

A New World for Children Who Are Deaf: Listening, Talking and Thriving Alongside Their Hearing Peers

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Introduction

For children who are deaf or hard of hearing, today's world is one of limitless opportunities. The rapid advent of technology combined with intensive therapy and education has completely revolutionized what is possible for these children.

Universal newborn hearing screening has made it possible

for hearing loss to be detected shortly after birth. Babies can be fitted with hearing aids as early as one month of age, and receive cochlear implants before their first birthday. After receiving intensive auditory, speech and language therapy, many are ready to enter mainstream schools by kindergarten – listening, learning and speaking on par with their peers with typical hearing.

In the United States, two to three of every 1,000 children are born each year with hearing loss in one or both ears¹. Ninety-two percent are born to parents with typical hearing, the vast majority of whom are choosing a listening and spoken language approach for their child's primary mode of communication².

Clarke's Expertise

Clarke is a preeminent leader in teaching children who are deaf or hard of hearing to listen and speak. In addition to Philadelphia, Clarke has locations in New York City, Boston and Northampton, Massachusetts, and Jacksonville, Florida, and uses teleservices to reach children and families throughout the country. Each day, Clarke teachers travel to mainstream schools to support students with hearing loss and train classroom teachers – many of whom have never before worked with a student with hearing loss.

Clarke alumni represent a new generation of children who are deaf or hard of hearing. They play in orchestras and

on soccer teams, chat on cellphones with friends and thrive in neighborhood schools; some even attend Gifted and Talented programs. According to data from the National Center for Education Statistics, the national high school graduation rate was 81% and college enrollment was 65.9% in 2013. The percentages of Clarke's former students who graduate from high school and pursue post-secondary opportunities have historically exceeded these rates.

Yet, throughout the country, many children born with hearing loss are lagging in school. They may also be socially isolated and disengaged, and their parents may have little to no support or professional guidance.

Genesis of A Partnership

For over a decade, Philadelphia infants and toddlers with hearing loss received Early Intervention services from Clarke's Bryn Mawr location. But funding for out-of-city programs stopped at age three, and many children lost access to professionals who were making a profound difference in their ability to learn spoken language.

Determined to provide these children with access to vital therapies during such an important developmental window, Clarke formed an innovative collaboration with La Salle University and the family-centered social services agency, CORA (Counseling or Referral Assistance). A site was chosen on La Salle's campus, and the space was

renovated to meet Clarke's rigorous acoustic and educational standards. The program was immediately embraced, with Clarke's Philadelphia team of speech-language pathologists, teachers of the deaf and an educational audiologist working closely with families of infants and young children diagnosed with hearing loss.

The partnership has proven to be highly effective and financially sustainable. La Salle offers reasonably priced space, while Clarke provides graduate students in La Salle's Communication Sciences and Disorders program with the opportunity to perform practicums at Clarke. The educational model known as purposeful inclusion enables Clarke preschool students with hearing loss to have optimal access to learning and spoken communication in a mainstream environment. Simultaneously, they are developing listening and spoken language skills commensurate with their hearing peers during planned activities with CORA children throughout the week.

The partnership is such a success that the facility has expanded twice in the last three years to accommodate the high demand for services. Not a day goes by without a parent exclaiming how amazed they are that their child's future is going to be as bright and full of promise as any other child's.

Decades of Difference

The promise of a life filled with such opportunity didn't

always exist for children with hearing loss. Before the arrival of newborn hearing screening it was not uncommon for deafness to remain undetected until school age. At that time, 80% of children with hearing loss were sent to schools for the deaf, often from elementary through high school. Today, 80% of children with hearing loss who receive Early Intervention Services go on to attend the same schools as their friends with typical hearing³.

Universal newborn hearing screening has dramatically lowered the ages that diagnosis takes place and treatment begins, which has subsequently improved language outcomes for children with hearing loss. Due to early diagnosis, children can receive hearing aids as early as one month old and be on track for cochlear implantation if necessary. These devices provide access to sound that is vital in developing spoken language.

Technology and Educators

Unlike a child putting on a pair of eyeglasses and seeing clearly instantaneously, hearing devices by themselves cannot bring about a child's ability to listen and talk. In order to be effective, technology must be used in tandem with a team of early childhood development specialists including speech-language pathologists, teachers of the deaf and audiologists.

While the ear collects sound, the brain is really where we

listen. So although a child with hearing loss may hear a dog barking, she likely has no understanding of what that sound means. For a child to develop spoken language, she must be able to attach meaning to sound, and the earlier the better.

Early Access and Intervention

Clarke does not teach sign language, instead it teaches children to develop Listening and Spoken Language (LSL) skills. Long before a child actually speaks, the auditory centers of the brain where sound is processed are building a personal language center to last that child a lifetime. If not adequately stimulated by sound during the first few years, the auditory centers may not develop to their full potential. That is why it is vital that children receive access to sound via hearing aids or cochlear implants as early as possible. In fact, the Joint Commission on Infant Hearing recommends a "1-3-6 Rule" of screening by 1 month, diagnosis by 3 months and Early Intervention by 6 months.

Family Involvement

For many families, the presence of a Listening and Spoken Language (LSL) program in the heart of Philadelphia is a dream come true. The earlier that parents are equipped to promote their child's spoken language, the better the outcomes for that child. The partnership between Clarke, CORA and La Salle is helping to ensure that families with

infants, sometimes only weeks old, have access to Early Intervention services. Additionally, more children from a broader range of backgrounds and ethnicities are gaining access to expertise not readily available to them in the past.

Working with Clarke experts, parents are learning strategies to help support the development of their child's listening and speaking skills. At eighteen months of age, children and their families can join Clarke's toddler group, and at three years old, children can attend Clarke's state-of-the-art preschool program. In acoustically-designed classrooms equipped with FM systems for additional amplification, children learn kindergarten-readiness and pre-literacy skills while engaged in language-focused activities.

The Impact of a Level Playing Field

The outcomes of the Clarke, CORA and La Salle partnership are astounding. Children at Clarke average 1.5 months of progress for each month of enrollment. From 2010-2014, 100% of the children in Clarke's Pennsylvania preschool program met or exceeded standard scores in receptive vocabulary, expressive vocabulary and total language – areas that are predictors of strong literacy skills. Since 2009, 100% have transitioned to mainstream kindergarten classrooms readily equipped with the requisite skills for academic success.

These outcomes stand in stark contrast to the statistics.

On average, high school graduates who are deaf or hard of hearing leave school with a fourth grade reading level⁴ and 37% have failed at least one grade level. Most of the population who is deaf or hard of hearing earns only 50% to 70% of that earned by adults with typical hearing⁶.

On the cost side, Clarke's commitment to early investment in education for children with hearing loss yields both short- and long-term savings of public funds. The National Center for Hearing Assessment and Management (NCHAM) reports that detecting and treating hearing loss at birth for one child saves \$400,000 in special education costs by the time that child graduates from high school⁷. Clarke's efficient model of service delivery contains costs from the start with an on- average annual cost per child of \$40,000, compared to that of \$70,000 or more for other programs serving children with hearing loss.

Conclusion

Clarke's collaboration in Philadelphia demonstrates that when three previously unrelated entities pool their concern, creativity and resources, they can transform the lives of so many in their community. Because of this partnership, young children with hearing loss – who otherwise would not have had access to Clarke's expertise – are learning to listen and to speak. Their lives will be filled with limitless possibilities.

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