Deafness with Autism

A Music Therapy Perspective

By Christine Barton, MM, MT-BC

Six pictures adorn my home studio wall. Each is of a child with autism and hearing loss. Each is as different from the other as possible, yet one factor binds them all: a love of music. These children and their families attend weekly music therapy sessions, where we engage in music experiences tailored to meet the unique needs of each child. We sing, play instruments, improvise, move creatively, and even compose music. This is possible because of advancements in hearing technology, primarily the cochlear implant, and the willingness of families to put forth tremendous time, resources, and effort into successfully engaging their child in a listening and spoken world.

Important Statistics

One to three children per 1,000 are born with hearing loss.

The Center for Disease Control (CDC, 2014) recently reported the prevalence of an Autism Spectrum Disorder (ASD) to be one in 68 U.S. children. The CDC also reported that one to three children per 1,000 are born with a hearing loss. In an article based on 2009 - 2010 data from the Gallaudet Research Institute, 40% of deaf children have co-occurring conditions, and one in 59 deaf children receives services for ASD (Szymanski, et al, 2012). Most of these children receive the ASD diagnosis much later than hearing peers.

Enter Music Therapy

As I think of the six children I see for music therapy on a weekly basis, I am reminded of the parents’ comments to me: “Jake knew music before he knew words.” “Ben has included music therapy in his nightly prayers.” “Connor says he hears music in his dreams.” Why would music play such an integral part in the lives of these deaf and autistic children?

Treatment Approaches

Just as there are a number of interventions used with children who have hearing loss (e.g., oral, ASL, TC, Cued Speech), there are also numerous approaches to treatment for those with ASD (e.g., ABA, DTT, PRT, DIR©/ Floortime”, TEACCH). Choosing an approach that fits the child with this complex diagnosis—and also fits the family—is a daunting task. Parents rely on obtaining unbiased information from professionals who are also struggling to find evidence-based practice approaches, which currently do not exist. This is a journey we travel together.
Music Experiences

Paul Nordoff and Clive Robbins (2007) were two pioneers in the music therapy profession. Their Creative Music Therapy model includes several key components:

- Meet and engage a child by creating music that supports the child's spontaneous behaviors
- Use imitation as a way to connect without the barrier of spoken language delays
- Interactive music-making provides shared attention opportunities and a way to build relationships
- The musical interactions promote change that follows the child out of the therapy room and into daily life

Based on these ideas, I have created four downloadable music experiences that I have found to be useful for this unique group: The Reluctant CI User, The Preschool Child, Early Elementary Child, and Any Elementary Child. Each musical experience has an accompanying music file and can be downloaded for free at Advancedbionics.com/loudandclear.

When engaging children with deafness and autism, I have found several strategies to be useful.

- Utilize the team with the family at the core
- Enlist and coach parents to help generalize targeted goals across multiple settings
  - Provide structure/routine, such as visual schedules/class rules
- Provide music experiences/instruments that require no formal training or sophisticated technique
- Give simple directions such as: “First, you will stand up, then you will push your chair back, and then you will sit on the floor.” (use fingers as mnemonics)
- Get the child's attention before giving directives (singing instructions can be very engaging)
- Appeal to all the senses but be aware of a child's sensitivities
- Repetition is primary, and singing or playing can make this task enjoyable
- Give choices and alternatives, and let them know what they can do
- Try not ask rhetorical questions!

musically precocious. Now, based on current research, we know that individuals with ASD have highlighted pitch discrimination and memory and a higher than average incidence of absolute (perfect) pitch (Heaton, 2005). It is these enhanced musical abilities that afford music a prominent place in the lives of these children.

Rather than teaching music to special-needs individuals, music therapy is a clinical use of music interventions to accomplish individualized goals within a therapeutic relationship by a credentialed professional who has completed a music therapy program (AMTA, 2005). Current meta-analysis reveals music therapy to be effective in developing communication, interpersonal skills, personal responsibility, and play skills (Whipple, 2013). Families can participate in shared music-making that can be carried over in the home. Gross and fine motor skills can be targeted through playing a variety of instruments and moving to music. Also, the structure and sensory input inherent in music help to establish response and role expectations, positive interactions, and organization (AMTA, 2012).
Considerations

As I stated in the introduction, each and every child is unique. Sessions need to be designed with a particular child and family in mind. Clinicians understand that progress will be different for each child, with gains, plateaus, and dips to be expected. This is particularly true for children with hearing loss who also have ASD. I often tell parents that a progress chart might look something like this:

Typically, because of Universal Newborn Screening, the hearing loss is addressed first. Other diagnoses often come much later. Therefore, the intervention or placement is chosen based upon the most current need. Unless there are critical medical issues, I find that hearing loss is addressed in early intervention, and then, when the spoken language is underway, even in later elementary school, the child is placed into a setting that can best address ASD.

Parents concur that hearing devices make a positive difference in the quality of life for their child (Barton, 2013), and shared music-making offers the potential to create relationships and provide lifelong enjoyment.

Listen to a webinar on this topic at:

Resources


The Listening Room (Advanced Bionics) (TheListeningRoom.com)

Gallaudette Clerc Center (http://www.gallaudet.edu/clerc_center.html)

More Than Meets the Eye: An Introduction to Autism Spectrum Disorders (http://www.gallaudet.edu/clerc_center/webinars/more_than_meets_the_eye_an_introduction_to_autism_spectrum_disorders.html)

Managing Behavior by Managing the Classroom: Making Learning Accessible for Deaf and Hard of Hearing Students with Autism Spectrum Disorder (http://www.gallaudet.edu/clerc_center/webinars/sharing_autism_research_on_deaf_or_hard_of_hearing_students.html)

Autism Research Institute (http://www.autism.com/services_visualhearing)

American Society for Deaf Children (http://www.deafchildren.org/deaf-autism-america)

Autism Speaks (www.autismspeaks.org)
References


