Language versus speech: Is it aphasia, apraxia, or dysarthria?
Objectives

Participants will:

• Understand the difference between a language disorder (e.g., aphasia) and a speech disorder (e.g., dysarthria) which can occur following a stroke.

• Understand the role of speech-language pathologists in assessing and treating speech and language disorders following a stroke.

• Understand basic communication adaptations to facilitate communication with patients with speech and/or language disorders following a stroke.
Let’s do lunch!
Language – The Menu

• 4 language modalities
  • Read the menu – reading comprehension
  • Waiter asks ?s – auditory comprehension
  • Give your order – verbal expression
  • Waiter writes order – written expression
Aphasia – language disorder

- primary motor area
- primary sensory area
- secondary motor and sensory area
- anterior speech area (Broca's area)
- posterior speech area (Wernicke's area)
- secondary auditory area
- primary auditory area
- secondary visual area
- primary visual area

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Aphasia – language disorder

- Broca’s/expressive/non-fluent
- (frontal lobe)

- telegraphic speech, word-finding problems, anomia, paraphasias, jargon, neologisms, word salad
Aphasia – language disorder

• Wernicke’s/receptive/fluent
• (temporal lobe)

• talkative, but no self-monitoring, poor error awareness, difficult to treat
Aphasia – language disorder

- Global aphasia
- Impaired expressive and receptive language
- Some automatic behaviors preserved (e.g., eating)
Speech – The Conversation

• 4 components to speaking
  • Take a deep breath – respiration
  • Raise your voice – phonation
  • Spit it out – articulation
  • Through the nose – resonance
Apraxia – speech disorder

• Motor planning/sequencing impaired
• Oral, verbal (plus others)

• automatic versus on command
• errors are inconsistent
Dysarthria – speech disorder

- Motor weakness
- Slurred speech, “marbles in mouth”
- Decreased intelligibility with increased speaking rate
Role of SLP

• Evaluation

• Treatment

• Patient/family/caregiver education

• Support groups
Role of SLP

• Evaluation:

• Standardized tests, formal language/speech tasks, informal conversation
Role of SLP

• Evaluation:

• Is it word-finding (aphasia), sequencing (apraxia), or slurring (dysarthria)?

• Is it understanding (aphasia), groping, (apraxia), or weakness (dysarthria)?
Role of SLP

• Evaluation:
• Some hints:
• can’t finish sentence, tip-of-the-tongue (language)
• groping, inconsistent order (apraxia)
• slow, weak speech (dysarthria)
Role of SLP

• Treatment (examples):
• Aphasia (language):
• naming tasks, PACE (verbal expression)
• yes/no, commands (auditory comp)
• functional writing tasks (written express)
• functional reading tasks (reading comp)
Role of SLP

• Treatment (examples):
• Apraxia (speech):
• automatics (1-10, DOW, MOY, alphabet)
• sequencing cards, singing
• diadochokinetic, multisyllabic words
• phonemes
• oral exercises (alternating movements)
Role of SLP

- Treatment (examples):
- Dysarthria (speech):
  - diadochokinetic, multisyllabic words
  - tongue twisters
  - oral exercises (strengthening)
  - SOS – slow, open, shout (strategies)
Adaptations for communication

• Verbal expression – carrier phrases, sound cues, gestures, pointing, drawing, facial expressions, yes/no rather than open-ended questions

• Auditory comprehension – simplify commands, visual/tactile cues/models, yes/no rather than open-ended questions
Adaptations for communication

• Reading comprehension – simplify content, one line at a time, left margin highlight, large print, high contrast
• Written expression – adaptive grip, write larger, marker versus pen
• Play to the patient’s strengths
Any Questions?
Thank you!