



# Introduction to Autism Spectrum Disorders (ASD)

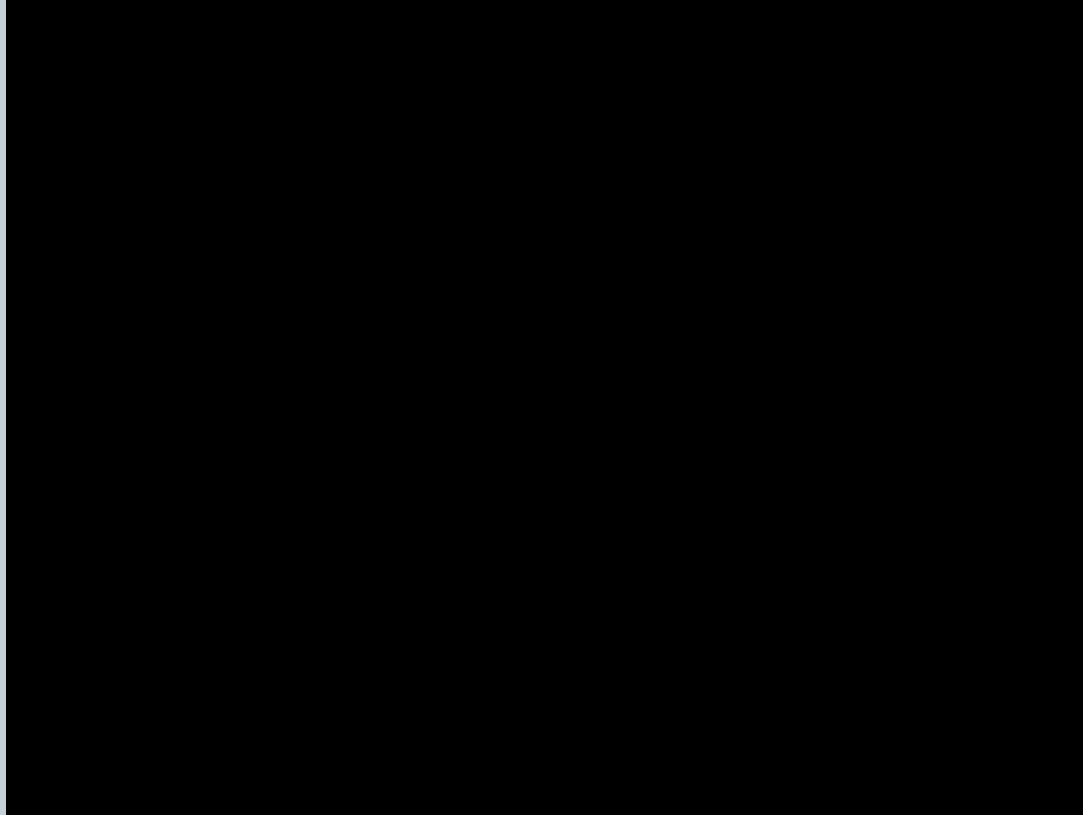


- **Statistics**
- **The Spectrum**
- **Diagnosis**
- **Characteristics**
- **Common Supports**
- **Evidence-based practices**





# Meet Mary-Lee



# Terms to know:



- **Syndrome**-refers to the association of several features, signs, symptoms, or characteristics that often occur together
  - A condition is named a syndrome when the reason the features occur together has not been discovered.
- **Spectrum**- refers to the idea that closely related conditions, considered syndromes, occur on a continuum.

Thompson (2007 p. 19)



# What is Autism?



Generally agreed upon:

- Onset Before Age Three
- Interferes in the Development of the Brain:
  - In Areas of Reasoning
  - In Areas of Social Interaction
  - In Areas of Communications Skills
  - Causing Repetitive Movements
  - Causing Resistance to Change
- A Spectrum Disorder

# Occurrence Rate of Autism

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- Estimated at 1 in 110 American children (CDC, 2009)
  - Boys: 1 in 70
  - Girls: 1 in 315
- Crosses all ethnic, racial, social and lifestyle boundaries
- *Tends* to recur within the same family (Thompson, 2007)







# Autism, IDEA '04

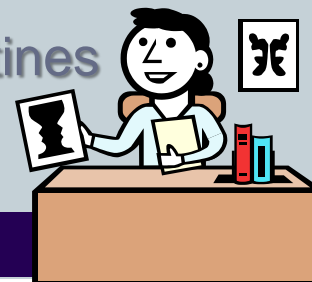


- Autism is the only disorder defined in IDEA 04.
- “Autism means a developmental disability significantly affecting verbal and nonverbal communication and social interaction, generally evident before age three, that adversely affects a child’s educational performance. Other characteristics associated with autism are engagement in repetitive activities and stereotyped movements, resistance to environmental change or change in daily routines, and unusual responses to sensory experiences.
  - Autism does not apply if a child’s educational performance is adversely affected primarily because the child has an emotional disturbance
  - A child who manifests the characteristics of autism after age three could be identified as having autism if the criteria above are satisfied.”

# Autism Spectrum Disorder

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- Autism is listed in the Diagnostic and Statistical Manual – Fourth Edition Text Revised (DSM-IV TR) under the umbrella category of *Pervasive Developmental Disorder (PDD)* category.
- *PDDs* are a group of disorders characterized by broad delays in the development of multiple basic functions including
  - Socialization
  - Communication
  - And combined with repetitive interests & behavioral routines





# Types of Pervasive Developmental Disorders



Autism

Rett's Syndrome

PDD-NOS

Childhood  
Disintegrate  
Disorder

Aspergers

(American Psychiatric Association [*DSM-IV-TR*], 2000)





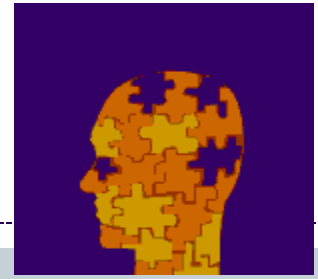
# Key Considerations in the DSM-IV-TR Definitions



- **Autistic Disorder**—is most severe because it involves disabilities in all 3 required domains
  - Communication
  - Socialization
  - Repetitive Interests/Behavior Routines
- Severity is strongly impacted by cognitive ability
- Major difference between Autistic Disorder & Asperger's Syndrome is language development
- PDD-NOS includes “a-typical” autism
  - Thompson states this is the most commonly misdiagnosed category of ASD.

Thompson (2007)





- *Etiology* is the study or causes of origins
- With ASD, we do not know the cause but we can discuss studies currently underway to determine that cause or origin
- ASD has a “presumed neurological etiology” (Scott, Clark, & Brady, 2000 p. 84 )
- Research on cause, prognosis, and treatment of autism continues
- No “cure” has been identified.
- With highly structured and appropriate interventions the behaviors of a child or adult with autism may change to the point where he or she may appear to no longer have autism to the untrained person but autism never ‘goes away’. (CDC, 2010)



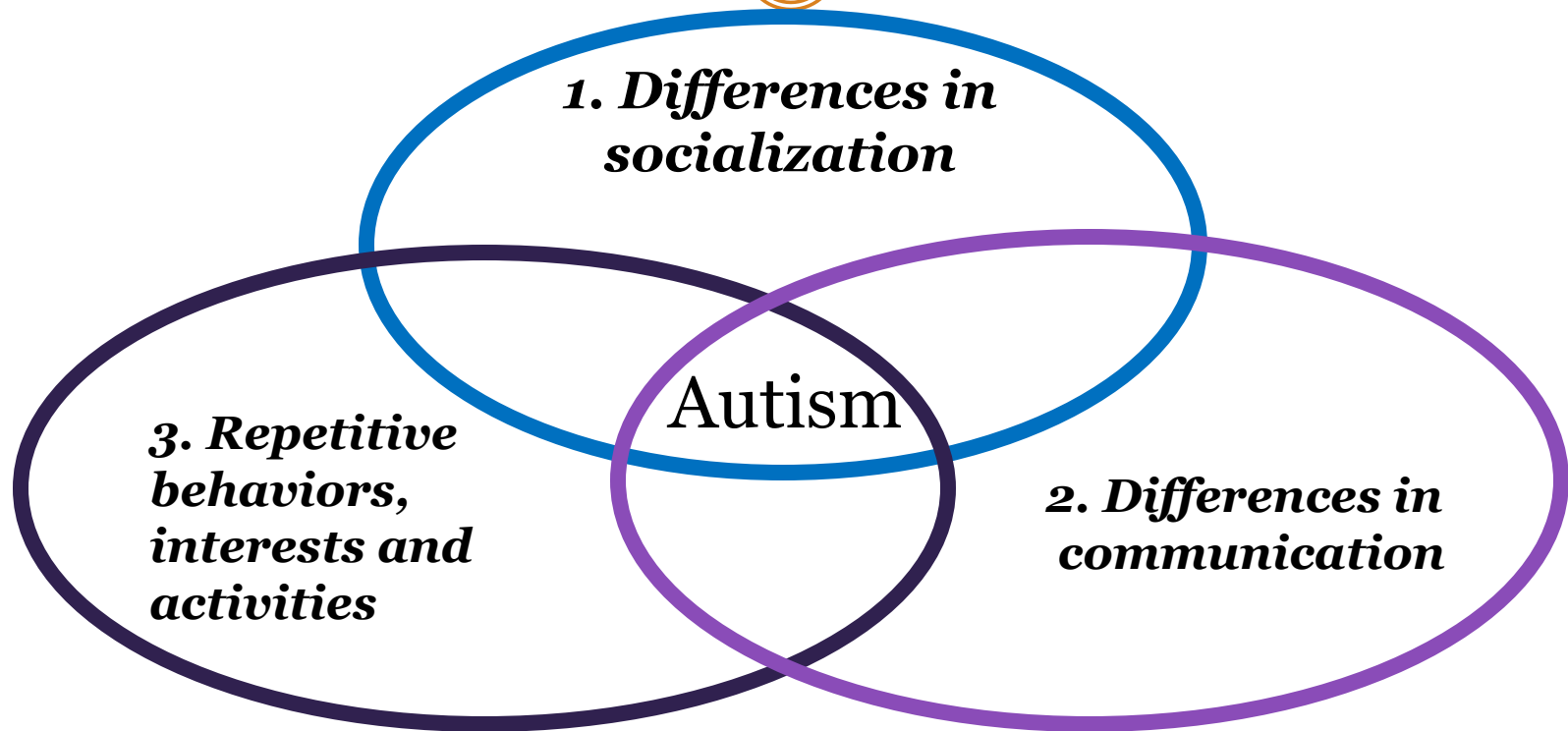
**“It is evident that autism as a diagnosis was non-existent prior to the early 1900s, and the people who had what we call autism today were diagnosed with some other disorder. It was not until the mid 1900s that people with autism were no longer institutionalized for their problem. Despite the persistence of old theories, no factors in the psychological environment of a child or adult have been shown to cause autism. There is no proof that autism is due to bad parenting, neglect, abuse or tragedy.”**

**Robert Williams, Jr  
June, 2000**

[http://stevens\\_mom.tripod.com/id49.html](http://stevens_mom.tripod.com/id49.html)



# Features of Autism Spectrum Disorder DSM-IV TR



*A total of 6 or more items from 1, 2, & 3, with at least 2 from 1, and 1 each from 2 & 3*

# What are the common characteristics?



## Differences in:

- Communication Skills
- Social Interaction Skills
- Sensory Impairment
- Play
- Behavior







- Language develops slowly or not at all
- Use of words without attaching the usual meaning to them
- Communicates with gestures instead of words
- Short attention spans
- Echolalia (repeating words or phrases in place of normal language)
- Not responsive to verbal cues; acts as deaf
- Difficulty in expressing needs; uses gestures or pointing instead of words



# Social Interaction



- Spends time alone rather than with others
- Appears uninterested in making friends
- Less responsive to social cues such as eye contact or smiles
- Difficulty in mixing with other children
- Inappropriate laughing and giggling
- Little or no eye contact
- Seems to prefer to be alone; aloof manner
- May not want cuddling or act cuddly



# Sensory Impairment



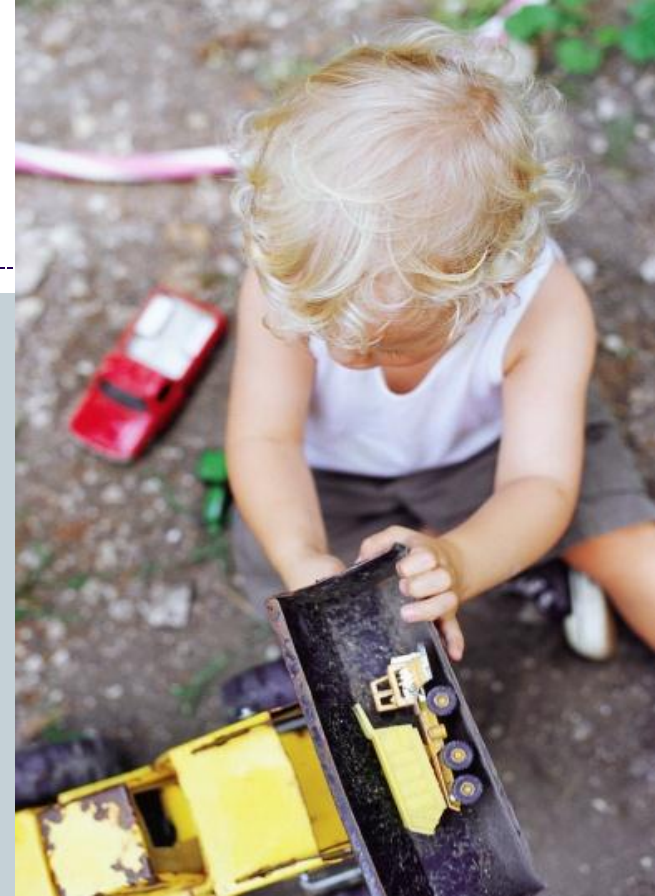
- Unusual reactions to physical sensations such as being overly sensitive to touch or under-responsive to pain
- Sight, hearing, touch, smell, and taste may be affected to lesser or greater degrees
- May perform self-stimulating behaviors, such as hand flapping or rocking
- May avoid cuddling or may seek it
- Apparent insensitivity to pain





- Lack of spontaneous or imaginative play
- Does not imitate the actions of others
- Doesn't initiate pretend games
- Sustained odd play
- May spin objects
- Inappropriate attachment to objects
- Noticeable physical over activity or extreme under activity

Mastropieri & Scruggs (2007)





# Behaviors



- May be overactive or very passive
- Frequent tantrums for no “apparent” reason  
(but there is always a reason)
- May perseverate on a single item, idea, person, phrase or word
- Apparent lack of “*common sense*”
- May show aggressive or violent behavior or injure self





# Behaviors (continued)



- Insistence on sameness; resists changes in routine
- No real fear of dangers
- Unresponsive to normal large group teaching methods
- Uneven gross/fine motor skills (may not want to kick ball but can stack blocks)



# Evidence-Based Practices

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- Evidence-based Practice is defined as:

**“Educational Practices that have been demonstrated effective based on quality research.”**



Odom, Brantlinger, Gersten, Horner, Thompson, and Harris (2005 p. 116)



# Successful Outcomes



Effective treatments that are:

- Systematically and objectively verified
  - Replicated
- Tailored to needs of student and team
  - Family
  - School
- Implemented with fidelity

Simpson (2005)



# Evidence-Based Practices



- Supports for transitions
  - Visual supports
  - Routine/schedules
  - Priming
  - Natural supports (e.g., bell, peers, etc.)



# Evidence-Based Practices



- Supports for communication
  - Functional communication system
  - Assessment of issues (requesting, refusing, commenting) followed by appropriate supports
  - Acknowledging behavior as communication
  - Natural supports



Wehman (2009)





# Evidence-Based Practices



- Supports for social interaction
  - Peer modeling
  - Video self modeling
  - Social Stories
  - Direct Social Skill Instruction
  - Natural Supports



Wehman (2009)



# Evidence-Based Practices



- **Supports for behavior**
  - **Functional Communication System**
  - **Self Monitoring/Self Regulation Strategies**
  - **FBA/BIP for appropriate replacement behaviors**
  - **Peer Modeling/Video Self Modeling**
  - **Natural Supports**



# EBP for Students with ASD



- Antecedent-Based Interventions (ABI)
- Computer-Aided Instruction
- Differential Reinforcement
- Discrete Trial Training
- Extinction
- Functional Behavior Assessment
- Functional Communication Training
- Naturalistic Intervention
- Parent-Implemented Interventions
- Peer-Mediated Instruction and Intervention
- Picture Exchange Communication System (PECS)
- Pivotal Response Training
- Prompting
- Reinforcement
- Response Interruption/Redirection
- Self-Management
- Social Narratives
- Social Skills Groups
- Speech Generating Devices/VOCA
- Structured Work Systems
- Task Analysis
- Time Delay
- Video Modeling
- Visual Supports

National Professional Development  
Center on Autism Spectrum Disorders  
(2010)



# Questions?

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