

AUTISM SPECTRUM DISORDER: DSM-5 DIAGNOSTIC CRITERIA

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Autism Spectrum Disorder

- Neurodevelopmental disorder
 - ▣ Reflects understanding of the etiology of disorder as related to alterations in structure of brain
 - ▣ Occurs early in development
 - ▣ Affected by development
 - Some communication skills develop for almost 70% of children
 - Repetitive behaviors may change
- Impairments affect personal, social, academic, and occupational functioning throughout the lifespan

A Short History

- Leo Kanner in 1943 described observation of 11 pediatric patients
- Social Impairments
 - ▣ Described their impairments as “autistic disturbances of affective contact”
 - ▣ Social impairment “autistic aloneness” present from *birth*
 - ▣ Desire to be alone, inability to relate to others

Kanner's Observations

- Language Impairments
 - ▣ Stereotyped language
 - ▣ Articulation difficulties were present
 - ▣ Use of echolalia
 - ▣ Did not use anticipatory gestures
- Repetitive Behaviors
 - ▣ Desire for sameness
 - ▣ Repetitive play with objects
 - ▣ “Fascination” with objects

Autism Spectrum Disorder Over Time

(Adapted from Fombonne, Quirke, & Hagen, 2011)

Kanner
(1943)

ICD-9 (1977)
Recognition of
infantile autism

ICD-10 (1992)
Pervasive
Developmental
Disorders

DSM-II (1968)
Schizophrenia,
Childhood Type

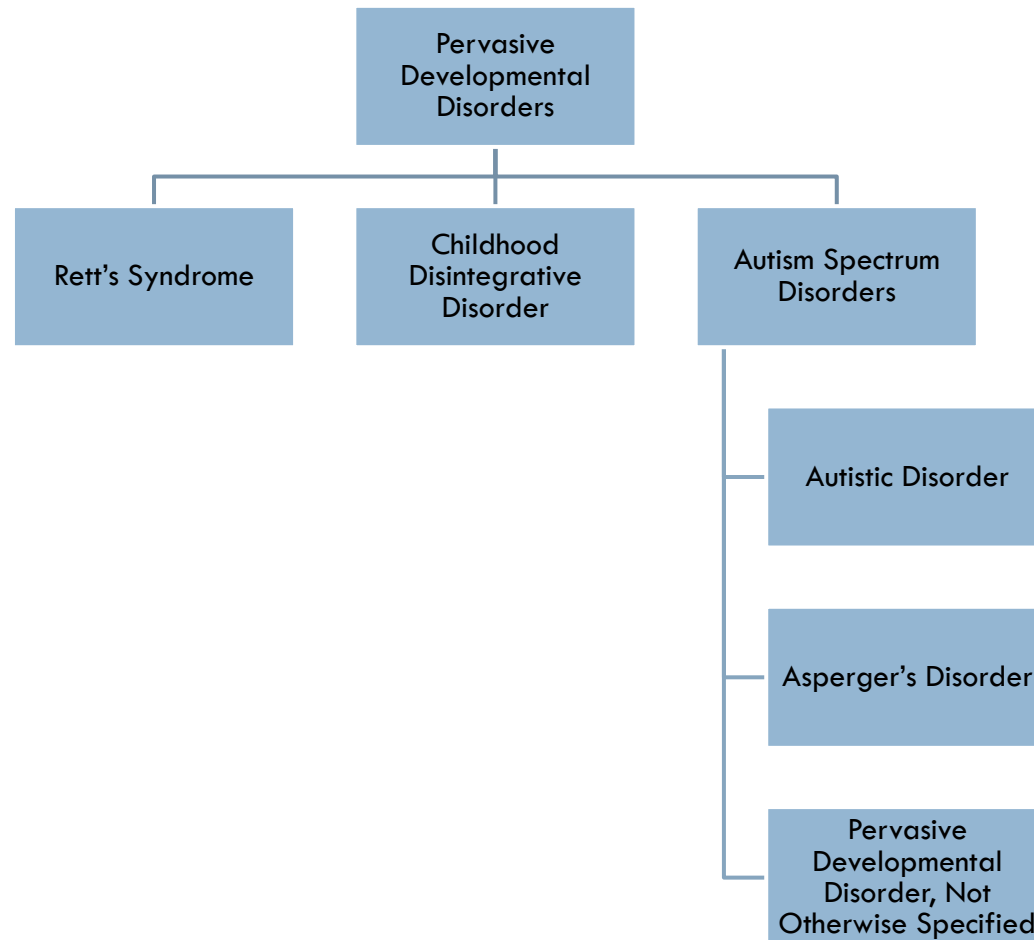
DSM-III (1980)
Pervasive
Developmental
Disorders added

DSM-III-R (1987)
Infantile Autism was
now Autism

DSM-IV (1994)
Coordination with ICD-
10
Asperger's Disorder

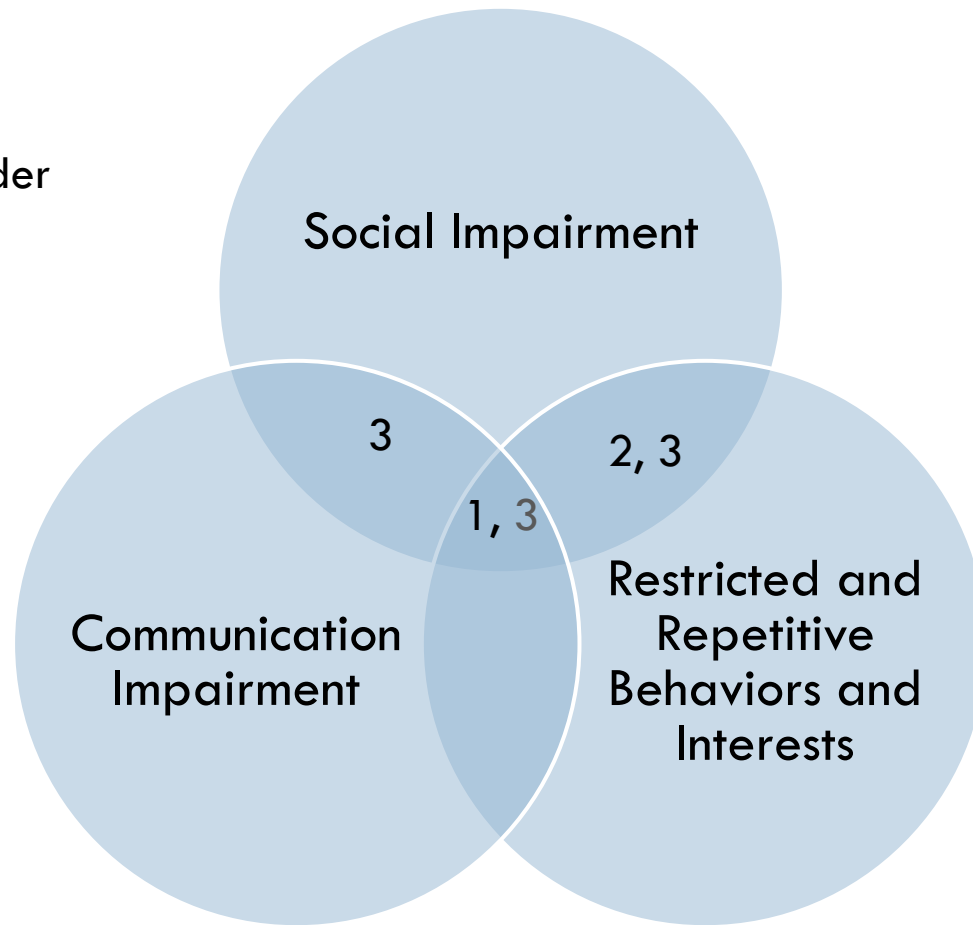
DSM-IV-TR
(2000) Wording
changes

DSM-IV Conceptualization of Pervasive Developmental Disorders



DSM-IV: Autism Spectrum Disorders

1=Autistic Disorder
2=Asperger's Disorder
3=PDD-NOS



DSM-IV Challenges

- Rett's Syndrome
 - Associated with specific genetic mutation
 - Different developmental course
- Childhood Disintegrative Disorder
 - Different developmental course
 - Longer period of typical development
 - Regression

ASD: Challenges for the DSM-IV Model

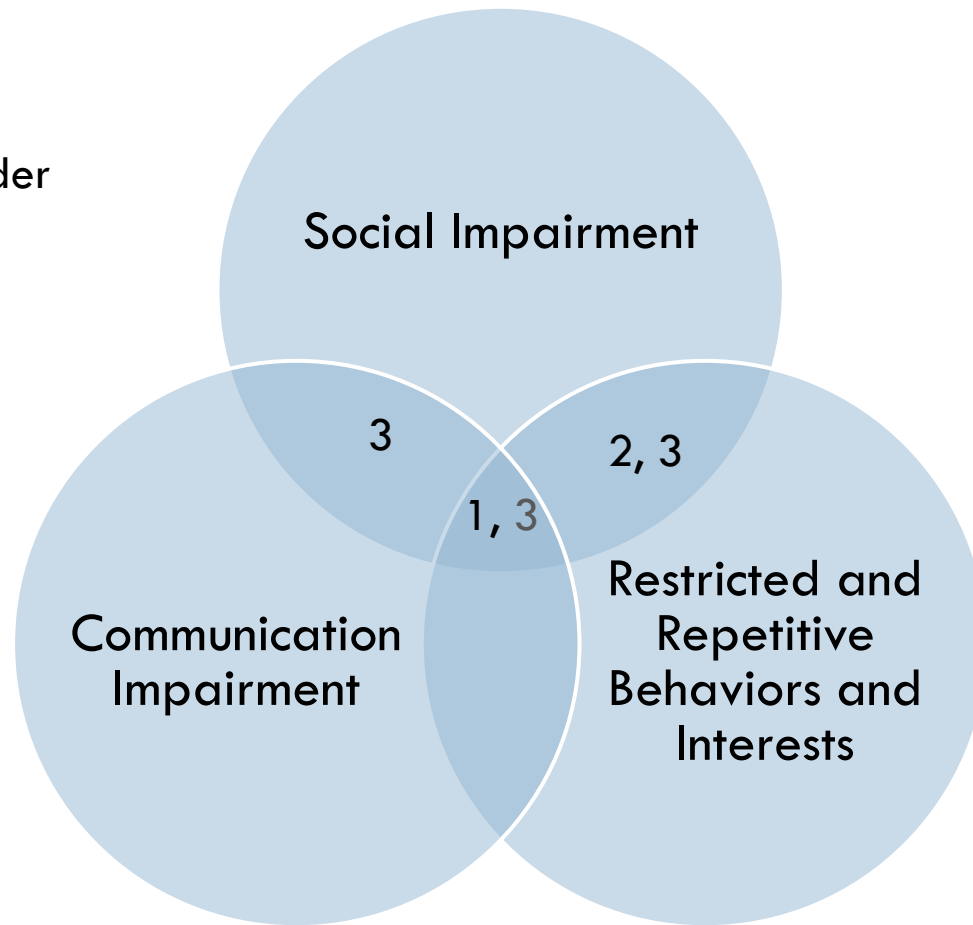
- Asperger's Disorder
 - ▣ Varied findings regarding diagnostic differences
 - ▣ Few differences when Verbal IQ is controlled
 - ▣ Frequently associated with “High Functioning Autism”
 - ▣ Lack of accurate historical information regarding development of language

PDD-NOS Challenges

- PDD-NOS was not clearly defined
 - ▣ Different studies, clinicians, conceptualized this disorder differently
 - Children with social impairment, WITHOUT repetitive behaviors
 - Children with social and language impairment, WITHOUT repetitive behavior
 - Children with social and language impairment WITH some repetitive behaviors

DSM-IV: Autism Spectrum Disorders

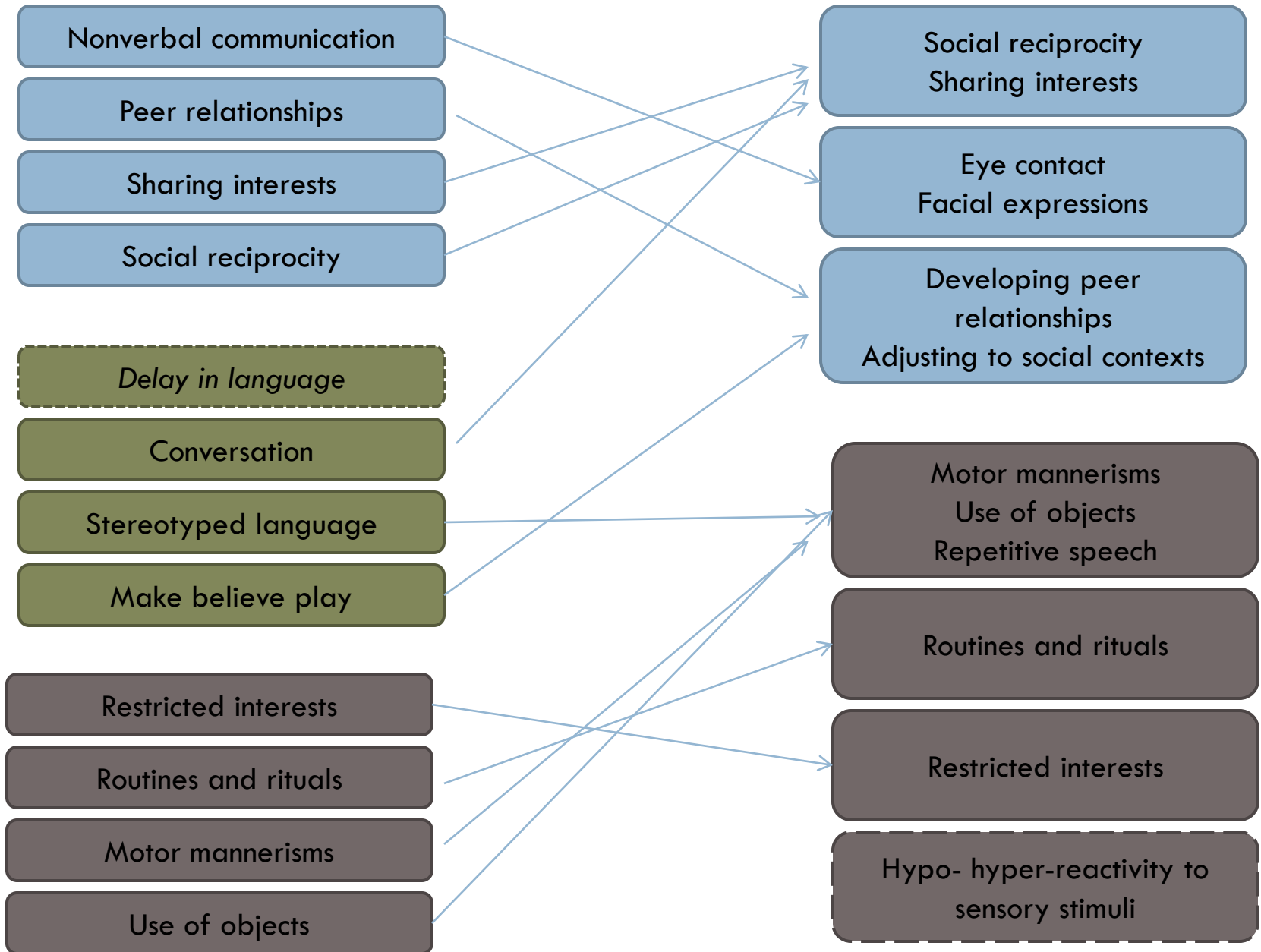
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DSM-5: Autism Spectrum Disorder

- The broad category is now Autism Spectrum Disorder (ASD)
- ASD is one diagnosis
 - ▣ Specific distinctions are now removed
- Reciprocal social interaction domain is now merged with the communication domain into one *social-communication domain*
- Repetitive use of language is incorporated into repetitive behavior domain
- All symptoms in the social communication domain, AND 2 of 4 symptoms in repetitive behavior and restricted interest domain

DSM-IV to DSM-5



DSM-5 Diagnostic Criteria for ASD: Social Communication Impairments

- Persistent deficits in social communication and social interaction across *multiple contexts*, as manifested by the following, *currently* or by *history*
 - ▣ Deficits in social-emotional reciprocity
 - ▣ Deficits in nonverbal communicative behaviors used for social interaction
 - ▣ Deficits in developing, maintaining, and understanding relationships

Types of Social Communication Deficits

- Abnormal social approach
- Poor reciprocal communication
- Reduced sharing of interests
- Reduced sharing of emotions
- Reduced affect
- Failure to respond to social overtures
- Failure to adjust behavior according to context
- Reduced nonverbal communication
- Reduced use of eye contact
- Reduced use of communicative facial expressions
- Reduced use and understanding of gestures
- Deficits in maintaining peer relationships
- Poor imaginative play

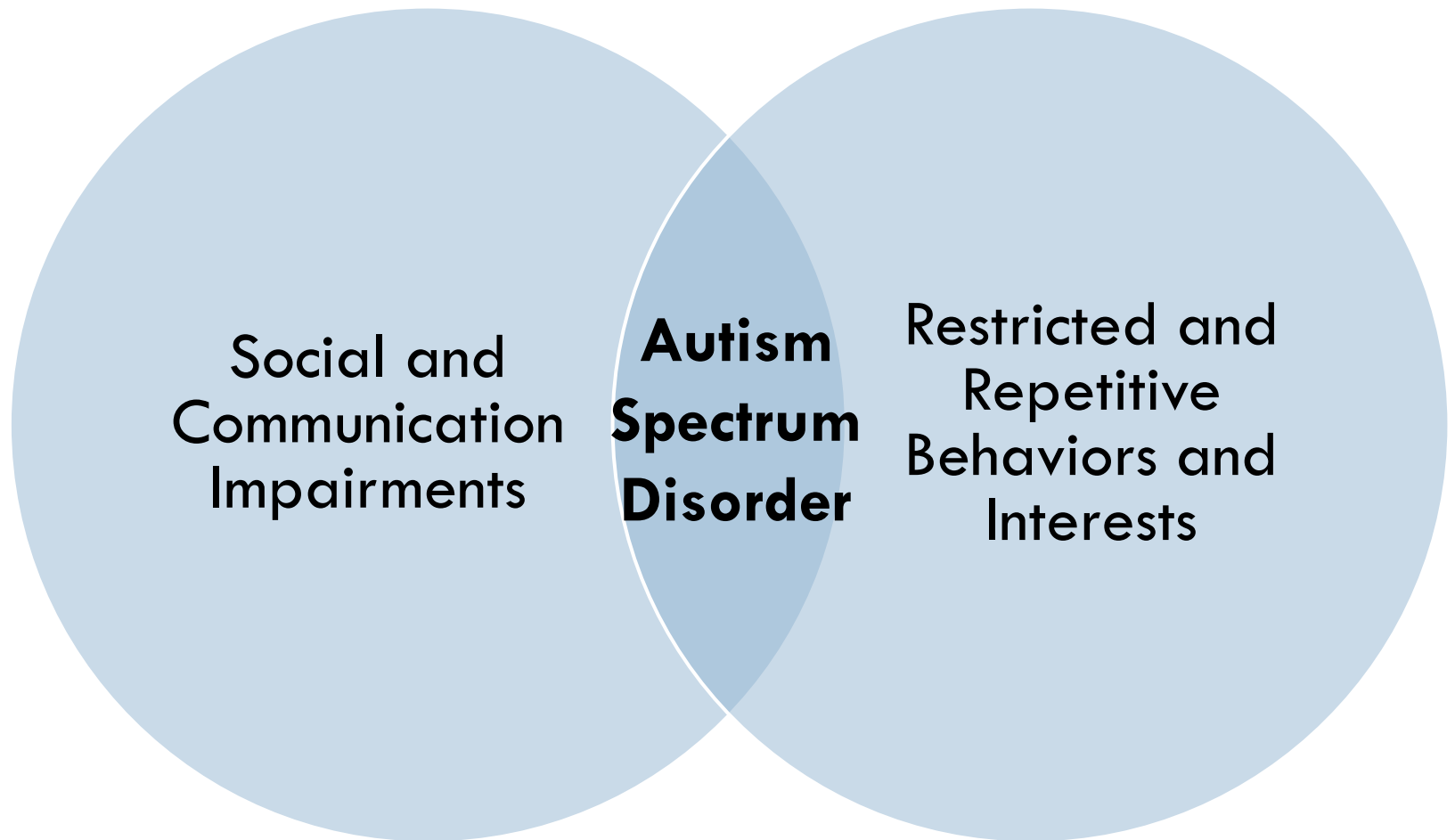
DSM-5 Diagnostic Criteria for ASD: Restricted and Repetitive Behaviors

- 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
 - ▣ Insistence on sameness, inflexible adherence to routines, or ritualized patterns of verbal or nonverbal behavior
 - ▣ Highly restricted, fixated interests that are abnormal in intensity or focus
 - ▣ Hyper- or hypo-reactivity to sensory input or unusual interest in sensory aspects of the environment

Types of Repetitive Behaviors in ASD

- ▣ Checking things
- ▣ Insists on routines
- ▣ Hand flapping
- ▣ Rocking
- ▣ Finger twisting
- ▣ Arranging objects
- ▣ Spinning objects
- ▣ Lining up objects
- ▣ Resists changes
- ▣ Turns in circles
- ▣ Attached to one object
- ▣ Interested in parts of objects
- ▣ Insists on specific order to activities
- ▣ Looks closely at objects
- ▣ Sensitivity to sensory stimuli
- ▣ Echolalia
- ▣ Stereotyped language
- ▣ Restricted interests

DSM-5 Conceptualization



Changes to Diagnostic Approach

- Comorbid diagnoses are permitted
 - ▣ Attention Deficit Hyperactive Disorder (ADHD)
- Multiaxial approach no longer used
- Level of support indicated
 - ▣ Level 3: Very substantial support
 - ▣ Level 2: Substantial support
 - ▣ Level 1: Support

DSM 5 Level of Support

Severity Level	Social Communication	Restricted and Repetitive Behaviors
Level 3-Very Substantial Support	Nonverbal, limited language-single words Limited social interactions Limited response to social overtures	Inflexibility with routines Behaviors affect functioning in several areas
Level 2-Substantial Support	Verbal, primarily using phrases Abnormal responses to social interaction Inconsistent response to overtures	Repetitive behaviors observed by strangers Difficulty with changes in routines
Level 1-Support	Fluent speech Difficulty initiating and maintaining relationships	Difficulty transitioning Difficulties with organizing tasks

Incorporation of Specifiers

- Descriptors that will better describe the full picture of the individual being diagnosed
 - Cognitive functioning
 - Language functioning
 - Medical, genetic comorbidity
 - Comorbidity
- Specifiers are fixed AND fluid
 - Fixed: Associated with medical condition, genetic disorder
 - Fluid: Cognitive level, language functioning

Social (Pragmatic) Communication Disorder

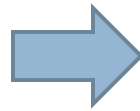
- Difficulties with pragmatic aspects of communication—impairments in the social use of language
 - ▣ Turn taking in conversation
 - ▣ Introduction of new topics in conversation
 - ▣ Understanding when someone is disinterested
 - ▣ Understanding of non-literal use of language (What's up?)
 - ▣ Use of gestures, facial expressions, body language

Social Communication Disorder

- Deficits result in functional limitations
- Deficits must be present in the early developmental period
 - ▣ May not be observed until social demands increase
 - Social demands increase as children age
- If significant repetitive behavior and restricted interests are present (or by history), a diagnosis of Social Communication Disorder is excluded

DSM-IV to DSM-5 Diagnosis

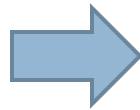
Asperger's
Disorder



Autism Spectrum
Disorder

- Without language impairment
- Without intellectual impairment

Autistic Disorder
with symptoms of
inattention and
hyperactivity



Autism Spectrum
Disorder

- With ADHD

What Remains the Same

- ASD is a heterogeneous disorder
 - ▣ Core symptoms
 - ▣ Associated symptoms
 - ▣ Trajectory
- Accurate diagnosis is important
 - ▣ Parent interview-developmental history
 - ▣ Behavioral observation
 - ▣ Assessment of cognitive functioning
 - ▣ Assessment of language functioning

5-year-old Case Example: Developmental History

- 5 year, 1 month old male
- Developmental milestones were met on time
 - ▣ Single words at 12 months
 - ▣ Phrase speech at 19 months
- Average overall cognitive functioning
 - ▣ Nonverbal skills high end of average range
 - ▣ Verbal skills low end of average range
- Parent report of symptoms
 - ▣ Difficulty developing peer relationships
 - ▣ Insistence on daily schedule, and some difficulty with change
 - ▣ Repeating lines from videos

Behavioral Observations

- Autism Diagnostic Observation Schedule, 2nd Edition (ADOS-2)
 - Used fluent language
 - Some difficulty with syntax and tense
 - Difficulty with reciprocal conversation
 - Answered some questions but did not initiate
 - Poor insight into social relationships
 - Poor use of eye contact
 - Limited use of gestures, facial expressions exaggerated
 - Conversation centered around topics of interest
 - Scripted speech
 - Phrases out of context

Case Example: DSM-5 Diagnosis

- Autism Spectrum Disorder
- Level of support needed
 - ▣ Social Communication- Support (Level 1)
 - Difficulty with reciprocal conversation, but still using fluent language
 - ▣ Restricted and Repetitive Behaviors-Support (Level 1)
 - Stereotyped phrases
- Specifiers
 - ▣ Without intellectual impairment
 - ▣ Without language impairment

7-year-old Case Example: Developmental History

- 7 year, 4 month old female
- Developmental milestones delayed
 - ▣ Single words at 27 months
 - ▣ Phrase speech at 40 months
- Delayed cognitive functioning
 - ▣ Below average nonverbal skills
 - ▣ Significantly delayed verbal skills
- Parent report of symptoms
 - ▣ Inconsistent eye contact
 - ▣ Does not approach, or respond to peers
 - ▣ Carries objects with her
 - ▣ Insistence on returning objects to original placement

Behavioral Observations

- ADOS-2 Observations
 - Used two and three word phrases
 - Responded inconsistently to examiner questions
 - Inconsistent use of eye contact
 - No spontaneous descriptive gestures
 - Some imaginative play
 - Engaged in echolalia-repeated phrases examiner used
 - Used scripted language out of context
 - Repetitive play with toys-flicking eyes of a doll
 - Unusual sensory interests
 - Looking at objects from the side of eyes
 - Looking at string for long periods

Behavioral Observations and Genetic Testing

Behavioral observations

- Spun objects during assessment
- Difficulty remaining seated during cognitive testing
- Frequently moved about the room
- Difficulty staying on task during cognitive testing
- Difficulty with executive functioning tasks

Genetic testing

- Genetic testing revealed 22q11.2 deletion

DSM-5 Diagnosis

- Autism Spectrum Disorder
- Level of support
 - ▣ Social communication-Substantial Support (Level 2)
 - ▣ Restricted and repetitive behaviors-Very Substantial Report (Level 3)
- Specifiers
 - ▣ With intellectual impairment
 - ▣ With language impairment
 - ▣ With known genetic condition-22q11.2
 - ▣ With Attention Deficit Hyperactivity Disorder, predominantly hyperactive/impulsive presentation



Questions?

Thank you