Comparison of the Diagnostic Criteria for Autism Spectrum Disorder Across DSM-5,[1] DSM-IV-TR,[2] and the Individuals with Disabilities Education Act (IDEA)[3] Definition of Autism

Colleen M. Harker, M.S. & Wendy L. Stone, Ph.D.
University of Washington READi Lab (Research on Early Autism Detection and Intervention)
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Table 1: Comparison of DSM-5 and DSM-IV-TR Diagnostic Criteria

	DSM-5	DSM-IV-TR	
Diagnostic Classification	**Autism Spectrum Disorder (ASD)**	**Pervasive Developmental Disorders**	**Key Differences**
Diagnostic Subcategories	None *(However, it is specified that individuals with a well-established DSM-IV diagnosis of Autistic Disorder, Asperger's Disorder, or PDD-NOS should be given the diagnosis of ASD).*	1. Autistic Disorder 2. Asperger's Disorder 3. Pervasive Developmental Disorder, Not Otherwise Specified (PDD-NOS) 4. Rett's Disorder 5. Childhood Disintegrative Disorder (CDD) Autism Spectrum Disorder(s)	In DSM-5: □ There are no diagnostic subcategories, reflecting research indicating a lack of reliability across clinicians in assigning subcategories. □ ASD encompasses Autistic Disorder, Asperger's Disorder, and PDD-NOS. Rett's Disorder and CDD are no longer included in the ASD diagnosis.
Requirement for Diagnosis	Must meet all 3 behavioral criteria in category A and at least 2 in category B. (See below).	Must meet at least 6 behavioral criteria overall, with at least two from category A.1, one from category A.2, and one from A.3. (See below.)	In DSM-5: □ It is now specified that behavioral criteria can be met on the basis of historical report.

	Social Communication & Social Interaction (Category A)	Social Interaction (Category A.1)	
Specific Behavioral Criteria: **SOCIAL**	**A. Persistent deficits in social communication and social interaction across multiple contexts, as manifested by <u>all three</u> of the following, currently or by history:** 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 expressions 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.	**A.1. Qualitative impairment in social interaction, as manifested by <u>at least two</u> of the following:** a. Marked impairments in the use of multiple nonverbal behaviors such as eye-to-eye gaze, facial expression, body posture, and gestures to regulate social interaction. 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, (e.g., by a lack of showing, bringing, or pointing out objects of interest to other people). d. Lack of social or emotional reciprocity (e.g., not actively participating in simple social play or games, preferring solitary activities, or involving others in activities only as tools or "mechanical" aids).	In DSM-5: □ Social communication and social interaction are combined into one category, in recognition that communication is necessarily social in nature, and based on factor analytic studies. □ It is specified that social communication/ interaction deficits must be manifested across multiple contexts.
	N/A	**Communication (Category A.2)**	
Specific Behavioral Criteria: **LANGUAGE/ COMMUNICA-TION**	*Symptoms in this area are now subsumed under Categories A (Social) and B (Restricted Activities)*	**A.2. Qualitative impairments in communication as manifested by <u>at least one</u> of the following:** a. Delay in, or total lack of, the development of spoken language (not accompanied by an attempt to compensate through alternative modes of communication such as gesture or mime). b. In individuals with adequate speech, marked impairment in the 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 appropriate to developmental level.	In DSM-5: □ Language impairment (a) is not included in the diagnostic criteria, but is included as a specifier (see 'Specifiers'). □ Impaired conversation (b) is considered an aspect of social-emotional reciprocity (A.1). □ Stereotyped language (c) is considered an aspect of restricted/repetitive behaviors (B.1). □ Social and imaginative play(d) are incorporated into A.3.

	Restricted, repetitive behavior, interests, activities (Category B)	Restricted repetitive & stereotyped patterns of behavior (Category A.3)	
Specific Behavioral Criteria: **RESTRICTED/ REPETITIVE ACTIVITIES**	**B. Restricted, repetitive patterns of behavior, interests, or activities, as manifested by at least two of the following, currently or by history.** 1. Stereotyped or repetitive motor movements, 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 or verbal 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 interest). 4. Hyper- or hyporeactivity to sensory input or unusual interests in sensory aspects of the environment (e.g., apparent indifference to pain/temperature, adverse response to specific sounds or textures, excessive smelling or touching of objects, visual fascination with lights or movement).	**A.3. Restricted repetitive and stereotyped patterns of behavior, interests and activities, as manifested by at least one of the following:** 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 (e.g., hand or finger flapping or twisting, or complex whole-body movements). d. Persistent preoccupation with parts of objects.	In DSM-5: - Sensory issues are now included as a behavioral symptom (B.4.).
Age of Onset	**C. 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).**	**B. Delays or abnormal functioning in at least one of the 3 behavioral must be present prior to age 3 years.**	In DSM-5: - Symptoms do not have to be apparent before age 3.

Level of Impairment	**D. Symptoms must cause clinically significant impairment in social, occupational, or other important areas of current functioning.**	Optional: Global Assessment of Functioning (0-100) may be used.	In DSM-5: - Functional impairment must be present for a diagnosis. - Severity levels for behavioral criteria A and B must be specified: - Level 3: Requiring very substantial support - Level 2: Requiring substantial support - Level 1: Requiring support
Rule-Outs	**E. These disturbances are not better explained by intellectual disability (intellectual developmental disorder) or global developmental delay.**	**C. The disturbance is not better accounted for by another Pervasive Developmental Disorder.**	In DSM-5: - Social (Pragmatic) Communication Disorder (SCD) is presented as an alternative (new) diagnosis for individuals who have marked deficits in social communication, but whose symptoms do not otherwise meet criteria for ASD.
Comorbidities	The following "Specifiers" should be indicated: - 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 other neurodevelopmental, mental, or behavioral disorder. - With catatonia.	ADHD and Stereotyped Movement Disorder cannot be diagnosed along with Autistic Disorder.	In DSM-5: - Comorbidities with other conditions are recognized; Specifiers are used to further describe the symptomatology.

Summary of Research Findings Comparing DSM-5 and DSM-IV-TR Criteria for Autism

Several studies have compared the DSM-5 criteria to the DSM-IV-TR criteria in clinical samples. The majority have used retrospective methods (e.g., record review) to apply DSM-5 criteria to individuals with an established DSM-IV-TR diagnosis.[4-9] Interpretation of these findings is challenging, because the initial diagnoses were based on the DSM-IV-TR criteria, which did not include some behavioral criteria specified in DSM-5. Four studies compared the use of DSM-IV-TR and DSM-5 diagnostic criteria on the same contemporaneous sample,[10-13] and one conducted a meta-analysis[14] of studies that used both contemporaneous and retrospective approaches. Only three studies used the current published DSM-5 criteria;[9, 11,13] the others used draft versions from either 2010[7] or 2011.[4-6,8,10,12], The meta-analysis reported similar findings for studies applying the 2010 and 2011 DSM-5 draft criteria.[14]

Most studies report that DSM-5 criteria, compared to DSM-IV-TR criteria, result in fewer individuals diagnosed with ASD.[5-7,10,12,13] The reduction rate across these studies ranged from 25%-68%, though one study found only a 9% reduction, or sensitivity of .91.[8] One study reported that higher-functioning individuals in the PDD-NOS subgroup were less likely to receive a DSM-5 diagnosis of ASD than were individuals in the other DSM-IV-TR subgroups.[10] While some studies reported that females, young children, and/or non-cognitively impaired individuals with a DSM-IV-TR diagnosis were disproportionately under-identified using DSM-5 criteria,[4-6] others reported similar identification rates for these subgroups.[8,13] One study found that a failure to satisfy all three criteria in the social-communication domain of DSM-5 was the most common reason (39%) that individuals with a DSM-IV-TR diagnosis did *not* receive a DSM-5 diagnosis of ASD.[13] Findings are mixed regarding the extent to which the new DSM-5 diagnosis of Social Communication Disorder (SCD) is successful in capturing individuals with a DSM-IV-TR diagnosis who do not meet DSM-5 diagnostic criteria for ASD.[11,12]

Table 2: Comparison of IDEA Definition of Autism and DSM-5 Diagnostic Criteria

IDEA Definition	Similarities with DSM-5	Differences from DSM-5
"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 often 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. A child who manifests the characteristics of autism after age three could be identified as having autism if the aforementioned criteria are satisfied. Autism does not apply if a child's educational performance is adversely affected primarily because the child has an emotional disturbance, as defined in paragraph (c)(4) of IDEA."	• Both definitions include symptoms in the areas of social interactions, nonverbal communication, repetitive activities, stereotyped movements, resistance to change, and unusual sensory responses. • Both definitions indicate that symptoms need not be apparent before age 3.	• IDEA uses the classification of 'autism,' while DSM-5 uses the classification of 'autism spectrum disorder (ASD).' • DSM-5 presents more detailed behavioral descriptions for each symptom. • DSM-5 provides an algorithm for how many symptoms in each behavioral domain are required for a diagnosis. • IDEA provides more detailed description for stereotyped activities than for social impairments, suggesting an emphasis on the former. • IDEA specifies that the symptoms must adversely affect the child's educational performance, while DSM-5 requires impairment in social, occupational, or other important areas of functioning. • DSM-5 requires the specification of severity levels for the two behavioral domains. • DSM-5 uses "specifiers" to describe co-morbidities, such as language and intellectual impairment.

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