

AUTISM SPECTRUM DISORDER

**PROJECT ECHO PEDIATRIC MENTAL HEALTH SESSION
WEDNESDAY, NOVEMBER 2, 2022
STEPHANIE JALLEN, MD**

LEARNING OBJECTIVES

- Demonstrate knowledge of the diagnostic criteria for autism spectrum disorder
- Discuss the changes regarding diagnoses that occurred from DSM-IV-TR to DSM-5
- Understand both pharmacologic and non-pharmacologic treatment options for autism spectrum disorder

DSM-IV-TR DIAGNOSTIC CRITERIA

(1) Qualitative impairment in social interaction, **at least two** of the following:

- (a) impairment in use of multiple nonverbal behaviors such as eye-to-eye gaze, facial expression, body postures, and gestures to regulate social interaction
- (b) failure to develop peer relationships appropriate to developmental level
- (c) lack of spontaneous seeking to share enjoyment, interests, or achievements with other people
- (d) lack of social or emotional reciprocity

(2) Qualitative impairment in communication, **at least one** of the following:

- (a) delay in, or total lack of development of spoken language (not accompanied by attempt to compensate through alternative modes of communication)
- (b) if adequate speech present, marked impairment in ability to initiate/sustain conversation with others
- (c) stereotyped and repetitive use of language or idiosyncratic language
- (d) lack of varied, spontaneous make-believe play or social imitative play appropriate to developmental level

(3) Restricted repetitive and stereotyped patterns of behavior, interests, and activities, **at least one** of the following:

- (a) preoccupation with one or more stereotyped and restricted patterns of interest that is abnormal either in intensity or focus
- (b) apparently inflexible adherence to specific, nonfunctional routines/rituals
- (c) stereotyped and repetitive motor mannerisms (eg. Hand or finger flapping or twisting or complex whole body movements)
- (d) persistent preoccupation with parts of objects

DSM-5 DIAGNOSTIC CRITERIA

299.00 (F84.0)

- Persistent deficits in social communication and social interaction across multiple contexts, as manifested by **all** of the following, currently or by history
 - Deficits in social-emotional reciprocity
 - From abnormal social approach and failure of normal back-and-forth conversation; to reduced sharing of interests, emotions, or affect; to failure to initiate or respond to social interactions
 - Deficits in nonverbal communicative behaviors used for social interaction
 - From poorly integrated verbal and nonverbal communication; to abnormalities in eye contact and body language or deficits in understanding and use of gestures; to a total lack of facial expressions and nonverbal communication
 - Deficits in developing, maintaining, and understanding relationships
 - From difficulties adjusting behavior to suit various social contexts; to difficulties in sharing imaginative play or in making friends; to absence of interest in peers

DSM-5 DIAGNOSTIC CRITERIA

- Restricted, repetitive patterns of behavior, interests, or activities, as manifested by **at least two** of the following, currently or by history:
 - Stereotyped or repetitive motor movements, use of objects, or speech
 - Simple motor stereotypies, lining up toys or flipping objects, echolalia, idiosyncratic phrases
 - Insistence on sameness, inflexible adherence to routines, or ritualized patterns of verbal or nonverbal behavior
 - Extreme distress at small changes, difficulties with transitions, rigid thinking patterns, greeting rituals, need to take same route or eat same food every day
 - Highly restricted, fixated interests that are abnormal in intensity or focus
 - Strong attachment to or preoccupation with unusual objects, excessively circumscribed or perseverative interests
 - Hyper- or hyporeactivity to sensory input or unusual interest in sensory aspects of the environment
 - Apparent indifference to pain/temperature, adverse response to specific sounds or textures, excessive smelling or touching of objects, visual fascination with lights or movement

DSM-5 DIAGNOSTIC CRITERIA

- Symptoms must be present in the early developmental period (but may not become fully manifest until social demands exceed limited capacities, or may be masked by learned strategies in later life)
- Symptoms cause clinically significant impairment in social, occupational, or other important areas of current functioning
- These disturbances are not better explained by intellectual disability or global developmental delay.
 - Note: ASD and ID can co-occur

DSM-5 DIAGNOSTIC CRITERIA SPECIFIERS

- With or without accompanying intellectual impairment
- With or without accompanying language impairment
- Associated with a known medical or genetic condition or environmental factor*
- Associated with another neurodevelopmental, mental, or behavioral disorder*
- With catatonia**
- Severity level (one each for social communication and restricted, repetitive behaviors)
 - Level 3: requiring very substantial support
 - Level 2: requiring substantial support
 - Level 1: requiring support

*Use additional code to identify the associated disorder

**Use code 293.89 (F06.1) for catatonia

EPIDEMIOLOGY

- Prevalence rates have varied considerably over time, likely due to differences in diagnostic criteria and diagnostic practices, the age of children screened, and the location of the study
- Current CDC reports prevalence of ASD in the United States as 11.3 in 1,000.
- ASD is approximately 4 times more common in males than in females, but females with autism tend to have more severe intellectual disability.
- High rates (20-25%) of individuals with autism also have EEG abnormalities and seizure disorders.
- A recent prospective longitudinal study has reported a rate of 18.7% recurrence risk among siblings when the broad autism spectrum is considered.
- Identified risk factors for ASD appear to include closer spacing of pregnancies, advanced maternal or paternal age, and extremely premature birth (<26 weeks' gestational age).

SCREENING & ASSESSMENT TOOLS

Screening for Autism

- ABC = Autism Behavior Checklist
- CARS = Childhood Autism Rating Scale
- M-CHAT = Checklist for Autism in Toddlers
- CSBS-DP-IT-Checklist = Communication and Symbolic Behavior Scales Developmental Profile Infant-Toddler Checklist
- ASQ = Autism Screening Questionnaire

Screening for Asperger's Syndrome

- ASDS = Asperger Syndrome Diagnostic Scale
- GADS = Gilliam Asperger's Disorder Scale
- ASDI = Asperger Syndrome Diagnostic Interview
- SRS = Social Responsiveness Scales
- AQ = Autism Quotient
- CAST = Childhood Autism Screening Test

Diagnostic Tools

- ADI = Autism Diagnostic Interview–Revised
- DISCO = Diagnostic Interview for Social and Communication Disorders
- ADOS = Autism Diagnostic Observation Schedule

NONPHARMACOLOGIC TREATMENT

- Behavioral: Applied Behavioral Analysis
 - ABA techniques have been repeatedly shown to have efficacy for specific problem behaviors, and ABA has been found to be effective as applied to academic tasks, adaptive living skills, communication, social skills, and vocational skills.
 - Because most children with ASD tend to learn tasks in isolation, an explicit focus on generalization is important
- Communication
 - Initial focus on learning to speak, if child has limited speech, or learning to use sign language or a communication device
 - For those with fluent verbal skills, focus should be on social reciprocity and pragmatic language skills
- Educational
 - Many of these children will benefit from individualized education plans
- Other
 - Address sensory processing needs through occupational therapy
 - Cognitive behavioral therapy might help those with anxiety

PHARMACOLOGIC TREATMENT

- Medications are only FDA-approved for the treatment of irritability associated with autism
 - Risperidone starting at age 5
 - Aripiprazole starting at age 6
- Children often benefit from treating co-morbid conditions, like ADHD, anxiety, OCD, or depression.

RESOURCES FOR PARENTS

- ASPEN TM, Inc. (Asperger Syndrome Education Network)- <http://www.aspennj.org>
- Autism Society of America- <http://www.autism-society.org>
- Autism Speaks- <http://www.autismspeaks.org>
- Division TEACCH (Treatment and Education of Autism and related Communication handicapped Children, University of North Carolina at Chapel Hill)- www.teacch.com)
- NIMH (National Institute of Mental Health)- <https://www.nimh.nih.gov/health/topics/autism-spectrum-disorders-asd>
- AACAP Facts for Families- https://www.aacap.org/AACAP/Families_and_Youth/Facts_for_Families/FFF-Guide/The-Child-With-Autism-011.aspx