Autism Spectrum Disorder in DSM-5

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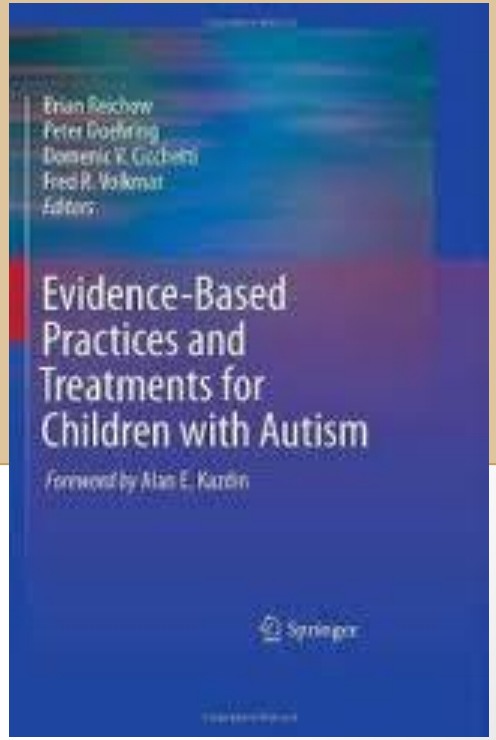
Disclosure / Conflict of Interest

- Have no conflict of interest with any portion of today's talk.

  -Do receive royalties from lectures and book publication



Overview

- Comments regarding classification
- Diagnostic history of autism
- Objectives of the DSM-5 revision
- DSM-5 Criteria and differences from DSM-IV
- Evaluating diagnostic changes associated with DSM-5
- Potential Impact of changes in ASD criteria
- Proactive steps to minimize negative impact

Two Main Classification Systems for Mental Disorders

- ICD – International classification of diseases
  - 1893 – classification on causes of death
  - Mental disorders included 1949 – (6th ed)
  - Now in its 10th edition
  - Published by World Health Organization
  - DSM is regard (by ICD) as a 'local variant'
- DSM – Diagnostic and Statistical Manual
  - 1917 APA "guidelines"
  - DSM-I (1952), DSM-II (1968); both highly theoretical
  - DSM-III (1980) – included ASD for first time

DSM-V Conceptual Approach

- Diagnostic validity of psychiatric illness
  (Robins & Guze, 1970; Kendler, 1990)
  - Separation from other disorders
  - Common clinical course
  - Genetic aggregation in families
  - Laboratory tests
  - Differential response to treatment
- Limitations of DSM-IV
  - High comorbidity (e.g., depression and anxiety)
  - Non-specific treatment response (e.g., atypical antipsychotics)
  - Absence of dimensional measures

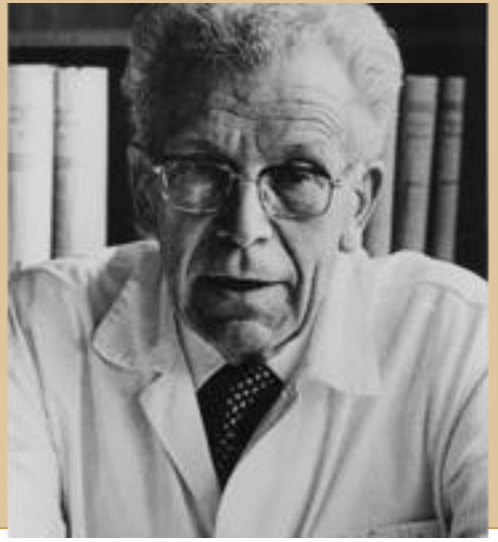
DSM-V Objectives

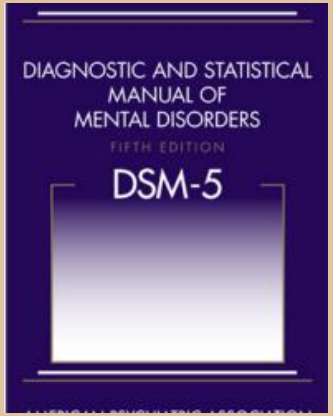
- Agenda for DSM-V *(Kupfer et al., 2002)*
  - Revisit definition of a mental disorder
  - Adding dimensional criteria to disorders
  - Separating impairment and diagnostic assessments
  - Expression of illness across development
  - Differences reflective of gender and culture
  - Integrate laboratory findings and biological markers

DSM-V Process

- White papers (2002, 2007)
- Conferences on research base for diagnoses (2003-2008)
  - Emphasis on dimensional measures (only GAF in DSM-IV)
- Creation of DSM-5 Task Force (2006-2008)
  - 13 diagnostic area work groups reviewing literature
    - Neurodevelopmental Disorders Work Group
  - 6 study groups (e.g., Development, Gender and culture)
- Field trial phase (2010)
  - Secondary data analysis
  - Primary data collection to test diagnostic options
- Publication in May 2013

Diagnostic History of Autism
From Kanner and Asperger to DSM-5





Predating Autism:

- Heller (1908) – Heller's syndrome
  - Similar to what is now childhood disintegrative disorder
- Bleuler (1910) – defining schizophrenia
  - "**autistic** withdrawal of the patient to his fantasies, against which any influence from outside becomes an intolerable disturbance"
  - This tie (term autism) to schizophrenia source of much early confusion

Diagnostic History of Autism

- Kanner (1943) – infantile autism
  - autistic disorder (classic autism)
- Asperger (1944) – Asperger's disorder

Infantile Autism (Kanner, 1943)

- Autistic Disturbances of Affective Contact
  - Case report (11 cases; 8M, 3F)
  - Two essential features Autism
    - Autistic aloneness
      - “inability to relate themselves in the ordinary way to people and situations from beginning of life”
    - Resistance to change
      - “anxiously obsessive desire for the maintenance of sameness”
    - several commonalities across cases of other features (communication, response to noise, etc)

Autistic Psychopathy (Asperger, 1944)

- Autistic psychopathy
  - Originally in German, translated to Eng 1981
  - Case report (all male)
  - Good cognitive and language skills
  - Marked social problems
  - Motor clumsiness
  - Circumscribed interests

Autism and DSM

- Not included in DSM-I (1952) or DSM-II (1968)
  - Childhood schizophrenia was closest term
- DSM-III (1980)
  - New class of disorders – PDD
  - Infantile autism, residual infantile autism, childhood onset PDD, residual onset PDD
  - Monothetic approach
- DSM-III-R (1987)
  - New polythetic definition tended to over diagnose
    - Especially in individuals with intellectual disability

DSM-IV

- 5 PDDs
  - Autistic disorder
  - Asperger's disorder
  - Rett's disorder
  - Childhood disintegrative disorder
  - Pervasive developmental disorder not otherwise specified (PDD-NOS)
- Achieved good sensitivity and specificity for ASD v. non-ASD across all ages and IQ levels

DSM-IV-TR (2000)

- Slight changes to text explaining diagnostic criteria
  - Some much needed clarification, especially for Asperger's syndrome
- No changes to actual criteria

DSM-IV-TR Diagnostic Criteria

1. Qualitative impairment in social interaction
   a) Marked impairment in the use of multiple nonverbal behaviors
   b) Failure to develop peer relationships appropriate to developmental level
   c) A lack of spontaneous seeking to share enjoyment, interests, or achievements with other people
   d) Lack of social or emotional reciprocity

DSM-IV-TR Diagnostic Criteria

2. Qualitative impairment in <u>communication</u>
   a) Delay in development of spoken language
   b) Marked impairment in ability to initiate or sustain a 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

DSM-IV-TR Diagnostic Criteria

3. Restricted repetitive and stereotyped patterns of behavior, interests, and activities
   a) Encompassing 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 or rituals
   c) Stereotyped and repetitive motor mannerisms
   d) Persistent preoccupation with parts of objects

DSM-IV-TR Diagnostic categories

Autistic Disorder

- 6 or more total symptoms
  - At least 2 in social interaction
  - At least 1 in communication
  - At least 1 restricted or stereotyped behavior
- Delays or abnormal functioning evident by age 3

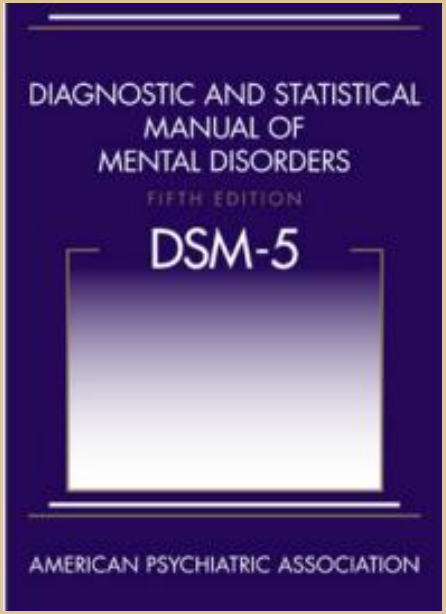
Asperger's Disorder

- At least 2 symptoms in social interaction
- At least 1 restricted or stereotyped behavior
- Significant impairment in functioning
- No significant delay in language, cognition, adaptive behavior

Pervasive Developmental Disorder – Not Otherwise Specified

- Social difficulties (1 social symptom)
- Impairments in communication or restricted/repetitive interests or behaviors (1 communication or behavioral symptom)

Autism Spectrum Disorders in DSM-5 (and SCD)



Key Changes to ASD in DSM-5

- Name change
  - Autism spectrum disorder
    - No longer pervasive developmental disorder

Key Changes to ASD in DSM-5

- Symptom dyad (formerly a triad)
  - Social-communication
  - Restrictive and repetitive behaviors
    - Now includes a sensory item
      - Was excluded from DSM-IV - low specificity

Other Notable Changes to ASD in DSM-5

- Combined monothetic and polythetic requirement
- Inclusion of Social (pragmatic) Communication Disorder
- Specifier system (more later)
- Allows more comorbidities
  - ADHD (was not allowed to coexist in DSM-IV)

Diagnostic Criteria for DSM-5 ASD

A. **Persistent deficits in social communication and social interaction** across multiple contexts, as manifested by the following, currently or by history (examples are illustrative, not exhaustive; see text):

1. Deficits in social-emotional reciprocity, ranging, for example, 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.
2. Deficits in nonverbal communicative behaviors used for social interaction, ranging, for example, 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 expression and nonverbal communication.
3. Deficits in developing, maintaining, and understanding relationships, ranging, for example, 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

Diagnostic Criteria for DSM-5 ASD

B. **Restricted, repetitive patterns of behavior**, interests, or activities, as manifested by at **least two** of the following, currently or by history (examples are illustrative, not exhaustive; see text):

1. Stereotyped or repetitive motor movements, or use of objects, or speech (e.g., simple motor stereotypies, lining up toys or flipping objects, echolalia, idiosyncratic phrases).
2. Insistence on sameness, inflexible adherence to routines, or ritualized patterns of verbal or nonverbal behavior (e.g., extreme distress at small changes, difficulties with transitions, rigid thinking patterns, greeting rituals, need to take same route or eat same food every day).
3. Highly restricted, fixated interests that are abnormal in intensity or focus (e.g., strong attachment to or preoccupation with unusual objects, excessively circumscribed or perseverative interests).
4. Hyper-or hypo-reactivity to sensory input or unusual interest in sensory aspects of environment (e.g., apparent indifference to pain/temperature, adverse response to specific sounds or textures, excessive smelling or touching of objects, fascination with lights or spinning objects).

Diagnostic Criteria for DSM-5 ASD

C. Symptoms must be present in 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).

D. Symptoms cause clinically significant impairment in social, occupational, or other important areas of current functioning.

E. These disturbances are not better explained by intellectual disability (intellectual developmental disorder) or global developmental delay. Intellectual disability and autism spectrum disorder frequently co-occur; to make comorbid diagnoses of autism spectrum disorder and intellectual disability, social communication should be below that expected for general developmental level.

Diagnostic Criteria for DSM-5 ASD

- Note: Individuals with a well-established DSM-IV diagnosis of autistic disorder, Asperger's disorder, or pervasive developmental disorder not otherwise specified should be given the diagnosis of autism spectrum disorder. Individuals who have marked deficits in social communication, but whose symptoms do not otherwise meet criteria for autism spectrum disorder, should be evaluated for social (pragmatic) communication disorder.
- Specify if:
  - With or without accompanying intellectual impairment
  - With or without accompanying language impairment
  - Associated with a known medical or genetic condition or environmental factor (Coding note: Use additional code to identify the associated medical or genetic condition).
  - Associated with another neurodevelopmental, mental, or behavioral disorder (Coding note: Use additional code to identify the associated…)
  - With catatonia (refer to criteria…)
- Also have severity specifiers

Diagnostic Criteria for DSM-5 SCD

Social (Pragmatic) Communication Disorder

A. Persistent difficulties in the social use of verbal and nonverbal communication as manifested by all of the following:

1. deficits in using communication for social purposes, such as greeting and sharing information, in a manner that is appropriate for the social context.

2. Impairment of the ability to change communication to match context or the needs of the listener, such as speaking differently in a classroom than on a playground, talking differently to a child than to an adult, and avoiding use of overly formal language.

3. Difficulties following fules for conversation and storytelling, such as taking turns in conversation, rephrasing when misunderstood, and knowing how to use verbal and nonverbal signals to regulate interaction.

4. Difficulties understanding what is not explicitly stated (e.g., making inferences) and nonliteral or ambiguous meanings of language (e.g., idioms, humor, metaphors, multiple meanings that depend on the context for interpretation).

Diagnostic Criteria for DSM-5 SCD

B. The deficits result in functional limitations in effective communication, social participation, social relationships, academic achievement, or occupational performance, individually or in combination.

C. The onset of symptoms is in the early developmental period (but may not become fully manifest until social demands exceed limited capacities).

D. The symptoms are not attributable to another medical or neurological condition or to low abilities in the domains of word structure and grammar, and are not better explained by autism spectrum disorder, intellectual disability (intellectual developmental disorder), global developmental delay, or another mental disorder.

DSM-5 and DSM-IV Comparison

- DSM-IV
  - PDD
  - 5 categories
  - Symptom triad
  - 12 possible criteria
  - Multiple criteria combinations; polythetic
  - Criteria met currently
  - Onset prior to age 3

- DSM-5
  - ASD
  - 1 category
  - Symptom dyad
  - 7 possible criteria
  - 5 criteria needed for dx (3 of 3 and 2 of 4); both mono- and polythetic
  - Criteria met currently or by history
  - Onset in early developmental period

Comparisons between DSM-IV and DSM-5

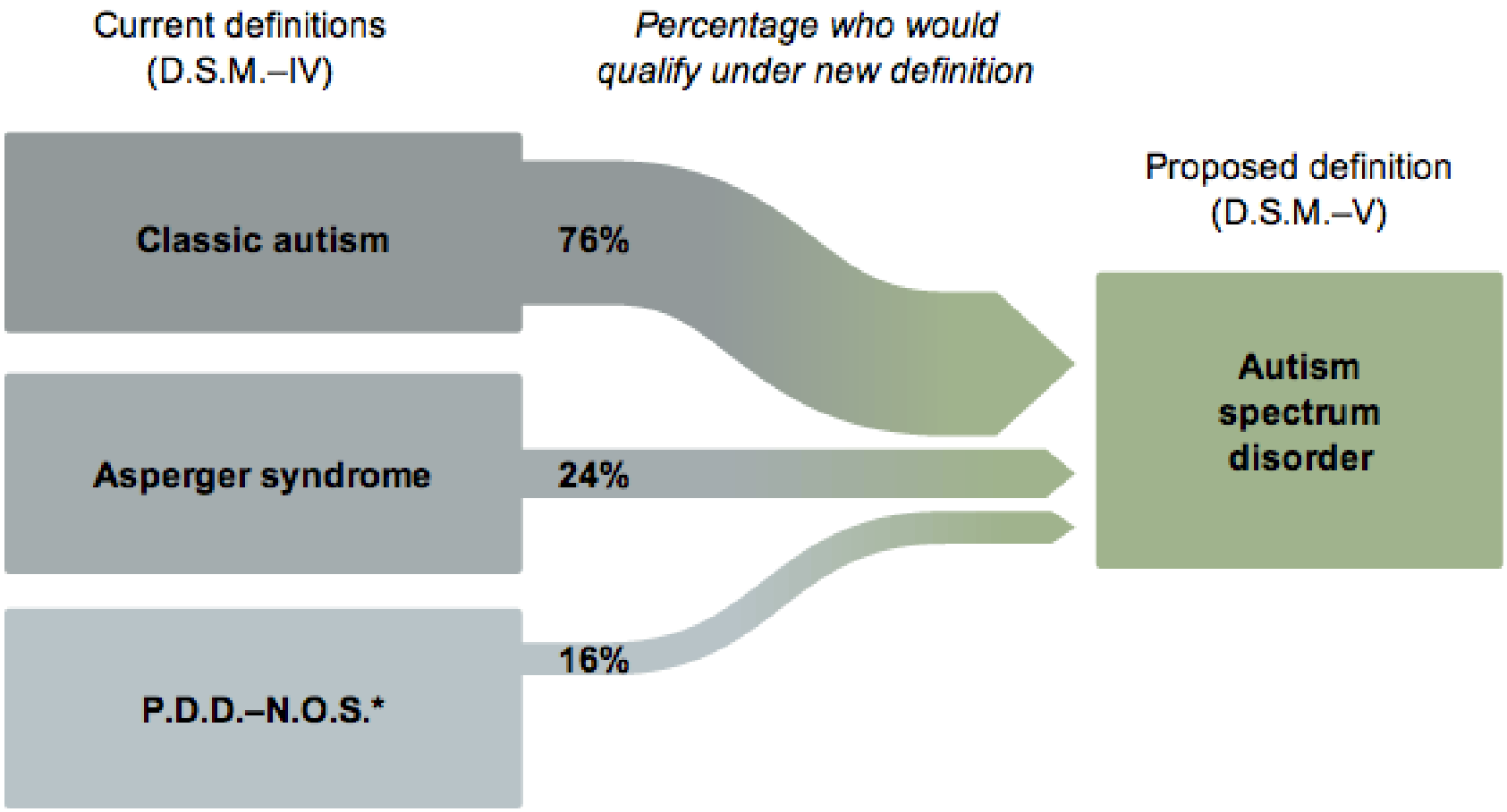
- A number of data reanalyses have been completed
  - Mostly from university clinic samples
- Some indicate DSM-5 captures most individuals identified under DSM-IV
  - Best when both ADI-R and ADOS were used
- A majority of published studies suggest about 30-40% of cases identified under DSM-IV would not meet DSM-5 ASD criteria
  - Most studies done before final criteria were released
  - Most studies did not examine SCD due to poor operalization during draft stages

Published: January 19, 2012

Redefining Autism

In a preliminary analysis, three researchers estimate that far fewer people with autism or a related disorder would meet the criteria for autism spectrum disorder after a change proposed for the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders, or D.S.M.

Related Article »



Still not known (or least well known)

- How the new criteria are used in clinical practice
  - Criteria and tests of criteria have relied heavily on ADOS and ADI-R
    - Not all are trained in, have access to, or routinely use these instruments in practice
- Relationship between SCD and ASD
  - Combined in APA field trial report of prevalence of ASD
- Who qualifies for SCD
  - Is it a reincarnation of PDD-NOS?
  - What treatments are effective for SCD
    - What services might be given for this in schools

Potential Impacts

- Impact on assessment tools
  - ADOS2 – no need for revision?
  - ADI-R – likely needs recalibration at the least
  - SRS-2
    - Incorporates SCD criteria
- Impact on screening tools?
  - Unknown (and little discussed)
- Special populations
  - Infants
  - Adults
- Services
  - School
  - Adult
  - Insurance coverage

Potential Impact of Not Receiving Diagnosis

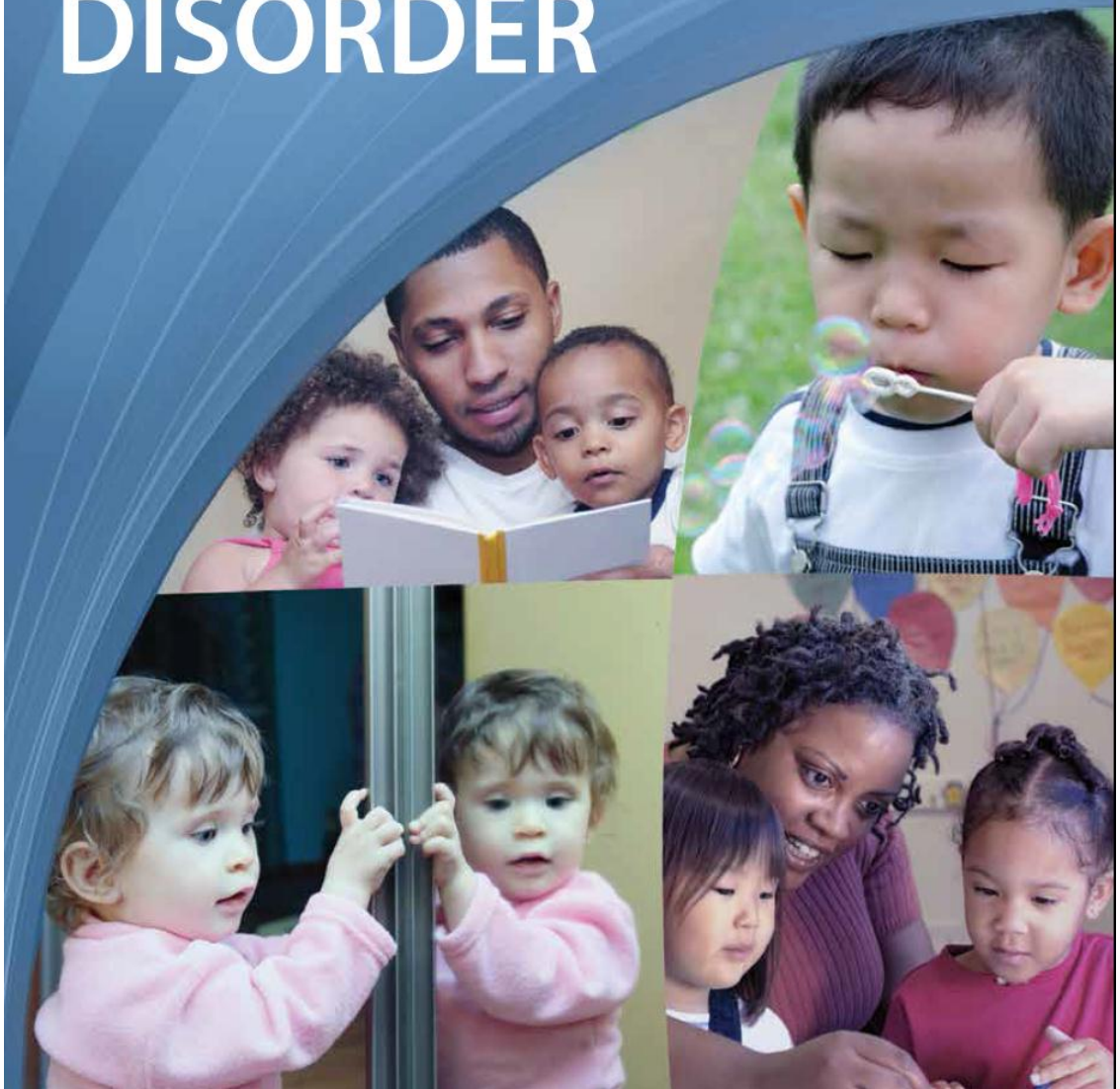
- Studies suggest impact greatest on those with DSM-IV or ICD-10 diagnoses of
  - Asperger's disorder
  - PDD-NOS
- Impact could be greatest on those who with a little extra support, can closest achieve full independent participation

Potential Impact on Research

- DSM-IV and ICD-10 are aligned.
  - DSM-5 is not aligned with ICD-10
  - ICD-11 undergoing revision currently
    - Early drafts have multiple types of ASD
- Hence, we will have at least 3 sets of diagnostic criteria in use for research
  - Will difficult to compare across time
- May also impact genetic studies
  - Located genetic marker for Rett's since DSM-IV
  - Possibly getting close to CDD

CONNECTICUT GUIDELINES *For a Diagnosis of*

AUTISM SPECTRUM DISORDER



Thank you!

- Uconn UCEDD has recently finished ASD Diagnostic Guidelines that have DSM-5 criteria, will be available on our website
  - uconnucedd.org
- Questions?

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