Inhibition/distractibility

- Holding information in mind while inhibiting a prepotent response
  - Day-night
  - Tapping (When I tap once you tap twice)
  - Appearance-reality (clouds)


### Commonly used Neuropsych Batteries and Assessments

#### Adults - Executive Functions (cognitive control) (RT Processing speed)

in adults on:
- Organization, planning, flexibility
- Task switching
- Cued set
- Inhibitory control - Stroop Test

#### Adults - Critical thinking

- Auditory Neuropsychological Investigation
- Wechsler Adult Intelligence Scale
- Digit Symbol Substitution
- Symbol Digit Modalities Test
- Category Test (HCT)
- Object Sorting Test

### Acute Care v. Outpatient Tests for SLP’s

- **Acute Care**
  - CogStat
  - 10-LAB (7)
  - If the patient does have a hx of dementia:
    - SLUMS or
    - MoCA.
- **For the outpatient setting**
  - RBANS
  - BURNS
  - CLOST
  - For RH patients – Rice-3
  - TrailMaking A&B
  - FPA
Cognistat

Rapidly assess neurocognitive functioning in...

- General areas:
  - Level of Consciousness
  - Orientation
- Major ability areas:
  - Language (Comprehension, Repetition, Naming)
  - Constructional Ability (Drawing from Memory, Arranging Tiles)
  - Memory
  - Calculation Skills
  - Executive Skills (Reasoning, Judgment)

Normative Data:
- Adolescents from 12 to 17 years of age and Adults 18 years of age and older

Time to Administer:
- 15-20 minutes for cognitively intact individuals and 20-30 minutes for those who are cognitively impaired

Administration Webinar

- [http://www.cognistat.com/node/41](http://www.cognistat.com/node/41)

HI-LAB High-level Language Aptitude Battery

- **Description:** HI-LAB is a composite test battery that predicts which adults may succeed in learning a foreign language to very advanced levels of proficiency. Unlike currently used language aptitude tests, which predict success in the early stages of language learning, HI-LAB uses innovative, computer-delivered cognitive behavioral tasks to predict success at very advanced levels.

- **Impact:** A test battery that can predict the ultimate level of foreign language attainment.

- **Press:**
  - Secret Military Test, Coming Soon to Your Spanish Class
  - A Test That Quantifies Basic Language-Learning Ability

SLUMS Download

- [http://medschool.slu.edu/agesuccessfully/pdfsurveys/slumsexam_05.pdf](http://medschool.slu.edu/agesuccessfully/pdfsurveys/slumsexam_05.pdf)
Repeatable Battery for the Assessment of Neuropsychological Status (RBANS)
Christopher Randolph (1998)

Reported Purposes:
• Detect and characterize dementia in the elderly (including mild through moderate)
• Cognitive screening of attention, language, visuospatial, and verbal memory abilities to assist with differential diagnosis and treatment planning (when a full, lengthier battery is not possible or practical).
• Monitor performance over time through repeated assessment with alternate versions (A-D)

Intended Populations:
• Adults (20-89 yo) with suspected cognitive challenges or CNS diagnosis who speak English

RBANS (continued)

Special Considerations:
• May repeat instructions when requested or clear examinee does not understand. Can provide encouragement prompts (“Try it just a little longer; I think you can do it; Tell me more!”)
• Standardized Index Scores have M=100, SD=15

Normative Sample:
• 147 healthy adults from across the US matched to the 1995 US Census data for sex, ethnicity, educational level, and geographic region (20-89yo); no statistically significant differences in representativeness of sample compared to 1995 census data.
• Excluded from norm sample if diagnosis of cognitive impairment, loss of consciousness, CVA, epilepsy, CNS infection, CNS disease, or head injury; uncorrected vision/hearing loss; non-fluent in English; diagnosis/history of alcohol/drug dependence; major psychiatric illness; currently taking antidepressant or antipsychotic meds
• The Cognitive Linguistic Quick Test (CLQT) assists you in quickly identifying strengths and weaknesses in five cognitive domains (attention, memory, executive functions, language, and visuospatial skills) of adults with neurological impairment due to strokes, head injury, or dementia.

• Quick Screener

• Administered in 15 to 30 minutes

• Scored in 10 to 15 minutes (cut scores, no normative data)

• Can be administered at a table or bedside (as long as patient can sit up and use a pen)

• Available in both English and Spanish

• Useful for screening a full range of cognitive processes with patients who may have decreased language skills

Test Purpose
Use the SCCAN to:
- Identify patients with neurocognitive and communicative impairment
- Determine the severity of the impairment
- Help plan treatment
- Measure changes in patient functioning over time

Subtests
The test contents relate to daily activities adults would be expected to perform for independent living. The SCCAN has eight scales:
- Oral Expression
- Orientation
- Memory
- Speech Comprehension
- Reading Comprehension
- Writing
- Attention
- Problem Solving

Subtest Scoring:
- Oral Expression
- Orientation
- Memory
- Speech Comprehension
- Reading Comprehension
- Writing
- Attention
- Problem Solving

Subtest Completion Time:
- Oral Expression
- Orientation
- Memory
- Speech Comprehension
- Reading Comprehension
- Writing
- Attention
- Problem Solving

Mild Traumatic Brain Injury Rehabilitation Toolkit


The mTBI Iceberg

- Attention, memory, executive functions
- Interpersonal, motor, executive
- Language, reasoning, memory
- Comorbid conditions
- Intraoperative, interoceptive, neurocognitive
- Iatrogenic factors
- Comorbid conditions
- Psychological factors
- Pre-injury factors

Cognitive symptoms arising from comorbid conditions (PTSD, depression, anxiety, sleep disturbance, chronic pain) may also be a barrier to the treatments for those conditions.

When this occurs, low-dose cognitive rehabilitation delivered concurrently with other behavioral and medical therapies may help with adherence & implementation of tx.

- Remembering to take medications
- Remembering appointments
- Following through with sleep hygiene
- Completing A-B-C sheets as part of Cognitive Behavioral Therapy
- Initiating assignments related to trauma-focused therapies
Categories of strategies

• Activity Specific Strategies
  • Remembering names
  • Prevention of lost items
  • Academic strategies (study skills, writing, reading, assignment management)
  • Social communication strategies (conversation starters, question templates)
  • Navigation strategies

• Internal Memory Strategies
  • Imagery
  • Verbal elaboration
  • Retrieval (alphabet searching, mental retracing)
  • Encoding (acronym, story method)

• Generalized Metacognitive Strategies (self monitoring/goal completion)
  • Goal Management Training
  • Problem Solving Therapy
  • Self talk/verbal mediation

SCORE Chapter 2: Management Strategies

Management of Specific Symptoms

• Poor concentration
• Irritability/anger
• Fatigue/sleep problems
• Depression
• Memory problems
• Headaches

SCORE Study Chapter 2:

Environmental Strategies for Sleep

• Block out all distracting noise
• Temperatures above 75 degrees Fahrenheit and below 54 degrees can disrupt sleep. A slightly cool room tends to contribute to good sleep
• Light regulates our biological clocks
  • If you find yourself struggling to fall asleep, try increasing your exposure to bright light during the morning.
  • If you find yourself waking earlier than you’d like, try increasing your exposure to bright light in the evening.
  • Avoid light if you wake up in the middle of the night to go to the bathroom
• Reserve the bed for sleep and sex. Do not do work, read, play video games or watch TV while in bed.
• If you do not fall asleep within 15 to 30 minutes, get up and go into another room and read until sleepy

Direct Training of Cognitive Processes

Clinician Reminders:

• Candidacy
• Theoretical grounding
• Sufficient Repetition
• Patient Performance drives clinical regimen
• Combine drills with strategy training
• Identify and Measure Functional Goals

Primary Tools:

• Programs with evidence-base
• Patient-centered outcome measures that capture generalization
  [Part of Dynamic Coaching]
• Examples:
  • Attention Training
  • Goal Management Training

Cognitive Strategy Training

Clinician Reminders:

• Strategy selection and introduction based on collaborative interview and any testing.
• Training should include Knowledge Assessment (how, when, where & why)
• Training should provide adequate practice for fluency and generalization
• Evaluation includes measures of strategy knowledge, use and impact

Examples:

• Training reading comprehension strategy
• Goal Plan Do Review (Ylvisaker)

Primary Tools:

• Goal completion strategies
• Self-monitoring strategies
• Internal memory strategies
• Task-specific strategies
• Measurement: Usage logs/GAS
  [Part of Dynamic Coaching]

Set the Stage for Functional Change:

1. Set Goals
2. Select Tx Approaches/Strategies

• Personalized Education and Understanding
• Cognitive Strategy Training
• Direct Training of Cognitive Impairments
• Selection and Training the Use of an Assistive Technology Device
• Environmental Management

Five Options for Therapy Approaches
For patients with reduced attention skills

- Pacing
  - Time of day
  - Length of time at a task
  - Self monitoring fatigue or attention level
- Key ideas logs for highly distractible patients
  - Jot key questions or ideas that come to mind but can be addressed later

Interventions

- Individually derived functional interventions –
  - Orienting procedures
    - Encourage clients to monitor activities consciously
    - Based on functional needs of patient
    - Task-specific orienting procedures:
      - Reading
      - Test preparation
      - Work related goals (janitorial, car repair, stocking grocery shelves)

Study skills

- Preview subheadings
- Ask questions
- Read for detail
- Reread subheadings for main ideas
- Rehearse

Environmental Support

- Task management strategies
- Environmental modifications
- External strategies
  - Written calendar systems with day planner
  - Written checklists
  - Electronic organizers
  - Voice-activated message recorders
  - Key finders and watch alarms

Training and Plasticity of Working Memory
(Klingberg, 2010)

- Overview of 10 fMRI studies using primarily computerized working memory tasks
- Includes data on stroke (Westerberg, H. et al., 2007)

TBI determine value of external strategies

- Memory books
- Palm pilots and other external organizers
- Memory aids
  - Pagers
  - Timers
  - Outlook reminders
  - Post-it notes
Domain-Specific Intervention

- Mnemonic strategy training for specific information
- Learning names at a reception
- Retaining orders in a restaurant
- Expanded rehearsal time
- Use of preserved priming (vanishing cues)
- Creating a personal history for managing RA

Evidence-Based Research of Compensatory Memory Methodology

Interventions in the manual

- The interventions described can be readily used by speech and language therapists, psychologists, and other rehabilitation professionals.
- Guidelines adapted into step-by-step procedures that can be used by clinicians who treat individuals with brain injury.

Treatment Goals and Strategies Associated with each Stage of Cognitive Rehab

- Acquisition
  - Teach the purpose and procedures of the treatment model
  - Help patient recognize and accept deficits and benefits of treatment

- Application
  - Improve effectiveness and independence in compensating for deficits
  - Promote internalization of strategies

- Adaptation – transfer of training and generalization

SMART Goals

An individual's goals don't always fit well into a GAS goal format. For example, may be difficult to develop goals with equal intervals.

Example: 46 year old combat veteran with mTBI, chronic pain, depression

- Functional Context: home
- Functional Activity: managing paperwork
- Cognitive Context: motivation
- Selected Tx Strategy: process simulation

Veteran indicated he want to be able to initiate household paperwork 3 a week.

0 Client independently initiates paper work once a week

1 Client independently initiates paper work < once a week

-1 Client does not independently initiate paper work

-2 Veteran rejected the levels of goal attainment. He wanted to use a process simulation strategy to initiate paper work three times a week. No more, no less
**Smart Goals**

- **Specific**: What specifically will be accomplished?
- **Measurable**: How to quantify progress & goal attainment?
- **Achievable**: Is it feasible, does person have control of relevant aspects of the goal?
- **Relevant**: Is it important and meaningful to the person?
- **Time-bound**: Is it feasible, does person have control of time factors?

**Goal**: veteran will independently work on household paperwork 3 nights week within 4 weeks

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**Impairment Level Tasks**

- Impairment level tasks
  - Divided attention
  - Problem-solving
  - Sequencing
  - Memory
  - Organization
  - Planning
  - Flexibility

---

**Functional Tasks**

- Clinic tasks – (e.g., carrying out daily treatment schedule)
- Self care or instrumental ADL activities (e.g. dressing or money management)
- Household tasks
- Community tasks
- Work related tasks

---

**Other Goal Components**

- Complexity of task
  - Simple, moderate, complex
- Level of Cuing
  - None, mild, moderate, maximum
- Type of strategy
  - External
    - Memory notebook, electronic memory aid, task specific aid
  - Internal
    - Problem solving procedure, neglect protocol, Time Pressure Management Training, self instruction, internal memory strategies

---

**Executive Function Interventions discussed in the ACRM manual**

- Metacognitive Strategy Training (Table 2-1)
- General framework for Rehabilitation of EF deficits: problem solving (Table 2-2)
- Steps in problem solving (Table 2-3)
- Applying strategy specific tasks Goal-Plan-Do-Review model

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**Memory Interventions discussed in the Cognitive Rehabilitation Manual and Reviewed by Cicerone et al. 2011**

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Level of Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Memory strategy training (use compensated for visual memory impairments from TS, including EF)</td>
<td>Evidence Standard</td>
</tr>
<tr>
<td>Memory strategy training (use visual imagery and external memory</td>
<td>Evidence Standard</td>
</tr>
<tr>
<td>Practice Standard</td>
<td></td>
</tr>
<tr>
<td>Practice Guideline</td>
<td></td>
</tr>
<tr>
<td>Use of external compensations with direct application to functional activities is recommended for people with severe memory deficits after TBI or stroke</td>
<td>Evidence Standard</td>
</tr>
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<td>Evidence Standard</td>
<td></td>
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<td>Evidence Standard</td>
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<tr>
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</thead>
<tbody>
<tr>
<td>For people with severe memory impairments after TBI, errorless learning techniques may be effective for learning specific skills, with limited transfer to novel tasks or reduction in overall functional memory problems.</td>
<td>Intervention Option</td>
</tr>
<tr>
<td>Group-based interventions may be considered for remediation of memory deficits after TBI.</td>
<td>Practice Option</td>
</tr>
</tbody>
</table>

For people with severe memory impairments after TBI, errorless learning techniques may be effective for learning specific skills or knowledge, with limited transfer to novel tasks or reduction in overall functional memory problems. Group-based interventions may be considered for remediation of memory deficits after TBI.

Compensatory Strategy Training (Cicerone, et al 2011 review)

- Strategy training was aimed at teaching strategies adapted to different situations with memory requirements.
- Results indicated that frequency and intensity of memory training were critical in improving memory performance.
- A class III study demonstrated increased knowledge of memory strategies and use of memory aids, reduced behaviors indicative of memory impairment, and improved performance on neuropsychologic assessment of memory following a 4-week structured, group format memory training program.

Errorless Learning (Cicerone et al. 2011 review)

- TEACH-M and other forms of errorless learning
- Memory skills training, management of daily tasks that utilize memory skills, and the consolidation and generalization of those skills.
- Potential benefits of errorless learning for treatment for teaching new knowledge, including knowledge of compensatory strategies, to people with severe memory deficits resulting from TBI.
- Errorless learning techniques appear to be effective for teaching specific information and procedures to patients with mild executive disturbance as well as memory impairment.
- However, the presence of severe executive dysfunction may limit effectiveness of this form of memory rehabilitation.

- Use of external compensations with direct application to functional activities is recommended for people with severe memory deficits after TBI or stroke.
- Practice Guideline

Errorless Learning (Cicerone et al. 2011 review)

- Errorless learning and Spaced Retrieval

- Focus - minimizing errors during delivery of instruction:
  - Errorless learning
  - Spaced retrieval
  - Most helpful for individuals with more severe cognitive impairments.
Rehabilitation for Impairments of Attention

ACRM

• APT
• APT generalizing activities (page 77)
  • Sustained attention
    • Residential – Cooking, paying bills, child care, cleaning etc.
    • Vocational – Typing, answering phone calls, adding figures, stocking shelves, etc.
    • Community – Driving, grocery shopping, banking etc.
  • Alternating attention – cooking and laundry, eg. (78)
  • Selective attention – above with real life distractors, eg. Cooking with children playing in the background
  • Divided attention – above with two items requiring monitoring eg. Two components of a meal

Attention (continued)

• Time Pressure Management (page 81-82)
• Working memory tasks

Group activities

• Consider adding new technology to enhance:
  • Critical thinking using the internet
    • Design a search
    • T.O.M. – use view international internet sites to learn how other nations view
    • Civil war
    • Battle of Lexington
  • Using cell phones to answer questions about news items or group activities
  • Use Google docs to compare notes

Executive Function Goals

• Volition
• Motivational capacity
  • diminish cues for task/conversational initiation
  • Set conversational goals in role playing
• Speech – Conversational topics
• Capacity for self-awareness
• Speech – social awareness

Executive Function Goals: Planning

• Speech – Outlines, Shopping lists, Day Planners, Organization of Writing
  • Organization of thoughts into sensible constructs

Pre-Frontal lobe interventions as a component of all Speech-language therapy

Part 8
Executive Function Goals for Purposive Action

• Speech –
  • Verbalized intentions followed by actions;
  • Shifting tasks and response paradigms

Executive Function Goals – Effective Performance

• Speech – increase processing speed and working memory on tasks such as concentration; holding to a script
• Outcome measures should include:
  • Self-direction
  • Self-regulation

Goals for Elaboration of ideas

• Encourage imaginative play
  • Props, puppets, movies
• Jump into drama
• Entice ideas and dialogue

Other Executive Function Considerations

• Planning - Develop goals that focus on planning prior to:
  • reading of any item
  • How is a book/newspaper organized? How to easily find a chapter/topic/page? Are there chapter questions/or columns of interest?
  • How to get through an Index or TV guide?
  • ADL – Homework lists; Shopping lists for recipes.

Executive Function (cont.)

• Organization
  • Most important for organization of space
  • Up/down; left/right
  • Edgeness and bookness
  • Using filing systems to store credit card receipts, bills
  • Attaching TV guides to the TV, using a clip to enable the patient to find today’s listings
  • Highlighting important names and addresses in listings

Executive Function (cont.)

• Reasoning
  • Using reasoning about content to determine the accuracy of reading – Did it make sense? Does it seem like important information is missing?
  • Generalizing from limited content when reading is slow
  • Understanding how a newspaper is written; general information followed by details
Executive Function (cont)

- Problem Solving
  - Have the patient contribute to problem solving
  - Video of Mel

Vocational Re-entry (Burns, in press)

Training and Plasticity of Working Memory (Klingberg, 2010)

• Overview of 10 fMRI studies using primarily computerized working memory tasks
• Includes data on stroke (Westerberg, H. et al., 2007)

APPENDIX

• Technological Approaches to Intervention
• Other Assessments – Goal Setting – Slides from 2017 Presentation by:

McKay Moore Sohlberg, PhD CCC-SLP
Communication Disorders & Sciences

Don MacLennan MA CCC-SLP
Minneapolis VA Health Care System

Memory enhancement in healthy older adults using a brain plasticity-based training program: A randomized, controlled study

Mahncke, H. et al.

PNAS: August 15, 2006 vol. 103 no. 33 12523–12528

<table>
<thead>
<tr>
<th>Exercise</th>
<th>Speed of processing</th>
<th>Spatial spatial working memory</th>
<th>Perceptual speed range task</th>
<th>Working memory</th>
<th>Narrative memory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participants showing improvement</td>
<td>93%</td>
<td>77%</td>
<td>91%</td>
<td>80%</td>
<td>91%</td>
</tr>
<tr>
<td>Average improvement</td>
<td>41%</td>
<td>13%</td>
<td>10%</td>
<td>13%</td>
<td>18%</td>
</tr>
</tbody>
</table>

*Data for the five training exercises shown; data are not available for exercise 2 (digit span)."
Technological Interventions for other Cognitive Skills

- Attention + Visual Working Memory – Cog Med
  - Cogmed.com
- Attention + Auditory Perception + Auditory Working Memory + Receptive Language
  - Cognitive Resources
  - Brain Fitness – PositScience.com
- Attention + Visual Perception + Visual Working Memory – positscience.com – Cortex Insight

APT-II

Attention Process Training II (APT-II)

- McKay Moore, Ph.D.; Lori Johnson, B.A.; Laurie Paule, M.S.; Sarah A. Raskin, Ph.D.; Catherine A. Mateer, Ph.D.

For persons with mild cognitive dysfunction

At a Glance:
- Audio Available: Yes
- Software Available: Yes
- Qualification Level: B-Level
- Language: English

Product Summary

Overview
Use APT-II to treat impairments in attention processing in persons with relatively mild cognitive disturbance, such as post-concussion syndrome.

APT-II Includes:
- A library of auditory attention CDs and attention exercises
- Suggested activities, record logs, and data collection protocols
- Other computerized n-back tasks
- N-back and other tasks at Lumosity
  - You can choose your goals and exercises
  - Seven day free trial

Cog Med

- Visual Working Memory exercises
- Evidence-based research
  - Daily use for five weeks
  - Follow-up 4 and 20 weeks post training
  - Significant WM improvement 4 & 20 weeks
  - Occupational performance and satisfaction improved
  - Quality of life ratings did not change
  - Overall health ratings increased after 20 weeks of training

Cog-Med – Evidence-Based research (cont.)

  - 18 adults, mean age 47.5 years with ABI - TBI, tumor and stroke trained in groups of 5-6, 30-45 minutes a day, 3x a week for 7-8 weeks – no control group
  - Also participated in discussion groups and educational groups on working memory – each for 30 minutes per training day
  - Pre, post and six month follow-up showed
  - Reduced cognitive failures on the Cognitive Failures Questionnaire
  - Significant improvements occupational performance and satisfaction with job performance on
  - On interviews showed increased confidence in working memory

Other Technological and Online Resources

- PSSCogRehab
  - www.neuropsychonline.com
  - Has research with TBI
- Constant Therapy
- BrainHQ.com
  - Extensive research with cognitively impaired adults – limited with TBI
- DEMO
New research shows the connection between cognition and Aphasia

• Summary of an article published first in Perspectives of the ASHA Special Interest Groups SIG 2, Vol. 2 (Part 1), 2017
  Authors: Sofia Vallila-Rohter & Swathi Kiran

SR-Cognition
Joanna Light Boyer, MS, MA & Terri Tarnoff Snyder, MA
An all-inclusive kit for cognitive therapy

Summary of an article published first in Perspectives of the ASHA Special Interest Groups SIG 2, Vol. 2 (Part 1), 2017
Authors: Sofia Vallila-Rohter & Swathi Kiran

Overview
SR-Cognition offers you a complete intervention toolkit for adult cognitive rehabilitation. The materials provide a multi-sensory framework to allow clients to re-learn skills and concepts through the means most effective for them. SR-Cognition is a comprehensive kit with an easy to learn, easy to use, modular approach. The kit includes an easel-style master workbook, a reusable laminated supplemental workbook, 85 photo cards, 20 laminated picture cards, and a dry erase marker, all in a convenient tote box.

Users & Applications
The SR-Cognition kit is ideal for use with:
- Neurologically impaired individuals
- Developmentally delayed adults

Content & Administration
Target rehabilitation areas of this kit include:
- Orientation
- Attention and Scanning
- Memory
- Clients who have sustained a head injury
- High school students
- Receptive and Expressive Language
- Reasoning and Problem Solving

PSSCogRehab

• The eight software packages
  • Include sixty-four computerized therapy tasks, most of which contain User-modifiable parameters that extend the utility of each program to fit nearly any requirement presented by your patient or student.
  • The focus of the individual exercises cover:
    • simple attention and executive skills,
    • through multiple avenues and modalities of visuospatial and memory skills
    • from simple to extremely complex, problem solving skills.
  • New version coming out June 2011

Neuropsychonline.com
Treatment Materials

The NeuroPsychOnline (NPO) Cognitive Rehabilitation Therapy System consists of six Tracks of exercises designed to improve the user’s cognitive skills. The Tracks are:

- Attention Skills (12 exercises, 4 levels each)
- Executive Skills (12 exercises, 4 levels each)
- Memory Skills (12 exercises, 4 levels each)  
  Sample exercise: Track 03: Memory Skills: Colormatch (requires FlashPlayer)
- Problem Solving Skills (12 exercises, 3 or 4 levels each)
- Visuospatial Skills (12 exercises, 4 levels each)
- Communication Skills (12 exercises, 3 or 4 levels each)

Neuropsychonline- same company with online exercises

• The eight software packages
  • Include sixty-four computerized therapy tasks, most of which contain User-modifiable parameters that extend the utility of each program to fit nearly any requirement presented by your patient or student.
  • The focus of the individual exercises cover:
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    • through multiple avenues and modalities of visuospatial and memory skills
    • from simple to extremely complex, problem solving skills.
  • New version coming out June 2011
Neuropsychonline- TBI research


- Is computer-assisted cognitive retraining more effective in remediating the cognitive sequelae of severe closed head injury than comparable noncomputerized cognitive treatment techniques?
- The experimental group was comprised of 17 severe closed head injured patients and the noncomputerized control group had 17 patients. Each group received 20 hours of cognitive therapy over a four to six week period.
- Results indicated significant improvement in the level of performance on the experimental and the control subjects at the time of the posttreatment assessment compared to the pretreatment assessment.

Dakim Critical Thinking Exercises Based On Standardized Neurological Tests

Goals: The Lifeblood of Therapy!

Goals must be truly patient-centered
- Involves listening to the patient and putting his or her interest at center stage
- establishes therapeutic alliance
- facilitates intrinsic motivation & self-determination

Goals: The Lifeblood of Therapy!

An Operational Definition of Collaborative Goal Setting with MI: An example

Open ended question:
How can I help you? I'm really struggling in school, my test grades are terrible

Functional Context = school

Open ended question:
Tell me how you study? Well I try and read these chapters and it's a lot harder than it used to be

Functional Activity = reading college textbooks

Reflection: It's hard to keep your focus when you are reading Yes, my mind wanders, my eyes are moving across the page like I'm reading, but I'm thinking about something completely different.

Cognitive Context = distractibility

Goal Attainment Scaling

- Divide overarching goals into 5 discrete levels
- Allows clinicians and clients to identify a range of outcomes
- Can measure longitudinal change
- Can measure degree to which intervention is effective
References


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References


