Experience Low-Tech AAC for Adults

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Financial Disclosures
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Disclosures:
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Learning Outcomes:
1. Describe the levels and types of Augmentative and Alternative Communication (AAC)
2. Review benefits and challenges when implementing AAC in the adult neuro population
3. Apply learned problem-solving skills utilizing case studies and multiple low-tech AAC examples

Within a 10-minute conversation...
- Planting bulbs, try to do themselves
- Hired someone last year
- CBD Oil, medication taken
- Dog had seizures
- Coke 8-10 a day
- Bubble gum packs
- Stereo, record player and records
- Younger generation will eventually sell all their records
- Selling their farm
- Buying a truck

One size does not fit all for adult communication...

Charm Bracelet
Low-Tech AAC Charm Bracelet

Defining Augmentative and Alternative Communication:
- **AAC** is a set of tools and strategies that an individual uses to solve everyday communicative challenges.
- **Augmentative** = in addition to verbal speech
- **Alternative** = instead of verbal speech
- **Non-Aided** = no external items
- **Aided** = including external items

Isaac-online.org

AAC Levels and Types
- **Low-tech**
- **Mid-tech**
- **High-tech**

Layouts

Low-Tech AAC:
- **Visual Scene Display**
- **Grid Layout**
- **Hybrid**

Photo: Boardmakeronline.com

Visual Scene Display
- Use of photographs (personalized best)
- Represents events or situations
- Meaningful or personal activities (activity based)
- Client, family or friend involved in photo
- Potential for hot spots
- Enhanced navigation

Visual Scene Display

 SAMSON

 Light, Wilkinson, Thiessen, Beukelman & Fagher, 2019
Research Alert!

- PWA visually attend to scenes different compared to those in the control group
- During camera engaged scenes, PWA spent more time focused on background area and their areas of interest
- No major differences noted for task engaged scenes
- Take into consideration when setting up visual scenes and communication devices for display of information

Let’s talk Low

- Low-tech is part of a complete AAC communication system
- It doesn’t die (batteries)
- Back-up system (screen shot)
- Speed of use (simple yes/no response)
- Situation and location
- Simple, lower cost
- Comfort level for user
- Partner communication a

AAC and the Adult Population:

Challenges/Resistance:
- Not comfortable with technology
- Client or caregiver
- Client had language and know how fast it can be
- Depression
- Cognitive impairments
- Progressive or chronic disease
- Impaired language system (aphasia)
- Feel like they are giving up on natural speech
- Limited communication partners
- Last resort for therapy

But does my client need AAC?

Tips:
1. Great to use as baseline, reassessment and post-treatment assessment
2. Have client and caregiver fill out to note differences
3. A score of >5 indicates client might be a candidate for AAC
End Goal: Maximize Quality of Life & Communication Success

Theories of Neuroplasticity
1. Use it or lose it *
2. Use it and improve it *
3. Specificity – the experience must be specific *
4. Repetition matters
5. Intensity matters
6. Time matters
7. Salience matters – the experience must be meaningful *
8. Age matters
9. Transference
10. Interference

Low-tech Communication Book
• Created using iPhone and editing tools
• Added words
• Printed
• Keyring
• Client Diagnosis: PPA
• Goal: Communicate what needs to be fixed on his violin using actual photographs
• Layout: Visual Scene with actual Photographs

Low-Tech Communication Book
• Created to simulate a rolodex
• Index cards, glue stick, index card case and file folders
• Printed cards placed in categories
• Diagnosis: Alzheimer’s Dementia
• Goal: Increase social communication through what the client was comfortable with
• Layout: 1x1 Grid / Hybrid

Low-Tech Communication Pillow
• Created for a client and caregiver not as comfortable with high-tech AAC
• Pillowcase, pillow and fabric transfer
• Printed with Laser Jet Ink and ironed on
• Diagnosis: ALS
• Goal: Quick communication to express basic needs and wants for positioning, paint and temperature
• Layout: Multi-grid layout

Low-tech AAC Pillow
• Created using iPhone and editing tools
• Added words
• Printed
• Keyring
• Client Diagnosis: PPA
• Goal: Communicate what needs to be fixed on his violin using actual photographs
• Layout: Visual Scene with actual Photographs
Low-tech AAC System

- Gestural system
- *Instax Mini 9 camera + film*
- Photos with labels
- **Diagnosis:** Aphasia and ADS
- **Goal:** Increase communication via gestures, goals to practice phrases and visuals to teach family gestural meanings
- **Layout:** 1x1 Grid / Hybrid

Repetition and Intensity Matter – HEP

- Take a low-tech AAC board with grid layout
- Cut each button message/button
- Put in a jar
- Have client pull one message each day
- Navigate on their low-tech AAC to locate

Gathering Information:

- **Tobii Dynavox Interest Check-List**
- Picture based and simplified for client participation

Gathering Information:

- Created using Boardmaker Online
- Used for Thanksgiving Dinner
- Printed on cardboard
- Folded in half; placed on table
- **Client Diagnosis:** ADS, Dysarthria, Brain Tumor
- **Goal:** Use of visual to aid in verbal communication or supplement speech
- **Layout:** Grid layout

Repetition and Intensity Matter – HEP

- **HEP**
  - Take a low-tech AAC board with grid layout
  - Cut each button message/button
  - Put in a jar
  - Have client pull one message each day
  - Navigate on their low-tech AAC to locate

Gathering Information:

As is common with many assistive technologies, the development of early AAC technologies was driven primarily by the experiences and beliefs of clinicians in the field. As the AAC field moves forward, there is an urgent need to integrate clinical experience and consumer perspectives with research on the visual, cognitive, motor, linguistic, auditory, and psychosocial processes of individuals with complex communication needs in order to ensure that AAC technologies are developmentally sound and optimally effective.

(Light, Wilkinson, Thiessen, Beukelman & Fagher, 2019)

Gathering Information:

1. What would you like to be doing that you are not doing?
2. What would you like to be talking about?
3. What strategies are being used other than natural speech?
4. Are caregivers willing to learn strategies?
5. Question: 60-80% of what we talk about is what?
Gathering Information

- Aphasia Needs Assessment (©) 1997, revised 2006
- Kathryn L. Garrett & David R. Beukelman
- University of Nebraska – Lincoln
- Includes reading and writing
- In-depth topics
- What communication partners need to learn

Mini Communication Flip Books

- Emergency Information
- How to communicate with me
- How I communicate
- Other common phrases or questions
- Not just for adults!
- Free resource

Other Considerations when creating low-tech AAC:

- Involve your client
- Use your session!
- Layouts
- Symbol type?
- Grid size (how many buttons)
- Color
- Border and spacing
- One Page? More than one page?
- Font: Aphasia
- Font Type: Alzheimer’s
- Portability?

Free Symbol Software

Cboard

- Free symbol software
- Premade boards
- Ability to edit text
- Limited symbols
- Blank boards to add your own photographs

Picto-Selector

- Free software download
- Multiple layouts
- Multiple symbol sets
  - Photographs
  - Line drawing
- Editing capability
- Programming?
Symbol Software

Boardmaker Online
• Free 30 day trial
• Adult symbols
• Templates
• Community to search for already created activities

Boogie Board

AAC Writing Tools

Low-Tech AAC
Partner Assisted Scanning
• Created using Boardmaker Online
• Used in a memory care unit
• Print on cardstock + laminated
• Tabs included on page
• Client Diagnosis: Alzheimer's Dementia
• Goal: Provide choices with visuals for increased independence and use of preferred items
• Layout: Grid layout 2X3

Low-Tech AAC Alternative Access

Labels, Ads and Magazines

Low-Tech AAC Visual needs
• Created using Boardmaker Online
• Printed on cardstock + laminated
• Folded in half, taped together
• Client Diagnosis: MS
• Goal: Communication of needs/wants in medical setting, visual impairment and past knowledge for keyboard
• Layout: Grid layout
Low-Tech AAC Eye Gaze

- Created via handwritten letters
- File folder, poster board, PVC pipe
- Client Diagnosis: ALS, Multiple Systems Atrophy
- Goal: Communication of needs/wants
- Layout: Keyboard and grid based

Considerations for Low-Tech AAC...

- Low-tech system is only as good as the communication partner (Margaret Cotts, 2019)
- In the moment editing?
- Ease of editing?
- Voice output and independence?
- Durability?

Top Tip: Conversation Mode

- Using the device to talk about what you like/dislike
- Items or things you have in common
- Common stories based on items
- Natural communication
- Input before output
- Errorless learning
- "modeling" for adult users
- Repetition and intensity matter!

" In addition to learning more about the communication and cognitive skills that adults bring to the task of AAC, we must examine best ways to represent language concepts, best ways to present language in low-tech and high-tech media, and best ways to integrate the strategies into the natural environments for conversation." 

(Fried-Oken, Beukelman & Hux, 2011)
Remember!
One Size Low-Tech AAC does not fit all!

Resources

Teachers Pay Teachers AAC for Adults:
https://www.teacherspayteachers.com/Store/Aac-For-Adults

Lingraphica Continuing Education:
https://aacdevice.aphasia.com/online-ceu-courses/

Cough Drop AAC in the Cloud 2019:

Boardmaker Online 30 Day Free Trial:
https://boardmakeronline.com/Login.aspx

Cboard:
https://app.cboard.io

Pexels:
https://www.pexels.com/

Picto Selector:
https://www.pictoselector.eu/

Accessible Information Guidelines for Stroke:

References


ASHA Aphasia Link:
https://www.asha.org/PRPSpecificTopic.aspx?folderid=8589934663&section=Treatment#TreatmentApproaches

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