Communication:
Speech Disorders and AAC

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PSYCH8040
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Outline

• Basics of Communication
• Intro to AAC
• Types of Disorders and/or Conditions
• Types of AAC Technologies
What is communication?
Communication

- a process by which information is exchanged between individuals through a common system of symbols, signs, or behavior (Merriam-Webster)
• Sender = communicator
• Encoder = means of transmission
• Channel = medium
• Decoder = means of receptions
• Receiver = recipient
Shannon-Weaver’s Model of Communication

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“Buy more beer!”

(Message)
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“Buy more beer!” (Message)
What tools do you use to communicate?
How do those tools “affect” your ability to communicate effectively?
AAC, Augmentative and Alternative Communication

• **AAC is:**
  • a set of tools and strategies that an individual uses to solve everyday communicative challenges
  • An area of clinical practice that aims to assist people with Complex Communication Needs (CCN)

• AAC technologies are often designed to help individuals with severe speech impairments

• Major organizations: ISAAC, ASHA

“Communication is the very essence of being human...” – Cook & Polgar
Types of AAC Systems

• Unaided:
  • Body language, facial expressions, gesturing, signing, gazing, etc.
  • Highly cultural, highly contextual, highly dependent on physical capabilities
  • No external resources

• *Youtube Video
Types of AAC Systems

• Aided:
  • Pen or pencil, flashcards, pictures, laser pointer, computer, cell phone, speech
    generation device (SGD)
  • External resources, often high-tech, often expensive, may require
    consultation with a Speech-Language Pathologist

• *YouTube video
Disorders and Conditions

- Cerebral Palsy
- Autism Spectrum Disorders
- Developmental language delays
- Traumatic brain injury
- Progressive neurological disorders, such as ALS
- Stroke
- Certain genetic disorders
- Ataxia
- Dyspraxia
- Aphasia
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Cerebral Palsy

• An umbrella term that refers to non-progressive neurological disorders that occur while the child’s brain is under development

• Cerebral = Cerebrum, Palsy = Paralysis
  • The resulting paralysis of certain body parts due to brain damage

• Cerebral palsy is the most common childhood physical disability, nearly 764,000 people in the U.S. have CP

• CP is a life-long condition

• CP affects each individual differently

• CP is a non-progressive disorder

• 4 types of CP:
  • Spastic (70%), Athetoid/dyskinetic (10%), Ataxic (10%), Mixed (10%)

• Symptoms of CP include:
  • variations in muscle tone
  • stiff muscles
  • Exaggerated reflexes
  • lack of coordination
  • Tremors
  • difficulty eating
  • difficulty producing speech
  • seizures
Autism

• Autism, or autism spectrum disorder, refers to a broad range of conditions characterized by challenges with social skills, repetitive behaviors, speech and nonverbal communication

• The term “spectrum” reflects the wide variation in challenges

• CDC estimates autism’s prevalence as 1 in 68 children in the United States
  • This includes 1 in 42 boys and 1 in 189 girls

• Around one third of people with autism remain nonverbal.

• Around one third of people with autism have an intellectual disability.

• **Possible** signs include (infancy):
  • no social smiles or other warm, joyful expressions directed at people
  • limited or no eye contact
  • no use of gestures to communicate
  • no words

• **Possible** signs include (any age):
  • Struggles with understanding other people’s feelings
  • Avoids eye contact and prefers to be alone
  • Remains nonverbal or has delayed language development
  • Performs repetitive behaviors such as flapping, rocking or spinning
  • Has unusual and often intense reactions to sounds, smells, tastes, textures, lights and/or colors
Dysarthria

- Dysarthria is a motor speech disorder that results from impaired movement of the muscles used for speech production (lips, tongue, vocal folds, and diaphragm)
- Can be caused by nervous system disorders or by conditions that cause facial/tongue/muscle paralysis
- Treatment is directed at treating the underlying cause of the condition when possible
  - Speech therapy may help improve speech
Thank You!