Cornis-Pop M, Mashima PA, Roth CR, MacLennan DL, Picon LM, Hammond CS, Goo-Yoshino S, Isaki E, Singson M, Frank EM. Cognitive-communication rehabilitation for combat-related mild traumatic brain injury. J Rehabil Res Dev. 2012;49(7):xi-xxxii.

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Appendix 1. General Schema of SLP Intervention for Concussion/Mild Traumatic Brain Injury[1]

The following is a general plan for SLP intervention for cognitive-communication impairment in Service Members and Veterans with concussion/mild traumatic brain injury:

- Complete chart review. Clinicians acquaint themselves with the patient's diagnosis; co-morbidities; and past medical, social, educational, vocational and military service history. This information is critical for selecting assessment tools and interpreting assessment results.
- Interview the patient (and family member, if available). Clinicians interview the patient and family to obtain additional background information that may not be included in the medical record. Clinicians also use the interview to better understand the patient's most pressing concerns, problem areas, self-help strategies, priorities, goals and expectations specific to rehabilitation.
- Refer the patient to an audiologist for evaluation if auditory symptoms that may be associated with concussion/mTBI are reported or observed.
- Collaborate with other team members to address comorbidities such as pain, sensory impairments, fatigue, stress, sleep deprivation, drug effects, and psychosocial concerns that can contribute to cognitive and communication inefficiencies.
- Identify potential cognitive-communication inefficiencies:
    - If a full neuropsychological battery has been recently performed, review the results to obtain information about the patient's cognitive status, strengths and weaknesses, and measures of effort
    - If the neuropsychological exam has not been performed, consider referral to neuropsychology to obtain information about the patient's current and pre-injury cognitive status, strengths and weaknesses, estimated pre-injury cognitive abilities, and measures of effort
    - Assess problem areas using standardized instruments (e.g., broad assessment of cognitive-communication abilities, domain-specific assessments, and functional performance assessments) and self-report measures
    - Observe patient's functional performance under circumstances that require varying degrees of attention, speed of information processing, memory, self-regulation, social communication, and executive function.

[1] adapted from Mild Traumatic Brain Injury Toolkit, draft 2.0 (Radomski & Weightman, Aug 2010)

- Instruct in compensatory cognitive-communication strategies (attention, memory, speed of information processing, executive functions, social communication and/or conversational dysfluencies) based on the nature of patient complaints and assessment results:
    - Collaborate with the patient to identify the compensatory strategies most likely to benefit him/her in real-life contexts
    - Structure functional and meaningful tasks within clinical sessions for the patient to practice and habituate the new skill or strategy
    - Perform ongoing assessment to determine effectiveness of intervention and modify compensatory strategies, as appropriate, to optimize function
    - As the patient adopts and employs an array of successful compensatory strategies, facilitate self-assessment and generalization of the new skill or strategy to personally-relevant contexts including new settings, people, and situations to enable him/her to resume social, work, and school roles
    - Schedule a regimen of declining contact with patient so that he/she remains supported while increasingly and successfully resuming personal, social, work and school roles.
- Discharge from therapy and formulate a plan for follow-up that includes problem solving with the patient regarding long-term adherence to therapy recommendations and resources if new problems arise.

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Appendix 2. Cognitive-Communication Assessment Instruments for Mild Traumatic Brain Injury

The choice for assessment strategy and tools/instruments is determined by clinical judgment and experience and is based on the needs of the individual SM/V. Clinicians are advised to select assessments based on what is needed to determine current status and to plan treatment for a specific SM/V.

The following are options for assessment instruments:

Brief Cognitive Assessments:

- Neurobehavioral Cognitive Status Examination (Cognistat)
- Repeatable Battery for the Assessment of Neuropsychological Status (RBANS)
- Cognitive Linguistic Quick Test (CLQT)

Broad Assessment of Cognitive-Linguistic Abilities:

- Woodcock-Johnson III Tests of Cognitive Abilities (WJ-III COG)

Domain Specific Assessments:

Attention

- Test of Everyday Attention (TEA)

Information Processing Speed

- Speed and Capacity of Language Processing (SCOLP)

Executive Functions

- Behavior Rating Inventory of Executive Function – Adult (BRIEF-A)
- Behavioral Assessment of the Dysexecutive Syndrome (BADS)
- Functional Assessment of Verbal Reasoning and Executive Strategies (FAVRES)

Memory

- Rivermead Behavioral Memory Test (RBMT)
- Contextual Memory Test

Social Communication

- Boston Naming Test (BNT)
- The Awareness of Social Inference Test (TASIT)

- LaTrobe Communication Questionnaire (LCQ)
- Discourse Comprehension Test (DCT)

Functional Performance Assessment:

- American Speech-Language and Hearing Association-Functional Assessment of Communication Skills for Adults (ASHA-FACS)