight	0	1	2	3
40. Has forced someone into sexual activity	0	1	2	3
41. Is fearful, anxious, or worried	0	1	2	3
42. Is afraid to try new things for fear of making mistakes	0	1	2	3

This is for the Parent Vanderbilt, the Teacher items for ODD and conduct are slightly different in number

DSM-5 TR - ADHD

- The symptoms do not occur exclusively during the course of schizophrenia or another psychotic disorder and are not better explained by another mental disorder (e.g. mood disorder, anxiety disorder, dissociative disorder, personality disorder, substance intoxication or withdrawal)

Mood Disorders/Depression

- The coexistence of ADHD and mood disorders (eg, major depressive disorder and dysthymia) is ~18%.
- Frequently, the family history of children with ADHD includes other family members with a history of depression
- Adolescents with coexisting mood disorders and ADHD are at increased risk for suicide attempts.

Anxiety Disorders

- The coexisting association between ADHD and anxiety disorders has been estimated to be ~25%.
- The risk for anxiety disorders among relatives of children and adolescents diagnosed with ADHD is higher than for typically developing children

Items 41 to 47 - Anxiety/Depression

38. Has stayed out at night without permission	0	1	2	3
39. Has run away from home overnight	0	1	2	3
40. Has forced someone into sexual activity	0	1	2	3
41. Is fearful, anxious, or worried	0	1	2	3
42. Is afraid to try new things for fear of making mistakes	0	1	2	3
43. Feels worthless or inferior	0	1	2	3
44. Blames self for problems, feels guilty	0	1	2	3
45. Feels lonely, unwanted, or unloved; complains that "no one loves him or her"	0	1	2	3
46. Is sad, unhappy, or depressed	0	1	2	3
47. Is self-conscious or easily embarrassed	0	1	2	3

This is for the Parent Vanderbilt, the Teacher items for anxiety/depression are slightly different in number

Learning Disorders

- There is a wide variation in reports of comorbidity between ADHD and learning disorders, ranging from 10%-92%*.
- This is possibly due to differences in diagnosis and discriminating between both the conditions in individual studies.

*Gnanavel S, Sharma P, Kaushal P, Hussain S. Attention deficit hyperactivity disorder and comorbidity: A review of literature. World J Clin Cases. 2019 Sep 6;7(17):2420-2426.

Learning Disorders

- The subgroup of children with learning disorders, compared with their ADHD peers who do not have a learning disability, is most in need of special education services.
- Preliminary studies suggest that these coexisting conditions are more frequent in children with the predominantly inattentive and combined subtypes

Vanderbilt items 36-38

35. Is sad, unhappy, or depressed		0	1	2	3

Performance ***Academic Performance***	**Excellent**	**Above Average**	**Average**	**Somewhat of a Problem**	**Problematic**
36. Reading	1	2	3	4	5
37. Mathematics	1	2	3	4	5
38. Written expression	1	2	3	4	5

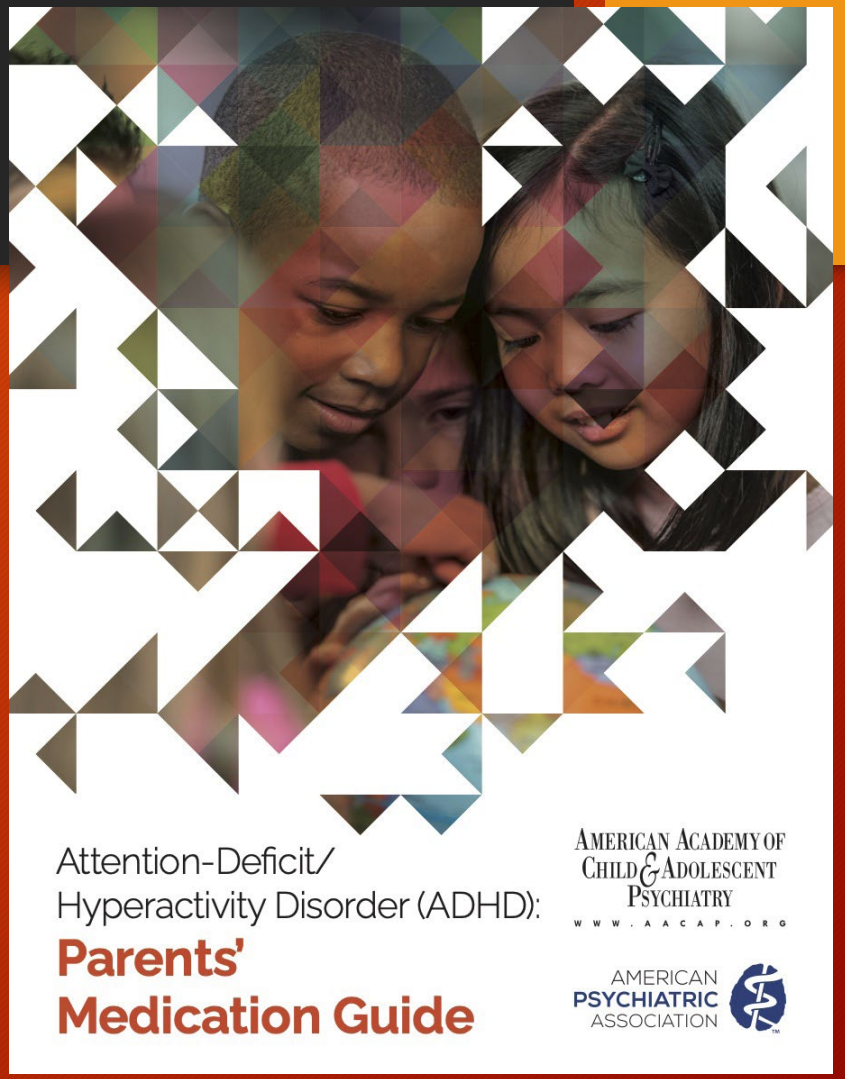
Classroom Behavioral Performance	**Excellent**	**Above Average**	**Average**	**Somewhat of a Problem**	**Problematic**
39. Relationship with peers	1	2	3	4	5
40. Following directions	1	2	3	4	5
41. Disrupting class	1	2	3	4	5
42. Assignment completion	1	2	3	4	5
43. Organizational skills	1	2	3	4	5

Comments:

Educational Materials

CHADD

healthychildren.org
Powered by pediatricians. Trusted by parents.
from the American Academy of Pediatrics



Educational Interventions

- Section 504
- Individualized Education Program if learning disability is present

HAWAII DEPARTMENT OF EDUCATION

CHILD FIND

scan this code

If your child is between the age of 0 to 22 and is having difficulty speaking, listening, seeing, hearing, walking, using their hands, behaving, getting along with others, or learning, there are professionals who can help. For information and to get help, contact the following:

FOR CHILDREN 3 TO 22, CALL THE HAWAII STATE DEPARTMENT OF EDUCATION AT (808) 305-9810 OR 1-800-297-2070.

For youths 22 years of age or older, contact the Hawaii State Department of Human Services, Vocational Rehabilitation, and Services for the Blind Division at (808) 586-5269
or
Hawaii State Department of Health - Case Management and Information Services Branch at (808) 733-9172.

For children under the age of 3, call the Early Intervention Referral Line at
(808) 594-0066
or
1-800-235-5477.

Additional Resources:
Special Parent Information Network (SPIN) at (808) 586-8126.

Summary

- Behavioral rating scales from multiple informants in different settings are important for diagnosis and followup of treatment
- Need to look for co-morbid conditions
- Medication especially, and behavior therapy strategies are used to improve target symptoms
- Behavioral therapy first in preschoolers