AAC and Early Intervention:
Building Foundations for Success
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Augmentative Communication Program
Children's Hospital Boston at Waltham

•Evaluations and Diagnostic Therapy

•Clinical Supervision

•Trainings and Outreach

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Learner Outcomes &
Session Goals

- Identify and clarify *practice issues & misconceptions* about AAC with very young children

- Use a feature-match approach to identify AAC *tools and strategies* for young children

- Learn *techniques for incorporating AAC* to support participation, learning & communication

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Who is At Risk?
Individualized

● Heterogeneous group
  ○ No single disability or combination can define a need for early AAC intervention

● Individualized assessment
  ○ Communication behaviors
  ○ Physical Needs
  ○ Sensory Status
  ○ Medical Needs
  ○ Family Stressors

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What do we mean by Early Intervention?
IFSP

- *Individual Family Service Plan*
  - ○ Public Law 99-457; 1986 amend. extended FAPE to children 3-5 yrs.
  - ○ Section 619 Part H; mandated services to infants and toddlers (B-3).
- *Family Centered Practice*:
  - ○ The child within the context of the family
  - ○ Maximize the development of the child
  - ○ Optimize the family's ability to address the child's needs
- *SLP role:*
  - ○ Team effort in planning and service delivery
  - ○ Provide direct service
  - ○ Make referrals

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Continuum of AAC

Early Behaviors to Symbolic Communication

- Body Movements and Expressions
- Vocalizations
- Words and approximations
- Gestures and Signs
- Communication displays
- Technology

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At Risk:
Earliest behaviors may not fit the expectation

- The Partner: Stressors, miss or misread, ? how to

- The Child: Responses are
  - subtle, delayed, inconsistent or absent

Because of these barriers
Interactions cannot be maintained, and
initiations decrease because they are seldom
successful

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Communicative Interactions: 4 Primary Goals
(Light, Parsons, Drager)

- *Express Needs and Wants*

- *Develop Social Closeness*

- *Exchange Information*

- *Fulfill Social Etiquette routines*

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TOTAL COMMUNICATION

- Continued work on speech, while providing alternative methods for successful communication

- Decrease reliance on one communication method

- Enable child to adjust communication method based on own ability as well as on the requirements of different partners & contexts

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Why Implement AAC?
Light, 2005

Maximize LANGUAGE learning

Increase PARTICIPATION

Develop SOCIAL INTERACTIONS

Encourage TURN TAKING

Express a RANGE of communication functions

Guide family & others for SUCCESS

Create EXPECTATIONS

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Make me WANT to be Assessed!
(Costello, Gosnell, Berg, Abramson –Asha 2010)

- **Engaging, Sustained Social Interactions that are FUN!**

- **Embedded in Meaningful and Familiar Routines**

- **Occur with High Frequency**
  ○ For repeated opportunities to practice

- **Incorporate Motivating Content**
  ○ Familiar People or Characters
  ○ Sound Effects

- **Highly Interactive**
  ○ Music and songs
  ○ Play based (Topic Displays)

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AAC CAN help!

However, many children transition to preschool with
underdeveloped, limited communication repertoires
yet have restricted access to AAC modes
Cress & Marvin, 2003

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WHEN...

- Avoidance of social interactions
- Dependence on others to 'interpret' increases
- Communication breakdowns occur
- Successful interactions with others change
- Frustration is evident
- Learned Helplessness

Early intervention is critical –avoid playing "catch-up"

P.S. It's never too late to start!

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So, _Why Not_ AAC?
Common challenges

- **_Wait and See -_** _By 3 years old, a child typically ...._
  - _900-100 words_
  - _3-4 word sentences_
  - _~75% intelligible_

- **_Prereqs_** - a child must demonstrate specific competencies before introducing AAC

- **_Fear-_** that AAC may interfere with speech development or using AAC means giving up on speech

- **_Too Overwhelming-_** using too many (?) pictures or words

- **_Access to tools and resources_**– Time, money, equipment

- **_Making it work-_** difficulty implementing AAC in daily routines

  - **_Myth Busters!_**

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Myth Buster # 1...
A child must exhibit pre-requisite skills before starting AAC

True or False?

•It is necessary for the child to understand specific concepts/vocabulary that can be used for communication.

•Before participating in low-tech or high-tech AAC Assessment, an infant/young toddler must be able to follow directions.

•Voice output is not appropriate for infants and young toddlers

FALSE!

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6 months old

Clinical Assessment goal:
- Turn-taking, social connectedness, anticipation
- Switch use and access (on / off - wait)

Clinical tools:
- Little Step-by-Step recorded with a single message "Peek-a-boo"
- Introduction to low tech eye gaze for symbols

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High Tech "Infants"
Age 14 month

- **Clinical Assessment goal**: Use of an Eye Tracking System

- **Clinical Tool**: (Tobii P10 with custom SDPro displays)

  - Step 1: Calibration and interaction with the device

  - Step 2: Navigation of Dynamic* page sets to intentionally engage
    *Displays with page links. 4 main targets + go back

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Device Calibration
14 months old

How to get a 14 month old to calibrate?

• Calibration task
  •Look, hold gaze, and track multiple targets

• Be clinically creative and imaginative with set up

• Remember, he does not need to understand the task to complete it!

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Myth Buster #2…

The use of AAC will interfere with a child's vocal development

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Myth Buster #2... <small>Miller, D., Light, J., & Schlosser, R. (2006).</small>

- *Research results indicate using AAC does **NOT** stop children from learning to talk.*

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AAC Intervention CAN:

- Expand Vocabulary (Aided Language Stimulation)
  - Provide Input (Visual Supports)
  - Provide a means of Expression
- Support and clarify verbal speech attempts
  - Increase participation

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Making it work:
Effective Strategies <small>(Light, 2005)</small>

- Model speech and use of AAC in context
- WAIT! Allow time to communicate
- Scaffold for success
- Provide multiple opportunities to be engaged and interact
- Position yourself and tools appropriately to reduce demands (attention and access)

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Janice Light & Kathy Drager / AAC-RERC

http://aackids.psu.edu

- Step 1: Identify meaningful contexts for communication with your child
- Step 2: Provide effective means for your child to communicate
- Step 3: Select appropriate vocabulary for your child
- Step 4: Set up the environment to support your child's communication
- Step 5: Use appropriate interaction strategies to support communication

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Engineering the Environment
Tips for eliciting communication

- Create a visually enhanced, language rich environment

- Put materials within the child's reach

- Create communication temptations (sabotage, interrupt routines, toys with many pieces)

- Have expectations

Tools and Strategies

No Tech, Low Tech, and High Tech

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Key differences between communication using natural speech and communication using AAC?

- There are frequently restrictions in what a person is able to communicate at any give time.

- Individuals (and others!) must often plan ahead for communications

- AAC is often most effective in situations where the interactions are predictable.

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Speech

- Verbal Speech Production
  - Touch Cues
  - Co-Active Movement
  - Expectant Pauses
  - Turn-Taking
  - Multi-Media

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No Tech

Sign Language

- Signing Time video series
- On-line learning for families
  http://www.aslpro.com/
- Custom Sign Language Dictionary

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Low Tech
Control of the environment

- Purpose
- Switch type
- Switch Placement
- Reinforcement

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Low Tech
Symbolic Representations

- Objects
  - full, partial

- Photographs
  - Cut out, Flat, Visual Scenes

- Line drawings (PCS)
  - Topic Displays, Communication Notebook

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Computer Interactions:
A tool for language learning
(Grant and Singer, 2004)

- Establish **Cause/Effec**t
- Virtual Play
- Vocabulary Building and Literacy
- Independent Access
- Visual Attention
- Communication

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Computer Interactions: Software selection and Access

- Goals and Developmental Level
- Direct Access
  - Touchscreen (cause/effect, targeting)
- Indirect access
  - Switch (single, two-switch) with USB Interface box
- Literacy Supports
  - Adapted Stories

PowerPoint, IntelliTools, Boardmaker Family, Switchit Maker, SoftTouch, Living Books, Onemorestory.com, Tumblebooks Ebooks

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Early Learning Activity Websites

- Priory Woods School – Touchscreen/ Switch
- helpkidzlearn.com- Switch
- SenSwitcher (northern grid)- Switch
- Starfall.com- Touchscreen
- Kneebouncers.com – Switch

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Apple Apps for engagment and exposure
cause/effect (not for communication!)

- Alphababy
- Baby Piano
- Peekaboo Bar
- Songs from Duck Duck Moose

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Low Tech:
Single and Sequential Messages

- **Goals:** Initiation, participation and turn-taking
- **Single target**
- **Record a single message**
  - ○ Use an age and gender matched voice when possible
  - ○ Record in 'first person'; the child is saying the message!
- **Social Sequenced Scripts:** A series of recorded messages
  - ○ LITTLE Step-by-Step, Sequencer, Big Talk Triple Play
- **Co-planning for messages**
- **Interface options for access-** add a switch

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Low Tech:
Talking Photo Album

- Fits 4x6 photographs or symbols
- Remnants (tickets, drawings, etc)
- ~10 seconds of recording per page
- Story telling, jokes, reading
- Access considerations

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On-going Needs

- AAC evaluation is an on-going process!
- Develop many modes for functional participation
- Provide opportunities for meaningful interactions.
- Bridge the gap
- Reduce frustrations
- Independence
- Expand language
- Develop early literacy

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Remember!
Total Communication

- Honor and value all attempts

- Model use of a strategy and language expansion

- Encourage and expand speech whenever possible

- Don't be afraid to try something

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What Else is Needed to Make a Communication System Work?

- *Teams and families* must meet regularly to coordinate any needed assistance for customizing, using, maintaining and carrying over use of the communication system.
- A *transition plan* must be in place to assure that needed assistance, equipment and support is provided as they enter preschool.

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Funding:

- Insurance
- Local Loaner Libraries (Lacy Equipment Lab, CRCP-Regional Consultation Program, Easter Seals)
- Company Loans
- Local Charities
- Gifts

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For More Information...

- ASHA: http://www.asha.org/public/speech/disorders/AAC.htm
- AAC Intervention: www.aacintervention.com
- Creative Communicating: http://www.creativecommunicating.com
- Simplified Technology: www.lindaburkhart.com
- AAC-RERC: http://aac-rerc.psu.edu/
- Creative AAC and EI Resources:
  http://aac.unl.edu/early.html

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- IT'S NEVER TOO EARLY TO START AAC!

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