Characteristics of Autism Spectrum Disorder (ASD)

May 2013 Criteria
Diagnostic and Statistical Manual, 5th Edition (DSM-5)
American Psychiatric Association

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Overview

- Autism statistics
  - Prevalence of ASD
- What is autism?
  - Red flags
- DSM-IV-TR criteria
  - Autistic Disorder
  - Asperger’s Disorder
  - PDD-NOS
- DSM-5 criteria
  - Autism Spectrum Disorder
    - Severity levels
  - Social (pragmatic) Communication Disorder
- Georgia autism eligibility
Learning Objectives

1. As a result of this activity, the participant will be able to identify "red flags" associated with the need for referral for an autism evaluation.

2. As a result of this activity, the participant will be able to explain the newly published DSM-V criteria for a diagnosis of an autism spectrum disorder.

3. As a result of this activity, the participant will be able to explain to parents the need for a referral for an autism evaluation.
Autism Statistics

- Prevalence 1 in 88 children (spectrum) (CDC, 2012)
  - 1 in 84 in Georgia
- Truly rising rates or better identification?
- Present before the age of 3; diagnosis often later
  - Autistic Disorder – 4 years, 0 months
  - ASD/PDD – 4 years, 5 months
  - Asperger’s Disorder – 6 years, 3 months
- Found in all cultures and economic groups
- Four times more common in boys
Prevalence of 1 out of every Year


Prevalence of ASD

US Georgia
Summary of Prevalence Studies

Comparison of Autism Prevalence Rates

- Kanner
- Rutter
- DSM-III
- DSM-IIIR
- ICD-10
- DSM-IV

Autism Prevalence Rate (per 1,000) vs. Year (1960-2020)
What is Autism?

- Developmental disability
  
  not visible at birth

- Different brain structure
  
  complex genetic interaction + ???

- Complex disorder
  
  many areas affected

- Wide range of impairment
  
  mild to severe across areas
Autism Defies Generalization

**Measured intelligence**

- Severe
- Gifted
- Severe

**Social interaction**

- Aloof
- Passive
- Active but odd

**Communication**

- Nonverbal
- Verbal
- Nonverbal

**Behaviors**

- Intense
- Mild
- Intense

**Sensory**

- Hyposensitive
- Hypersensitive
- Hyposensitive

**Motor**

- Uncoordinated
- Coordinated
- Uncoordinated
Special Challenges of Autism

- Social interest and reciprocal interactions
- Language (verbal and nonverbal communication)
- Unusual interests
- Difficult behaviors and routines
- Engagement
**RED FLAGS**

- **Regression**
  
  ANY loss of ANY language or social skills at ANY age

- **Social problems**
  
  doesn’t smile socially  seems to prefer to play alone
  gets things for self  is very independent
  does things “early”  has poor eye contact
  is in his own world  tunes people out
  is not interested in other children
**RED FLAGS**

- **Language**
  - does not respond to name
  - language is delayed
  - appears deaf at times
  - used to say a few words, but now doesn’t
  - cannot tell what (s)he wants
  - doesn’t follow directions
  - doesn’t point or wave bye

- **Range of interest/behaviors**
  - tantrums
  - gets stuck on things
  - lines things up
  - doesn’t know how to play with toys
  - is hyperactive/uncooperative
  - has unusual attachments
  - self stimulating behaviors
DSM-IV-TR
(1994, 2000)
Pervasive Developmental Disorders (PDDs)

Diagnostic and Statistical Manual (DSM)
American Psychiatric Association (APA)

- Autistic disorder
- Asperger’s disorder
- PDD-NOS
  (atypical autism)
- Rett’s disorder
- CDD
Delays or abnormal social, language, or play before age 3

6 total characteristics needed for Autistic Disorder with the following pattern:

<table>
<thead>
<tr>
<th>Area</th>
<th>Manifested by</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Social</td>
<td>at least 2</td>
</tr>
<tr>
<td>2. Communication</td>
<td>at least 1</td>
</tr>
<tr>
<td>3. Behaviors/Interests</td>
<td>at least 1</td>
</tr>
</tbody>
</table>
Social Criteria

Autistic Disorder

a. **Nonverbal social communication**
   limited or unusual eye-to-eye gaze, facial expression, body postures, and gestures

b. **Peer relationships**
   not aware or interested in other children; not knowing how to interact with other children

c. **Spontaneous seeking to share enjoyment**
   decreased showing, bringing, or pointing out objects of interest

d. **Social or emotional reciprocity**
   avoiding others, not aware of other people, unusual approaches, inconsistent responding, not able to read other people’s behavior
Communication Criteria
Autistic Disorder

a. Spoken language
nonverbal to delayed language (limited nonverbal too)

b. Having conversations or back-and-forth verbal exchanges with others
not offering information or responding, off-topic, misses cues, literal, decreased comprehension

c. Stereotyped and repetitive use of language or idiosyncratic language
echolalia, scripted language, need to decode

d. Make-believe play or social imitative play
congee play and not copying others
a. **Preoccupations**
   super-focused on unusual objects or topics

b. **Inflexible with changes and unusual behaviors**
   very upset when things change, insisting things be a certain way, repetitive actions (lights on and off)

c. **Stereotyped and repetitive mannerisms**
   hand or finger flapping or twisting, or complex whole-body movements

d. **Preoccupation with parts of objects**
   zeroing in on tiny details (wheels of cars)
Asperger’s Disorder

- Social deficits like autism
- Unusual interests and behaviors like autism
- Average to above average intelligence
- No delay in basic language skills (words by 2; phrases by 3), but communication may be impaired
- Unusual strengths and weaknesses
- Impairment in daily functioning, despite skills
PDD-NOS
Atypical Autism

- Same behaviors as autism, but fewer or less in intensity
- Must have social deficits like autism
- Must have either or both communication or repetitive behaviors like autism
- Minimal criteria to meet PDD-NOS
  - 1 social and 1 Communication or 1 Behavior
  - ADDM Surveillance adds an “Autism Discriminator”
**A Shift from Categorical to Dimensional**

**DSM-IV,TR is a Categorical system (Have / Don’t Have)**
- Does a person fit into a clear category of “Yes, ASD” vs. “No, ASD”?

**Recent focus on ASDs as dimensional**
- Continuous distribution of some primary features of ASDs in the population – Broader Autism Phenotype (BAP)
- Overlap with other conditions and “normality”
- How do you draw the line between disorder and traits?

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*Constantino and Todd (2003)*
Autism Spectrum Disorder

- ASD or ASC (Autism Spectrum Conditions)?
- Meeting criteria for “disorder” more likely when there are significant symptoms and clear impairment
- How to measure impairment/disorder for classification purposes?
  - Adaptive behavior like for Intellectual Disability
  - Specific developmental features or symptoms
  - Co-occurring conditions
  - DSM Global Assessment of Functioning (GAF)
  - Others?

- What are we identifying in ASD prevalence studies?
  - Disorder/Impairment or Conditions (Traits)?
  - Kim et al., 2011 – ASD prevalence of 2.6%, but ¾ of children were in the “mainstream school population, undiagnosed and untreated”
Pervasive Developmental Disorders (PDDs) to Autism Spectrum Disorder (ASD)

**DSM-IV, TR**
1994, 2000

Pervasive Developmental Disorders:
- Autistic disorder
- Asperger’s
- PDD-NOS
- Retts
- CDD

**DSM-5**
May 2013

Autism Spectrum Disorder
Autism Spectrum Disorder – 299.0
- A single ASD category (w/levels of severity)
- 1 diagnosis – no subtypes

3 core domains collapsed to 2 core domains
- Requires evidence of both social-communication impairments and repetitive behaviors
  - Repetitive behaviors can be “by history”
  - Symptoms to include sensory interests/aversions

www.dsm5.org
Changes in *DSM-5* criteria for ASD

**Rationale**

- ASD vs. other disorders or typical development
  - reliable and valid distinctions possible
- Subtypes of PDD are problematic
  - Inconsistent over time, variable across sites and often associated with severity, language level or intelligence rather than features of the disorder
- Simplify access to services
PDD Subtypes
(Lord et al., 2012)
Core Domains of Autism: PDD Triad to ASD Dyad

**DSM-IV**
- Social Interaction
- Communication
- Behaviors and Interests

**DSM-5**
- Social Communication and Interaction
- Restricted and Repetitive Behaviors (RRB)
Language delays are not universal in ASD

Language ability influences presentation, but does not define ASD

Consider unusual communication features of ASD

Hard to separate social and communication

Presence of fixated interests, routines or rituals and repetitive behaviors is associated with more stable ASD diagnoses over time

RRBs help differentiate ASDs from other conditions

Unusual sensory behaviors now included (again)
Must meet criteria A, B, C, and D

A. Persistent deficits in social communication and interactions, as manifest by **ALL** of the following deficits in:

1. Social-emotional reciprocity
2. Nonverbal communication behaviors used for social interaction;
3. Developing and maintaining relationships appropriate to developmental level (beyond caregivers)
B. Restricted, repetitive patterns of behavior, interests, and activities, as manifested by at least **TWO** of the following:

1. Stereotyped or repetitive speech, motor movements, or use of objects
2. Excessive adherence to routines, ritualized patterns of verbal or nonverbal behavior, or excessive resistance to change
3. Highly restricted, fixated interests
4. Hyper- or hypo-reactivity to sensory input or unusual interest in sensory aspects of environment
PDD to ASD Criteria:
Same Ingredients, New Bowl

**DSM-IV-TR**

- **Communication 2b**
  - Poor pragmatic use of language (ex, responding when name called, initiating conversation, one-sided conversation, clarifying if not understood)

- **Communication 2c**
  - Unusual prosody, volume, pitch, rate, rhythm of speech

- **Communication 2c**
  - Echolalia, jargon, idiosyncratic speech

- **Associated Feature TR**
  - Unusual Sensory Interests

**DSM-5**

- **Social Communication and Interaction a1**

- **Social Communication and Interaction a2**

- **Restricted Repetitive Behaviors b1**

- **Restricted Repetitive Behaviors b4**
C. Symptoms must be present during early developmental period

but may not become fully manifest until social demands exceed limited capacities (for example, because of minimal social demands and support from parents or caregivers in early years.)

D. Symptoms together limit and impair everyday functioning
Severity Levels for ASD

- Add clinical specifiers
  - ASD Characteristics based on age, language, intellectual ability
  - Co-occurring Conditions (intellectual, profile; other specific delays or disabilities; genetic conditions, etc.)

- Support needs based on two dimensions
  - Social Communication and Interaction
  - Restricted Interests and Repetitive Behaviors

- Three levels
  - Level 1 – Requiring Support
  - Level 2 – Requiring Substantial Support
  - Level 3 – Requiring Very Substantial Support
ASD may be diagnosed with other overlapping disorders such as ADHD, Language Impairments.
Social (pragmatic) Communication Disorder

New Diagnosis

- A communication disorder
- Based on pragmatic language disorder (Bishop et al.)
  - Nonverbal Learning Disability (NVLD)?
- No restricted and repetitive behaviors like ASD
  - Is this the new PDD-NOS?
Social (pragmatic) Communication Disorder

A. SCD is an **impairment of pragmatics** and is diagnosed based on difficulty in the **social uses of verbal and nonverbal communication** in naturalistic contexts, which affects the development of social relationships and discourse comprehension and **cannot be explained by low abilities** in the domains of word structure and grammar or general cognitive ability.

B. The low social communication abilities result in **functional limitations** in effective communication, social participation, academic achievement, or occupational performance, alone or in any combination.

C. **Rule out Autism Spectrum Disorder** by definition encompasses pragmatic communication problems, but also includes restricted, repetitive patterns of behavior, interests or activities as part of the autism spectrum.

D. Symptoms must be present in **early childhood** (but may not become fully manifest until social demands exceed limited capacities).
Autism Eligibility
Georgia Department of Education

- Autism is a developmental disability,
- Generally evident before age three,
- that adversely affects a student's educational performance and significantly affects
  - developmental rates and sequences,
  - verbal and non-verbal communication and
  - social interaction and participation.
- Other characteristics often associated with autism are unusual responses to sensory experiences, engagement in repetitive activities and stereotypical movements and resistance to environmental change or change in daily routines.
- Students with autism vary widely in their abilities and behavior.
- The term does not apply if a student's educational performance is adversely affected primarily because the student has an emotional and behavioral disorder.
- Includes students diagnosed with PDD, Asperger’s, Rett’s, or Childhood Disintegrative Disorder provided the student's educational performance is adversely affected and the student meets the eligibility and placement requirements. Autism may exist concurrently with other areas of disability.
Summary

- ASD is increasing across country and state
- Diagnostic criteria reshuffled into new categories
  - Well-established DSM-IV diagnoses should switch to ASD
- DSM-5 criteria better aligns with Georgia DOE Autism Eligibility
- New Social (pragmatic) communication disorder muddies the waters
Thank You!

- Questions??

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