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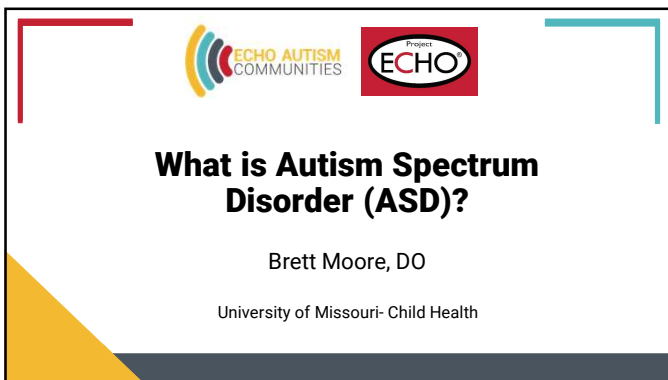
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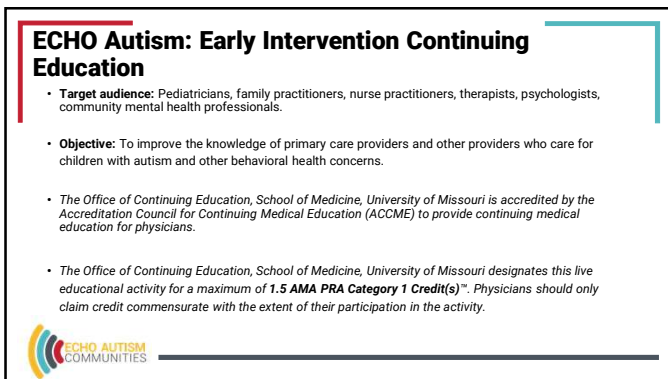
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### ECHO Autism: Early Intervention Speaker Disclosure

Current ACCME (Accreditation Council for Continuing Medical Education) rules state that participants in CME activities should be made aware of any relevant affiliation or financial interest in the previous 12 months that may affect the planning of an educational activity or a speaker's presentation(s). Each planning committee member and speaker has been requested to complete a conflict of interest statement for the *ECHO Autism: Early Intervention Series*.

#### Planning Committee Member and Speaker Disclosures:

- Kristin Sohl, MD,FAAP has the following relationships:
  - Cognoa – research funding
  - Quadrant Biosciences – advisory board
  - Autism Navigator – consultant
- No other speaker or planning committee member has a relevant financial interest




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### Learning Objectives

1. The learner will describe the criteria for a medical diagnosis of autism spectrum disorder (ASD)
2. The learner will describe the difference between the educational identification of autism and the medical diagnosis of autism spectrum disorder.
3. The learner will identify the key diagnostic indicators of autism spectrum disorder.




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### A History Of Autism

- Dr. Leo Kanner and Dr. Hans Asperger in the 1940s
  - Individuals with core symptoms
- Neurodevelopmental Disorder
  - Difference in brain development and function
  - Occurs early in life
  - Individuals can be affected differently
- Symptoms manifest in core areas
  - Social Communication
  - Restrictive and Repetitive Behaviors




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### Autism Is A Spectrum

- Diagnostic and Statistical Manual of Mental Disorders (DSM)
  - Most recent is the Fifth Edition (2013)
- Previously there were multiple diagnoses
  - Autistic Disorder
  - Aspergers Disorder
  - Pervasive Developmental Disorder Not Otherwise Specified (PPD-NOS)
- Currently all under one diagnosis
  - Autism Spectrum Disorder



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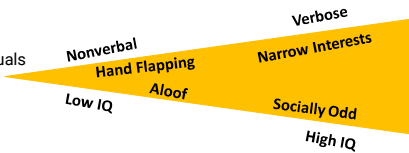
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### Spectrum

- "If you have met one child with autism, you have met one child with autism"
- Symptoms can vary
  - In severity
  - In number
  - Across time
  - Between individuals



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### Estimated Autism Prevalence 2023



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### DSM-5 Criteria: Medical Diagnosis

- Deficits in **social communication and social interaction** (3 of 3)
- **Restricted, repetitive** and **stereotyped** patterns of behavior, interests or activities (2 of 4)
- Symptoms present in early childhood
- Symptoms cause clinically significant impairment in functioning
- Symptoms can't be better explained by intellectual disability (ID)



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### Social Communication

#### 1. Deficits in social-emotional reciprocity

- Abnormal Social approach
- Failure of normal back and forth conversation
- Reduced sharing of interests, emotions or affect
- Failure to initiate or respond to social interactions



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### Social Communication

#### 2. Deficits in nonverbal communicative behaviors used for social interaction

- Poorly integrated verbal and nonverbal communication
- Abnormalities in eye contact and body language
- Deficits in understanding and use of gestures (nonverbal communication)
- Total lack of facial expressions



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### Social Communication

3. Deficits in developing, maintaining and understanding relationships

- Difficulties adjusting behavior to suit different social contexts
- Difficulties sharing imaginative play or making friends
- Absence of interest in peers



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### Restricted/Repetitive Behavior

1. Stereotyped or repetitive motor movements, use of objects or speech

- Simple Motor stereotypes
- Lining up toys or flipping objects
- Echolalia
- Idiosyncratic phrases



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### Restricted/Repetitive Behavior

2. Insistence on sameness, inflexible routines or ritualized behavior

- Need to take same route or eat same food every day
- Extreme distress at small changes
- Difficulties with transitions
- Rigid thinking patterns
- Greeting rituals



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### Restricted/Repetitive Behavior

3. Highly restricted, fixated interests that are abnormal in intensity or focus

- Strong attachment to/preoccupation with unusual objects
- Excessively circumscribed or perseverative interests



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### Restricted/Repetitive Behavior

4. Hyper/Hypo-reactivity to sensory input or unusual sensory interests

- Indifference to pain/temperature
- Adverse response to specific sounds or textures
- Excessive smelling/touching objects
- Visual fascination with lights or movement



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### Educational Eligibility

- Decided by a team of school professionals and student's parents
- Must qualify under the Individuals with Disabilities Education Act (IDEA)
  - Have at least 1 out of 13 disabilities and in need of special services
  - Each state has their own definition
- Difference between medical diagnosis and education eligibility: impact on learning
- Educational evaluation-> Category of eligibility for services



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### Categories of Disability

- Autism
- Emotional Disturbance
- Learning Disability
- Other Health Impairment
- Speech/Language Impairment
- Intellectual Disability
- Deaf-Blindness
- Visual Impairment
- Deafness
- Hearing Impairment
- Traumatic Brain Injury
- Multiple Disabilities
- Orthopedic Impairment



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### Educational Eligibility

- Team (along with parents) must conclude:
  - Autism interferes with learning
  - Special services needed to make academic progress
- Focus on academic and functional skills



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### Missouri Eligibility for Autism

- Evaluation of medical records, observation in multiple environments and in-depth social history
  - Disturbance of speech, language, cognitive and nonverbal communication
  - Disturbance to relate appropriately to people, events or objects
- Condition adversely affects child's educational performance
- The autism is not a results of emotional disability



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**Comparison**

<p><b>Medical Diagnosis</b></p> <ul style="list-style-type: none"> <li>• Assess function</li> <li>• Private sector</li> <li>• Services through local, state and federal</li> </ul>	<p><b>Educational Eligibility</b></p> <ul style="list-style-type: none"> <li>• Assess impact on learning</li> <li>• Public Sector</li> <li>• Services through school</li> </ul>
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**Summary**

- Medical diagnosis requires criteria met through DSM-V criteria by specialized medical personnel
  - Help to access services for daily functioning
- Educational Eligibility for special education criteria through IDEA
  - Help to access services in the school for academics



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**U** Child Health  
School of Medicine  
*University of Missouri Health*

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