Navigating the Complex Waters of TBI: A Speech-Language Pathologist’s Perspective

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Objectives

- Understand the complex role of the speech-language pathologist working with clients with traumatic brain injury (TBI)
- Identify characteristics of cognitive-communication impairments in clients with TBI
- Apply strategies for managing clients’ complex communication impairments into your practice

Where we’re going

- SLP’s scope
- Case studies and descriptions of cognitive-communication disorders
- Explore suggestions when working with clients with TBI & cognitive-communication impairments

Background

- SLPs see clients with different injury severity levels
- Practice in rehab centres, hospitals, community, private practice, schools, universities, and nursing homes
- Varied patient demographics (M, F, pediatric, adolescent, adult: 18-80+)
- SLP’s role covers the full spectrum of communicative and/or swallowing disorders

Speech and Language

- "I can’t talk…it’s hard. It’s hard."
- “Speech is very frustrating for me. Speaking for an hour is tiring.”
- “Sometimes I have no idea (how loud my voice is). It’s very frustrating.”
- "I can’t bring out the spelling of a word. It evaporates from my mind."
- "I notice at night, when I’m tired, I have to search for a word and I have to work harder at retrieving the word and the conversation.”

Communication disorders:
- Expressive language
- Receptive language
- Motor speech
  - Articulation, respiration, intonation, loudness
- Voice, fluency

Swallowing disorders:
- Dysphagia of liquids and/or solids, following TBI

Case Study One

- Male client, 36, sustained a TBI from an accident, more than 12 months post-onset.
- Presents with right hemiparesis, right visual field cut and right neglect.
- Also has a significant communication impairment: non-fluent aphasia affecting all language modalities, and oral-motor and verbal apraxia.
- Also presents with cognitive impairments.

Case Study One (continued)

- He currently lives alone.
- Has very minimal family and social supports.
- He received several months of inpatient and outpatient multi-disciplinary rehab services.
- What would your therapy approach look like?

Language of TBI

- Subtle deficits in communication
- Can function adequately in basic social interactions
- Report difficulty in more complex situations with speed, distractions, duration, multiple speakers, and fatigue
- May impact social, vocational and avocational re-integration

Cognitive-Communication Disorders

- A communication impairment resulting from underlying cognitive deficits in attention, speed of processing, memory, problem-solving and frontal lobe functions
  - Difficulties in communicative competence (listening, speaking, reading, writing, conversation, social interaction) under stressful conditions
  - Stress: Demand for speed or precision, environmental distractions, large quantities of information to be integrated, social stress

Case Study Two

- 22 year old female, sustained a TBI from a fall, 14 months post-onset.
- Current cognitive-communication complaints include:
  - decreased focus and attention
  - difficulty organizing thoughts into words
  - decreased recall and retention of written material
  - decreased ability to integrate written information she has read and explain it in own words

Introduction to Cognitive-Communication Areas
Discourse Skills

- "I have such a hard time finding words. Sometimes I have to stop and think of a different word."
- "It’s harder initiating conversations with someone you don’t know."
- "I could not formulate my ideas very clearly."
- "That’s why I avoid certain situations, because I’m never quite sure if I’m repeating myself."

Why work on conversational discourse?

- "Conversational discourse problems can significantly impact both short-term and long-term recovery post-TBI" (LeBlanc et al, 2014).
- Study results also revealed:
  - Older patients with neurological problems and with more severe TBI: conversational discourse deficits in early stage of recovery
  - Cicerone et al (2011) recommended intervention for functional communication, including pragmatic conversational skills, in individuals with TBI as a practice standard

Speed of Processing

- "If it’s too fast or there’s too many people around me, I can’t process the information fast enough and zone out."
- "Sometimes, I’ll ask them to speak slowly or say it again."

Attention and Concentration

- "Someone’s talking to me and I drift off. I lose focus."
- "I find I can become less engaged more quickly (in group conversation). It might tire me out, (and) I may be more impatient with the speaker."
- "Fatigue causes me to have a shorter period of focus (and) shorter period of analytic thought."
Attention and Concentration

- Affecting ability to stay focused on a communicative activity
- Conversations: listening/speaking
- Written task: repetitive attention-based errors
- Reading task: difficulty staying focused, attending to reading, may read same line over and over again

Recall and Retention

- "I used to be an avid reader. I couldn’t retain a sentence by the time I finished reading it."

Executive Functioning Skills

- Affecting ability to plan, prioritize, organize
- Weigh decisions
- Generate multiple solutions to a problem
- Initiate tasks, follow through, see them to completion
- Integrate, synthesize information that is read or heard
- Self-monitoring, self-regulation

Guidelines for Treatment of Cognitive Communication Disorders

- Communicative competence may vary due to:
  - Communication partner
  - Environment
  - Communication demands
  - Communication priorities
  - Other factors

- Opportunity to enhance communication skills targeted at the social situation
- Education and training to empower individuals and their families
- Interventions to address social communication deficits


Recall and Retention

- "I used to be an avid reader. I couldn’t retain a sentence by the time I finished reading it."

Executive Functioning Skills

- "Taking an important task, taking it to conclusion…that’s more difficult. I don’t have the stamina to do that. I’m not able to finish that…(It) gets me frustrated."

Guidelines for Treatment of Cognitive Communication Disorders

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Strategies to incorporate with clients with TBI and cognitive-communication disorders

Case Study One
Successes

Case Study Two
Highlights

Tips for Facilitating Communication with Clients with Aphasia

- Be patient. Do not rush. Give client time to get message out.
- Speak clearly, slowly, and with simple, uncomplicated sentences
- Use supported conversation techniques and tools to aid your message
- Verify your message

Together et al. (2013). Journal of Rehabilitation Medicine

Tips for Facilitating Improved Discourse Skills

- Foster word-finding strategy use (e.g., descriptions, synonyms, gestures, more time)
- Create opportunities for formulation practice
- Ask clients: is message clear, concise, organized?
- Build awareness via bio-feedback use (e.g., video, audio)
- Encourage requests for feedback

Tips for Facilitating Improved Discourse Skills (continued)

- Provide direct feedback when you do not understand
- Explicitly train and model appropriate turn-taking behaviours
- Review social pragmatic etiquette and “rules”
- Use signs and signals that clients develop
- Encourage self-talk, self-monitoring
Tips for Facilitating Improved Attention/Speed of Processing/Recall and Retention

Encourage clients to:
• use reading and note-taking strategies (e.g., KWL, PQRST)
• read in chunks
• practice use of reflective questions
• discuss texts with others

Griffiths, 2012

Tips for Facilitating Improved Executive Functioning Skills

• Encourage meta-cognitive strategy use (e.g., Plan, Do, Review)
• Prompt evaluation of meaningful tasks
• Empower clients to request feedback from others

MacDonald and Whaam-Halas, 2010

Key Messages

• Cognitive communication disorders involve relatively spared language abilities
• Conversational training of communication partners can assist individuals

• Communicative competence is often impacted by stressors and demands on the individual
• May have significant impact on social, emotional and vocational re-integration
• Patience and sensitivity to clients’ needs are required

General Tips

• Be flexible as a practitioner: trans-disciplinary practice
• Collaborate with colleagues: joint sessions, functional, real-life experiences
• Allow client opportunity to generate content for treatment sessions

References


References (continued)


References (continued)


