



EMPOWER

BEHAVIORAL HEALTH & INTERVENTION

Autism and ABA Therapy- signs, symptoms, programs

Autism

Autism Spectrum Disorder (commonly referred to as “Autism” or sometimes “Asperger’s Syndrome”) is a condition that is typically manifested early in life (typically by 24 months) by the following characteristics:

A. Problems with social interactions and communication; examples are:

- avoids eye contact
- limited range of facial expressions
- problems making or keeping friends
- one-sided conversational style
- absence of spoken language
- limited use of gestures

B. Odd behavior; examples are:

- under or over-reactive to sensory input
- resistance to changes in routine (insists on same food, clothing, etc.)
- intense hobbies
- restricted range of interests (fixates on objects such as light switches)
- repetitive movements (lining up objects)
- repetitive speech (repeats “scripts” overheard from TV shows/movies)

Description of Autism and Asperger's Syndrome

The Diagnostic and Statistical Manual of Mental Disorders – Fourth Edition (DSM-IV) categorized the following diagnoses under Pervasive Developmental Disorders:

- Autistic Disorder (Autism)
- Rett's Disorder
- Childhood Disintegrative Disorder
- Asperger's Disorder (also known as "Asperger's syndrome")
- Pervasive Developmental Disorder –Not Otherwise Specified (PDD-NOS)

The Diagnostic and Statistical Manual of Mental Disorders – Fifth Edition (DSM-5) published in May 2013 combined the above diagnoses into a single diagnosis: **Autism Spectrum Disorder (ASD)**. This was based on the rationale that ASD is defined by a common set of behaviors and due to ongoing debate about the boundaries between Autism and "less stigmatizing" diagnoses of Asperger's and PDD-NOS.

The concept of Not Otherwise Specified (NOS) for any disorder, which was introduced in the DSM-IV and meant to communicate that the individual's presentation did not meet the full diagnostic criteria of a given disorder, was eliminated for all diagnoses in the DSM-5.

According to the DSM-5, individuals with established DSM-IV diagnoses of Autistic Disorder, Asperger's Disorder, or PDD-NOS should qualify for a DSM-5 diagnosis of Autism Spectrum Disorder. However, for persons who show problems in social communication only (category A above) but do not currently exhibit (or have not exhibited when younger) restricted patterns of behavior, interests, or activities (category B) the appropriate diagnosis would be Social (Pragmatic) Communication Disorder. This is a new diagnosis that first appeared in the DSM-5 and, like Autism Spectrum Disorder and Intellectual Disability (formerly known as Mental Retardation), falls under the broader category of Neurodevelopmental Disorders. It remains to be seen for which type of services individuals given this relatively new diagnosis will qualify.

Another change to the DSM-5 is the use of the following severity levels of ASD:

- Level 1: requiring support
- Level 2: requiring substantial support
- Level 3: requiring very substantial support

These descriptors are not to be used to determine service eligibility, but rather to provide more information about an individual's current level of functioning when exhibiting symptoms of Autism or Asperger's syndrome.

At Empower, we recognize that there is a wide variety within Autism Spectrum Disorder. Our students and clients with Autism and Asperger's syndrome are celebrated for their uniqueness. At the same time, we like to capitalize on the strengths that are common to ASD, such as the ability to think visually (aka think in pictures), a preference for concrete (vs. abstract) concepts, and the ability to focus on specific topics/interests when sufficiently motivated.

ABA Therapy

Applied Behavior Analysis, ABA Therapy, or “ABA” is a scientific approach for discovering variables that reliably influence socially significant behavior and for developing a technology of behavior change that takes practical advantage of those discoveries (Cooper, Heron, and Heward, 2007, pg. 3). The field of Behavior Analysis grew from the scientific study of principles of learning and behavior.

Psychology in the early twentieth century was dominated by the study of an individual’s mental processes. Psychoanalysis was the leading theory of choice which looked at states of consciousness and introspection of one’s own thoughts and feelings. Psychologist John Watson questioned this approach and determined that the subject of psychology should focus on the direct observation of an individual’s relationship with the environment. Following Watson’s work, B. F. Skinner expanded on his theories and became known as the father of behavior analysis. Skinner determined the stimulus response (S-R) model commonly used by psychologists to be incomplete and began looking at consequences to behaviors in the environment. This model developed into what currently is known as the three-term contingency (antecedent, behavior, consequence). This three-term contingency is the foundation for Applied Behavior Analysis, ABA and guides the approach to the behavior change process as well as all learning. Any behavior that is followed by reinforcement will increase, while a behavior followed by punishment will decrease. To determine if a consequence is a reinforcing or punishing consequence, we only need to look at what happens to the behavior. If behavior increases, the consequence provided was reinforcement, if the behavior decreased, the consequence was punishment.

In 1968, two significant events occurred, which led to the creation of what is known as the science of Applied Behavior Analysis. The first event was the publishing of the *Journal of Applied Behavior Analysis*; the second, the publication of the article *Some Current Dimensions of Applied Behavior Analysis* by Baer, Wolf, and Risley (1968). In the article, Baer, Wolf, and Risley (1968), the authors, outline the seven tenets of ABA:

- 1) Applied – there needs to be a commitment to improving behaviors that impact the daily lives of individuals or their significant others.
- 2) Behavioral – the behavior must be in need of improvement, it must be measurable, and focus must be on changing the individual’s behavior.
- 3) Analytical – there must be a functional relationship demonstrated between the intervention and the behavior change.
- 4) Technological – all procedures are identified and described in such a way that others can replicate the procedure and obtain the same result.
- 5) Conceptually Systematic – the behavior change needs to be explained using the principles of behavior.
- 6) Effective – the improvement in the behavior must be clinically or socially significant.
- 7) Generality – does the behavior last over time, now occur in new environments, spread to other behaviors?

In the hard sciences, scientists have developed objective measures/laws with regards to their field of study. There is no need for a personal opinion as scientific findings have identified these laws. The

science of behavior is no different. When past behavior is analyzed, we are able to predict if a behavior is going to increase, decrease or remain stagnant when variables in the environment are manipulated. If the behavior does not respond as predicted, the intervention can be revised or a new intervention can be applied. Using the scientific approach to looking at behavior allows us to focus only on factors that are important to the intervention for the same behaviors. When B.F. Skinner's *Science and Human Behavior* (1953) was published, it introduced a different view on why humans behave and changed the field of psychology completely. He suggested that all behaviors are controlled by events that follow the behavior (operant behavior) rather than determined by the antecedent (respondent behavior). It introduced the need for "standards of proof" when looking at human behavior thus allowing for an objective view on behavior and more effective methods for changing behaviors.

Applied Behavior Analysis, ABA Therapy and Autism

Psychologist Ole Ivar Lovaas started using behavior principles to teach children with Autism in the early 1960's. Behavior principles had previously been used to demonstrate significant behavior changes in individuals with severe disabilities, but Lovaas laid the groundwork for what has become known as Applied Behavior Analysis, ABA therapy or Lovaas therapy. He was the first to create a systematic framework for intensive interventions with children on the autism spectrum. Lovaas dedicated his life to helping families and today "ABA-therapy" is considered the only effective method for treating autism.

The Lovaas method, or "ABA-therapy" consists of breaking every skill a child with autism needs to master into small, teachable units. Then, applying the principles of ABA and the three-term contingency, appropriate behaviors and correct responses are reinforced while inappropriate behaviors and incorrect responses do not lead to reinforcement. Typical ABA therapy or early intensive behavior interventions (EIBI) begin as soon as a child is diagnosed and consists of 30-40 hours per week of intense one-on-one therapy. Lovaas published the results from his initial work in a 1987 article "Behavioral treatment and normal educational and intellectual functioning in young autistic children" (*Journal of Consulting and Clinical Psychology*, Vol 55(1), Feb 1987, 3-9. <http://dx.doi.org/10.1037/0022-006X.55.1.3>)

Over the past 30 years, EIBI, Lovaas therapy or Discrete Trial Training (DTT) has become standard practice in the treatment of autism. Parents who previously saw little hope when receiving a diagnosis for their child, now look to ABA as a reliable and successful treatment option. More detailed description of different applications of ABA for children with autism can be found at <https://www.autismspeaks.org/what-autism/treatment/applied-behavior-analysis-aba>