

## Diagnostic criteria for autism under the DSM-5

As new research findings gradually lead us to a better understanding of autism, the criteria for a diagnosis of autism must continuously be revised. Last year, a new classification of autism in the latest edition of the 'Diagnostic and Statistical Manual of Mental Disorders' (*DSM-5*) attracted much public attention. In this article, Dr Giacomo Vivanti and Dr Donata Pagetti Vivanti explain the meaning of these changes.

The *DSM-5* is the fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders (DSM)*, edited by the American Psychiatric Association. The *DSM* is a classification of mental disorders that is used as a reference tool for diagnosis by many health professionals. Moreover, it is used for research purposes and for elaborating public health statistics. The *DSM* is one of the world's two most commonly used manuals to classify mental disorders (the other one is the *International Classification of Diseases (ICD-10)*, published by the World Health Organisation).

The changes introduced in the fifth edition of the *DSM (DSM-5)* reflect a significant departure from the diagnostic criteria that have been used in past decades to diagnose autism and related conditions. Initially classified under the label of 'childhood schizophrenia' in the first edition which was published in 1952, the diagnostic concept of autism has been subject to a new definition in each of the subsequent editions of the *DSM*. Each of these updates has been met with controversy, and the latest changes in diagnostic criteria, introduced in the fifth edition in May 2013, are no exception.

### Revised diagnostic criteria for autism spectrum disorder in the *DSM-5*

- A. Persistent deficits in social communication and social interaction across multiple contexts, as manifested by the following, currently or by history
  1. Deficits in social-emotional reciprocity;
  2. Deficits in nonverbal communicative behaviours used for social interaction;
  3. Deficits in developing, maintaining and understanding relationships.
- B. Restricted, repetitive patterns of behaviour, 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;
  2. Insistence on sameness, inflexible adherence to routines, or ritualised patterns of verbal or nonverbal behaviour;
  3. Highly restricted, fixated interests that are abnormal in intensity or focus;
  4. Hyper- or hypo- reactivity to sensory input or unusual interest in sensory aspects of the environment.
- 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).
- 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.

### Main differences between the *DSM-5* and the *DSM-IV*

#### 1. Definition

The *DSM-IV*, introduced in 1994, defined autism and related disorders as 'pervasive developmental disorders' (PDDs). This definition has been replaced in *DSM-5* by the term 'autism spectrum disorders' (ASDs). These are included in the broader category of 'neurodevelopmental disorders'.

## 2. ASD subtypes

In the *DSM IV* classification, the category of pervasive developmental disorders included five different subtypes of autism: autistic disorder, Asperger's disorder, childhood disintegrative disorder, pervasive developmental disorder – not otherwise specified (PDD-NOS), and Rett syndrome.

The *DSM-5* has replaced four of these subtypes (autistic disorder, Asperger's disorder, childhood disintegrative disorder and PDD-NOS) with one central diagnosis, 'autism spectrum disorder' (ASD). Rett syndrome is no longer included in the *DSM*. Rather than making a distinction between different subtypes, the *DSM-5* diagnostic definition of ASD specifies three levels of symptom severity, and the intensity of the support needed.

## 3. Clinical features

The diagnostic definition of autism in the *DSM-IV* was characterised by three core symptoms (the triad):

- a. impaired social reciprocity;
- b. impaired language/communication;
- c. restricted and repetitive pattern of interests/activities.

In the *DSM-5*, there are now just two symptom categories:

- a. 'social communication deficits' (combining social and communication problems); and
- b. 'restricted/repetitive behaviours'.

The symptom categories 'social communication deficits' and 'restricted/repetitive behaviours' overlap partially with those in the *DSM-IV*, with two relevant changes:

- a. 'language impairment/delay' is no longer included in this symptom category in the *DSM-5*;
- b. a new clinical feature 'unusual sensitivity to sensory stimuli', that was not included in the *DSM-IV*; has been incorporated in the repetitive behaviours.

## 4. Onset

A further change is that the diagnostic criterion of onset of autism spectrum disorders before 36 months of age used in the *DSM-IV* is replaced with the following 'open' definition in *DSM-5*: "Symptoms must be present in early childhood, but may not become fully manifest until social demands exceed limited capacities".

## 5. Differential diagnosis

The *DSM-5* introduces a new diagnostic label within the category of 'language impairments': 'social communication disorder'. The diagnostic features of this category partially overlap with that of ASD, as children diagnosed with social communication disorder are required to have an "impairment of pragmatics" as well as an impairment in the "social uses of verbal and nonverbal communication". However, the additional presence of fixated interests and repetitive behaviours excludes the possibility of a diagnosis of social communication disorder. Therefore, the occurrence of repetitive behaviours is essential for the differential diagnosis of ASD.

## Rationale for Changes

The changes introduced by the *DSM-5* are driven by research data. The removal of the diagnostic subtypes of PDD seen in *DSM-IV* is based on studies showing that:

- a. the distinction among the *DSM-IV* subtypes is inconsistent over time;
- b. the application of the diagnostic subtypes can be inconsistent across sites (e.g. the same child could be diagnosed as having Asperger's disorder at one site and autistic disorder at another);
- c. the differences in social and cognitive abilities between subgroups are better defined in terms of a continuum, rather than separate subtypes;

- d. there is little evidence for any significant difference in the genetic risk of a person having either autistic disorder or Asperger's disorder (i.e. studies based on siblings of children with autism spectrum disorders show that the prevalence of autistic disorder and Asperger's disorder among the siblings is approximately the same). The findings of biological studies (e.g. biomarkers, functional brain imaging and eye-tracking studies) also show little evidence of any significant difference in genetic risk of a person having one condition or the other.

The relevance assigned to the presence of repetitive behaviours and the elimination of the language-related criteria is based on recent studies documenting that:

- a. repetitive behaviours, including abnormal sensory responses, emerge early in the development of children with ASD;
- b. unlike language difficulties, they are a distinctive feature of ASD.

Finally, the new diagnostic category of social communication disorder in the *DSM-5* has been introduced because some children might present impairments in the social use of communication without having repetitive/restricted behaviours, as documented by Rapin & Allen[i], 1983.

### **Criticisms of the *DSM-5***

A number of concerns have been raised by scholars and advocacy groups about the clinical, research and cultural implications of these changes. The most common criticism of the *DSM-5* definition of ASD is that the new criteria are too narrow and could result in excluding some individuals from a diagnosis of autism and therefore excluding them from access to services they need.

A number of studies appear to support this concern. Some studies[ii] found that a significant proportion (10-40 per cent) of individuals meeting the *DSM IV* criteria for a diagnosis of ASD would not meet the new criteria under the *DSM-5*.

Another common criticism concerns the introduction of the new diagnosis of social communication disorder. It is unclear how this diagnosis is related to the ASD diagnosis and, as it is a new diagnosis, there are doubts about its practical use in terms of treatment strategies to be recommended and whether individuals diagnosed with this condition will be able to gain access to services relevant to their condition.

Some self-advocate organisations also argue that incorporating Asperger disorder into the category of autism spectrum disorders without any distinction from autism will undermine the identity of affected people. Nevertheless, the approach of *DSM-5* to the sub-classification of ASD, by taking into account the level of support needed, is more consequent to the rights-based approach enshrined in the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD). According to the UNCRPD approach, disability is – and must be considered as – diverse. The inherent dignity and value of every human being should be fully recognised, regardless of the type or severity of his or her disability. As a consequence, a diagnosis or sub-diagnosis should never be the grounds on which to build the identity of a person or group of people. At the same time, according to the UNCRPD definition of disability, no person should be considered disabled against his or her will.

Finally, classifying Asperger disorder as a specific subtype of ASD entails an even higher risk for affected people to be excluded from support they may need and services, mainly because the myth that people with Asperger disorder are geniuses is still very prevalent.

### **Conclusions**

The changes introduced by the *DSM-5* are based on scientific evidence, rather than on the grounds of politics or lobbying. Nevertheless, there are some concerns about adopting the new classification system, including the possibility that some individuals might no longer meet the diagnostic criteria for ASD.

It is imperative therefore that the scientific community studies the impact of the changes to the *DSM* in the real world and that policy makers ensure that the introduction of the new criteria will not result in changes in coverage policies for support services that will exclude people with ASD from accessing them.

**More information on the *DSM-5* is available at: [www.dsm5.org](http://www.dsm5.org)**

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[i] Rapin, I., & Allen, D. (1983). Developmental language disorders: nosologic considerations. In U. Kirk (Ed.), *Neuropsychology of language, reading, and spelling*, pp. 155–184. New York: Academic Press.

[ii] Vivanti, G., Hudry, K., Trembath, D., Barbaro, J., Richdale, A., Dissanayake, C. (2013). Towards the DSM 5 Criteria for Autism: Clinical, Cultural and Research Implications. *Australian Psychologist*, 48, pp.258-261; Volkmar FR, Reichow B (2013). Autism in DSM-5: Progress and challenges. *Molecular Autism*, 4: 13.