Beyond Treatment As Usual: The Case for Cognitive Remediation and CETCLEVELAND®

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Introduction
Bridgehaven CET Video  Louisville, KY

Needs link or pre set-up
Who am I?
Outline

I. Cognitive Remediation: Background

II. CET and Cognitive Remediation

III. Components of CET
   A. Rehabilitation
   B. Structure
   C. Education
   D. Resocialization
   E. Practice and Humor

IV. Training
Cognitive Remediation: Background
Old Understanding of the Brain

• The brain does not change.

• Once a brain is damaged, it can not be improved.

• We have a fixed number of brain cells and synaptic connections.
New Understanding of the Brain

• “Neuroplasticity”:
  – the brain’s ability to re-organize itself through forming new neural connections or by adding cells.
  – allows the neurons in the brain to adjust their activity and organization in response to new situations or to changes in the environment.

• Your brain creates new brain cells during adulthood—about 1400 neurons per day.

*Cognitive Remediation is based on Neuroplasticity*
Positive, Negative and Cognitive Symptoms

- Medications can address the positive symptoms of schizophrenia.

- Cognitive Remediation programs were developed to address the negative and cognitive symptoms of schizophrenia.
Cognition in Schizophrenia
by permission of S. Eack, Ph.D., University of Pittsburgh

Corrigan & Green, 1993; Heinrichs & Zakzanis, 1998; Schneider et al., 2006; Sprong et al., 2007

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Effect size = size of difference between normative population and people w/ schiz
Neuroplasticity + Cognitive Remediation = Hope

- Neuroplasticity is the brain’s ability to change. Improved cognition is possible.

- Many Examples: Taxi Drivers in London. Blindfold experiment. My cell phone and I…. (or other personal examples)
CET and Cognitive Remediation
CET was developed at Univ. of Pittsburgh to take advantage of Neuroplasticity.

- NIMH supported research.
- 121 stable phase participants divided in two groups.
- Outcomes published in The Archives of General Psychiatry, 2004
Effect Sizes of CET & EST (Enriched Supportive Therapy) at 12 and 24 Months by Composite Index

Hogarty, Flesher--Archives of General Psychiatry, Sept. 2004
CET Focuses on the Negative Symptoms

- Flat or blunted emotion
- Lack of motivation or energy
- Lack of pleasure or interest in things

But thinking difficulties are also usually present:

- Poor thinking styles:
  - Concrete thinking
  - Rigid thinking
  - Amotivated thinking
  - Disorganized thinking

- Poor concentration and memory
CET focuses on Socialization

Socialization

• Children are told what to do
• Adults are expected to “get it”

But…..

• Suppose your memory is impaired and it’s hard to follow a conversation, much less participate in it.
• Suppose your thought processing is slowed down and it takes extra effort to process and respond to what is happening around you.
• Suppose you can’t trust your judgment.

Then what happens?…..
• If adults (your clients) don’t “get it” people walk away.

• When people walk away:
  o Socialization stops
  o Learning stops
  o Strange behaviors grow and…

**People become Desocialized:**

• Dysfunctional roles are established.
• Others begin to reinforce dysfunctional roles.
• Dysfunctional behavior becomes familiar, if not always comfortable.
• No learning about the generalized other.
Components of CET
Components of CET

• Rehabilitation
• Structure
• Education
• Resocialization
• Practice and Humor
Components of CET: Rehabilitation

Attention

Memory

Problem Solving
Group Exercise: Example 1

Word Sort

dove  fire  lime  white  crow
egg  parakeet  canary  lemon  earth
cardinal  green  apple  sun  grass
black  pepper  yellow  red  clouds

See last slides for Condensed Messages option
Components of CET: Structure

• Consistent and Predictable Format
  – Agenda
  – Weekly one on one coaching

• Aids to Attention and Concentration
Components of CET: Structure

1. Computer Group

2. Social Cognition Group
   - Notetaking
   - Chairperson
   - Coaching Plan
   - Group Exercise
Components of CET: Structure

Computer Group Exercises

- One hour a week
- Done in pairs
- Pairs support each other
- A chance for socialization
- Prepares participants for group
- Continues during the course of the group
- Progressively more challenging and more abstract

(I think a real CET photo would be better here)
Welcome Back: Judy

Selection of Chairperson:

Review of Homework:
a) Describe a recent situation in which you disagreed with another person
b) Describe your perspective
c) Describe their perspective

Social Cognition Talk: Foresightfulness  Speaker: Ray

Exercise: Word Sort  Coach: Judy
Participants: Sam and Jo
Feedback: Everyone

Homework:
Tell about a time when you could have been more foresightful. Tell how being foresightful would have made the situation different.

Next Group Meeting is Tuesday January 23, 2007
Components of CET: *Education*

- Curriculum of 45 Social Cognition topics
  - Neurophysiology
  - Human social interaction issues
  - Adjustment to disability
  - Application to life
# SOCIAL COGNITION TALKS

## Unit 1  Orientation and Group Norms

- Group Norms
- Giving Feedback
- Support Groups and CET

## Unit 2  Integrated Sense of Affect and Logic

- Frontal Lobe/Limbic System
- Internal Coping
- Regulating Your Limbic System
- Emotional Context and Nonverbal Cues
- Foresightfulness

## Unit 3  Cognitive Styles/Divergent Convergent Thinking

- Thinking Styles: Unmotivated and Disorganized
- Cognitive Flexibility I
- Cognitive Flexibility II
- Cognitive Flexibility III
- Decision Making

## Unit 4  Gistful Cognition

- Note-taking
- Memory
- Verbatim and Gist I
- Verbatim and Gist II

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## FRONT STAGE / BACK STAGE (PERSPECTIVE TAKING)

<table>
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<th>Back stage</th>
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<tr>
<td>Public</td>
<td>Private</td>
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<tr>
<td>More formal</td>
<td>Less formal</td>
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<tr>
<td>Based on explicit rules</td>
<td>Based on unwritten rules</td>
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- Rapid shifts
- Back and forth
Education

Homework questions

Think about a time when you had to shift between front stage and back stage behavior

a. What was the front stage situation?

b. What was the back stage situation?

c. What difficulties did you encounter with the shift?
Components of CET: Resocialization

• Follow Up questions/discussion during the Homework reporting challenge abstract thinking

• Pair work
  – Computer exercise
  – Group exercise

• Coaching Plan
Components of CET: *Practice and Humor*

- **Redundancy (Practice)**
  - Within the Social Cognition group
  - Computer exercises
  - One on ones

- **Humor**
  - Energizes the limbic system
  - Creates safety
  - Exercises abstract thinking
Computer Exercises Work the Brain

(and they are fun too!)
Training
• Evidence-Based Training
  
  – One-time workshops can increase knowledge and attitude toward change but not behavior

  – Building proficiency appears to require repetitions and active learning
    
    • One estimate: 20 – 25 implementation attempts to achieve consistent professional behavior change (Joyce & colleagues, 2002)
CETCLEVELAND® Training

• 15 months of intensive hands on training includes:
  • Introductory training for agency
  • Training and support for recruitment of group members
  • Monthly on site training throughout
  • Weekly involvement in groups via video conferencing
CETCLEVELAND® Training

Goal of training is to:

• Co-facilitate two CET groups members
• Certify 6 coaches
• Assist in selection of participants
  • the most appropriate
  • Using the selection tool of the Initial Interview
Training Year

- training for 4 to 6 mental health professionals
- 14 to 15 months of training
- weekly training and supervision time
- one on-site visit/training per month
- manuals, posters, software
- video conferencing camera
- coach’s mid-point review, final certification interview, certificate of completion

All the agency needs to provide are the participants, coaches to be trained, a group room, a whiteboard and computers with internet connection.
CET: Physical Therapy for the Brain

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See last slides for other title option