Components of Cognitive Communication Evaluation

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Learning Objectives:

1. Define the primary components of cognitive communication
2. Evaluate a case history for cognitive-communication “buzz-words”
3. Apply formal and informal assessment considerations based on current research and practice recommendations
4. Produce impact statements regarding cognitive communication deficits
# The Components of Cognitive Communication

## Awareness, Concentration, and Attention
- Visuo-spatial awareness
- Attentiveness to physical environment over time
- Four types of attention (see reference sheet for additional information)

## Processing and Understanding Information
- Working memory capacity
- Processing speed
- Reaction time

## Memory
- Declarative memory: episodic memory, semantic memory, metamemory, and prospective memory
- Nondeclarative memory: procedural memory, emotional associations, and priming

## Communication
- Word finding and complex communication
- Topic maintenance
- Interpretation and display of nonverbal communication

## Executive Function
- Planning, organizing, and assembling
- Reasoning, problem solving, decision making, and judgement

## Insight, Metacognition, and Self-awareness
- Awareness of deficits and how they impact life activities
- Ability to use compensatory strategies
- Social boundaries and code switching

Neumann & Lequerica, 2009; Sohlberg & Turkstra, 2011
How does cognition impact daily life...

Figure 2. A model of cognitive-communication competence.

Link to Article
(MacDonald, 2017)
Step One: Case History
“Buzz words”

**Diagnosis:** CVA, TBI, concussion (mTBI), hypoxia, dementia and/or mild cognitive impairment, brain tumor

**Nursing / SLP notes:** unresponsive, decreased awareness, waning attention, impaired recall, orientation challenges, disorganized thoughts, verbose, distractibility, perseverative, agitation, unable to follow directions, high fall risk, impulsive, unable to recognize deficits (insight)

("Cognitive-Communication Referral Guidelines for Adults")
Step Two: Assessment
Validity Considerations for Assessment

“Tests used and recommended by speech-language pathologists were strong in content and face validity (i.e., thoughtfully constructed) but relatively weak in construct validity (i.e., did not measure what the manual claimed, particularly “strengths and weaknesses”). Ecological validity [relevance to daily communication] was not measured formally by any test and thus must be considered a weakness.”

Practice "Options"

#1 use caution when evaluating individuals with cognitive-communication disorders using existing standardized tests

#2 consider evaluation of the person’s pre-injury characteristics, stage of development and recovery, communication-related demands of meaningful everyday activities

#3 to collaborate with other professionals who evaluate cognitive function [OT, neuropsychology, etc.]

Turkstra, Coelho, & Ylvisaker 2005
ACUTE: brief focused testing

- Montreal Cognitive Assessment (MOCA), St. Louis University Mental Status examination (SLUMS), or clinician generated assessments combining standardized subtests and informal measures, Functional Independence Measure (FIM), ASHA National Outcome Measures System (NOMS)

INPATIENT: dependent on patient participation level can be brief to comprehensive

- Cognitive Linguistic Quick Test (CLQT), Western Aphasia Battery (WAB), Mini Inventory of Right Brain Injury (MIRBI), Communication Activities of Daily Living (CADL), Ross Information Processing Assessment (RIPA), Scales of Cognitive Ability for Traumatic Brain Injury (SCATBI)

OUTPATIENT: comprehensive standardized testing with consideration of neuropsychological assessment

- Boston Diagnostic Aphasia Evaluation (BDAE), Functional Assessment of Verbal Reasoning and Skills (FAVRES), American Speech Language and Hearing Association Functional Assessment of Communication Skills for Adults (ASHA FACS), Repeatable Battery for the Assessment of Neuropsychological Status (RBANS), Test of Memory and Learning (TOMAL), Behavioral Assessment of Dysexecutive Syndrome (BADS)
- Neuropsychological referral (see.

CONSISTENT IN ALL SETTINGS: Some form of assessment for billing / reimbursement purposes, building patient-clinician alliance, gathering functional / personal information, identifying additional barriers via team collaboration

(Paul-Brown & Ricker, 2002)
<table>
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<th>“Get some data mindset”</th>
<th>Cognitive Linguistic Quick Test</th>
<th>Communication Activities of Daily Living**</th>
<th>Functional Assessment of Verbal Reasoning and Skills</th>
<th>ASHA - Functional Assessment of Communication Skills for Adults**</th>
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Information collected on review of reporting subtests - assessment measures had to list the cognitive domain as a primary assessment domain / reporting domain

** = I have not administered myself
Informal Assessment - Self Ratings and Observations

**Self Ratings**

1. Cognitive Communication Checklist for Brain Injury
   - Checklist
2. Functional Activities Questionnaire
   - Questionnaire
3. Neuro-QoL
   - Neuro-QoL Search Measures

**Clinician Observations**

1. ASHA Template for Language / Cognition Evaluation
   - Adult Assessment Template: Language/Cognitive-Communication Evaluation Form
2. Observations - guided by ASHA Practice Portal
   - ASHA Practice Portal
3. Motivational Interviewing
   - See next slide
4. Goal Attainment Scaling (ongoing assessment supports)
   - See resource: Honeycomb speech
Motivational Interviewing is a collaborative conversation style for strengthening a person's own motivation and commitment to change.

**O.A.R.S**

- **Open Ended Questions**: Helps individuals investigate and explore their own thinking.
- **Affirmation**: Acknowledge positive behavior and build confidence for change.
- **Reflective Listening**: Mirroring comments to ensure accurate interpretation and deepen the conversation.
- **Summarizing**: Pull statements together and allows for topic transitions.

“Motivational interviewing is a collaborative conversation style for strengthening a person’s own motivation and commitment to change.”

**TOOLKITS: E. Motivational Interviewing**
Step Four: Write Your Report
How does cognition impact daily life...

Figure 2. A model of cognitive-communication competence.

Link to Article (MacDonald, 2017)
So how do we write an organized impact statement?

- Patient reports
- Challenges identified in motivational interviewing
- Overall severity summary
- Gist of need for services - focusing on big picture
- Assessment domains
- Domain specific severity, impacts, and assistance needed
Patient Specific Statements

Patient and/or family reported challenges with following task… (whatever they told you, here’s your chance to do NO decision making skills and just write)

...Or maybe they couldn’t communicate their challenges, then write about what they need / changes from premorbid i.e. “Patient requires 24 hour supervision at home inconsistent with premorbid level of independent in all daily living tasks”, “Patient is currently on FMLA in vocational roles inconsistent with premorbid level of full time business marketing manager”, “Patient currently requires consistent cues to attend to a single activity of daily living inconsistent with reports of modified independence in complex activities of daily living such as driving, vocational tasks, and household management”.
### Domain Specific Statements

<table>
<thead>
<tr>
<th></th>
<th>Awareness, Concentration, and Attention</th>
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| 01| ● Impacting ability to engage in single (to multiple) tasks without increased risk of error (conversation, cooking, work, etc. examples)  
    ● Can include details of duration / task level |
|   | Processing and Understanding Information |
| 02| ● Impacting the ability to actively engage in conversation, process and retain novel information, etc. without the need for additional time or repetition of information |
|   | Memory |
| 03| ● Impacting the ability to recall...salient personal / orientation information, novel strategies / skills, prospective tasks in ADLs, etc. without the use of memory aids / family support |
|   | Communication |
| 04| ● Impacting ability to comprehend and communicate basic wants needs, thoughts / opinions, novel and complex topics (required for return to work), etc. |
|   | Executive Function |
| 05| ● Impacting the ability to initiate, plan, and problem solve through simple and complex activities of daily living requiring close supervision |
|   | Insight, Metacognition, and Self-awareness |
| 06| ● Impacting the ability to anticipate functional impact of deficits and utilize strategies / skills as trained to support independence and safety |
Summary Statements

- Reduced awareness and ability to initiate and effectively communicate needs
- Reduced awareness of impairment and its degree (i.e., loss of ability to assess one's own communication effectiveness)
- Reduced memory, judgment, and ability to initiate and effectively exchange routine information
- Difficulty performing personal lifestyle management activities effectively (i.e., pay bills)
- Reduced ability to anticipate potential consequences, with reasonable judgment and problem solving
- Reduced social communication skills and/or ability to manage emotions, often causing loss of relationships
- Disruption of ability to fulfill educational or vocational roles, including potential loss of employment
- At risk for injury due to inability to communicate in an emergency and/or anticipate the consequences of own actions

("Cognitive-Communication Referral Guidelines for Adults")
2. Honeycomb Speech - Motivational Interviewing Resource. Retrieved from https://honeycombspeechtherapy.com/motivational-interviewing/ (plenty of other excellent resources in addition to this one!)
Thank you

Have any additional questions, let's talk! Email me at joann2hervey@gmail.com