Beyond Treatment as Usual: The Case for Cognitive Enhancement Therapy

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Who am I?

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CET Trainer, Center for Cognition and Recovery

30+ years in mental health field
• 15+ years training law enforcement
• 5+ years case management with SMI population
• Chemical dependency counselor
• Community mental health educator/trainer
• 12 years CET coach
• 8 years CET trainer

30+ years public speaking
https://www.youtube.com/watch?v=cKUvKE3bQlY
What is this presentation about?

I’m going to talk to you about going beyond “Treatment as Usual” and offering you the opposite: Cognitive Enhancement Therapy or CET.

Treatment as Usual:
• where they are is where they are
• medications are for maintaining baseline
• any “progress” is seen as “extra”

Cognitive Enhancement Therapy:
• improves cognitive symptoms: focus, attention, working memory, mental stamina and much more
• re-socializes the de-socialized
• literally “physical therapy” for the brain
But first, a little background...
Old Understanding of the Brain

• The brain does not change.
• Once a brain is damaged, it cannot 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.

• Although still controversial, many neurologists believe that our hippocampus, important for learning and memory, creates new brain cells during adulthood.
New Understanding of the Brain

Cognitive Remediation is based on Neuroplasticity

Cognitive remediation:
- improves neurocognitive skills: focus, attention, working memory, problem solving, etc.
- computer exercises:
  - HappyNeuron Pro
  - Neuropsych Online
  - Lumosity
  - and many more...
SCHIZOPHRENIA: Positive, Negative and Cognitive Symptoms

- Medications can address the positive symptoms of schizophrenia.

- CET was developed to address the negative and cognitive symptoms of schizophrenia.*

* but now shown to be effective with many mental illnesses.
Effect Size: The *size of the difference* between two or more groups

Corrigan & Green, 1993; Heinrichs & Zakzanis, 1998; Schneider et al., 2006; Sprong et al., 2007
Neuroplasticity + Cognitive Remediation = Hope

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

• Many Examples:
  • Learning new cell phones (I have a poor learning curve ability!)...
  • Remembering directions after only a few trips...
  • UN-learning the language of depression
CET and Cognitive Remediation
Bridgehaven CET Video
Louisville, KY

https://youtu.be/EDy2h_9j1KM
CET was developed as a ‘STABLE PHASE’ intervention for remediating the cognitive and social deficits in schizophrenia.
CET was developed at Univ. of Pittsburgh to take advantage of Neuroplasticity.

- NIMH supported research.
- 121 participants divided in two groups.
- Outcomes published in The Archives of General Psychiatry, 2004
CET Focuses on the Negative Symptoms of Schizophrenia

- 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
Socialization vs. De-socialization

Socialization

• Children are told what to do

• Adults are expected to “get it”

But…..

• Suppose your working 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.

* The RAM drive of the brain
Then what happens?.....

If adults (your clients) don’t “get it” people walk away.

When people walk away:

• Socialization stops
• Learning stops
• 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.
NOW what?

Enter...

Cognitive Enhancement Therapy
Components of CET

“Everything we do in CET has a purpose”
Components of CET

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

CET Rehabilitates:

Attention

Memory

Problem Solving
Attention, Memory

1. Computer Group

2. Social Cognition Group
   - Notetaking
   - Chairperson
   - Coaching Plan
   - Group Exercise
## Problem Solving

### Group Exercise: Word Sort

1): 4 columns of 5  
2): 5 columns of 4

<table>
<thead>
<tr>
<th>dove</th>
<th>fire</th>
<th>lime</th>
<th>cardinal</th>
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<td>green</td>
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<td>earth</td>
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<td>crow</td>
<td>apple</td>
<td>sun</td>
<td>grass</td>
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<td>red</td>
<td>pepper</td>
<td>yellow</td>
<td>black</td>
<td>clouds</td>
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Attention, Memory, Problem Solving:

Computer Group Exercises

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

• Consistent and Predictable Format
  
  o Agenda
  
  o Weekly one-on-one coaching

• Aids to Attention and Concentration
  
  o Chairperson
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

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Social Cognition Talk: Handout

Front Stage / Back Stage
(Perspective Taking)

<table>
<thead>
<tr>
<th>Front stage</th>
<th>Back stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public</td>
<td>Private</td>
</tr>
<tr>
<td>More formal</td>
<td>Less formal</td>
</tr>
<tr>
<td>Based on explicit rules</td>
<td>Based on unwritten rules</td>
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</table>

Rapid shifts
Back and forth
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 encourages abstract thinking*

- Presenting Homework answers develop socialization skills
  - “William” in Kentucky

- Volunteering as Chairperson develop socialization skills
  - “Mary” in New Mexico

- Pair work develops socialization skills: Computer exercises; Group exercises
  - “Michael” in Michigan

* This is the HEART of CET
Components of CET: Practice and Humor

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

- Humor
  - Energizes the limbic system
  - Creates an atmosphere safety
  - Exercises abstract thinking
  - Computer exercises are fun and sometimes frustrating
Overview of CET
## Overview of CET – by week

<table>
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<th>Activity</th>
<th>Timetable</th>
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<tr>
<td>Computer Group</td>
<td>1 hour</td>
</tr>
<tr>
<td>Break</td>
<td>Typically 30 min</td>
</tr>
<tr>
<td>Social Cognition Group</td>
<td>1.5 hours</td>
</tr>
<tr>
<td>Debriefing</td>
<td>Typically .5 hour</td>
</tr>
<tr>
<td>Individual Coaching</td>
<td>Typically .5 hour</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>4 HOURS</strong></td>
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</table>
### Overview of CET – by month/weeks

<table>
<thead>
<tr>
<th>Month</th>
<th>Activity</th>
<th>Timetable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Initial Training</td>
<td>16 hours (2 8-hour days)</td>
</tr>
<tr>
<td>2</td>
<td>Initial Training</td>
<td>12 – 14 hours (2 6-hour days)</td>
</tr>
</tbody>
</table>
| 3     | Initial Training  
1st Computer Group  
Begin individual meetings | 2 – 4 hours  
1 hour  
30 – 45 minutes |
| 4     | Computer Group  
1st Social Cognition Group  
Debriefing | 1 hour  
1.5 hours  
.5 hour |

<table>
<thead>
<tr>
<th>Weeks</th>
<th>Activity</th>
<th>Timetable</th>
</tr>
</thead>
</table>
| 5-48  | Computer Group  
1st Social Cognition Group  
Debriefing | 1 hour  
1.5 hours  
.5 hour |
| 48*   | Graduation | 1 – 2 hours |
| 3 - 48| Continuing monthly training | 2 hours (during on-site visit) |

* Actual number of weeks may be affected by cancelations due to weather, etc.
Training
Toward 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)
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

* Hybrid is different
Cognitive Enhancement Therapy:

- Rooted in NEUROPLASTICITY
- Improves/strengthens cognitive skills like focus, memory, brain stamina and more
- De-socialization to Re-socialization
- Components include: Rehabilitation, Structure, Education, Resocialization and Practice and Humor
- Computer exercise + Social Cognition Group
- Meets weekly for 48 weeks
- Training throughout 1st year
Q & A

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