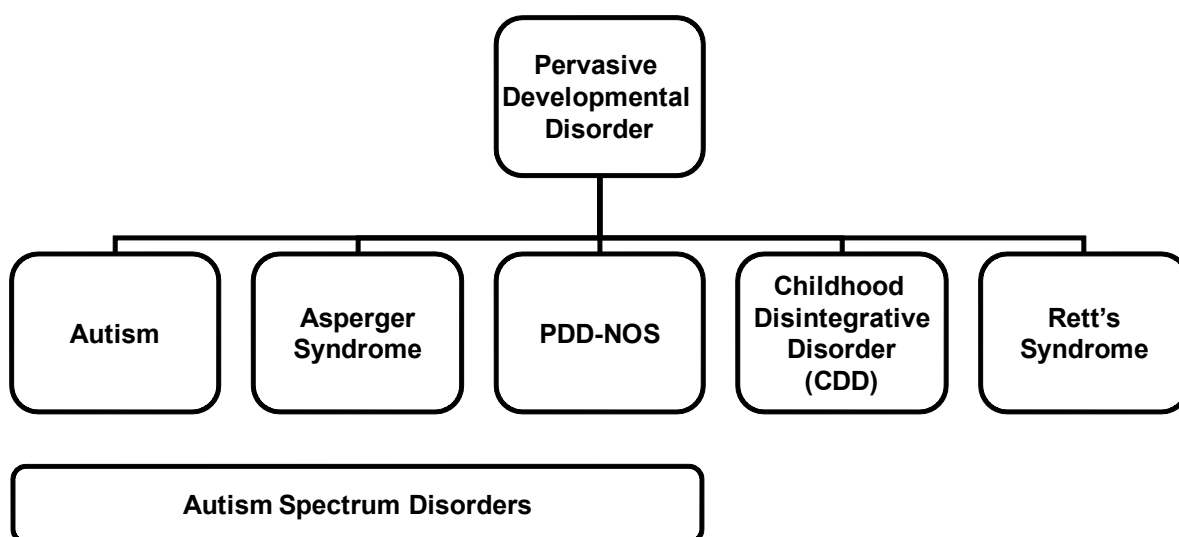


Chapter 3: Defining Autism

Pervasive Developmental Disorders (PDD)

Autism is one of five disorders that falls under the umbrella of Pervasive Developmental Disorders (PDD), a category of neurological disorders characterized by “severe and pervasive impairment in several areas of development” (Autism Society of America, 2008).



Autism is a complex neurobiological disorder that typically lasts throughout a person’s lifetime. It is part of a group of disorders known as autism spectrum disorders (ASD). Today, 1 in 150 individuals is diagnosed with autism, making it more common than pediatric cancer, diabetes, and AIDS combined. It occurs in all racial, ethnic, and social groups and is four times more likely to strike boys than girls. Autism impairs a person’s ability to communicate and relate to others. It is also associated with rigid routines and repetitive behaviors, such as obsessively arranging objects or following very specific routines. Symptoms can range from very mild to quite severe. All of these disorders are characterized by varying degrees of impairment in communication skills and social abilities, and also by repetitive behaviors (Autism Speaks, 2008).

PDD Categories and Diagnostic Criterias

Pervasive Developmental Disorders are a group of conditions with common impairment in the domains of socialization and communication. These include Autism, Asperger Syndrome, Pervasive Developmental Disorder-Not Otherwise Specified, Childhood Disintegrative Disorder, and Rett’s Syndrome. Autism, Asperger Syndrome, and PDD-NOS fall under Autism Spectrum Disorder.

Autism is the classic form of ASD with a prevalence of about 11:10,000 and a male/female ratio of 3-4:1. Diagnosis is optimally made between age sixteen months to three years, with some children showing features in the first year of life. Individuals with this diagnosis have dysfunction in three core domains.

- ◆ **Qualitative Impairment in Socialization**

Socialization abilities are most severely affected in the early preschool years with the child either socially unavailable or a social loner. Social skills improve over time, but still show variable dysfunction ranging from remaining a social loner to acquiring social skills that are stilted and pedantic.

- ◆ **Qualitative Impairment in Communication**

Impairment in communication ranges from absence of an apparent desire to communicate to excessive speech with poor interactive conversation. All individuals have impairment in pragmatic abilities, such as poor eye contact, voice modulation, and use and understanding of gestures and other nonverbal body/facial expressions.

They are literal in interpretation of others' comments and actions and have difficulties with insight into others' actions and perspectives. Echolalia is the immediate and involuntary repetition of words or phrases spoken by others. It is usually present in a transient or permanent manner. Play usually shows a deficit in imagination and symbolic features, although some children will develop a restricted pretend play.

- ◆ **Restricted Interests and Repetitive, Stereotypic Behaviors**

All individuals with autism have restricted activities and interests that can range from repetitive motor actions such as opening and closing doors to finger flicking, spinning and lining objects to fascinations in mechanical and cognitive themes. Resistance to change in routine is commonly seen in the preschool years and may persist to adulthood.

Other Members of the PDD Category

- ◆ **Asperger Syndrome** typically becomes apparent in the pre-school years with challenges in socialization, interpreting social cues and naive/unusual behavior. Language, while within age expectations in achievement of developmental milestones, has associated problems in abstraction, interpretation and pragmatics. Areas of fascination are usually paramount. By definition, individuals with Asperger Syndrome have cognitive and adaptive skills within the average range. Many individuals with Aspergers struggle with executive functioning challenges and co-occurring mental health issues.
- ◆ **Pervasive Developmental Disorder - Not Otherwise Specified (PDD-NOS)** is applied to children who have some, but not all, of the features of autism (either quantitatively or qualitatively). All individuals have impairment in socialization with either impairment in communication or restricted activities/interests. This category is not as well defined as the others and may inadvertently be applied to children with socialization difficulties due to other conditions.
- ◆ **Childhood Disintegrative Disorder** has behavioral features similar to autism with onset between ages two to ten years after an apparently normal early childhood. It is sometimes associated with specific medical disorders and has a worse prognosis for significant improvement.
- ◆ **Rett's Syndrome** occurs after an apparently normal early infancy with a stagnation and loss of developmental skills between ages five to thirty months. This is associated with a deceleration of head growth, loss of purposeful hand use and replacement with stereotypic hand movements such as hand wringing and mouthing, gradual appearance of gait unsteadiness, and severe impairment in expressive and receptive language and in cognitive abilities. This disorder is primarily limited to girls, who may transiently show impairment with socialization during its evolution. Most develop seizures. Rett's Syndrome is caused by an abnormality in the MECP2 gene on the X chromosome.

Autism spectrum disorders and developmental disabilities are complex by nature and cross all learning and lifespan of an individual, in school and at home. While there is no known cure for autism, it is treatable and this includes both medical and educational interventions.

Autism is one of the disabilities specifically defined in the federal Individuals with Disabilities Education Act (IDEA, 2004) and the Washington Administrative Code (WAC) 392-172A-01035 (2007).

Individuals With Disabilities Education Act (IDEA)

Federal Regulation-34 CFR 300.7 (c)(1) (2004)

- I. Autism is a developmental disability significantly affecting verbal and non-verbal communication and social interactions, 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 routine, and unusual responses to sensory experiences. The term does not apply if a child's educational performance is adversely affected primarily because the child has a serious emotional disturbance, as defined in paragraph (b) (9) of Federal Regulation 34 CFR 300.7
- II. A child who manifests the characteristics of "autism" after age three could be diagnosed as having "autism" if the criteria in paragraph (I) of this section are satisfied.

Washington State

WAC 392-172A-01035 - Child with a Disability or Student Eligible for Special Education

- (1) (a) Child with a disability or as used in this chapter, a student eligible for special education means a student who has been evaluated and determined to need special education because of having a disability in one of the following eligibility categories: Mental retardation, a hearing impairment (including deafness), a speech or language impairment, a visual impairment (including blindness), an emotional behavioral disability, an orthopedic impairment, autism, traumatic brain injury, an other health impairment, a specific learning disability, deaf-blindness, multiple disabilities, or for students, three through eight, a developmental delay and who, because of the disability and adverse educational impact, has unique needs that cannot be addressed exclusively through education in general education classes with or without individual accommodations, and needs special education and related services.
 - (b) If it is determined, through an appropriate evaluation, that a student has one of the disabilities identified in subsection (1)(a) of this section, but only needs a related service and not special education, the student is not a student eligible for special education under this chapter. School districts and other public agencies must be aware that they have obligations under other federal and state civil rights laws and rules, including 29 U.S.C. 764, RCW 49.60.030, and 43 U.S.C. 12101 that apply to students who have a disability regardless of the student's eligibility for special education and related services.
 - (c) Speech and language pathology, audiology, physical therapy, and occupational therapy services, may be provided as specially designed instruction, if the student requires those therapies as specially designed instruction, and meets the eligibility requirements which include a disability, adverse educational impact and need for specially designed instruction. They are provided as a related service under WAC 392-172A-01155 when the service is required to allow the student to benefit from specially designed instruction.
- (2) The terms used in subsection (1)(a) of this section are defined as follows:
 - (a) (i) Autism means a developmental disability significantly affecting verbal and nonverbal communication and social interaction, generally evident before age three, that adversely affects a student'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.

- (ii) Autism does not apply if a student’s educational performance is adversely affected primarily because the student has an emotional behavioral disability, as defined in subsection (2)(e) of this section.
- (iii) A student who manifests the characteristics of autism after age three could be identified as having autism if the criteria in (a)(i) of this subsection are satisfied. (Statutory Authority: RCW 28A.155.090(7) and 42 U.S.C. 1400 et. seq. 07-14-078, § 392-172A-01035, filed 6/29/07, effective 7/30/07, accessed May 20, 2008.

Diagnostic and Statistical Manual of Mental Disorders IV TR

Diagnostic Criteria for 299.00 Autistic Disorder

- (I) A total of six (or more) items from A, B, and C, with at least two from A, and one each from B and C:
 - (A) Qualitative impairment in social interaction, as manifested by at least two of the following:
 1. 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.
 2. Failure to develop peer relationships appropriate to developmental level.
 3. 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).
 4. Lack of social or emotional reciprocity (note: in the description, it gives the following as examples: not actively participating in simple social play or games, preferring solitary activities, or involving others in activities only as tools or “mechanical” aids).
 - (B) Qualitative impairments in communication as manifested by at least one of the following:
 1. 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).
 2. In individuals with adequate speech, marked impairment in the ability to initiate or sustain a conversation with others.
 3. Stereotyped and repetitive use of language or idiosyncratic language.
 4. Lack of varied, spontaneous make-believe play or social imitative play appropriate to developmental level.
 - (C) Restricted repetitive and stereotyped patterns of behavior, interests and activities, as manifested by at least two of the following:
 1. Encompassing preoccupation with one or more stereotyped and restricted patterns of interest that is abnormal either in intensity or focus.
 2. Apparently inflexible adherence to specific, nonfunctional routines or rituals.
 3. Stereotyped and repetitive motor mannerisms (e.g hand or finger flapping or twisting, or complex whole-body movements).
 4. Persistent preoccupation with parts of objects.
- (II) Delays or abnormal functioning in at least one of the following areas, with onset prior to age 3 years:
 - (A) Social interaction
 - (B) Language as used in social communication
 - (C) Symbolic or imaginative play
- (III) The disturbance is not better accounted for by Rett’s Disorder or Childhood Disintegrative Disorder.