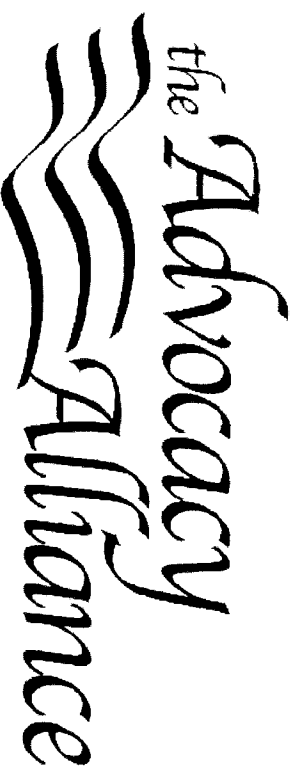


Augmentative and Alternative Communication (AAC)



Health Care Quality Units

Disclaimer

- The information presented to you today is intended to increase your awareness.
- This information is not intended to replace medical advice.
- If you are in need of medical advice, please contact your physician.

Objectives

- The participant will learn to:
 - Identify the need AAC for individuals with special needs.
 - Describe unaided and aided types of AAC.
 - Explain what team members are important for an individual's evaluation for AAC.
 - Identify where Pennsylvania's Initiative on Assistive Technology resources can be obtained.

Communication

- Communication is the process of sending and receiving information between individuals or an individual and a source.
- Communication relates to our basic needs, wants, desires, and fears. It is the basis for our relationships.
- Communication is essential to an individual's health and well-being.

Communication

- Communication is a blend of verbal and nonverbal expression:
 - Verbal communication (words used)
 - Tone of the voice used
 - Nonverbal communication
 - Body language, including posture, facial expressions, and eye contact

Intonation Exercise

1. I didn't say he stole the money.
2. I didn't say he stole the money.
3. I didn't say he stole the money.
4. I didn't say he stole the money.
5. I didn't say he stole the money.
6. I didn't say he stole the money.
7. I didn't say he stole the money.

Communication Disorders

- Individuals may have temporary or permanent disorders which affect their ability to communicate effectively.
- Some of these disorders include:
 - Developmental disabilities.
 - Autism.
 - Learning disabilities.
 - Brain injury or stroke.
 - Hearing and/or speech disorders.

Communication Impairments

- Dysarthria
- Aphasia
- Apraxia
- Anarthria

Dysarthria

- Slurred speech due to problem with structure, strength, and coordination of speech muscles.
- Does not affect language. That is, the individual knows what he/she wants to say but has difficulty in getting the words out.
- Commonly seen in speech difficulties in individuals with developmental disabilities.

Dysarthria Symptoms

- Slurred speech
- Soft speech, whispering
- Slow rate of speech
- Rapid speech with mumbling
- Limited tongue, lip and jaw movement
- Abnormal intonation
- Changes in vocal quality (nasal sounding)
- Hoarseness
- Drooling or poor control of saliva
- High correlation with dysphagia.

Aphasia

- Results from brain damage to speech center of the brain (left side of brain.)
- Most individuals had intact language and speech before the damage occurred.
- Common causes include stroke, traumatic brain injury, and brain tumors.

Aphasia Symptoms

- Word finding problems
 - “Can’t get the word out.”
- Difficulty with complete sentences.
- Also impaired writing and reading.
- Say words they don’t mean.
- They may know the things they want to say but are unable to form the words.
- May have trouble thinking of the right words.
- Does NOT affect their intellectual abilities.

Apraxia

- Motor speech disorder caused by damage to the nervous system used in speech.
- The brain forms the word but the message “short circuits” on the way to the mouth.
- Can be acquired or it can be developmental.
 - Acquired- result of brain injury.
 - Developmental. More common in boys. Present from birth.

Apraxia Symptoms

- Difficulty in repeating back words.
- Ability to use automatic speech is preserved.
 - Counting
 - ABCs
 - Singing song
 - Common greetings
 - “How are you?”
- Slow rate of speech.
- Can happen along with dysarthria or aphasia.
 - Unable to speak in complete sentences.

Anarthria (non-verbal)

- No speech output.
- Often due to injury in the part of the brain which controls the larynx (voice box).
- **VERY IMPORTANT** to establish any kind of communication system for these individuals.

AAC

- AAC is used by individuals with communication disorders who face challenges with expressing themselves with spoken language.
- Speech may be replaced with body language, gestures, vocalizations, manual sign, writing, and/or augmentative communication aids.

Unaided AAC

- Unaided AAC systems are those that do not need any equipment for their use.
- Non-verbal communication systems including
 - Gestures-informal and formal.
 - Signed languages.
- Generally requires adequate fine-motor coordination abilities.

Informal Gestures

- Use of body movements, facial expressions and postures to communicate.
- Used by most individuals to complement their natural speech.
- Understood within a culture without further education or explanation.

Formal Gestural Systems

- Signed systems
 - Signed English, Pidgin Sign
- Sign language
 - American Sign Language (ASL)
- Sign languages are more difficult to acquire than gestures, especially for individuals with upper extremity impairments.

Aided AAC

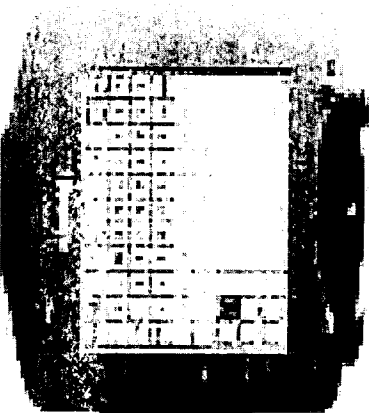
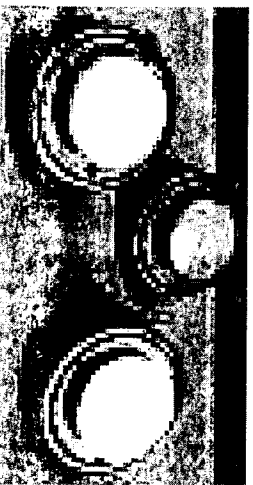
- An AAC aid is a device (electronic or non-electronic) that sends or receives messages.
- Low and high tech devices available.
- There is a wide array of communication challenges and needs. There are an equally wide assortment of devices available to meet these needs.

Low Tech Aided AAC

- Do not use electricity to function.
- Often simple aids created by placing pictures, symbols, words, or phrases on a board or in a book.
 - Picture Exchange Communication System (PECS)
 - Limited in the amount of messages that can be expressed. A limited number of pictures can be available and manipulated.

High Tech Aided AAC

- Electronic devices that enable communication by producing digitalized or synthesized speech.
- Speech Generating Devices (SGDs)
- Voice Output Communication Aids (VOCCAs)



Communication Support Team

- A comprehensive evaluation of the user's unique abilities and needs is important to complete to ensure that the proper AAC is matched with the individual.
- Evaluations are conducted by a specialized multidisciplinary team:

Speech-language Pathologist, Occupational Therapist, Physiotherapist, Social Worker, and/or Physician.

Assessment

- Interviews with the user, family members, caregivers, and /or teachers to obtain information about the individual's behavior and skills in various settings.
- Evaluation of the user's motor abilities, communication skills, cognition, and visual abilities.
- Considerations about the strengths and needs of those who support the individual.

Assessment

- Each and every individual who has some limitation or challenge with verbal communication should have an evaluation by a speech therapist.
- Even if an evaluation was done in years past, another assessment is appropriate since technology is rapidly advancing.
- The communication support team nearly always can find something to help a person communicate more independently.

Common Concerns

- Using an augmented or assistive communication device is too difficult for the individual.
- The individual also has physical disabilities.
- The individual has too many aggressive behaviors.
- There's no money to get the device. It will cost too much.

Pennsylvania's Initiative on Assistive Technology (PIAT)

- PIAT strives to enhance the lives of all Pennsylvanians with disabilities, older Pennsylvanians, and their families through access and acquisition of assistive technology devices and services.
- Affiliated with Temple University.