



## Review Article

# A Critique of Autism Spectrum Disorder in DSM-V

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## Abstract

DSM-V witnessed the first appearance of autism spectrum disorder. It appeared as an output of a fusion process for all four types of ASDs into one disorder. It exists as an only entity and diagnosis. Although, not realistic to reflect all ASDs four types. Asperger's disorder (AS) was also merged with them in an illogical and unrealistic step. No theoretical framework was available to cover ASD, which added more confusion to it. The idea of spectrum was totally destroyed, and an incorrect method of estimating spectrum depending on disorder intensity levels was used. A more complex and reformulated version of DSM-IV autism diagnostic criteria was developed by APA to diagnose ASD as if both were the same. A new classification model for ASD can solve these problems. It was concluded that ASD was introduced in DSM-V as a construction with an ambiguous identity and without specific diagnostic criteria, which created more problems to practitioners and parents. Meanwhile, all ASDs still have their different and distinct existence in reality and need to be diagnosed precisely. To avoid and overcome such problems, it is important to look for a new classification model for ASD.

**Keywords:** Critique; Autism Spectrum Disorder; DSM-V; Asperger Disorder; Pervasive Developmental Disorder.

**Abbreviations:** APA: American Psychiatric Association; ASP: Autism Spectrum Disorder; AS: Asperger's disorder; CDD: Childhood Disintegrative Disorder; DSM: Diagnostic and Statistical Manual of Mental Disorders; PDD-NOS: Pervasive Developmental Disorder-Not Otherwise Specified

## Introduction

The Diagnostic and Statistical Manual of Mental Disorders, 5th edition DSM-V issued by American Psychiatric Association (APA) in May (2013) merged autism, Asperger, childhood disintegrative disorder CDD and pervasive developmental disorder- not otherwise specified Pervasive Developmental Disorder-Not Otherwise Specified (PDD- NOS) into autism spectrum disorder [1]. This means that all ASDs four types served as inputs of a fusion process, and ASD served as the output of the process. It was supposed that ASD would represent and reflect such disorders, but

this was not happened. Asperger's disorder (AS) which should be dealt separately was merged with them, too.

Those disorders still have their distinct existence in real life, but practitioner's sticks to the manual suggesting that children should diagnosed the way included in the manual, which in turn did not make the diagnoses received by those children exact ones as the diagnostic criteria included manual. Manual are just a complex and reformulated version of DSM-IV autism diagnostic criteria. Consequently, many problems related to diagnosis and intervention were created.

ASD introduced in the manual without a theoretical framework, which made it difficult for anyone to write about. When conducting various studies, researchers write ASD in the title, but they deal with autism, and use the rich framework of autism in their studies, which is not scientific. Another important point referred to by Mohammed, [2] is that fusing ASDs into just one element or disorder called ASD has led to destruction of the idea of spectrum. Therefore, no spectrum is really found because not all

spectrum prerequisites were very met. The manual insisted on its presence, and uses an inaccurate method to estimate it suggesting that it could be done through the disorder intensity levels, which does not mean in fact anything more than reflecting the presence of varying degrees of a certain characteristic related to just one element. Consequently, this idea could not be generalized to other disorders. This means that we are in need of a new classification model for ASD to get exact diagnoses.

## **Procedure**

### **Material and Method**

Systematic reviews, analysis and criticism of DSM-IV, DSM-V, DSM-V-TR practice, observations and discussions with specialists, practitioners and parents in addition to observational studies dealing with ASD that have been conducted since 2013 [1,3,4]. Review and analysis were concentrated on ASD as presented in the manual. Original articles regarding ASD and early identification and intervention were screened. Articles were excluded if they did not meet all the criteria for inclusion.

Three different Arabic and English electronic databases were searched. The initial search was performed on February 27, 2022, and encompassed all original articles published in Arabic and English. Only ASD and ASDs terms were used in the initial search to minimize the risk of missing potentially relevant articles. Initially, all articles were screened by heading and abstract, followed by a full text screening of the remaining articles. A final hand search through the reference list of the included articles was done on March 25, 2022 to locate additional articles missed by the initial search.

### **Fusing ASDs into ASD**

Prior to 2013, five separate diagnoses existed on the autism spectrum. ASDs defined in terms of abnormalities in social and communication development in the presence of marked repetitive behavior and narrow interests. Rett's disorder disappeared from DSM-V (2013) as the gene responsible for it was detected. The other four types that were separate and distinct as entities and diagnoses were fused as inputs into one disorder as an output known as ASD.

Autism is a neurodevelopmental disorder that negatively affects verbal and nonverbal communication, social interaction and everyday functioning. It is often diagnosed before the child reaches three years of age. Children with autism more often demonstrated restricted patterns of interest, lacked varied make-believe play, failed to use nonverbal behavior, and had an earlier age of onset. Cognitive and language low functioning may be more salient variables because of the cognitive and language developmental delay exhibited. Restricted social interaction, poor verbal and non-verbal communication skills, strict and/or stereotypical behaviors

are salient characteristics [5,6]. PDD-NOS which was referred to by some practitioners prior to 2013 as atypical autism was believed to be a milder form of ASD. PDD-NOS is the diagnosis applied to children or adults who are on the autism spectrum but do not fully meet the criteria for another type of ASDs such as autism or Asperger. It can occur in conjunction with a wide spectrum of intellectual ability. Its defining features are significant challenges in social and language development. Some professionals refer it as subthreshold autism. This means that it's the diagnosis they use for someone who has some but not all characteristics of autism or who has relatively mild autism symptoms [2].

CDD, also known as Heller's syndrome, is a rare condition characterized by late onset of developmental delays or severe and sudden reversals in language, social functioning and motor skills in addition to seizures and autism characteristics as children develop normally through age 3 or 4. Then, over a few months, they lose language, motor, social, and other skills that they already learned [7]. Asperger's is a neurodevelopmental disorder characterized by significant difficulties in social interaction and nonverbal communication, along with restricted and repetitive patterns of behavior and interests. It differs from other ASDs by relatively unimpaired language and intelligence [8]. Although not required for diagnosis, physical clumsiness and unusual use of language are common. Signs usually begin before two years of age and in many cases, never resolve [9].

All ASDs were put together as inputs, and only one output was produced out of that process. Consequently, all these types disappeared from the manual although they had their own existence as entities and diagnoses before 2013 when DSM-V was issued. This disappearance was logically unjustified. Asperger syndrome a disorder without any cognitive delay was mixed with autism, CDD and PDD-NOS as disorders with cognitive delay. We did not know how these disorders were fused together. Besides, all these types still have their own different and distinct existence in real life which created many problems to specialists if they come to diagnose and choose or develop case- and age- appropriate intervention and individualized programs [20].

The new output looked as a premature one because of the shortcomings related to it. It neither stands for nor reflects ASDs. They still have their different and distinct entity in reality which created many problems to practitioners and parents when they try to deal with children having any type of ASDs. It does not look appropriate that in spite of the uniqueness and real existence of AS, it disappeared from the manual. ASD was introduced without a theoretical framework which led to a common mistake appeared on reviewing the studies conducted as they included ASD in the title only, but the text dealt with autism. There are no real diagnostic criteria for ASD because the diagnostic criteria included in the manual are a reformulated form of DSM- IV autism diagnostic

criteria which might mean that ASD is the same as autism. This output as a single element has destroyed the idea of spectrum. In fact, no spectrum is found now although this term is included in the output name. Also, it is not right to estimate spectrum by using the disorder intensity levels because such levels are just varying degrees of a certain characteristic related to one element only [2].

### **Merging AS into ASD**

AS differs from other types of ASDs because it is the only type that is not accompanied by cognitive delay or deficits. IQ ranges from normal to above normal levels. It is likely that children might acquire a great amount of more advanced vocabulary, but a problem in the way they use such vocabulary may emerge. As a result, AS also known as “autism spectrum disorder- without intellectual or language impairment”. Although it is a neurodevelopmental disorder characterized by significant difficulties in social interaction and nonverbal communication, along with restricted and repetitive patterns of behavior and interests, it differs from other ASDs by relatively unimpaired language and intelligence that made AS unaccompanied by intellectual disability and left many gifted individuals to be affected by it [11].

Nevertheless, AS may be difficult to diagnose as a single and separate entity because diagnosing AS requires the presence of standard diagnostic criteria reflecting impairment in social interaction and repetitive and stereotyped patterns of behavior, activities, and interests, without significant delay in language or cognitive development [8]. But it has been fused into ASD as appeared in DSM-V and DSM-V-TR, and it is no longer diagnosed as a condition in and of itself because it has become part of the range of conditions included in ASD though a differential diagnosis is needed [12].

After merging AS into ASD, more difficulties was experienced to get a clear diagnosis and attain practical benefits as many children with AS are initially misdiagnosed with other disorders and diagnosing adults is more challenging.

A separate and distinct existence of AS is obviously seen in reality, and individuals with AS need an exact diagnosis in order to receive intervention programs and supports. Hence, AS as a separate and distinct disorder in our real life should have a separate diagnosis. Therefore, it was not right to merge or eliminate and fold it into ASD because a controversial change took place, and AS disappeared and subsequently removed from the manual as an entity and diagnosis. So, a new vision needs to be considered where AS is diagnosed and treated separately apart from the fusion of all types of ASDs into a single product or output.

### **Destruction of the spectrum idea**

Lexically, spectrum is a classification of a group of elements sharing at least one characteristic with varying degrees [2]. So,

three prerequisites for spectrum should be met to use this term, and when one of these prerequisites is not met, there will be no spectrum. Accordingly, when ASDs were fused or merged into just one disorder i.e. ASD, no spectrum was found but when ASDs were found prior to 2013, there was a spectrum because there was a group of disorders sharing autistic characteristics with varying degrees, which meant that all prerequisites of spectrum were met. This idea was totally, destroyed when such a group of disorders disappeared in DSM-V as a result of a fusion process of merging all ASDs into just one entity called ASD as we notice that the first prerequisite is not met because we do not have a group of elements, but we have just one element. Also, the second prerequisite is not met as we notice that there is nothing to be shared with other elements. The third prerequisite is not met, too because if there was nothing to be shared with other elements, there would be no varying degrees.

As a result, of this merging process the idea of spectrum was totally destroyed. Although there is no spectrum logically and realistically, APA insisted on the presence of such a spectrum as if it was a daydream idea, and used that term to describe the disorder calling it autism spectrum disorder. Realistically, the term spectrum is present by name only because it has no real or true existence. So, there is no real spectrum because the idea of spectrum was totally destroyed when ASDs were fused or merged into just one disorder.

When APA insisted on the presence of spectrum, they used an incorrect method to estimate it as they believed and stated that it could be estimated or evaluated through the intensity levels of the disorder although the intensity levels in general are just varying degrees of a certain characteristic pertaining one element only [2]. So, there is no spectrum at all in spite of the insistence on using such a term. Suppose that their belief is right, why did this idea not generalized to all disorders having intensity levels especially those disorders that are more stable in their nature like intellectual disability for example or even hard- of- hearing? Why did they insist on using this term with ASD only? The use of the term spectrum in that sense is neither exact nor precise and in fact, it is not right at all.

### **No theoretical framework is available**

When we come to write about a disorder, we look for a rich theoretical framework to cover all areas of research we are conducting. There are theories and models explaining causes of the disorder, developmental areas, diagnosis, prognosis and intervention. When we choose a certain disorder to deal with, we should type the name of this disorder in the title of our study, then we should stick ourselves to the same disorder to gather the required data about it. ASDs have the same characteristic that help us carry out our studies when dealing with any type, but when these types were fused together and the output was ASD, it seems that such an output was an immature one as there is no theoretical framework

to cover the different areas related to it. Nothing enough was written about it except an inaccurate diagnostic criterion because it was developed as a complex and reformulated version of DSM-IV autism diagnostic criteria encouraging us to infer that ASD is the same as autism, which is not right in fact.

Reviewing the Arabic and English studies dealing with ASD since 2013 in the selected three different Arabic and English electronic databases mentioned in the materials and methods section showed that although the title of the study reflects that ASD is the disorder the researcher is dealing with, the text of the study reflects autism not ASD. This procedure is not in line with the scientific method of research. So long as there are neither a thorough theoretical framework for ASD, nor specified diagnostic criteria to diagnose it accurately, and it does not reflect the exact disorder the child has, there was no need to introduce it in this premature way. Hence, a new classification model for ASD is needed so, as to face all these problems.

### Diagnosis of ASD

Diagnosis is the process that aims to identify the case appropriately by evaluating its history, causes, examination, and identification of symptoms and characteristics. It always ends with a decision pertaining what should be done with the case [13]. The DSM-V symptom domains have been reduced to two symptom clusters including social communication and restricted, repetitive behaviors rather than three clusters in DSM-IV including social interaction, communication, and restricted, repetitive, and stereotyped behaviors. In order to receive a diagnosis of ASD, a child must demonstrate symptoms from both domains as he should manifest all three symptoms from social communication cluster, and two symptoms from repetitive behaviors cluster [1]. A more reformulated version of DSM-IV diagnosis of autism was developed by APA to diagnose ASD as if both were the same.

An analytical review by the author [13] reveals that the DSM-V diagnostic criteria are the same as DSM-IV and DSM-IV-TR criteria, but in a complex and reformulated version that have nothing to do with AS, CDD and PDD-NOS. Thus, these criteria were not developed especially for ASD as they were originally developed for autism. It appeared that DSM-IV and DSM-V concentrate on autism. ASD was introduced as a disorder with an ambiguous and unstable nature or existence. If symptoms differ as a result, of intensity level, developmental level and chronological age, what are these specific symptoms, and how can they be related to spectrum? Spectrum is originally estimated inappropriately according to the disorder intensity levels. Manual diagnostic features stated in p.53 that ASD includes autism, AS, CDD and PDD-NOS, but again it stated in p. 51 that it includes autism, AS and PDD-NOS, so which of them is right? and where is CDD if not included in ASD? Also, no clear vision about AS is included, and most of PDD- NOS children might receive the

diagnosis of the social (pragmatic) communication disorder though they exhibit some autistic characteristics. Although there is a spectrum according to the manual, there is no clear continuum. Intensity levels do not reflect any distinct disorder. Items included in each cluster are complex. Although all ASDs have their distinct existence, they were merged together neglecting their real existence. All ASDs differ in the onset of the disorder. Nothing is included about ASDs that were merged together to produce ASD. Three not four intensity levels of ASD are available which in turn means that they are less than the number of ASDs if it was suggested that ASD would reflect ASDs. There are neither real nor logical spectrum and continuum as prerequisites of spectrum are not met, and intensity levels do not reflect spectrum at all.

A more complex and reformulated version of DSM-IV autism diagnostic criteria is presented to diagnose ASD as

1. Areas of language impairment or verbal communication in DSM-IV diagnosed by the four criteria in the second cluster deals with spoken language delay, inability to initiate a conversation, stereotypic and repetitive use of language, and imaginative play deficits have been gathered into the first item. The second cluster in DSM-V also deals with repetitive behavior; stereotyped or repetitive motor movements, use of objects, or speech like simple motor stereotypies, lining up toys or flipping objects, echolalia, idiosyncratic phrases. This made criteria more complex to be used in diagnosis and assessment.
2. The DSM-V second criterion in cluster one that deals with nonverbal communication deficits includes deficits in nonverbal communicative behaviors used for social interaction, ranging 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. While the first DSM-IV criterion in cluster one deals with that nonverbal communication. It appeared that we are dealing with the same disorder.
3. DSM-IV cluster one deals with social behavior deficits through four criteria, and the child should manifest at least two of them. These criteria include nonverbal communication, relations with peers, sharing activities and interests with others and social reciprocity. The first DSM-V criterion in the first cluster covers 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. Thus, four criteria in DSM-IV are gathered into just one criterion in DSM-V, which reflects the idea of dealing with the same disorder using a complex and reformulated version of these criteria.
4. Part of DSM-IV cluster two dealing with spoken language deficits, conversation initiation inability, repetitive use of



language and make-believe play deficits is included in the first cluster criteria in DSM-V dealing with deficits in social-emotional reciprocity while the other part of it is included in the first criterion in DSM-V cluster two.

5. Both DSM-IV and V concentrate on repetitive behaviors as cluster three in DSM-IV concentrated on the presence of those patterns of behavior, interests, or activities as manifested by at least one out of four criteria including preoccupying to an unusual stereotyped interest, sameness and routine, stereotyped methods of doing things and persistent preoccupation to parts of objects whereas three criteria in cluster two in DSM-V concentrate on the presence of the same patterns of behavior, interests, or activities as manifested by at least two out of four criteria including stereotyped or repetitive motor movements, use of objects, or speech on one hand, insistence on sameness, inflexible adherence to routines, or ritualized patterns of verbal or nonverbal behavior on the other hand, and finally highly restricted, fixated interests that are abnormal in intensity or focus. The fourth criterion will be dealt with in a separate point. This means that the same diagnostic criteria are used in both manuals although the disorder dealt with in each manual differs.
6. Part of language delay from cluster two DSM-IV criteria is included in criterion one in DSM-V cluster two, and the whole four criteria of DSM-IV cluster three are included in the first three criteria in DSM-V cluster two which means that both diagnoses are the same as if both disorders were the same. It reflects that the change is in name only.
7. The fourth criterion in DSM-V cluster two deals with hyper- or hypo reactivity to sensory input or unusual interest in sensory aspects of the environment like apparent indifference to pain or temperature, adverse response to specific sounds or textures, excessive smelling or touching of objects, etc. Such a criterion has nothing to do with diagnosis because according to Whitman there are three core deficits characterizing children with autism i.e. primacy, specificity and universality [17]. The only characteristics that can reflect the disorder are those of specificity, as only children with the disorder should meet them. Hence, they can be used as diagnostic criteria. But characteristics with universality as hyper- or hypo reactivity to sensory input are common among various disorders and are not restricted to a certain disorder rather than the other. Therefore, they cannot be used as diagnostic criteria because they will not reveal the clinical significance required as the specificity characteristics.
8. If the diagnostic criteria for both disorders autism and ASD are the same, why did autism disappear from DSM-V? If autism has a separate and distinct existence in reality, and its diagnostic criteria are used for ASD this means that such disappearance is not justifiable. Using ASD instead of all ASDs diagnoses would not have the clinical significance we are looking for, and therefore, the term ASD was not appropriately chosen and used.

To conclude, it appeared that ASD has no meaningful identity because it does not represent, reflect and stand for ASDs. Some ambiguous construction created many problems to practitioners and parents. It does not have specific diagnosis because DSM-IV autism diagnostic criteria were mixed together to produce a reformulated version where DSM-IV cluster one and two are included in DSM-V cluster one, and part of DSM-IV cluster one is included in the first criterion in DSM-V cluster two. Whereas DSM-IV cluster three is included in DSM-V cluster two after adding another inappropriate universality criterion to it.

#### **A new classification model and diagnostic criteria for ASD**

This model, developed by the author, forms a cohesive and integrated whole compiling old entities that aroused many problems to parents and practitioners since their disappearance from the manual although they have physical and distinct existence in reality. The author defines autism spectrum disorder ASD, as a complex neurodevelopmental and life-long disorder the child may have before he reaches three years of age if it has an early onset, or after he reaches three years of age. If it has a late onset on condition then the child either develops normal until the beginning of the disorder, or does not completely meet all the diagnostic criteria for autism. It reflects the inability of the child to identify with others around him leading to negative and defective behavior responses resulting in egocentrism and negative effects on almost all areas of development. Many cognitive, social and linguistic deficits are exhibited in addition to inattention where the disorder reflects low functioning.

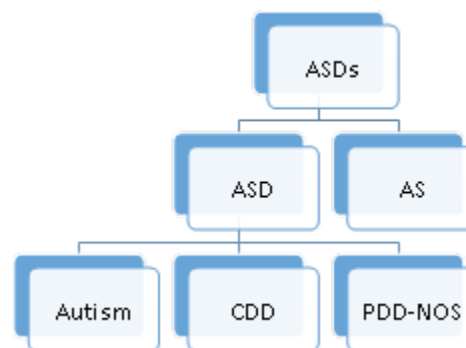
This model presents ASDs as a huge umbrella. There are two subcategories under this umbrella depending on functioning forms of autism, which are high functioning represented by AS, and low functioning represented by autism. The autism subcategory known as ASD includes three subclasses i.e. early onset autism (classical autism), late onset autism (CDD) and atypical autism (PDD-NOS). This idea is consistent with the idea that ASDs divide originally into two main categories that can be presented on a continuum with each of both categories lying on an end i.e. high functioning and low functioning autism. This means that we have two categories as follows;

- a. AS: It has a distinct physical existence and different nature compared to other types of ASDs because intensity of the disorder is less than other types, it needs little support and has no mental deficits. Thus, it has many positive characteristics making its nature a different one. To diagnose AS we can use DSM-IV Asperger diagnostic criteria. From the very beginning AS is a main type of ASDs, negatively affects child's developmental areas, manifests social deficits, reflects autism characteristics, and has many positive characteristics.
- b. ASD: It is a new concept introduced in this model, and thereby

it is not the concept presented in the manual. According to the model there are three disorders included in such a category. These disorders are autism or early onset autism, CDD or late onset autism, and PDD-NOS or atypical autism. Every one of these three subclasses reflects the characteristics of autism. All three disorders share autism characteristics with varying degrees, which makes them form a spectrum with a continuum on which every disorder is located because all prerequisites of spectrum are met or applied to them. Finally, every one of them is a disorder in itself. Hence we can call this category as a whole as autism spectrum disorder. Besides, every type of these disorders negatively affects almost all child's developmental areas, reflects low functioning autism, manifests mental deficits with an IQ range as intellectual disability, manifests social and linguistic deficits, and manifests autism characteristics and deficits. To diagnose ASD, as presented in the model, we can use either the DSM-IV autism diagnostic criteria, which will be better, or the complex and reformulated DSM-IV autism diagnostic criteria version presented in DSM-V and DSM-V-TR. The three intensity levels will refer to the three disorders included with the mild level referring to PDD-NOS, the moderate level referring to autism and the severe level referring to CDD. We can use the spectrum and continuum in this sense to clarify this category and the disorders included.

So, according to this model the concept of ASD is limited basically to the low functioning autism category that includes autism, CDD and PDD-NOS. It can be diagnosed using autism diagnostic criteria whereas AS is dealt with separately because of its nature, the positive characteristics it reflects and having no mental and language developmental delay. It can be diagnosed using the old diagnostic criteria of Asperger.

This model has many characteristics as it helps diagnose different cases in an exact and precise way. According to the model cases can be easily diagnosed, it is possible to diagnose all disorders included as subclasses, intensity levels of the disorder can be simply evaluated, it is possible to use the continuum to describe the disorders included, spectrum can be used in a practical, logical and scientific way to locate the position of every disorder, and many problems parents experience as a result of the disappearance of ASDs from the manual can be solved. The following figure presents the construction of our new classification model for ASD.



**Figure 1:** The new classification model for ASD.

## Limitations

This vision is a theoretically, analytically and critically visualization of ASD as presented in the manual in addition to reviewing some field studies and practices that revealed a lot of problems due to it. It is just a critique, practice and conclusion, but more visions, ideas and practice is needed.

## Conclusion

It was concluded that ASD was introduced in DSM-V as a construction with an ambiguous identity and without specific diagnostic criteria, which created more problems to practitioners and parents. Meanwhile, all ASDs still have their different and distinct existence in reality that need to be diagnosed precisely. To avoid and overcome such problems, it is important to look for a new classification model for ASD.

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