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**LANGUAGE IS LANGUAGE—A REFLECTION BY RACHEL ST JOHN, MD, FAAP**

A common topic at the local, state, and national level is that of early language access for children who are deaf or hard of hearing. Bilingualism is touted in the hearing community as providing cognitive and cultural advantages, yet this opportunity is not always provided to parents of children identified as deaf or hard of hearing by providers in the medical and educational fields. I have met with many families who report that they were only presented with one option by specialists, some of whom have been pushing a single option for their child for years without success because they have never been supported in trying anything else.

As providers, we are trained (and rightfully so!) to identify problems and fix them. Often we measure our success in what I refer to as “microtangibles”—small, discrete, measurable pieces of data that suggest what we have done has worked. Sometimes this is critical; for example, monitoring serial blood cultures to make sure an infection we are treating is clearing can be very important. But if we ONLY focus on these microtangibles, we may miss the bigger picture. If the blood cultures are negative, but our patient is still deteriorating, do we simply say that the blood cultures are clean and move on to the next patient?

Sometimes it is necessary to focus on small steps toward a goal. While this is important, this should not replace the larger goal. It is too easy to forget that the reason we focus on how many words a child can say, or how many open set words can they discriminate using amplification is because they may be a piece of the larger goal, which is language acquisition.

The work of Christina Yoshinaga-Itano demonstrates that early identification and service provision result in improved cognitive/language outcomes, regardless of communication mode used. Studies by Hassanzadeh and Park shows that children with cochlear implants who are exposed to native sign language are not “held up” in their development of spoken language, and may actually progress faster than their non-signing peers.

The research of Dr. Laura-Ann Petitto shows that language shares a common pathway in the brain, the superior temporal gyrus, no matter whether signed or spoken. Why present information to these families as “choices” (which can imply picking only one), instead of “opportunities” which can be pursued multiply according to the strengths and preferences of a child and family?

Language is language, and the earlier it’s presented, the better. More importantly, the delay of language is costly, and lack of language input during the first 4-6 years during audial and visual cortex pruning can cause irreparable developmental delay. The more opportunities our young children have to accessing early language, the more likely they are to fulfill their potential as successful human beings who can connect meaningfully with others, succeed in school and career, advocate for themselves, and ultimately find a place of significance in the world. As long as they ARRIVE at that place, does it really matter how they got there?
The EHDI e-book, *A Resource Guide for Early Hearing Detection and Intervention*, from the National Center on Hearing Assessment and Management (NCHAM), is a ‘go to’ source for chapter champions and others involved in EHDI.

This month we continue to offer information from the NCHAM e-book, a comprehensive online resource. In Chapter 22 author Marilyn Sass-Lehrer, PhD discusses the various early intervention (EI) options for children from birth to three years of age, as well as the impact they can have on a child’s communication and social development. Beginning in 2004, the Individuals with Disabilities Education Act (IDEA) issued federal guidelines to states and territories for the provision of EI services to infants and children up to three years of age who are Deaf or Hard of Hearing (D/HH). The author provides some background on the Part C system for EI, which can vary from state-to-state on patient eligibility and resources provided to infants who are D/HH and their families. The chapter also points interested readers toward the 2007 position statement from the Joint Committee on Infant Hearing (JCIH), which makes specific recommendations for state programs regarding EI programming.

The chapter describes the many characteristics that are inherent in EI programs and which improve outcomes for D/HH infants and children such as making EI services family-centered, culturally sensitive, encouraging collaboration between families and health professionals. Dr Sass-Lehrer also describes how EI programs can work to create services that are developmentally appropriate and target the specific needs of the individual child, while also presenting a range of service delivery, communication and language options for the family to choose from. In closing, the author stresses the importance for primary care physicians and other medical professionals understanding their state-specific EI program and their role in getting D/HH infants and children the interventions they need to develop the language and communication skills that are crucial at an early age.
The National Center for Hearing Assessment and Management—along with support from state EHDI coordinators and the American Academy of Pediatrics—conducted a self-report survey with pediatricians and other clinicians who provide care for infants and young children. The purpose of this survey, conducted in 2012, was to:

- Understand the degree to which medical homes are engaged in EHDI activities
- Update our understanding of physician attitudes and knowledge regarding EHDI since the 2005 survey conducted on this topic
- Drive strategies to support physicians in their role within EHDI systems

In the EHDI E-Mail Express, we are reviewing some of the questions presented in the survey and the results related to pediatrician responses. We hope to identify and examine what gaps in understanding and practice, if any, still persist.

Question: How many D/HH Children have you seen in your pediatric practice over the past 3 years?*

As shown in the table, about 45% of physicians who responded to this survey report never connecting with the local EHDI program by receiving information, while over 68% report never sending information to their local EHDI program. While the majority of primary care clinicians (75%) reported seeing less than three children with a diagnosed permanent hearing loss in a three year period, this information suggests that there is room for improvement in understanding the role of the state EHDI programs and working to collaborate to improve care for infants and children who are D/HH.

These results indicate the critical role Chapter Champions play in their outreach to pediatric medical clinicians to provide information on state EHDI programs in order to link clinicians, children, and families with critical EHDI resources to improve care for children who are D/HH.
HANDS & VOICES—GUIDE BY YOUR SIDE

Hands & Voices now has 24 Guide By Your Side (GBYS) Programs which provide parent-to-parent support for families across the United States. Parent support is critical when a child receives a “do not pass” result on a newborn hearing screen, is identified for risk factors for late-onset or progressive hearing loss, or is diagnosed as D/HH. In 2014, GBYS programs provided support to 2,677 families of children who are D/HH. To learn more about GBYS programs in your area, visit the Hands & Voices website, or reach out to gbys@handsandvoices.org.

REACHING OUT—HOW TO CONNECT WITH OTHER FAMILIES OF CHILDREN WITH HEARING LOSS

A recent article in Volta Voices—a publication by the Alexander Graham Bell Association for the Deaf and Hard of Hearing—discusses the various ways parents and families of D/HH children can connect with similar families and the benefits that can provide to all parties. In particular, the author describes a number of opportunities for families to connect online or through social media, through long standing support groups, as well as through a number of other activities and groups. Primary care clinicians can continue to encourage parents and families of children who are D/HH to seek out these connections to improve outcomes for children, and to provide additional support to the families in their

ASSESSING SPEECH PERCEPTION IN CHILDREN WITH HEARING LOSS: WHAT CONVENTIONAL CLINICAL TOOLS MAY MISS

While children who are D/HH may require a larger signal to noise ratio than hearing children to achieve similar accuracy for speech recognition, the article examines whether the speech perception differences were greater when the background sounds were more complex, as it is when one or two individuals are talking simultaneously. For this study, sixteen school-age children who use hearing aids were tested on word recognition with ambient noise or two-talker speech. Additionally, parents completed a questionnaire regarding the perception of their children’s ease of communication and understanding in situations where background noise is present.

The authors found that current clinical assessments of speech perception in quiet, or relatively simple background noise situations, may not be accurately associated with actual, everyday performance for D/HH children. It was found that when evaluating speech perception using a two-talker masker, the results more closely aligned with parent perception of child understanding as reported in the parent survey. Although the article recommends further research to ensure validity of the various complex speech perception tests, they also recommend the inclusion complex sounds during speech perception assessments in order to more accurately determine real-world communication difficulties that may exist in children who are D/HH.

Although newborn hearing screening programs have increased the identification of asymmetric hearing loss, parents and caregivers of children with single-sided deafness are often hesitant to pursue interventions for the different hearing ear when compared to those with children who have bilateral hearing loss. As with other types of permanent, bilateral hearing loss, delayed intervention for asymmetric hearing loss has consequences for recovery of hearing. It has long been reported that asymmetric hearing loss/single-sided deafness can result in differences in speech and language development as well as educational outcomes in children.

This article reviews the various studies that examine animal models of deafness and in children, which consistently show evidence of an “aural preference syndrome” in which single-sided deafness in early childhood reorganizes the developing auditory pathways toward the hearing ear, with weaker central representation of the deaf ear. The researchers examine how delayed intervention consequently compromises benefit for the deaf ear, with slow rates of improvement measured over time. They conclude that asymmetric hearing needs early identification and intervention. By providing early effective stimulation in both ears through appropriate fitting of auditory prostheses, including hearing aids and cochlear implants, within a sensitive period in development has a cardinal role for securing the function of the impaired ear and for restoring binaural/spatial hearing. The impact of asymmetric hearing loss on the developing auditory system and on spoken language development have often been underestimated and the authors recommend modifying the traditional minimalist approach to clinical management aimed at 1 functional ear on the basis of current evidence.

**Distribution Information:**

The AAP EHDI Program implementation staff send this e-mail update to the Academy’s EHDI Chapter Champions, other interested AAP members, staff and state EHDI coordinators. For additional information on hearing screening and to access previous editions of the EHDI E-mail Express, click on the following link [http://www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/PEHDIC/Pages/Early-Hearing-Detection-and-Intervention.aspx](http://www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/PEHDIC/Pages/Early-Hearing-Detection-and-Intervention.aspx). Previous e-mail updates are available upon request from Stephen Crabbe, [scrabbe@aap.org](mailto:scrabbe@aap.org) or (847) 434-4738. If you would like to unsubscribe to the update, please notify staff by responding to this e-mail.