



CETCLEVELAND®

CET: Going Beyond Treatment As Usual (TAU)

Indiana Council Annual Conference

October 13, 2016

Ray Gonzalez, ACSW, LISW-S

©Copyright 2009 **Center for Cognition and Recovery, LLC**



CETCLEVELAND®

Bridgehaven Mental Health Services Louisville, KY CET Video

<http://cetcleveland.org/what-is-cetcleveland-2/cetclevelandtestimonials-2/>



Ray Gonzalez, ACSW

Disclosures



- **Executive Director of The Center for Cognition and Recovery (CCR) a nonprofit LLC**
- **The CCR has received contracts from agencies, governments and grants from major foundations for the development and dissemination of CET**
- **OSU School of Social Work grad with 35+ years as psychiatric social worker**
- **Optimist with a belief in recovery**

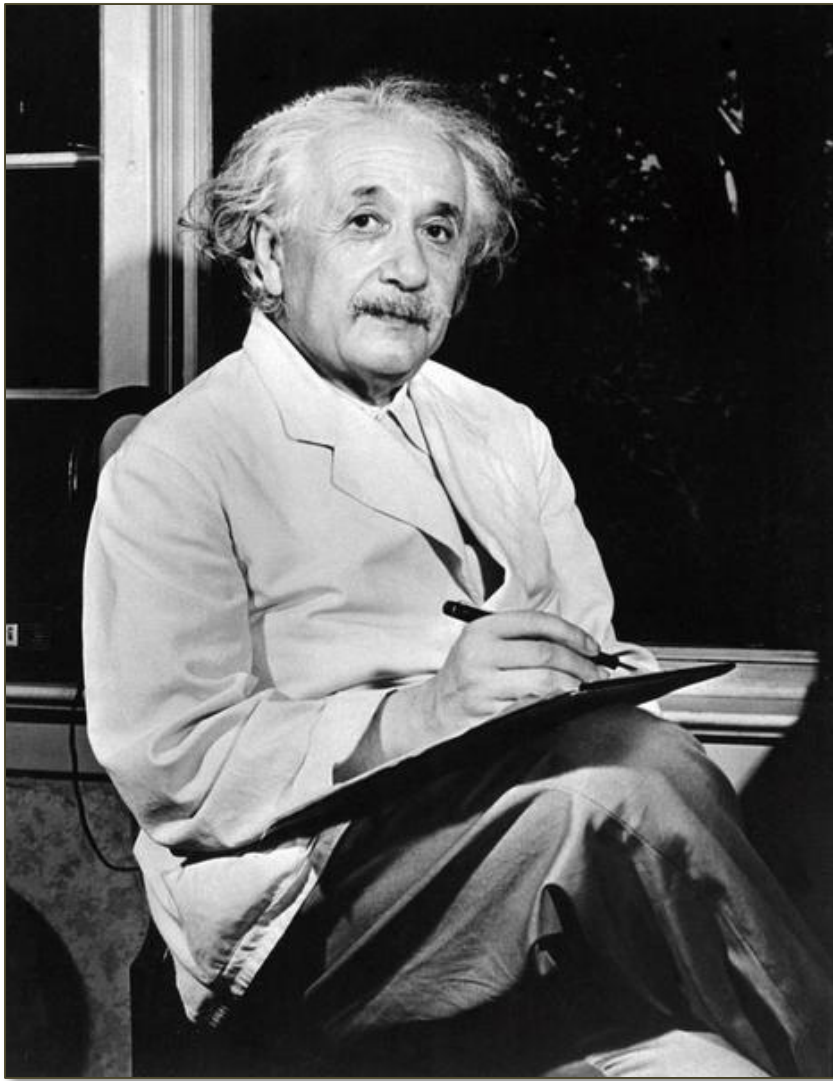


CETCLEVELAND®

What do. . .



CETCLEVELAND®



Albert Einstein

2011 SAMHSA Award Recipient



Steven Levitt

Co-Author of Freakonomics



Stephen Dubner

Co-Author of Freakonomics

2011 SAMHSA Award Recipient



CETCLEVELAND®



LeBron James

2011 SAMHSA Award Recipient



CETCLEVELAND®

...HAVE IN COMMON?

**An ability to see, think and act
outside of the box of normal
expectations**

**“Insanity is doing the same thing
over and over again and
expecting different results.”**

Einstein



CETCLEVELAND®

Whatever part of the problem you are trying to solve, make sure you're not just attacking the noisy part of the problem that happens to capture your attention.

**Levitt and
Dubner**



CETCLEVELAND®

LeBron James

Went from being a great inside threat to being an all around MVP because he focused on his weaknesses, not just on his strengths.



CETCLEVELAND®

Active Treatment vs. Maintenance Management

- Do we, as mental health professionals have those abilities, to think outside of the box?
- Or are we too focused on the noisy part of mental illness: the positive symptoms?

Active Treatment vs. Maintenance Management



- What of the more insidious cognitive deficits and negative symptoms of impaired memory, processing speed and lack of social cognition that prevent more complete recovery?

▪



Active Treatment vs. Maintenance Management

- We need to redefine the problem as “Incomplete Recovery” and view it as impaired cognitive and social functioning rather than the noisier, acute psychotic symptoms. Such thinking leads to innovative solutions and not to TAU.

True or False ?



CETCLEVELAND®



- Cognitive problems are due to laziness and lack of effort
- Cognitive problems will go away when symptoms like hallucinations go away
- Cognitive problems are caused by medications
- Cognitive problems are caused by being in the hospital or nursing home or at home too long

Cognitive Deficits Are Very Common in Schizophrenia



- 84% of persons recovering from Schizophrenia meet the criteria for Clinically Significant impairment of cognition, scoring at least one standard deviation below norms in at least two ability areas. Reichenberg et al, Schizophrenia Bulletin 2009, 35 (5): 1022-29
- Up to 98% perform worse on cognitive test than their premorbid functioning or mother's education level would predict. Keefe et al, Biological Psychiatry, 2005, 57 (6): 688-691

Similar Cognitive Deficits Found in Schizophrenia, Bipolar Disorder, Chronic Depression and ASD



CETCLEVELAND®

- **Attention/Distractibility**
- **Processing Speed**
- **Working Memory**
- **Executive Functioning**
- **Results in Social Cognition Deficits**
 - **Problems Taking Another Person's Perspective**
 - **How to function in novel social and vocational situations**

[illegible]

- [illegible]



CETCLEVELAND®

New Brain Facts

- The average human brain has about 100 billion **neurons**.
- Each neuron may be connected to up to 10,000 other neurons, passing signals to each other via as many as 1,000 trillion **synaptic connections**.
- Your hippocampus, the part of the brain that's super important for learning and memory, actually does create new brain cells during adulthood—about 1400 neurons per day.



Why Cognitive Remediation?



- **60 + years of research show that there are major cognitive deficits associated with Schizophrenia but no active treatments**
- **While medication is needed for positive symptoms, negative symptoms are what keep individuals from fully recovering: live full lives including learning, loving and working**
- **There was and is a need to rethink the problem.**





CETCLEVELAND®

Cognitive remediation is based on Neuroplasticity

- **Neuroplasticity** refers to the brain's ability to re-organize itself through forming new neural connections or by adding cells
- **Neuroplasticity** allows the neurons in the brain to adjust their activity and organization in response to new situations or to changes in the environment



Plasticity can be a double edged sword

Adaptive plasticity



**Maturation,
Improved function**



**Pathology,
symptoms**



Aberrant plasticity

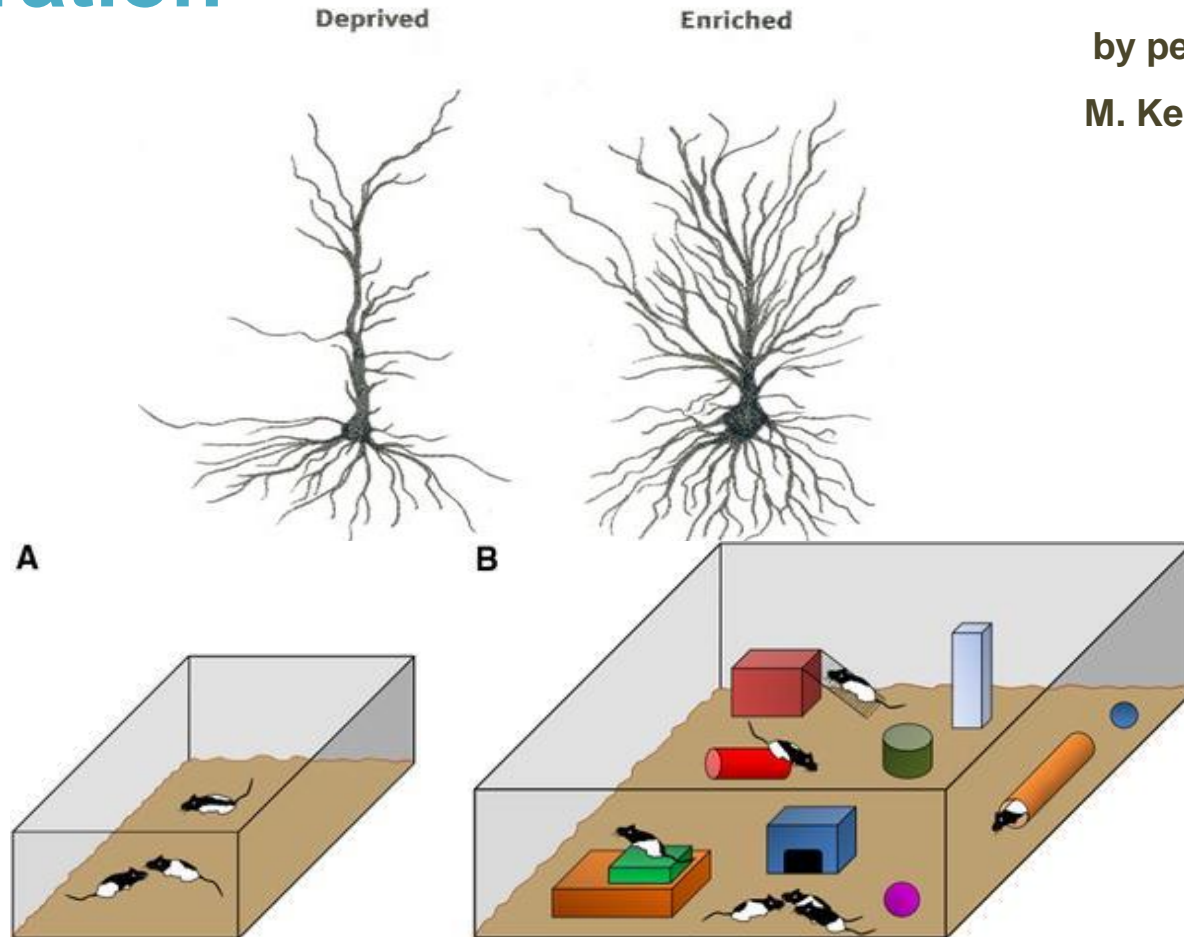
by permission of M. Keshavan,
MD

Environmental enrichment leads to neuronal proliferation



CETCLEVELAND®

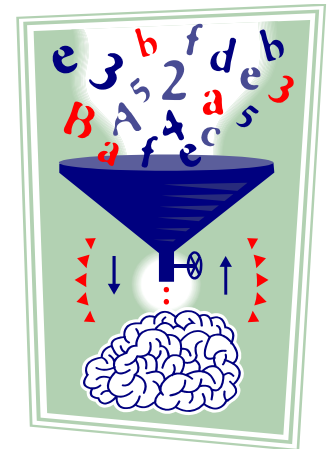
by permission of
M. Keshavan, MD



CET is an active treatment that changes our clients' brains:



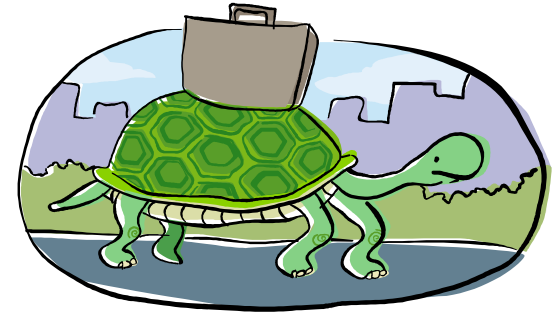
- To have increased capacity to learn
- To remember what they learn
- To act in real time
- To improve their social cognition
- To act wisely in novel social and vocational situations
- To have hope



HOPE VIDEO CLIP

CET Focuses on Negative Symptoms Of Schizophrenia

- Flat or blunted emotion
- Lack of motivation or energy
- Often on Auto Pilot
- Lack of pleasure or interest in things



Cognitive difficulties are also usually present:

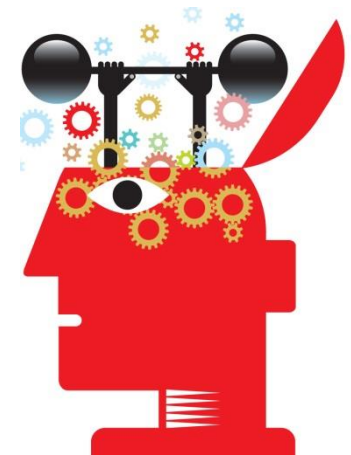
- Slow, effortful thinking process
- Concrete thinking
- Poor concentration and memory

What is CETCLEVELAND®?



CETCLEVELAND®

- CET is an EBP form of cognitive remediation that aims to improve brain functioning
- For stable clients who have plateaued but have not fully recovered
- Combination of specialized computer exercises, social cognition groups and individual coaching
- Utilizes a coaching methodology
- 48 once-a-week sessions
- 80 to 90% attendance and graduation rates



Components of CETCLEVELAND®



1. Specialized computer exercises done
2. in pairs in a group setting
3. Homework reporting in social cognition group, no one can hide
4. Weekly Psycho-ed talks



5.  Cognitive Group Exercises done in pairs in front of group with diplomatic feedback by group members
6. Individual 'coaching' once a week

Anita's Recommendation



When Anita, a CETCLEVELAND® Graduate, was asked why she would recommend CET to other people recovering from a mental illness, she answered:

“To help them reach their true potential in work and learning.

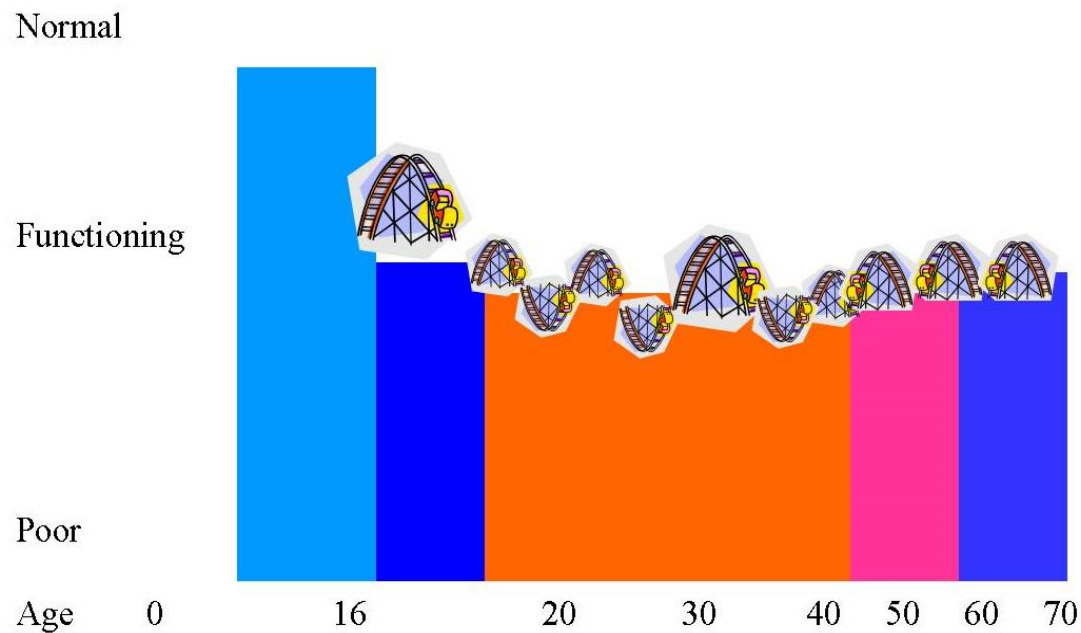
But even more importantly is the subjective aspect, enjoying the lives that we were meant to live.”



Typical Course of Schizophrenia



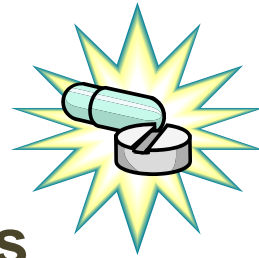
CETCLEVELAND®





CETCLEVELAND®

"It's important for the field to recognize that while we've been waiting now for 30 years for a drug that will improve social outcomes, we've been ignoring the results of many studies showing that psychosocial treatment achieves psychosocial results.



And that most of those results are in some ways more meaningful for patients and their families than just the absence of a relapse."

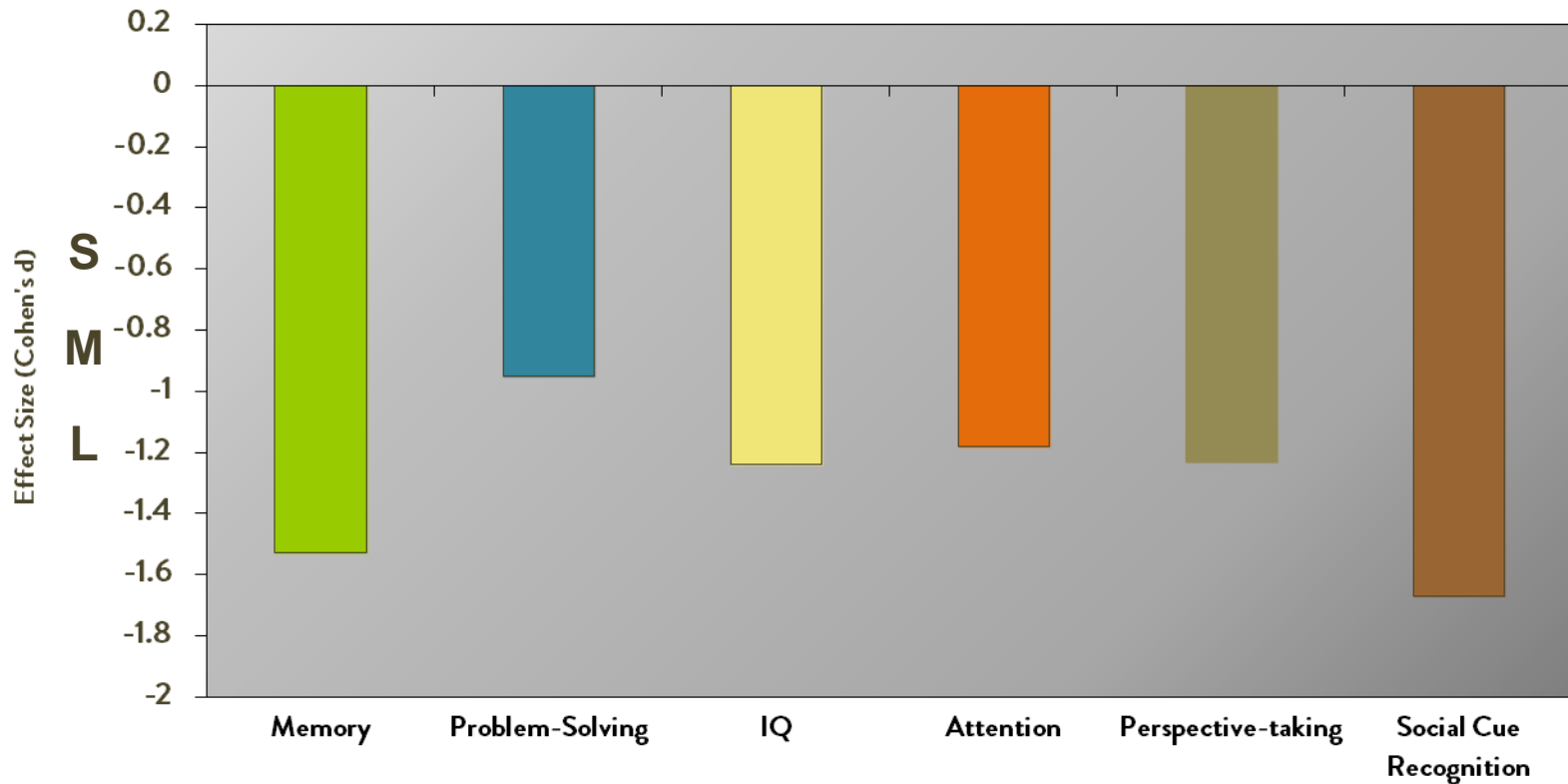
**William McFarlane, MD, Director of the
Center for Psychiatric Research at the Maine
Medical Center Research Institute, 9/10/10**

Cognition in Schizophrenia

by permission of S. Eack, Ph.D., University of Pittsburgh



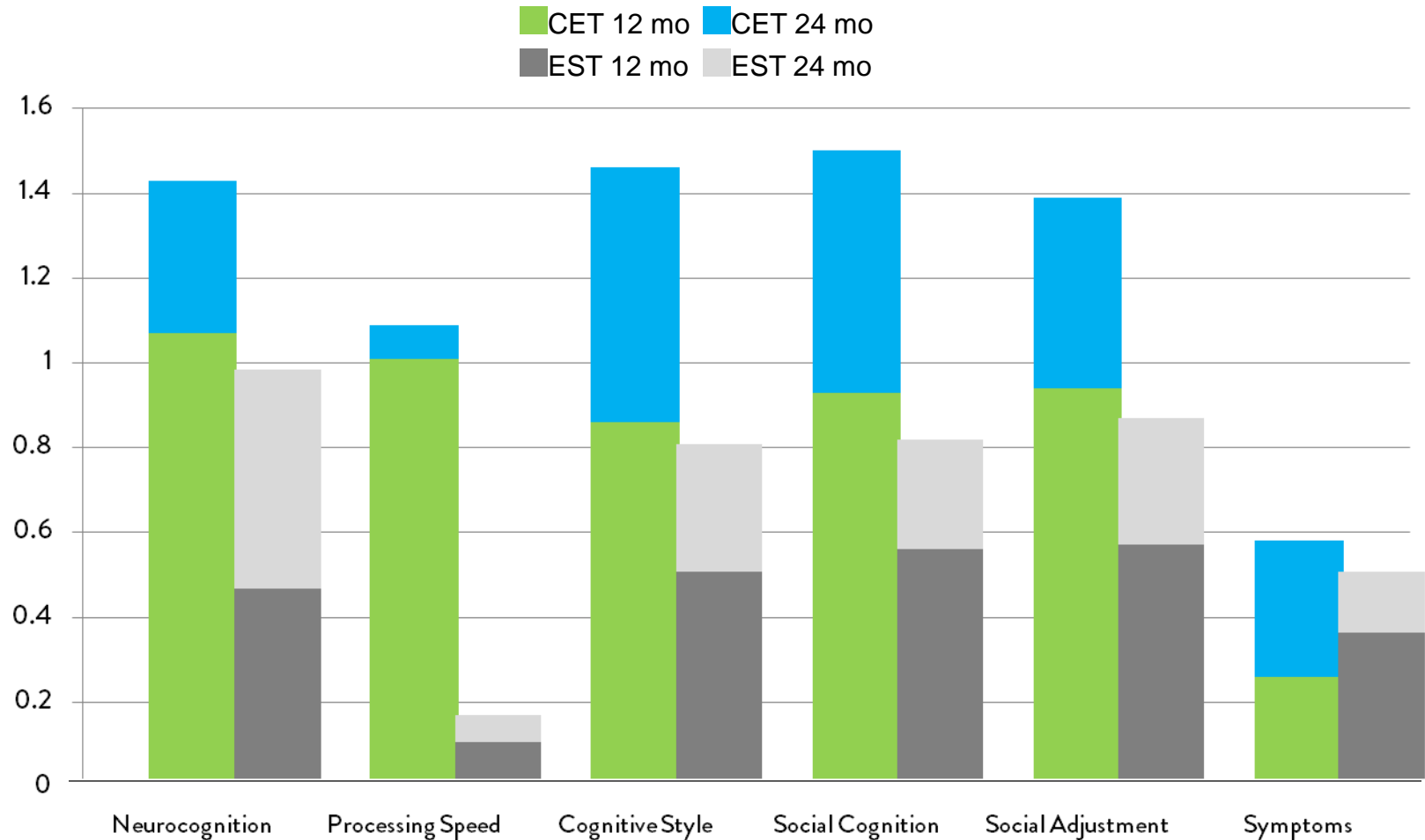
CETCLEVELAND®



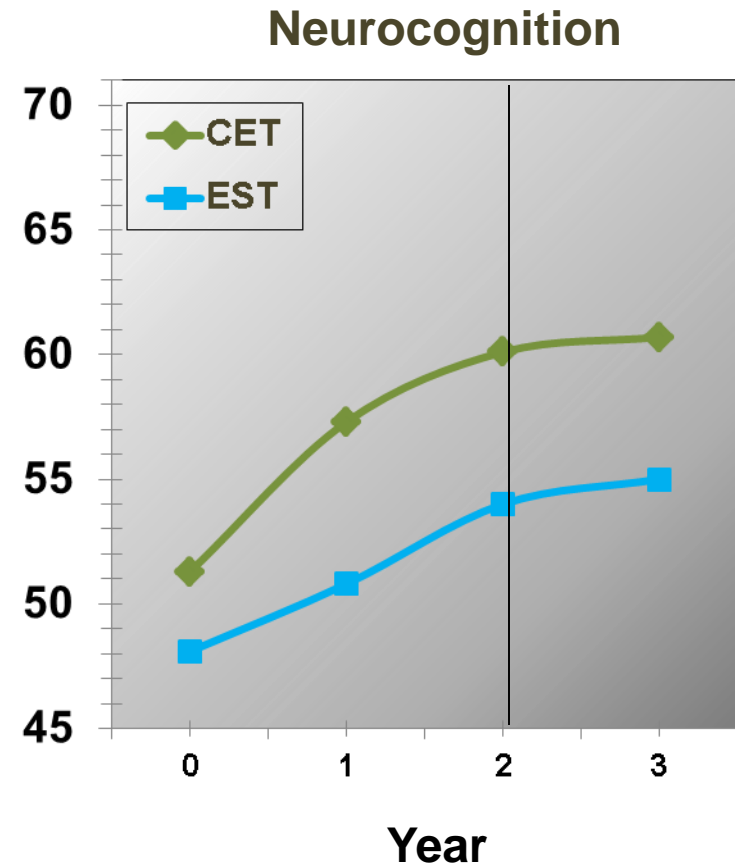
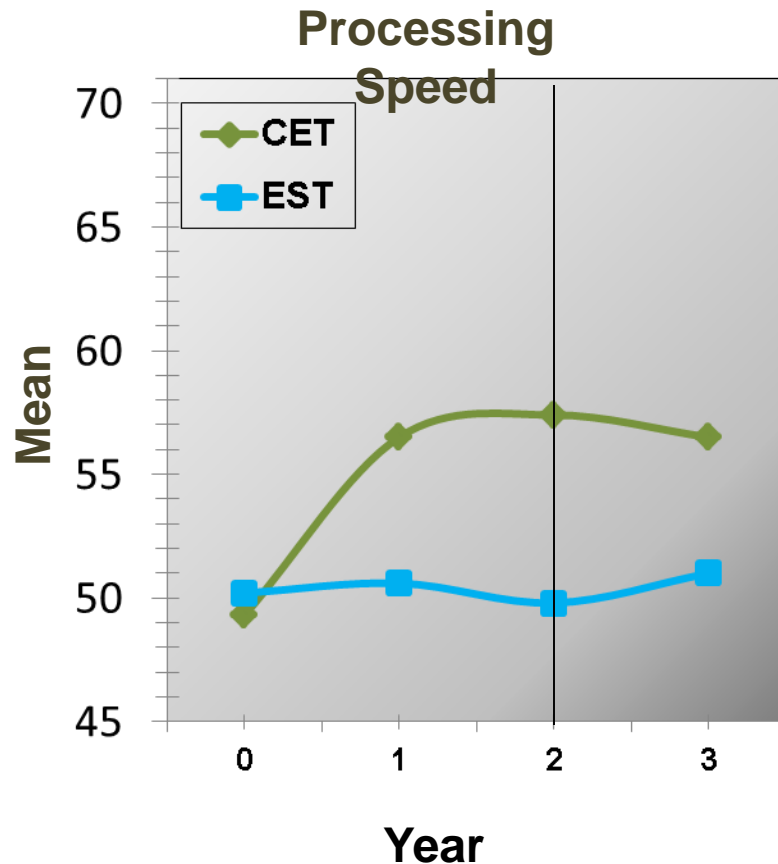
Corrigan & Green, 1993; Heinrichs & Zakzanis, 1998; Schneider et al., 2006; Sprong et al., 2007

Effect Sizes of CET & EST (Enriched Supportive Therapy) at 12 and 24 Months by Composite Index

Hogarty, Flesher--Archives of General Psychiatry, Sept. 2004

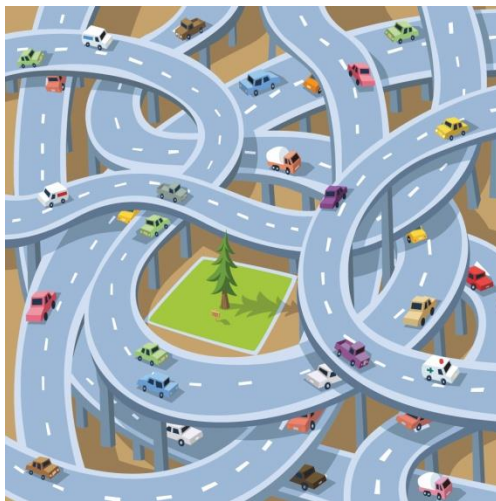


CET For Chronic Schizophrenia: Lasting Effects ($N = 106$)



Hogarty, Greenwald, & Eack, 2006. *Psychiatry Serv.* 57:1751-1757.

CET may increase gray matter through the increase in the number of new synaptic connections.



Neuroprotective Effects of CET Against Gray Matter Loss in Early Schizophrenia, Eack, S., et al, Archives Of General Psychiatry, May 2010



CETCLEVELAND®



- **These differential effects of CET on gray-matter change were significantly related to improved cognitive outcome, with patients who experienced less gray-matter decline and greater gray-matter increases also demonstrating significantly greater cognitive improvement over the two years of the study.**
- ***Thus cognitive remediation may benefit cognition in people with schizophrenia by preventing or reversing gray-matter loss.***

Goals of CET

by permission of S. Eack, Ph.D., University of Pittsburgh



Foster Higher Thinking By Becoming:

Abstract and Gistful vs Concrete

▪

**An Active Thinker vs Passive Receiver
of Information**

▪

Cognitively Flexible vs Following Rigid Rules

▪

More Spontaneous vs Rehearsed

▪

More of an Initiator vs Doing Nothing

▪





Typical CETCLEVELAND® Day

CETCLEVELAND®

11:00 – 12:00

Computer Exercises

12:00 – 12:30

Break

12:30 – 2:00

Group

Individual coaching session held with each client during the week to work on homework questions



CETCLEVELAND®

Computer Work

- 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



Attention, Memory, Problem Solving

- **Attention**

- Establish set
- Maintain set
- Shift set



- **Memory**

- Recall, recognition, procedural
- *Working Memory* is most impaired in mental illness

- **Problem Solving**



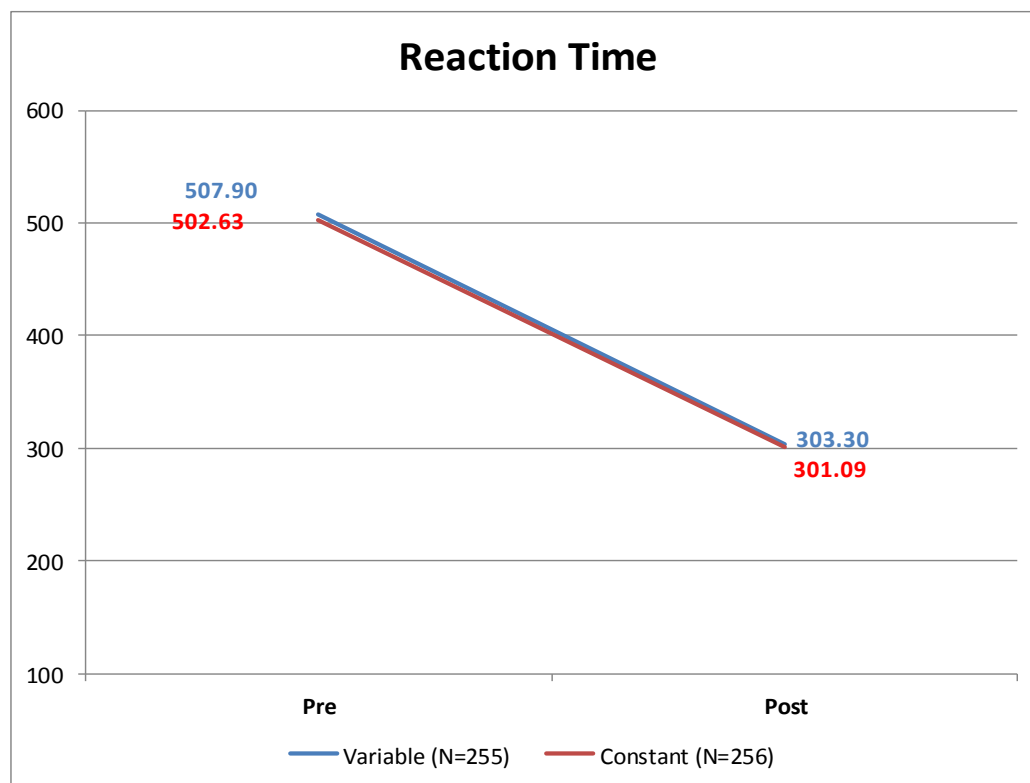
Coaching Methodology



CETCLEVELAND®

- **Support**
- **Challenge**
- **Be Permissive**
- **Reward**





Results: The total mean score of the variable time significantly decreased from the pre to post ($p<.001$; The chance that the result happened by chance is only 1 in a thousand.) 80.8% of the clients decreased their **variable time (N=255)**.

The total mean score of the constant time significantly decreased from the pre to post ($p<.001$). 78.1% of the clients decreased their **constant time (N=256)**. Data as of 3-7-16. The reaction time for the normative (e.g. college students) population is 215.



CETCLEVELAND®

CETCLEVELAND®
Tuesday, January 16, 2007
Group #9, Session 20

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

Psycho-Educational 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



CETCLEVELAND®

Socialization

- Children are told what to do



- Adults are expected to “get it”





CETCLEVELAND®

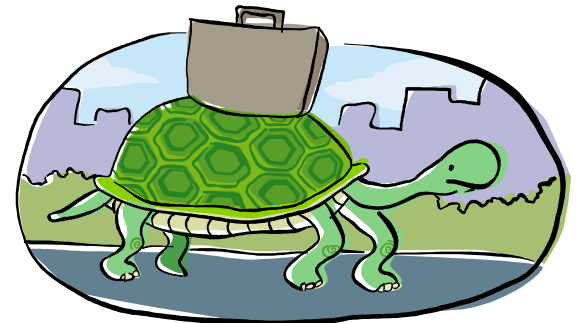
But.....

Suppose your memory is impaired and it's hard to follow a 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?





CETCLEVELAND®

Desocialization

- If adults (your clients) don't "get it" people walk away
- When people walk away
 - Socialization stops
 - Learning stops
 - Strange behaviors grows
 - People become desocialized





Desocialization

- Dysfunctional roles are established
- Others begin to reinforce dysfunctional roles
- Dysfunctional behavior becomes familiar if not always comfortable
- No learning about the generalized other
- The best mental exercise is social interaction





SOCIAL COGNITION TALKS

Unit 1	Orientation and Group Norms	85
	Group Norms	87
	Giving Feedback	91
	Support Groups and CET	95
Unit 2	Integrated Sense of Affect and Logic	99
	Frontal Lobe/Limbic System	101
	Internal Coping	105
	Regulating Your Limbic System	109
	Emotional Context and Nonverbal Cues	113
	Foresightfulness	117
Unit 3	Cognitive Styles/Divergent Convergent Thinking	121
	Thinking Styles: Unmotivated and Disorganized	123
	Cognitive Flexibility I	127
	Cognitive Flexibility II	131
	Cognitive Flexibility III	135
	Decision Making	139
Unit 4	Gistful Cognition	143
	Note-taking	145
	Memory	149
	Verbatim and Gist I	153
	Verbatim and Gist II	157



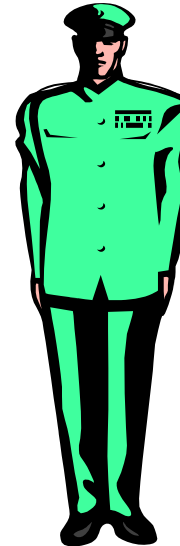
Unit 5	Cognitive and Social Development	161
	Perspective Taking (Intellectual)	163
	Perspective Taking (Feelings)	167
	Role-Taking	171
	Front Stage/Back Stage	175
	Motivational Account	179
	Giving and Receiving Critical Feedback	183
	Direct Speech/Diplomatic Speech	187
Unit 6	Shared Understanding	191
	Social Gist Scripts	193
	Developing Adult Interactions	197
	Role Conflict	201
	Giving Support	205
	Interpersonal Effectiveness	209
	Building Alliances	213
	Social Cognition	217
	Active Listening	221
Unit 7	Adjustment to Disability/Idealism and Realism	225
	Awareness of Disability	227
	“My Only Regret”	231
	Coping with Stigma	235
	Idealism and Realism	239
	Medications	243
	Mental Health and Physical Health – The Connection	247
	Living with Your Disability	251
Unit 8	Transitions and Graduation	255
	Vocational Effectiveness	257
	Career Effectiveness	261
	Generalization: The Transfer of Learning	265
	Transitions	269
	Obstacles to Implementing CET	273
	Putting the Pieces Together	277



CETCLEVELAND®

Cognitive Flexibility

- **Causes of Inflexibility**



- **Benefits of Flexibility**





CETCLEVELAND®

MOTIVATIONAL ACCOUNT

A Motivational Account means

- Explaining your actions and your ideas

Tips for giving good Motivational Accounts

- Stop and think
- Tailor your explanation to your audience
- Can you explain yourself?
- What is the context?

$$\begin{array}{ccccc} \text{Your} & & \text{Perspective of} & & \text{Good} \\ \text{perspective} & + & \text{your audience} & = & \text{Motivational} \\ & & & & \text{Account} \end{array}$$



CETCLEVELAND®

P25

(Rev. 1/15)

Homework on Motivational Account

- Give an example of the situation in which it was important to give a motivational account
- Tell us why it was important to give a Motivational Account
- How could you have given a better Motivational Account?





Idealism vs. Realism

- So this past winter has been especially brutal for everyone in the great lake states. This past February during the lunch hour on a day hovering around zero degrees – I (Randy Wolbert, CET Coach) was walking on the down town pedestrian mall in Kalamazoo.
- I ran into a December graduate from CET, sitting, drinking coffee, and chatting with a friend. When he saw me he said: “Ideally it would be 75 degrees and we would be walking around in shorts and t-shirts – realistically it is near zero and I am really glad that I have a warm coat and gloves”. We both broke down laughing.



"White Bread"

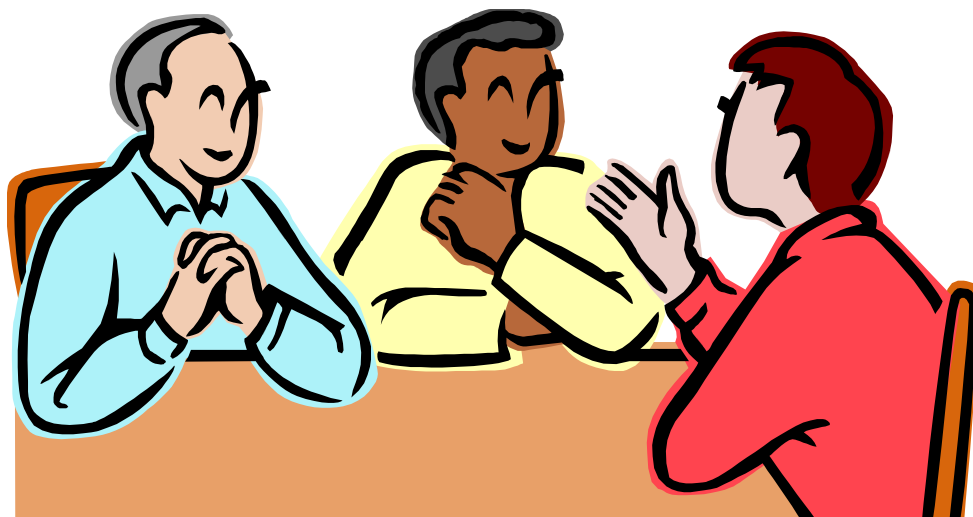
25 Words

Sort into five categories (five words each) and then again into another five categories.

motor
Tracy
windshield
Wally
milk
tomato
Francine
Wendy
salsa
Fred
Kapuns
Tom
Monday
Mark
Sam
Wednesday
Martha
Thursday
front end
white bread
fish
spark plug
Sue
tire
Friday

Accurate and Diplomatic Feedback

- Intellectual
- Emotional
- Teamwork
- Response to Coach



Social Cognition Exercise: Condensed Message



CETCLEVELAND®

The Facts An art dealer went to Paris on one of his frequent trips and took up residence at a hotel where he used to stay whenever he was in that city. He was just about to conclude a series of promising deals with some art galleries when he came down with the flu and developed a high temperature.

Since he was such a good customer of the hotel, he received excellent medical care and plenty of attention from the staff. He was quite comfortable, but his business mission was about to fail if help did not arrive within two days at the most. His wife, who currently held another job, had been his able and trusted business partner in previous years.

The art dealer decided to inform his wife of his condition, without alarming her, and to ask her to come and help out with the business.

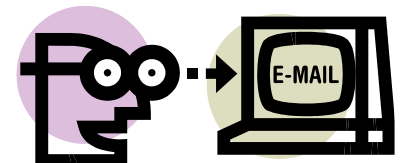
The Circumstances

- 1) His wife was not able to take phone calls during the day but she would be able to listen to short voice messages.

Assumptions

- 1) His wife could get away from her job at a moment's notice.
- 2) The couple had an excellent relationship. They communicated with each other in direct and precise language.

What would a 12 word (or less) message be?



FEED BACK

Social Cognition Profile

(completed by mental health professional familiar with the CET participant, pre & post CET)

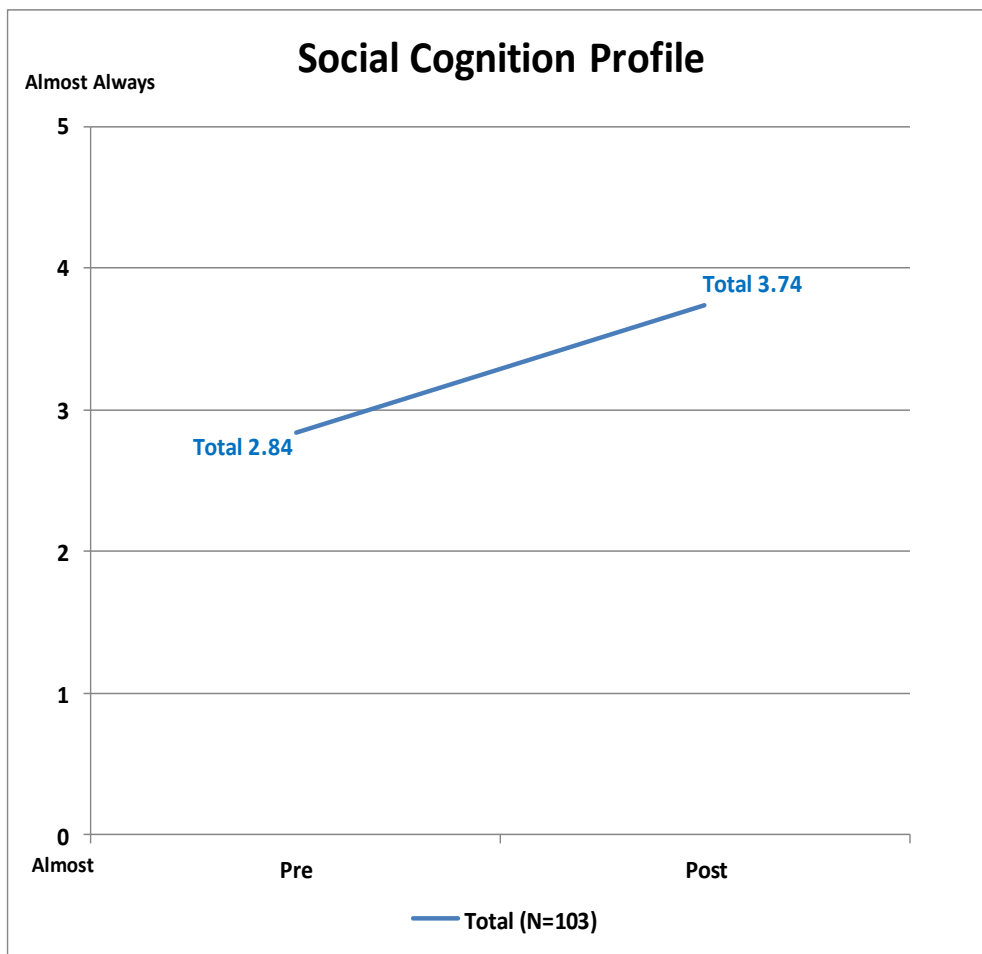


CETCLEVELAND®

- This tool measures changes in social cognition, the ability to act wisely in social situations. Questions deal with areas such as: concern about others, peaceful, trustworthy, open minded, flexible.... The MH professional is asked to give a rating on a scale of *almost never* to *almost always*. A higher score on this assessment indicates higher functioning.
- This assessment was developed by Gerard Hogarty MSW, Samuel Flesher PhD and Deborah Greenwald PhD for the original CET research done at the University of Pittsburgh Medical Center, Western Psychiatric Institute and Clinic. For more information see the article on CET in the Archives of General Psychiatry 2004;61:866-876



CETCLEVELAND®



The mean score of Social Cognition Profile significantly increased between the pre and post ($p < .001$; The chance that the result happened by chance is only 1 in a thousand.) 88.3% (91) of the CET Graduates increased their score. N= 103. Data as of 11-30-15.

Impact of Impaired Cognitive Functioning on Physical Health



CETCLEVELAND®

- Reduced awareness of own physical health
- Difficulty in communicating with others, esp. primary health care providers
- Poor memory results in poor follow through on medical treatment, e.g. medication compliance, MD appt.'s, diet etc.
- Few social supports and lack of self initiation



CETCLEVELAND®

Attendance & Graduation Rates



- **Average attendance and graduation rates are 70-85% across all sites**
- **Much of the attendance success can be attributed to how much participants value the program.**
 - *“I like coming to CET because they treat me like I have a brain”*
 - *“We feel that we got our son back after he went through CET.”
Marty and Gerry Conway, parents of PLAN Member Neil.*
 - *“CET was invaluable, I learned to laugh again and it brought out the happy side of me”*



A Meta-Analysis of Cognitive Remediation for Schizophrenia

T. Wykes Am. J of Psychiatry, May 2011



CETCLEVELAND®



- **Conclusions: cognitive remediation benefited people with schizophrenia, and when combined with psychiatric habilitation, this benefit generalizes to functioning, relative to rehabilitation alone.**
- **What is more important than the surface characteristics (e.g., using a computer) is the technique of specific and explicit training of strategies and the use of various transfer techniques, as shown in the improved functioning outcomes for these approaches.**

Dissemination Lessons Learned

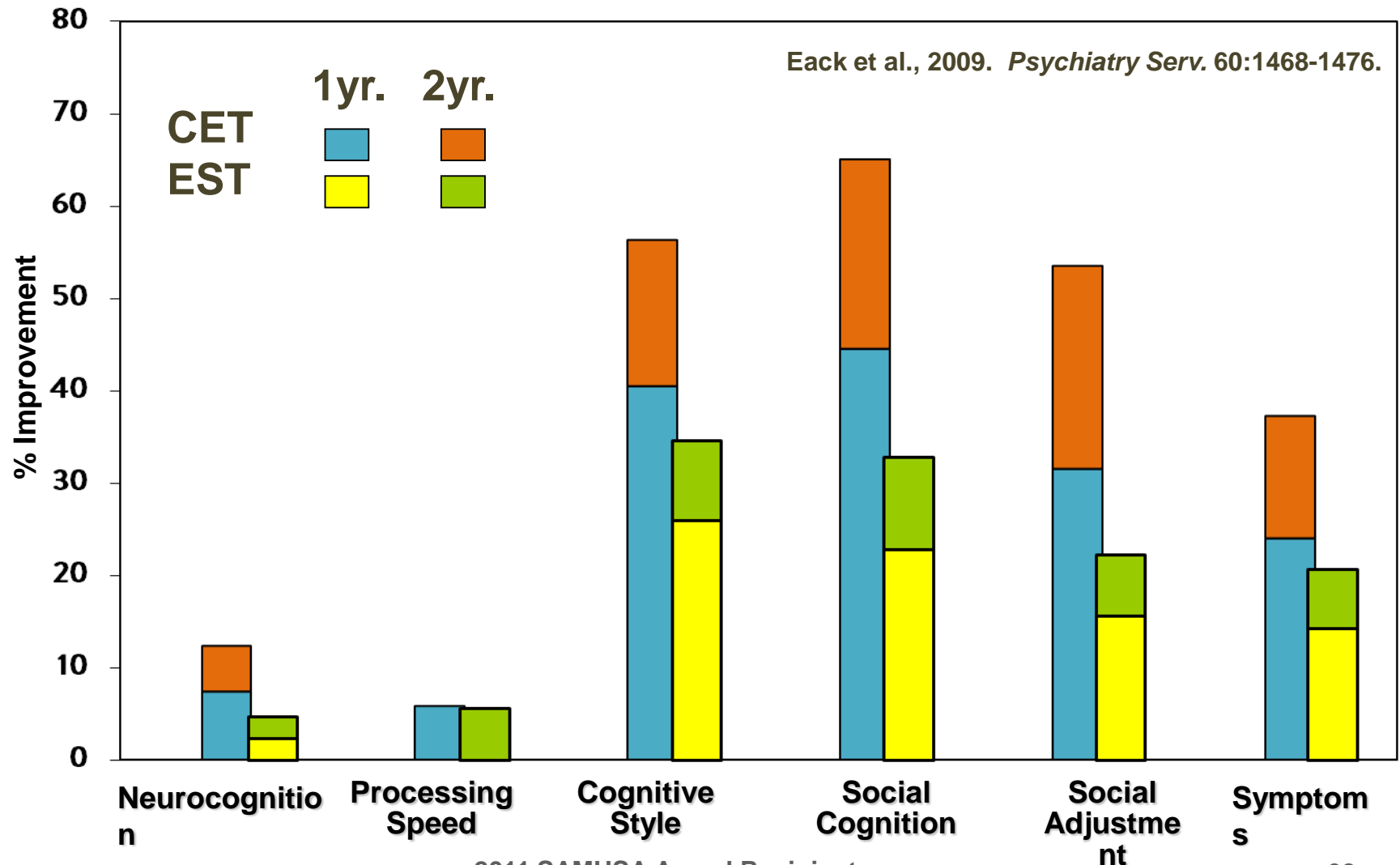
- **CET works best with clients who:**
 - Are stable but not fully recovered
 - Have major cognitive deficits
 - Are recovering from schizophrenia or have major social cognition disabilities
 - Are able to read at a fifth grade level or higher
 - Have had some prior vocational or educational successes
 - Are at least marginally interested in recovery although CET is designed to work on amotivation



CET Effects on Early Schizophrenia ($N = 58$)



CETCLEVELAND®





CET CLEVELAND®

Increased Social and Vocational Capacity

- **Improved Processing Speed and Increased Working Memory enables clients to process information in real time**
- **Clients learn how society works**
- **Clients are taught to be aware of other people's perspectives, that there are cultural norms in vocational settings and how to deal with them**
- **Clients learn how to interact wisely with others**
- **A major goal of CET is to enable clients not only to get jobs but be able to keep their jobs long term**

Effects of CET on Employment Outcomes in Early Schizophrenia; Eack, et al



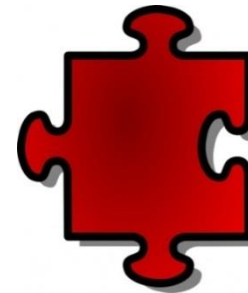
Variable	CET (N = 24)		EST (N = 22)	
	N	%	N	%
Competitively employed	13	54	4	18
Job status				
Full time	6	25	3	14
Part time	7	29	1	5
Employment pattern				
Achieved employment	10	42	2	9
Maintained employment	3	12	2	9
Lost employment	0	0	6	27
Job category ^a				
Professional	1	5	0	0
Clerical/sales	5	23	1	5
Skilled manual labor	1	5	0	0
Unskilled labor	4	18	3	14
	M	SD	M	SD
Weekly earnings	207.92	337.97	69.77	156.47
Satisfaction with employment status ^b	2.46	1.56	3.77	1.69

VOCATIONAL VIDEO CLIP

Performance Based Training (for Clients and Coaches)



- **Know: Knowledge acquisition**
- **Know *How*: Skill Acquisition**
- **Do: Skill performance**
- **Performance-based training includes**
 - Deliberate practice
 - Experiential learning
 - Feedback
 - Support



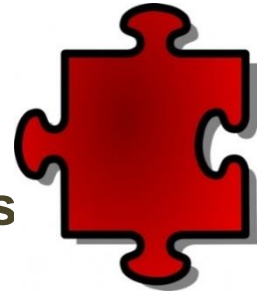
By permission: Sonja K. Schoenwald PhD,
Professor of Psychiatry & Behavioral Sciences Medical University of South Carolina



CETCLEVELAND®

Toward Evidence-Based Training (for Clients and Coaches)

- 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)
- Approaches & techniques recently reviewed
 - Academic detailing
 - Coaching
 - Inter-professional learning
 - Reminders
 - self-regulated learning
 - problem-based learning



Lyon, Wiltsey Stirman, Kerns, & Bruns (2011)
By permission: Sonja K. Schoenwald PhD
Professor of Psychiatry & Behavioral Sciences
Medical University of South Carolina



CETCLEVELAND®

Reduces need for urgent, high demand services

InterAct Michigan, Kalamazoo MI CETCLEVELAND®

- Reduction of 156 hospital bed days for the 17 CET Graduates from the year prior to CET (7 clients)
- to 10 bed days for the CET treatment year (1 client)
- to 20 bed days for the 13 months after graduation, (2 clients, data as of 1/1/15; a 87% reduction in bed days; 146 less bed days times \$1,565^A cost per bed day, equals \$228,490 in reduced costs)
- ^A The average national cost of a psychiatric bed day as reported in an article in USA Today
<http://www.usatoday.com/story/news/nation/2014/05/12/mental-health-system-crisis/7746535/>



CETCLEVELAND®

Reduces need for urgent, high demand services

- **Bridgehaven MHS, Louisville KY
CETCLEVELAND® Program**
 - Reduction of 104 hospital bed days for the 13 CET Graduates from the year prior to CET (5 clients)
 - to 0 bed days for the CET treatment year
 - to 28 bed days for the 15 months after graduation, (1 client, data as of 1/1/15; 76 less beds or a 73% reduction from the year prior to CET; 76 less bed days times \$1,565 (cost per bed day) equals \$118,940 in reduced costs



CETCLEVELAND® trained staff at the following agencies:

CETCLEVELAND®

Center for Cognition and Recovery, Cleveland, OH

Jewish Family Service Association (JFSA)

Beachwood, OH

Mercy Behavioral Health, Pittsburgh, PA

PLAN of Southwest Ohio, Cincinnati, OH

Northcoast Behavioral Healthcare, Northfield, OH
(ODMHAS)

Chestnut Ridge Hospital, Morgantown, WV

JEVS, Philadelphia, PA

City Mission of Washington, PA

Bridgehaven MHS, Louisville, KY

South Bay LACDMH, Los Angeles, CA

InterAct Michigan, Kalamazoo, MI

Spindletop Center, Beaumont, TX

Lake Shore BHS, Buffalo, NY

Didi Hirsch, Los Angeles, CA

Veterans Affairs, Cleveland, OH

Lakes Regional Center, Terrill, TX

The Mental Health Coop, Houston, TX

Gulf Coast Center, Galveston, TX

Harbor CMHC, Toledo, OH

Unison Behavioral Health, Toledo, OH

Zepf Center, Toledo, OH

A Renewed Mind, Toledo, OH

Easter Seals of MI, Auburn Hills, MI

Region Ten CSB, Charlottesville, VA

Beech Brook, Pepper Pike, OH

Coleman Professional Services, Lima, OH

Hegira Programs Inc., Westland, MI

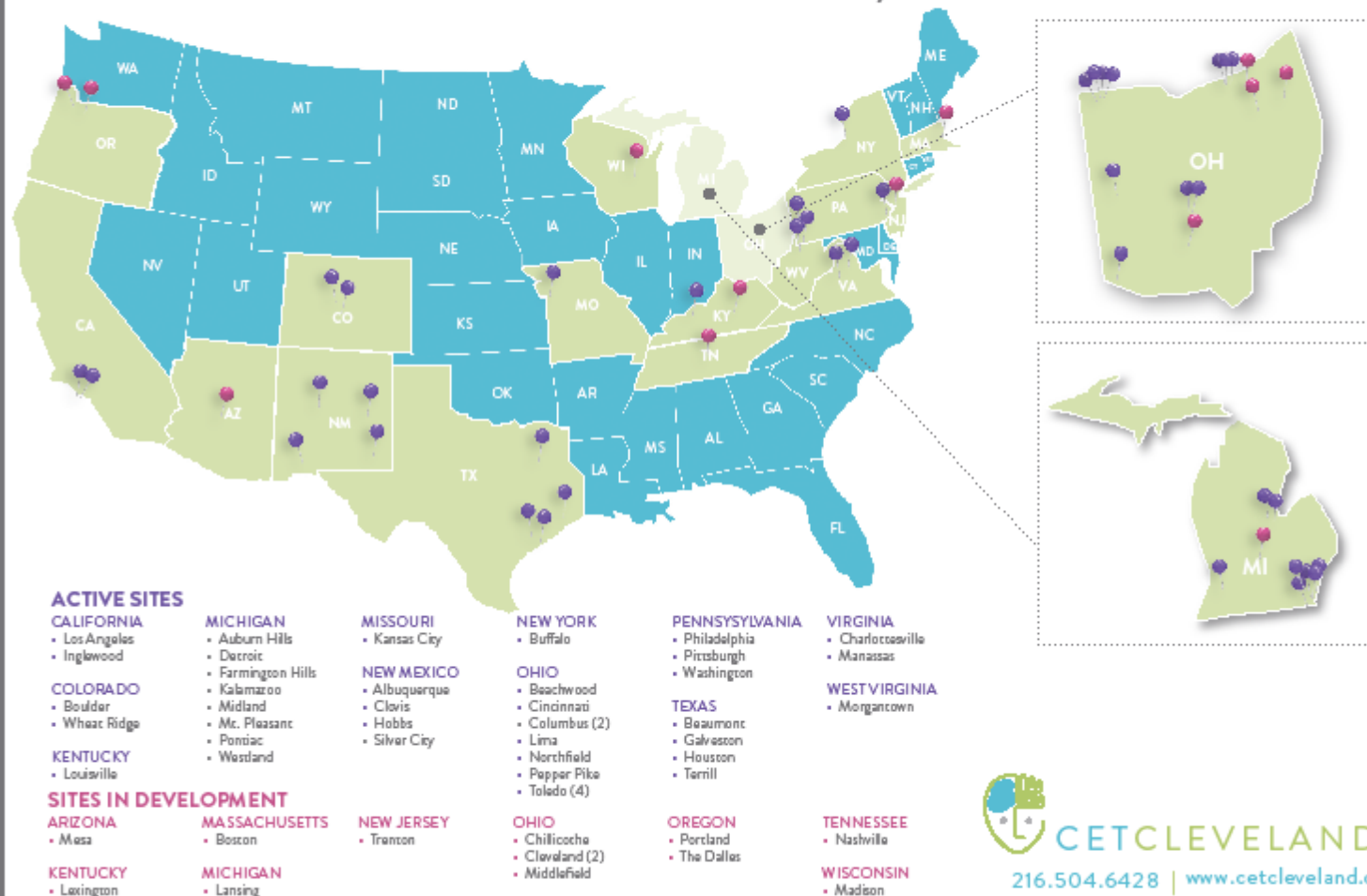
Detroit Central CMHC, Detroit, MI

CETCLEVELAND® STATISTICS



1. 260 CET groups completed as of July 2016 with 2,135 CET Graduates
2. 49 CET groups currently running
3. Current Disseminations: Prince William County CSB in Manassas, VA 7/15; New Mexico, Division of BHS, 4 sites 7/15; Jefferson CMH, West Ridge CO 9/15; Truman Medical Center, Kansas City, MO 12/15; Mental Health Partners, Boulder, CO 1/16; Southeast Inc., Columbus, OH 5/16; Central Michigan CMH, Midland and Mt. Pleasant MI; CNS, Farmington Hills MI; Easter Seals, Pontiac, MI, 6/16
4. 12 new CET sites in development in AZ, KY, MA, MI, NJ, NY, OH, OR, WI

CETCLEVELAND® Community of Treatment



 **CETCLEVELAND®**
216.504.6428 | www.cetcleland.org

CENTER FOR COGNITION & RECOVERY, LLC

7/29/16



Next steps to bring CET to your community

- **Inform yourself about CET by setting up a CET Learning Community to learn more about CET (visit CCR website & sign up for our newsletter)**
- **Inform your local NAMI organizations about CET**
- **Inform your local mental health agencies about CET**
- **Inform your local and state funding sources (Community Mental Health Boards, foundations, etc.) about CET**
- **Advocate for CET**



CETCLEVELAND®

Center for Cognition and Recovery, LLC



2011 SAMSHA Science and Service Award Treatment of Mental Illness and Recovery Support Services

Center for Cognition and Recovery, LLC

Ray Gonzalez, ACSW, LISW-S
Executive Director
3659 S. Green Road, Suite 308
Cleveland, OH 44122
216-504-6428

email: rgonzalez@cetcleveland.org
website: www.cetcleveland.org
CETCLEVELAND®