Augmentative Alternative Communication (AAC): The Power of Communication

Expression Connection

Down Syndrome Connection of the Bay Area
Empower - Inspire - Support
Webinar Logistics

Time: 10:00-11:00 AM PST

Participation: please chat in with any questions or comments

The recorded webinar will be sent to you via email and posted to our website.
Webinar Objectives

Gain an understanding of:

Expression Connection

AAC Basics (brief overviews)
  candidates
  assessment
  intervention

Research regarding AAC and DS

AAC myths and facts

Practical applications of AAC
Expression Connection Core Beliefs

“Just because I don’t talk does not mean I don’t have anything to say.”

“Everyone deserves a voice”

“Voices can be different things for different people.”

“It’s our job to listen and learn.”
Expression Connection Offers

Consultation

Home
School
Community
Workplace

AAC Lending Library

High-tech
Mid-tech
Light-tech
Expression Connection: AAC Consultation and Lending Library

2011
- 40 families began lending library
- Identified community needs

2012
- 16 families
- 4 children with AAC written into IEPs
- Educators introduced to EC
- Integrated with DSEA
- Step teacher training
- Expanded library
- AAC website

2013
-Began CRP
- Expanded lending library
- Training to 15 educators
- Provided formal AAC evaluation and intervention training to SLP
- 12 families provided with systems

2014
- Continued providing equipment to families, schools, and therapists throughout the bay area
- AT Team
- CRP
- AAC workshops

2015
- 60 specifically for AAC consultations and support
- Future Connection began
- Staff hired to help with lending library and spin off programs
- Community Partners and Collaboration: CCOE, Bridge School, CSUEB
- CRP

2016 and Beyond...
- Literacy program
- Continue with Future Connection
- Reach more with EC
- AAC and Inclusion work
- Publish CRP findings
Declan

Age: 3

System(s): GoTalk One

Environment/Task: Free play

Teaching Tools: role play
   visual supports

Communicative Environment:
   providing opportunities
   motivating activities
   engineering the environment
AAC Overview
A Quick AAC Overview

Cincinatti Children’s Hospital: https://www.youtube.com/watch?v=r3m8_YmTDDM
Who is a candidate for AAC?

Moderate-Severe expressive speech/language disorder(s)
  Articulation/Phonological Disorder
  Apraxia of Speech
  Severe Language Disorder

Expressive/Receptive Gap: understanding more than you can say

Frustration

Limited speech improvement with therapy

Frequent communication breakdowns

Low speech intelligibility
What is speech intelligibility?

Understandability of speech
- In context
- Out of context
- Familiar Partners
- Unfamiliar Partners

Factors that may impact intelligibility
- Speech disorder
- Levels of anxiety
- Hearing

Intelligibility Measures
- Word Identification
- Listener Rating

<table>
<thead>
<tr>
<th>Age</th>
<th>Intelligibility Level</th>
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<tbody>
<tr>
<td>19-24 Months</td>
<td>25% to 50%</td>
</tr>
<tr>
<td>2-3 years</td>
<td>50% to 75%</td>
</tr>
<tr>
<td>4-5 years</td>
<td>75% to 90%</td>
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<tr>
<td>5+ years</td>
<td>90% to 100% (a few articulation errors may persist)</td>
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Sandro

Age: 5

System(s): Springboard Lite

Environment/Task: Book reading, literacy skills

Partner Strategies: expectant delay
visual and verbal prompting
modeling

Teaching Tools: 1:1 support
visual supports
behavioral reinforcement
What the research says...AAC and DS
AAC and Down Syndrome: Research

Effects of Early Intervention for Children with Down Syndrome by Janice Light & Kathryn Drager

- Use of AAC did not inhibit speech production
- Intervention is an art and science
- Increased social interactions

AAC and Down Syndrome: Research cont.


Discusses the importance of trialing and providing access to a multitude of AAC systems to facilitate successful communication in infants and young children with Down syndrome.

Limit communicative failures to encourage the use of communication.

Age: 7

System(s): Step-by-Step Communicator; low-tech icons; Go-Talk 9

Environment/Task: Morning meeting at summer camp (CRP)

Partner Strategies:
- positive reinforcement & environment
- visual prompts and supports
- access to device

Teaching Tools:
- errorless participation and learning

Communicative Environment:
- providing opportunities
- establishing routines
AAC Myths,
Facts & Solutions
<table>
<thead>
<tr>
<th>Myth</th>
<th>Facts</th>
<th>Application</th>
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</thead>
<tbody>
<tr>
<td>Speech should always be used even if there is very little. (Silverman, 1980)</td>
<td>Individuals with frequent communication breakdowns are at risk for additional challenges (social, academic, behavioral, etc) Successful AAC intervention can warrant improvements in many areas (social, academic, self help, social, etc) (Romski &amp; Sevcik, 1989; Silverman, 1980; VanTatehove, 1987)</td>
<td>A multi-modal approach for communication should be utilized and facilitated.</td>
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## Myth #2

<table>
<thead>
<tr>
<th>Myth</th>
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<tbody>
<tr>
<td>AAC should be used only as a last option.</td>
<td>No one can tell the future, include speech development.</td>
<td>Traditional speech therapy and AAC can occur together. Collaboration is best practice and ensures the team is working together for the individual.</td>
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<tr>
<td></td>
<td>Traditional speech therapy does not guarantee a successful communication system.</td>
<td>(Beukelman &amp; Mirenda, 1992)</td>
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<td>(Berry, 1987; Silverman, 1980)</td>
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## Myth #3

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<thead>
<tr>
<th>Myth</th>
<th>Facts</th>
<th>Application</th>
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<tbody>
<tr>
<td><strong>AAC will decrease motivation to speak.</strong></td>
<td>AAC correlates with the improvement of natural speech</td>
<td>The co-occurrence of AAC and speech is advantageous for language acquisition and speech production.</td>
</tr>
<tr>
<td><strong>Access to sign and speech during infancy appear to begin to</strong></td>
<td><strong>communicate (initially with signs and then speech)</strong> at a younger age than would otherwise have been expected</td>
<td></td>
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<tr>
<td><strong>age</strong></td>
<td><em>(Holmes &amp; Holmes, 1980)</em></td>
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## Myth #4

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<tr>
<td>A young child is not ready for AAC.</td>
<td>There are no known prerequisite skills for use of AAC.</td>
<td>AAC intervention must be individualized for each individual based on their strengths, needs, and abilities. Intervention for young children target basic communication through play-based therapy.</td>
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<td></td>
<td>Prelinguistic communication of infants is essential for the development of linguistic communication.</td>
<td><em>(Reichle, York, &amp; Sigafoos, 1991)</em></td>
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<tr>
<td>Myth</td>
<td>Facts</td>
<td>Application</td>
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<td>A child with severe cognitive deficits cannot learn to use an AAC system. <em>(Kangas &amp; Lloyd, 1998)</em></td>
<td>Children with severe cognitive deficits are capable of learning and benefiting from AAC. <em>(Buekelman &amp; Mirenda, 1992; Romski &amp; Sevcik, 1989; Silverman, 1980; Kangas &amp; Lloyd, 1988)</em></td>
<td>Individual AAC intervention must meet the individual at their ability level. Intervention may focus on teaching intentional communication. <em>(Buekelman &amp; Mirenda, 1992; Reichle, 1997)</em></td>
</tr>
<tr>
<td>It is impossible to accurately predict a child’s ability to learn AAC. <em>(Buekelman &amp; Mirenda, 1992; Bodine &amp; Buekelman, 1991)</em></td>
<td>All individuals have the right to be given the opportunity to communicate. <em>(Buekelman &amp; Mirenda, 1992; Reichle, Youk, &amp; Sigafoos, 1980)</em></td>
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## Myth #6

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| AAC makes a child look abnormal.  
(Kangas & Lloyd, 1998) | Increased acceptance of AAC occurred in inclusive environments.  
(Beck & Dennis, 1996, Blockberger, Armstrong, O’Conner, & Freeman, 1993)  
An individual is at higher risk of non-acceptance when unable to express themselves. AAC helps reducing the discrepancy between perceived and actual social and cognitive abilities.  
(Rice, 1993) | Inclusion and mainstreaming advocacy for users of AAC.  
Inform staff, peers, and teachers regarding the communication impairment and cognitive/linguistic abilities.  
Keep vocabulary up to date to user of AAC can interact appropriately with peers. |
Andre

Age: 6

System(s): Accent 700

Environment/Task: Social interaction at school

Partner Strategies:
- open-ended questions

Teaching Tools:
- visual and verbal prompts
- hiding buttons

Communicative Environment:
- providing opportunities
- positive environment
- motivating topics
A Brief Look: Assessment
Assessment begins with The Collaborative Team

Essential for AAC success

Includes team meetings and open communication

Members
- User
- Family Members
- Teacher
- AAC Specialist
- SLP
- OT
- And more…

Role Delineation and Overlap

Assessment Components

Background Information

Comprehensive Assessment
- Motor: ambulation, access
- Sensory: vision, hearing, tactile
- Cognition
- Behavioral

Communication
- Speech
- Receptive & Expressive Language
- Unaided & Aided Communication

Communication Needs

Needed Features

System/Device Trials

Recommendation(s)
Ainsley

Age: 7

System(s): iPad with TapSpeak

Environment/Task: Class presentation

Partner Strategies:
preparation
peer involvement

visual supports

Teaching Tools:
pre-teaching

visual supports

Communicative Environment:
providing opportunities

motivating activities
A Brief Look: Intervention
Intervention Essentials

Based on:
User Ability
  *emergent, context-dependent, context-independent, literate*
AAC Competencies/Goals
  *social, linguistic, operational, strategic*
Communicative Needs
  *environment, partners, etc.*

Intervention must be:
Motivating

Functional

Implemented across environments and partners

Intervention: Tools of the trade

Create a supportive and positive communication environment

Multi-Modal/Total Communication
   Respond to and encourage all forms of communication

Partner Augmented Input (Goosens’, Crain, & Elder, 1992)
   Point to pictures and use SGDs (speech generating device) when talking to the AAC user to model and encourage AAC use

Participation Plans (Blackstone and others)
   Documents created to engineer the user's day around various aided and unaided communication systems.
Intervention: Creating a Communicative Environment

Engineer the environment

Establish routines

Use motivating materials & activities

Provide opportunities

Intervention: Partner Strategies

A communication partner implements strategies to support communicative success and active participation of AAC users

Sabotage

Expectant delay (wait and pause)

Use prompts (least-to-most, most-to-least)

Direct modeling

Forced choice

More AAC in ACTION!
Joseph

Age: 13

System(s): Accent 800

Environment/Task: Science class and writing assignment

Partner Strategies: preparation, equipment set up

Teaching Tools: pre-teaching, visual supports: smart charts

Communicative Environment: providing opportunities, motivating activities (writing)
Tatiana

**Age:** 19

**System(s):** iPad with TouchChat
(customized MultiChat 15)

**Environment:** home and community

**Partner Strategies:** open ended questions, personalized vocabulary, expectant delay

**Teaching Tools:** exposure, access, and use in all environments

Strategies: motivating activities, providing opportunities
"...using AAC devices makes an amazing difference in the school day for our students. We have multiple students who use AAC devices."

"(Student) uses his AAC device to answer questions which allow him access to participate in games with his peers, and allow greater access to the school curriculum."

"Even more amazing is how other General Education students in their classes are able to use the device to communicate with our students, creating an incredibly understanding, patient and inclusive community."
Recommended Websites

ACTS: http://acts-at.com/resources.php

Expression Connection:
http://www.dsconnection.org/augmentative-alternative-communication.php

PrAACticle:
http://praacticalaac.org/

Resources for AAC Strategies & Tools (RAST)
http://rastresources.com/

Technology Resource Center of Marin:
http://trcmarin.org/
References


Cincinnati Children’s Hospital: https://www.youtube.com/watch?v=r3m8_YmTDDM


Foreman P, Crews G. Using augmentative communication with infants and young children with Down syndrome. Down Syndrome Research and Practice. 1998;5(1);16-25. Completed by a SLP with AAC training


