Dually Diagnosed: Autism and Hearing Loss

When a child who is deaf or hard of hearing also presents with autism symptoms, what can audiologists do to promote appropriate care?

BY AMY SZARKOWSKI AND JENNIFER JOHNSTON

As an audiologist, you know how to fit a hearing aid on even the most uncooperative patient. You can skillfully communicate audiological assessment results to parents and caregivers. You have extensive knowledge about the etiologies of hearing loss. You eagerly digest, and perhaps contribute to, the most recent audiological research.

And then you treat a child who may have autism spectrum disorder (ASD), and you are not sure what to do next. Yet in reality, this combination is not unusual: Estimates of the prevalence rates of ASD in the general population are 1 in 68, whereas prevalence of ASD in children who are deaf or hard of hearing is 1 in 59 (see sources).

Drawing on the literature, as well as our clinical experience with this population, we share strategies audiologists can use when confronting the possibility of ASD—to help these children receive needed comprehensive care.

Dual diagnosis

Despite the relatively high rate of ASD among children who are deaf or hard of hearing (DOHH), the diagnostic picture is far from clear (see sources).

Studies of the process for determining whether children already identified as deaf or hard of hearing have ASD suggest a frustrating path. Families often see numerous professionals and may receive conflicting advice before finally arriving at a diagnosis of ASD. Listen to families' concerns, admit when you don't have an answer and refer them to people who do have expertise in children who are DOHH and possibly have ASD.

Often children who are DOHH are officially diagnosed with ASD at a much later age than children with normal hearing, delaying receipt of appropriate services (see sources). Children eventually diagnosed with ASD often present with additional medical considerations, including higher rates of seizures, gastrointestinal difficulties and sleep difficulties (see sources). These and other medical conditions can further delay and/or complicate the diagnostic picture and the early provision of services.

Diagnostic challenges

Some "behaviors" audiologists commonly see in children who are DOHH can mask—or be confused with—ASD symptoms (see sources).

For example, poor eye contact in children with ASD is related to deficits in social cognition. However, children who are DOHH may stop attending to faces because they may struggle with—or may not comprehend—spoken language, resulting in poor eye contact (see sources).

Echolalia, which is frequently seen in children who have ASD, is also seen in children who are DOHH between 18 to 24 months of age, and is used as a language-learning strategy.

Reduced language comprehension, whether related to insufficient auditory access for an oral-language user or to cognitive limitations, can

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result in a child showing resistance to change or transitions. Children with ASD, too, often present as highly rigid.

Older children who are DOHH may seek to control conversations or play in an attempt to make their world more comprehensible and familiar. Similarly, a child with ASD may tend to over-focus on a preferred topic or rely on scripted language and interactions as ways to control an unpredictable world.

Best practices for identification of ASD include input from a multidisciplinary team of professionals with knowledge about ASD. At a minimum, the American Academy of Pediatrics suggests that physicians and psychologists can identify ASD (see sources). At our hospital, it is recommended that a psychologist, a physician (often a developmental pediatrician or a neurologist) and a speech-language pathologist weigh in on the diagnosis.

Diagnostic criteria for ASD no longer mandate that a child have specific deficits in language. However, language plays a significant role in terms of pragmatic language challenges and limited vocabulary abilities. Because of the role of language, we believe the diagnostic determination of ASD warrants the inclusion of a speech-language pathologist (see sources).

Putting it to practice

Audiologists work on the front lines, interacting with families of children who are DOHH. Caregivers may approach you to ask if the behavior they note in their child is "because the child cannot hear well" or whether something else might be going on. These behaviors may include limited use of gestures, delayed speech and no babbling, odd sounds or an unusual tone of voice, and difficulty with eye contact (see sources). So, as an audiologist, what can you do?

We offer the following suggestions:

Refer for an assessment from a multidisciplinary team, which usually consists of a medical professional—developmental pediatrician, psychiatrist or neurologist—a speech-language pathologist and a psychologist. Professionals need to consider a number of diagnostic rule-outs before diagnosing ASD, including intellectual disability, communication disorders, anxiety disorders, sensory issues, seizure disorders and even post-traumatic stress disorder (see sources).

Share what you know from your clinical expertise. As audiologists, you have unique knowledge of children who are DOHH. Though we recommend against conjecturing about specific diagnoses such as ASD, you can certainly share your own clinical expertise, noting, for example, "I see this kind of behavior in many of the children that I follow," or "This is not something that I typically see. Perhaps something else is going on."

Be aware of and share useful resources. Use these resources as a starting point to learn more about children with ASD who are also deaf or hard of hearing:

- Centers for Disease Control and Prevention, Developmental Milestones.
- First Words Project of Florida State University.
- Autism Navigator.
- Raising and Educating Deaf Children: Foundations for Policy, Practice, and Outcomes.

Seek input from professionals familiar with psychological, cognitive and linguistic development in both ASD and DOHH populations when possible. Studies suggest that for families raising dually diagnosed children, the challenges are not additive, but rather multiplicative (see sources). As with any group, there is a range of behaviors. Some DOHH children with autism do not tolerate amplification at all. Interview parents regarding activities or equipment that the child cannot tolerate (for example, headphones or tympanograms) and engineer the session in a way to meet that child's preferences.

Transitions can be upsetting to children with ASD; carefully plan the session to reduce the number of transitions that occur. When it is not possible to locate specialists in your area who understand both hearing-related issues and ASD, refer families to supports and services that can address the child's needs related to hearing status and to the ASD.

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