

## Contextualizing Cognitive Rehabilitation In Vocational Rehabilitation: Translating Knowledge Into Practice

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November 23, 2006

## Objectives: To Answer the Questions.....

- What's effective in cognitive rehabilitation? (Cicerone et al., 2000; 2005)
- What is best practice for gaining and maintaining employment subsequent to traumatic brain injury? (Holzberg, 2001)
- What do we know from our clinical experience? (All of us!!!!)

## Combining Knowledge & Translating Into Practice

“ Experience without theory is blind, but theory without experience is mere intellectual play”

Immanuel Kant

## Cognitive Rehabilitation Defined

- Functionally-oriented therapeutic activities based on assessment of individual's brain-behaviour
- Focus: alleviating acquired neuro-cognitive impairments and disability
- Improving individual person's function in areas relevant to daily lives

(Cicerone et al, 2000)

## Cognitive Rehabilitation: What Does The Evidence Tell Us?

### Attention:

- Insufficient support for attention training during acute rehab
- Strategy training vs. restoration of underlying impaired function
- Focus on complex tasks vs. more basic skills such as reaction time

(Cicerone et al., 2000; 2005)

## Cognitive Rehab: What Does The Evidence Tell Us?

### Visuo-spatial Deficits:

- Support for visual scanning training for visual neglect – intensity of training significant
- Need to train on more complex visuo-spatial tasks – generalization to more functional tasks

(Cicerone et al., 2000; 2005)

## Cognitive Rehab: What Does The Evidence Tell Us?

### Memory:

- Support for use of memory strategies in mild injuries – internal and external strategies
- Little evidence for cognitive remediation in severe memory impairment
- Support for use of external memory aids in moderate to severe injuries – focus on function, extensive training and support

(Cicerone et al., 2000; 2005)

## Cognitive Rehab: What Does The Evidence Tell Us?

### Executive Functions and Problem-Solving:

- Support for training of problem-solving strategies and application to everyday situations
- Support for use of self-instruction and self-monitoring strategies to improve self-regulation
- External structure and environmental modifications in severe impairments (Cicerone et al., 2000; 2005)
- Self-awareness? (Onsworth, Desbois, Grant, Fleming and Strong (2006)

## Cognitive Rehab: What Does The Evidence Tell Us?

### Comprehensive Cognitive Rehabilitation:

- Cognitive rehab vs. psychosocial intervention only marginally greater improvement on neuropsych measures
- Integrated cognitive and interpersonal therapies = greater functional improvements (Cicerone et al., 2000; 2005)
- Need for further studies on comprehensive programs (Sarajuuri et al., 2005)

## Cognitive Rehab: What Does The Evidence Tell Us?

### To Summarize.....Support for....

- Compensatory memory training for mild impairments & external aids in severe impairment
- Scanning Training
- Training in problem-solving, and self-instructional techniques
- Comprehensive holistic rehab that combines cognitive and psychosocial support

(Cicerone et al., 2000; 2005)

## Cognitive Rehab: What Does The Evidence Tell Us?

### To Summarize.... Very little support for....

- Computer-based interventions
  - Only beneficial if therapist involved & focus on building insight, compensatory strategies and transfer of skills to real-life situations

(Cicerone et al., 2000; 2005)

## Turning Our Attention to Vocational Rehab....

What does the research tell us to be best practice for gaining and maintaining employment subsequent to brain injury?

## Best Practices Defined : The Act Of Employment (Holzberg,2001)

- **Gaining Employment**
  - Job readiness skills
  - Exploring career options
  - Job placement
- **Maintaining Employment**
  - Supports Required
  - Behaviours required by client in an employment/ job placement situation

## FACTORS ASSOCIATED WITH GAINING EMPLOYMENT

(Holzberg,2001)

- **Motor:** Impairments/ambulation
- **Social:** social support, family function, substance abuse, workplace integration
- **Psychiatric:** PTSD, anxiety/depression, interpersonal, self-awareness, affect control, adjustment
- **Cognitive:** learning, perception, memory, generalization in novel situations

## FACTORS ASSOCIATED WITH MAINTAINING EMPLOYMENT

(Holzberg,2001)

- **Client Factors:** self-awareness, affect regulation, creativity, substance use, work habits
- **Workplace Factors:** workplace integration, benefits, natural supports
- **Social Supports:** caregivers, rehab services

## Interventions To Gain and Maintain Employment (Holzberg,2001)

- **Gaining**
  - Holistic cognitive rehabilitation: strategies & work skills
  - Occupational trials: skills and self-awareness
  - School to work transition programs: planning, mentoring, social skills
  - Supported Employment: matching worker abilities and preferences to job placement
- **Maintaining**
  - Focus on on-going supports: monetary compensation, social integration, on-going medical and physical rehab
  - Interventions focused on decreasing substance abuse

## Best Practices : Gaining and Maintaining Employment Post-TBI

(Holzberg,2001)

### In Summary.....

- Individualized, flexible services
- **Holistic cognitive rehab plus supported employment** (cognitive strategies for job readiness, career planning, on-going support)
- Barriers to employment: neuropsychological impairments, behavioural problems and poor socialization
- Supports: Family, benefits, accommodations

## Contextualized Cognitive and Vocational Rehabilitation

- Incorporating cognition into vocational goals
- Broader definitions of cognition and context

## Initial goal in vocational rehabilitation

### Determining Work Readiness

### Defining The Return To Work Goal

## Asking And Answering Questions

- What are my skills and interests now?
- Environments I would work best in?
- Resources/accommodations I will need?
- How can I try out some of my skills to understand what I can do again?

## Treatment Suggestions?

- Client to identify: present strengths and challenges via chart review, report review, therapy discussions
- Client to identify possible areas which may require accommodations
- Client to research rights to accommodations
- Research trial/volunteer opportunities

## Cognitive skills being developed?

- Organization and planning
- Reasoning
- Self-awareness & Self-Evaluation
- Presentation/ Affect/ Self-Advocacy Skills

## Link To Best Practice In Gaining Employment?

- Developing job readiness skills
- Exploring career options
- Preparation for job or volunteer placement
- Considering supports and adaptations
- Increasing self-awareness

## Goal: Work Trial

### Questions:

- How does my present status compare to the job requirements of the job I am planning to trial?
- What tasks and duties may be easy for the me? Which may be challenging?
- What strategies have I learned that may help me? How can I incorporate these strategies into my day-to-day work?
- How will I communicate with my boss and co-workers?

## Treatment Suggestions

- ....
- ....
- ....
- ....

## Cognitive Skills Being Developed ?

- ...
- ...
- ...
- ...

## Links To Best Practice In Gaining and Maintaining Employment?

- ....
- ....
- ....
- ....

## Closing Remarks

“Knowing is not enough. We must apply.”

Goethe

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