ECHO IDAHO

K12 Behavioral Health in the Classroom

Medication Side Effects Seen in the Classroom

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Project ECHO

Learning Objectives

- Review Common Pharmacologic (Medication) Interventions used in the treatment of common mental health conditions seen in the classroom
- Review possible side effects related to medications and how this might present in the classroom
- Discuss management strategies for school personnel

Content

Please ensure that content is fair, balanced, clinically valid, and free from commercial bias in order to protect the accredited continuing education learning environment.

- Use generic names for medications referenced and please note sources of information for all content
- 20–25 minute presentation
- Recommended 8-12 slides for content and visual aids (no animations)

ADHD Reviewed

- "ADHD" = Attention Deficit Hyperactivity Disorder
  - Poor focus/concentration, easily distracted, fidgety, restless, disruptive
- **Based on the types of symptoms, 3 kinds (presentations) of ADHD can occur:**
  - Combined Presentation: if enough symptoms of both criteria inattention and hyperactivity-impulsivity were present for the past 6 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.

ADHD medications

- Stimulants
  - Methylphenidates
  - Amphetamines
- Non-Stimulants
  - Atomoxetine
  - Alpha agonists
    - Clonidine/Kapvay
    - Guanfacine/Tenex/Intuniv

Stimulants

Pros

- Quick onset of action
- May skip doses safely
- Greater effect size than non-stimulants

Cons

- Appetite loss
- Insomnia
- Growth suppression
- ?Tics
- Abuse potential
- CV AE's
- Irritability (esp. when wearing off)

Stimulants: What to look for in the classroom?

Hoping to Avoid

- Missed doses
  - Rebound ADHD symptoms (i.e. regression)
- Paradoxical Reaction
  - Hyperactive, talkative, high energy
- Negative Response
  - Aggression/Agitation
  - Lethargy

Hoping For

- Improved Focus
- Less distracting
- Following directions
- Completing work
- Less redirection

Non-stimulants

Medications

- Atomoxetine
- Viloxazine
- Clonidine
- Guanfacine

Possible Side Effects

- Dizziness/Lightheadedness
- Sedation
- BBW: Increased suicidality
- Irritability

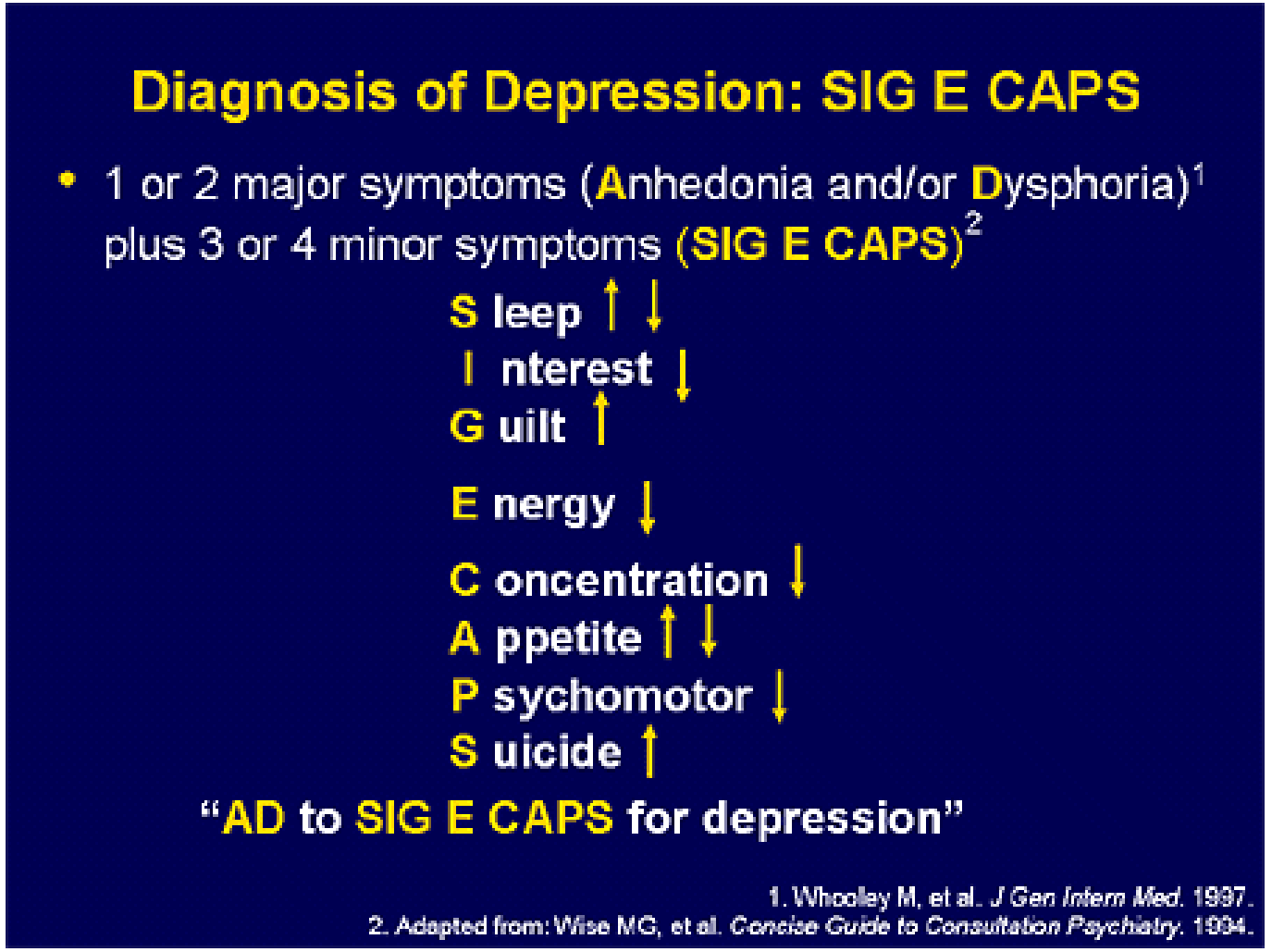
ADHD: What can you do?

- Provide feedback to the parents
  - Be SPECIFIC: Timing, effect, etc…
  - Both negative and POSITIVE
- Complete repeat Vanderbilt Rating Scales after being on the medication for 1-2 weeks
- Reach out directly to prescribing doctor if appropriate documentation/ROI on file

What is an anxiety disorder?

- A fear of something about the world or environment that seems above and beyond what would be expected and impairs functioning.
- Several different anxiety disorders (i.e., separation anxiety, selective mutism, specific phobia, social anxiety, panic, agoraphobia, generalized anxiety).
- Experiencing “sensory overload” is common, especially when in the feared or distressing situation.

Depression Reviewed



***Depressed children/adolescents may have an irritable mood rather than a sad mood.

What's First-line treatment?

- Initiate treatment with Prozac (fluoxetine) OR Zoloft (sertraline) monotherapy or in combination with CBT
  - NOTE: Combination therapy with CBT shown to be more effective than pharmacotherapy alone (multiple studies)
  - Review same risks as noted previously (i.e. BBW, Behavioral Activation, etc…)
- If first SSRI trial with Prozac (fluoxetine) or Zoloft (sertraline) is ineffective or has limiting side effects, switch to the alternative not used first (i.e. Prozac vs Zoloft)

Second Line Treatment Options

- Cymbalta (duloxetine)
  - Important to monitor height, weight, blood pressure and pulse
  - FUN FACT: This is the ONLY medication that has an FDA approval for treatment of Generalized Anxiety Disorder (GAD) in Children ages 7 and older
- Lexapro (escitalopram)
  - For ages 12-17 years
- Luvox (fluoxemine)

Anything Else?

- Third-line treatment
  - Celexa (citalopram) or Effexor (venlafaxine)
- Other Considerations
  - Buspar (buspirone)
  - Alpha Agonists (guanfacine or clonidine)
  - Clomipramine

SSRI/SNRI: What to look for in the classroom

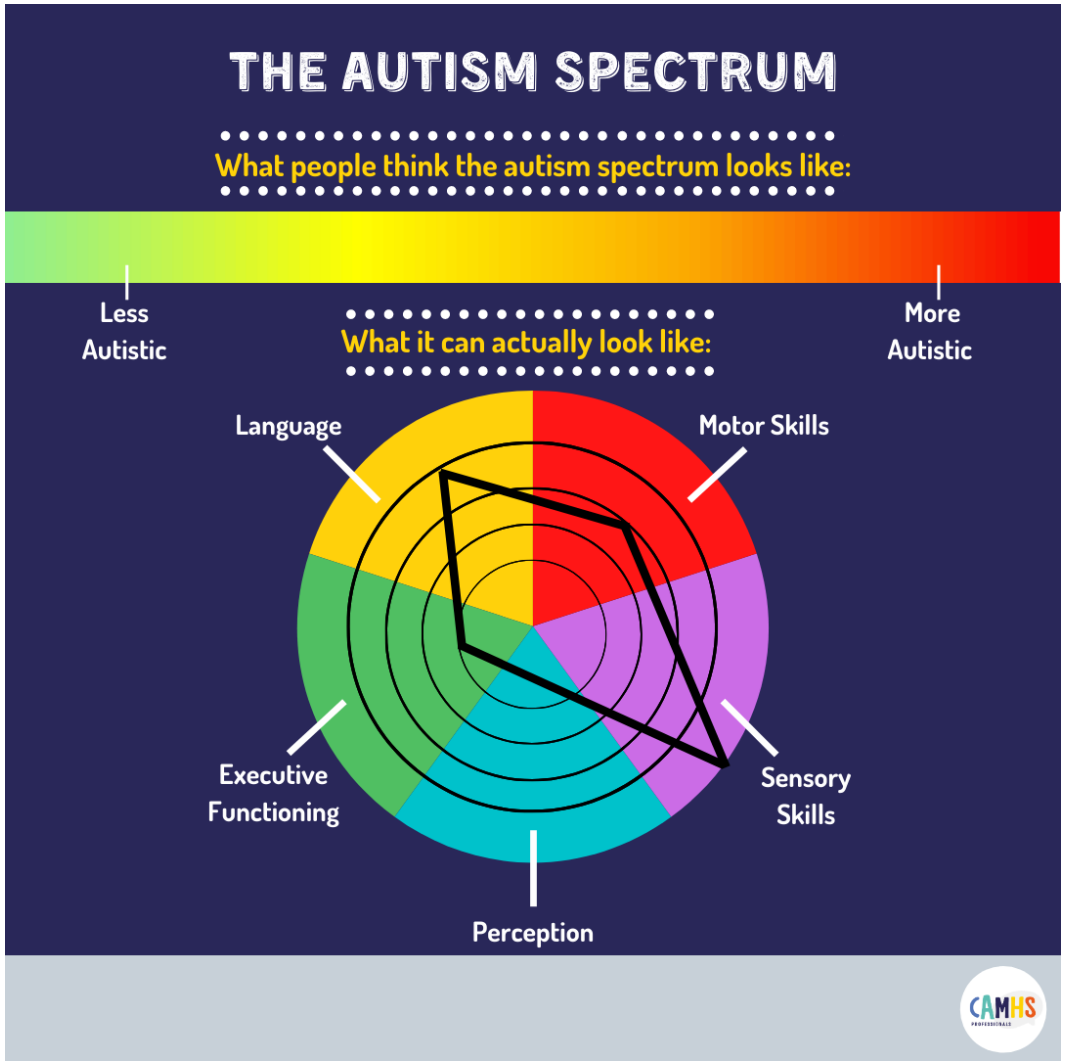
- Two most common side effects: Nausea and Headache
  - Occur in approximately 5% of children
  - Typically goes away within 3-5 days
- BBW: Increased Suicidality
- Behavioral activation
- Discontinuation Syndrome
  - Presents with Flu-like symptoms

Depression/Anxiety: What can you do?

- Provide feedback to the parents
  - Particularly if student is expressing dark thoughts
- Recommend follow-up/connection with school counselor
- Respect student privacy
  - If on medication: be sure to direct any questions about this to the student in private of alert the school counselor to this who can have that conversation with the student

WHAT IS AUTISM?

- It is a neurodevelopmental disorder characterized by impairments in communication, behavior and social functioning beginning in childhood.
- As in its name “spectrum” refers to a wide range of symptoms, skills, and levels of disability.



Our changing conception of autism / ASD

DSM-3 (1980)

Diagnostic and Statistical Manual of Mental Disorders

Mental Disorders

Neurodevelopmental Disorders

Pervasive Development Disorders

Infantile Autism
- Onset before 30 months
- Lack of responsiveness to other people
- Gross deficits in language development
- Resistance to change
- Attachment to inanimate objects

Childhood Onset PDD
- Onset after 30 months
- Gross impairment in social relationships
- Anxiety and panic attacks
- Inappropriate fear or rage reactions
- Resistance to change
- Oddities of motor movement and speech
- Hyper-sensitive to sensory stimuli

Atypical Autism
Distortions in the development of multiple basic psychological functions that are involved in the development of social skills and language and that cannot be classified as either Infantile Autism or Childhood Onset PDD

In **DSM-1** (1952) and **DSM-2** (1968), autism was not listed as a disorder. Autistic behaviour was mentioned only as part of the description of childhood schizophrenia.

VaccineEvidence.com

DSM-4 (1994)

Pervasive Development Disorders

1. Impairments in social interaction
2. Impairments in communication
3. Restricted, repetitive and stereotyped patterns of behavior, interests and activities

Autistic Disorder
- Onset before 36 months
- Two or more impairments in social interaction
- One or more impairments in communication
- One or more manifestations of restricted behaviours
- A total of 6 or more impairments

PDD-NOS (Not Otherwise Specified)
Severe and pervasive impairments in at least one of the three areas of diagnosis for Autistic Disorder, but the criteria are not met for any of the specific PDDs

Asperger's Disorder
- Two or more impairments in social interaction
- No impairments in communication
- One or more manifestations of restricted behaviours
- No delay in cognitive or language development

Childhood Disintegrative Disorder
- Regression in multiple areas of functioning after at least 2 years of apparently normal development.
- Clinically significant loss of previously acquired skills such as language, social skills, bowel or bladder control, play and motor skills and cognitive abilities.
- Impairments after regression in at least two of the three areas of diagnosis for Autistic Disorder.

Rett Disorder
- Onset of deceleration of head growth between 5 and 48 months
- Loss of previously acquired hand skills, social engagement and language skills
- Poorly coordinated gait and trunk movements.

DSM-5 (2013)

Autism Spectrum Disorders (ASD)

A. Persistent deficits in social communication and social interaction
B. Restricted, repetitive patterns of behavior, interests, or activities

	Social Deficits	Restricted Behaviors
Severe (Level 3) Requiring very substantial support	- Severe deficits in verbal and nonverbal social communication - Severe impairments in functioning - Very limited initiation of social interactions - Minimal response to social overtures from others	- Inflexibility of behavior - Extreme difficulty coping with change - Restricted/repetitive behaviors markedly interfere with functioning in all spheres. - Great distress/difficulty changing focus or action.
Moderate (Level 2) Requiring substantial support	- Marked deficits in verbal and nonverbal social communication - Social impairments apparent even with supports in place - Limited initiation of social interactions - Reduced or abnormal responses to social overtures from others.	- Inflexibility of behavior - Difficulty coping with change - Restricted/repetitive behaviors appear frequently enough to be obvious to the casual observer and interfere with functioning in a variety of contexts. - Distress and/or difficulty changing focus or action.
Mild (Level 1) Requiring support	- Without supports in place, deficits in social communication cause noticeable impairments. - Difficulty initiating social interactions - Clear examples of atypical or unsuccessful response to social overtures of others. - May appear to have decreased interest in social interactions.	- Inflexibility of behavior causes significant interference with functioning in one or more contexts. - Difficulty switching between activities. - Problems of organization and planning hamper independence.

Social (Pragmatic) Communication Disorder
Meets the social deficits criteria of ASD, but not the restricted behaviours criteria

Medications used in students with ASD

- *Abilify (aripiprazole)
- *Risperdal (risperidone)
- Zyprexa (olanzapine)
- Haldol (haloperidol)
- Thorazine (chlorpromazine)
- Depakote (valproic acid)
- Lamictal (lamotrigine)

*Indicates Medication with FDA approval

ASD: What to look for in the classroom?

Hoping to Avoid

- Lethargy/Fatigue
  - Can become severe to the point of sleeping in class, zoning out, “zombifying”
- Increased appetite
  - Hyperfixated on food, to point of aggression when food not given
- Weight gain
  - >10% total weight gain in six months or less considered unsustainable
- Akithisia → restlessness
  - Think quite literally “ants in the pants”
- Tardive dyskinesia
  - Presents as abnormal facial movements, specifically around the tongue and mouth
- Severe skin reaction
  - Specific for Lamictal (lamotrigine)

Hoping For

- Decreased aggression
- Cooperation
- Responsive to redirection

Remember

- There is no such thing as a magic pill
- Hope is for improvement not resolution
- Must maintain realistic expectations

ASD: What can you do?

- Ensure the student has adequate support
  - IEP/504
  - Appropriate classroom pull-outs (ABA, Speech, OT, PT, etc…)
  - Paraprofessional support
- Provide feedback to the parents
  - Both POSITIVE and negative
  - Gentle in your approach with observations