

Autism

You may find Autism included under any one of three categories. For funding purposes, Autism may be placed within the category of Developmental Disabilities. For assessment purposes, Autism may be placed within the category of Physical Disabilities due to the difference in the size of the vermis and lobules as well as cerebellar abnormalities related to sensory input and processing. For classroom placement consideration, Autism may be placed under the category of Behavior Disorders.

Music has often been effective in initiating treatment for autistic children when nothing else has.

Autistic is the term used to describe a specific group of children who are characterized by extreme withdrawal and self-absorption. The condition was first identified by Leo Kanner in the 1940s. Children with autism display one or several bizarre behaviors (e.g., rocking, twirling, fluttering fingers and hands, head banging) and repeat them incessantly. They seem to be unaware of their surroundings, seldom focusing on anything either visually or auditorily. Although as infants most began to develop normally, they are non-communicative and often echolalic, resist physical contact with others, and appear to lack emotional sensitivity or response.

Until recently, the theory that autism was the result of psychological problems (particularly maternal rejection) was accepted and largely exploited through the work of Bruno Bettelheim during the 1950s and 1960s. However, others (e.g., Rimland, Bender, Schopler) were already beginning to formulate organic cause theories in the 1960s. Today, an increasing amount of research relative to general brain function has seemingly given additional support to the brain dysfunction theories. One of the most interesting proposes that children with autism are either short-changed or over-endowed with sensory perception. To those who study the behaviors of autistic children from a *pedagogical* point of view, it is fairly obvious that the ability to process sensory information is severely impaired. Cerebellar abnormalities have been documented in the vermis, and the lobules are either larger or smaller in size than in the brains of children who are normal.

Autism Spectrum It is important to note that what deviates among those with autism spectrum disorders is not necessarily the presence or absence of these skills and behaviors, but that they demonstrate a *qualitative* impairment. A person with an autism spectrum disorder may desire friends, but they may lack the social skills to accomplish this. The following are characteristics of children with autism.

- Play skills frequently lack creativity and flexibility (lines up parts of toys, repetitive play.)
- Symptoms of attention-deficit hyperactivity disorder may exist.
- Poor use of context.

- May relate appropriately with parents and other adults, but not with peers.
- Exhibits a large vocabulary, may know the meanings of obscure vocabulary words, while not truly understanding more common, everyday words/concepts.
- Difficulty with descriptive language and conversational turn taking.
- May ask repetitive questions.
- Very concrete and literal.
- Rarely use colloquialisms, such as, 'yea' for 'yes.'
- Often display highly uneven academic skills.
- May lack common sense.
- May not understand idioms, takes them literally.
- Over attention to detail.
- Speech may occur at normal developmental age.
- Pronoun reversals ("I" for "you") often, at young ages.
- Language is not used for communication.
- Limited gestures and limited facial expressions.
- Limited understanding of others' gestures.
- Abnormal vocal intonation (hoarse, high pitched, monotone.)
- Lacking an understanding of social rules.
- Clumsy and uncoordinated movements.
- Excellent rote memory abilities.
- May develop an obsessive interest in one topic (train schedules or toothbrushes) that is odd in its intensity and excludes most other activities.
- May refuse to talk about or pursue anything other than their interest or fixation.
- Person may have speech dysfluencies (i.e. stuttering).
- May collect items that have no apparent function.
- Attachments to unusual objects.
- Many can attend college successfully, with support.

- Compulsive adherence to non-functional routines, imposed on self and others.
- Preoccupation with parts of objects, disregarding the object's usual purpose.
- Stereotyped and repetitive motor mannerisms (hand flapping, waving fingers in front of eyes).
- May be teased because of eccentricities.
- May become aware that they are different.
- Many can be employed successfully in adulthood.
- May be at risk for psychiatric illnesses in adulthood.
- May be hyper-sensitive to criticism by others.

Pervasive Developmental Disorders

include the following DSM-IV (APA, 1994) subheadings:

- Autistic disorder (Classical or Kanner's autism)
- Rett's syndrome
- Childhood disintegrative disorder (CDD)
- Asperger's syndrome (AS)
- Pervasive developmental disorder, not otherwise specified (PDD,NOS)

High Functioning Autism

Approximately 20% of those with autism are considered *high functioning*. Various terms and abbreviations that are sometimes used (often interchangeably) in reference to this population are:

- High Functioning Autism (HFA)
- Mild Autism
- Autistic Features (*autistic-like*)
- Pervasive Developmental Disorder, Not Otherwise Specified (PDD, NOS)
- Asperger's Syndrome (AS)
- Atypical Autism

A general note on terminology:

The use of the phrase **high functioning autism (HFA)** is preferred as an "umbrella" term that is intended to include any of the above labels. These individuals are typically more *mildly* affected.

The phrase **autism spectrum disorder (ASD)** is intended to include the *entire spectrum* of autistic disorders. Those with autistic disorder might fall at one end of the spectrum, and those who are only mildly affected might fall at the other end.

(from the website <http://www.geocities.com/Heartland/Fields/6979/autigen2.html>)

These children exhibit behaviors that cover a broad range of functioning levels and often the most serious problem is language dysfunction. Usually they are nonverbal, but not necessarily noncommunicative if one is alert to other forms of communication, such as body language, and if alternative response modes are provided. Group music situations may elicit responses that are often misinterpreted as disruptive. Yet if one analyzes them, it is not unusual to find that the child is vocalizing (or screaming) at a pitch approximating, or relating to, the pitch of the music being heard. Sometimes it is possible to discern related rhythm patterns and melodic contours in these responses. Repetitive rocking and head banging often conform to the tempo and meter of the music in the environment.

For children with autism who have reached a developmental level where some basic skills are established, successful teaching techniques are similar to those described for children with specific learning disabilities, neurological impairment, hearing and visual impairments. Skill areas particularly relevant are those dealing with gross motor, language, auditory, visual, and social skills.

Among descriptions and case studies of children with autism one is sure to find reports of unusually keen responses to music and often extraordinary musical memory. While these children don't ordinarily speak, they will often sing or vocalize, and may learn extensive repertoires from record collections. Gross motor skills may be poor, but fine motor skills are often quite good, probably because of a preoccupation with manipulating things. There is a general fascination with moving objects, especially things that spin (e.g., record player) and shiny objects or lights (e.g., silver and brass instruments). Rigidities are common.

Music sessions with children with autism are most effective when initially conducted one to one. It is advisable to give the child a choice of response modes (e.g., singing, playing an instrument, movement). The goal is to engage the child in musical communication, usually beginning with echo and improvisational activities. Since relating to people is so difficult for the child with autism, it may take several sessions before a response is attempted and several more before any meaningful musical interaction takes place. Once communication is established, further growth and development depend upon the skills and concerted efforts of all who are working with the child. Music in this case has provided an alternative channel of communication that has been understood and accepted by the child. The Nordoff-Robbins approach is especially useful. Activities for transference from the music therapy setting into every day life are important. Generalization is unlikely to occur without planning.

The Nordoff-Robbins Approach

In music therapy, the Nordoff-Robbins Approach is especially useful for people with Autism. In this approach, all music is improvised on the spot to reflect the presenting behavior and mood state of the child. Even negative behaviors are reflected via musical themes which remain consistent for that child and that behavior each time the specific behavior occurs. This approach helps the child develop the concept of cause and effect relationship via the pairing of a musical response with each specific behavior. In essence, the music therapist imposes structure on chaos by creating a musical environment that not only reflects all behaviors, but also develops communication and expression. As a relationship with the child evolves and integrates bonding with the musical themes, the child is able to internally develop control and choose behaviors that are socially acceptable to communicate feelings.

This approach is based on a humanistic model and is very different from a behaviorist approach in which the numbers of times a behavior occurs may increase secondary to rewards or in which "negative" behaviors are extinguished. Unlike techniques used to train animals (negative reinforcement, food rewards), the musical repertoire of behaviors developed in the Nordoff-Robbins model becomes integrated with expressive responses which allow for honest communication between the child and others in the environment. As the child begins to understand the cause and effect relationship between behaviors exhibited and musical themes which were initially created to reflect these behaviors, the child begins to reinstate specific behaviors to test out the cause and effect relationship. The child is then able to accept responsibility for and take control of behaviors, ultimately broadening the repertoire of behaviors as trust is built. The therapist may begin to take control back and shape behaviors, enabling the child to develop new expressive behaviors within the context of this musical game. As the child's repertoire of socially acceptable behaviors expands, the child begins to choose them more frequently. As communication with the environment improves, the need for the previously exhibited "negative" behaviors lessens. Through this process we have reached a primary goal. We want the person to exhibit these socially acceptable behaviors because the person chooses to do so and finds them meaningful.