

Patterns and Contributing Factors of Perceptions on Total Communication for Children with Cochlear Implants

Communication Sciences and Disorders



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Purpose

In this study, I will be examining how students aspiring to become speech or hearing professionals perceive Total Communication (TC) and what factors may influence those perspectives. Since these future professionals will be working closely with families who have Deaf and hard of hearing (DHH) children, it is important to assess their attitudes and beliefs about TC as a communication approach for DHH children who receive cochlear implants.

Background Information

Congenital hearing loss affects about two to three out of every thousand newborns (Renauld, 2021).

When such children do not show adequate benefit from hearing aids during a trial period, cochlear implantation may become an option. After cochlear implantation, aural rehabilitation is essential so the child can maximize the implant's potential and train their brain to recognize and understand sounds, as they would have had little-to-no experience with sound previously. Whether this rehabilitation should be coupled with the use of sign language has been largely controversial.

Auditory/Oral (Aural) Modality: Relies on the expectation that the child will be able to develop age-appropriate receptive and expressive communication abilities through listening and spoken language.

Total Communication (TC): Allows the child to use all means capable of expressing themselves and understanding others, including the use of both sign language and spoken language.

Critical Period

- The critical period is approximately the first three years of age, when the brain has heightened **neuroplasticity** and sensitivity to acquire skills such as language (Humphries, et al., 2012).
- Therefore, parents have to make this choice for their child early in life, even though there are surgical risks, and long-term outcomes in spoken language remain variable (Peterson, et al., 2010).
- Around age five, this critical period begins to close, and it becomes increasingly harder to naturally acquire language.
- If this milestone is missed, it is possible a child might never be able to have **native proficiency** in any language.
- This milestone is not exclusive to spoken language, and applies to sign language as well.

Conflicting Philosophies

- Conflicting philosophies regarding the goal of communication for DHH children have existed since the late 1800s.
- Oralists, like Alexander Graham Bell, believed speech was the "normal way to communicate among civilized humans," even comparing the "value of speech" to the "value of life" (Gallaudet, 2022).
- Considering the **vitality** of communication for a variety of tasks, any form of communication should be recognized as a completely valid and an essential means for children and adults to express themselves.

Methods

- A **survey** will be sent out to undergraduate and graduate students majoring in Communication Sciences and Disorders at Florida State University.
- Consists of 18 questions that encourage participants to share their experience with cochlear implantation, aural rehabilitation, and their thoughts regarding TC.
- Combination of multiple choice, Likert-scale, and free response questions.
- Primarily investigates how far into one's studies the participant is, their **interactions** with American Sign Language and Deaf Community, their **experiences** in their field of study, and how all of these factors contribute to their **perceptions** of TC.

Survey Design

- Initially, the participant will answer questions regarding what courses they have taken in order to obtain a solid grasp on their knowledge of TC.
- They will answer twelve Likert-scale style questions assessing their feelings on TC and oralist approaches to aural rehabilitation.
- These questions also do not include a "Neutral" option in hopes participants will clarify a stance.
- Participants will answer whether they have had experience observing Auditory Verbal Therapy (AVT), American Sign Language (ASL) use, and/or TC use.
- Lastly, the participant will answer a free response question to share any additional experiences with TC, cochlear implantation, or aural rehabilitation in general.
- Participants' identities will remain anonymous throughout data analysis.

Proposed Analyses

- Students who have taken Aural Rehabilitation coursework and graduate students might have more **well-informed** opinions.
- Students who have taken American Sign Language and/or Deaf Culture coursework will be stronger proponents of TC.
- Varying interactions and experiences with Deaf culture and cochlear implantation
- Ultimately, I predict that most of the participants, around 65% will be in support of TC.

Scholarly Contribution

- Audiologists and speech-language pathologists are important professionals serving on cochlear teams with roles of diagnosing the hearing loss, exploring treatment options, and helping patients get acclimated.
- Such professionals need to be able to accurately outline the risks and benefits of the different communication approaches and clearly share how those can have effects beyond language acquisition.

Resources

