How Can AAC Be Used With Children Who Are Deaf or Hard of Hearing?

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Introduction

Can children who are deaf or hard of hearing benefit from the use of Augmentative and Alternative Communication (AAC) strategies to increase language acquisition? For children with limited speech or spoken language, the use of (AAC) strategies or systems provides access to language. Children who benefit from cochlear implants (CI) or hearing aids are a heterogeneous group with varying language and literacy needs.

Questions

1. How can AAC strategies be utilized to develop and enhance communication, behavior, language, and literacy for children who are deaf and hard of hearing?
2. What available AAC strategies are appropriate and available for children who are deaf or hard of hearing?

Complex Communication Needs (CCN)

It is estimated that approximately 35-50% of children who are deaf or hard of hearing have co-occurring conditions resulting in complex communication needs (CCN) such as:

- ◆ Cognitive impairments
- ◆ Autism
- ◆ ADD/ADHD
- ◆ Cytomegalovirus
- ◆ Sensory Integration Disorder
- ◆ Learning Disabilities
- ◆ Cerebral Palsy
- ◆ Syndromes
- ◆ Vision impairments

Why AAC?

Children with co-occurring conditions may demonstrate:

- Poor rate of progress with spoken language skills
- Oral –motor impairments impacting speech production
- Poor motor control, making it difficult for communication partner to recognize use of signs
- Extreme frustration from the child due to lack of appropriate and/or efficient means of communication

AAC as defined by ASHA

AAC refers to an area of research, clinical and educational practice. AAC involves attempts to study and when necessary compensate for temporary or permanent impairments, activity limitations, and participation restrictions of persons with severe disorders or speech-language production and/or comprehension, including spoken and written modes of communication. Involves the use of multiple components or modes for communication. AAC has 4 primary components: Symbols, aids, strategies, and techniques.

What is the Goal of AAC?

1. To communicate messages to interact in conversations
2. To participate at home, school, and recreational activities
3. Learn native language
4. Establish social roles (friend, student, child, sibling, spouse)
5. Meet personal needs

Where Do We Start? How do we progress?

- Start with Objects
- Match object to picture/picture to object/object to object
- Use realistic photographs
- Use picture symbols (boardmaker, line drawings, drawing, etc.)
- Combine symbols (2 words)/ Use Carrier phrases
- Trials with Switch Access System
- Voice Output systems or Speech generating device(s)
- Trials with various devices/strategies

Teaching Basic Requesting

- Requesting is one of the most basic and essential communication skills
- Facilitators need a systematic approach
- Relationship to problem/inappropriate requesting behavior
  - Make generic requests (more, please, want)
- Use naturalistic teaching interventions to gain attention from communication partner

Teaching Basic Rejecting

- Functions as an escape to terminate an ongoing event
- Relationship to problem behavior – aggression, tantrums, self-injury
- Teaching generalized and explicit rejecting Generic: indicate "no" by gesturing, symbol, etc.

- ◆ 5 main steps for generalized rejecting:
  1. An appropriate AAC modality selected
  2. Non-preferred items or activities are identified across a wide range of routines and contexts
  3. Need for rejecting is increased in each of the identified positive situations
  4. Prompts are provided and gradually faded over time
  5. Remove the non-preferred item or activity following the appropriate rejecting behavior

Talking Switch

- Battery-powered communication aid that is programmed with a single/short message, examples:
  - BIGmack™ or LITTLEmack™ switches
  - Step-by-Step Communicator™
- Record voice messages, music, or other sounds
- Recorder should be same age/gender as user
- Activation may be direct or via switch access
- Context should be within a preferred activity

Visual Schedules

- Calendar/schedule system, activity schedule for use across settings
- Symbols represent daily activities
- Can use real objects, tangible symbols, photographs, or line-drawing symbols
- May serve several purposes:
  - ◆ Introduce the individual to the concept of symbolization
  - ◆ Provide an overview daily activity sequence
  - ◆ Ease transitions from one activity to the next
  - ◆ Component of a behavioral support plan

Picture Exchange Communication System (PECS)™

- Behavioral approach to teach requesting as the 1st skill without requiring other skills
- Exchange symbols for desired items
- Phase 1 – person learns to pick up a single symbol and hand to facilitator who gives the associated item
- Phase 2 – gradually decrease assistance as the person learns to find the picture and take to the facilitator
- Phase 3 – the number of symbols is increased and a comprehension check is utilized
- Upon basic requesting mastery, may progress to phases 4-6 to build sentence structures

Take Home Points

- Research and clinical evidence demonstrate that AAC strategies, whether (1.) pairing pictures with objects to increase requesting, or (2.) introducing children to voice output systems, increase language abilities.
- Use of AAC should be explored as an effort to maximize communication potential for children who are deaf or hard of hearing.