

Recovery-Oriented Cognitive Therapy: Research Summary

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Guided by the cognitive model, Recovery-Oriented Cognitive Therapy (CT-R) is an evidence-based practice that provides concrete, actionable steps to promote recovery, resiliency, and empowerment. CT-R has shown to have an impact on individual's ability to access motivation, energy, and positive beliefs about themselves, others, and the future.

Science of Beliefs

1. *Defeatist Beliefs:*

- a. Previous research suggests that negative symptoms and poor performance on tests of attention, memory, and problem solving negatively impact daily functioning.
- b. This study examined the idea that defeatist beliefs (“Why try, I am just going to fail anyway”) might be related to these factors.
- c. The participants were people given a diagnosis of schizophrenia and controls.
- d. Results revealed that defeatist beliefs were related to all three — test performance, negative symptoms and functioning.
- e. This suggests that defeatist beliefs can help understand what might be holding some individuals back from the life that they might otherwise have wanted. Treatment can be based upon this understanding.
- f. Meta-analysis confirms these findings in setting across the United States and internationally.

Grant, P. M., & Beck, A. T. (2009). Defeatist beliefs as a mediator of cognitive impairment, negative symptoms, and functioning in schizophrenia. *Schizophrenia Bulletin*, 34(4), 798-806.

2. *Asocial Beliefs:*

- a. Researchers also explored the impact of asocial beliefs (“People sometimes think I am shy when I really just want to be left alone”) and whether they have an impact on social participation.
- b. Researchers examined individuals given a diagnosis of schizophrenia or schizoaffective disorder.
- c. Results revealed that asocial beliefs were associated with social functioning, regardless of the individual's hallucinations, delusions, depression, or anxiety.
- d. Asocial beliefs were also found to be predictive of asocial behavior one year later, while social behavior was not able to predict asocial beliefs on year later.
- e. This study identifies asocial beliefs as causal factors in people not participating in activities with other people— another basis for treatment.

Grant, P. M., & Beck, A. T. (2010). Asocial beliefs as predictors of asocial behavior in schizophrenia. *Psychiatry Research*, 177(1), 65-70.

3. *Community Participation:*

- a. Study looked at both types of beliefs and access to motivation.
- b. Results showed that elevated asocial beliefs and defeatist beliefs both independently predict less community participation in activities individuals care about.
- c. Both types of beliefs also independently link through access to motivation.
- d. Implication is that some individuals will have defeatist beliefs, others asocial, and some will have both. These can inform our treatment approach.

Thomas, E. C., Luther, L., Zullo, L., Beck, A. T., & Grant, P. M. (2017). From neurocognition to community participation in serious mental illness: the intermediary role of dysfunctional attitudes and motivation. *Psychological Medicine*, 47(5), 822-836.

4. *Value of Positive Beliefs:*

- a. Researchers explored the impact of positive experiences on performance, mood, and positive beliefs.
- b. 35 individuals given a diagnosis of schizophrenia were randomized into a guided success vs. control condition and asked to perform a card-sorting task.
- c. The individuals in the guided success condition worked collaboratively with the experimenter.
- d. Results revealed guided success participants had better performance. This was associated with increase in positive beliefs about self and others and positive increase in mood.
- e. This study validates the process of therapy. Connection and collaboration lead to improved beliefs and mood, and exceeding expectations in tasks of every day living.

Grant, P. M., Perivoliotis, D., Luther, L., Bredemeier, K., & Beck, A. T. (2018). Rapid improvement in beliefs, mood, and performance following an experimental success experience in an analogue test of recovery-oriented cognitive therapy. *Psychological Medicine*, 48(2), 261-268.

Validation Studies

5. *Clinical Trial:*

- a. Researchers performed a clinical trial to examine whether targeting negative beliefs associated with negative symptoms and activating more positive beliefs using CT-R could help individuals get back to things they find meaningful in life.
- b. Individuals in the study (N=60) were randomized to two groups (standard treatment vs. standard treatment + CT-R).
- c. The duration of treatment could last up to 18 months.
- d. Results revealed that individuals in the standard treatment + CT-R group had better functioning, more motivation and a decrease in positive symptoms.

- e. What this translated to in the real world included individuals moving from spending a majority of their time alone to being with others more often (i.e. making a friend, volunteering, dating).

Grant, P. M., Huh, G. A., Perivoliotis, D., Stolar, N. M., & Beck, A. T. (2012). Randomized trial to evaluate the efficacy of cognitive therapy for low-functioning patients with schizophrenia. *Archives of General Psychiatry*, 69(2), 121-127.

6. *Follow up to clinical trial:*

- a. Researchers were able to show that these gains maintained over a period of 6-months following the end of treatment.
- b. Individuals in the standard treatment + CT-R group reported better functioning and a reduction in positive and negative symptoms.
- c. This supports the notion that the approach could be shifting individuals' view in a more positive direction of themselves, others, and the world leading to lasting change.
- d. Additionally, this study revealed that each individual's course of recovery may differ depending on the length of the illness, but recovery was possible for everyone. It just took longer for some.

Grant, P. M., Bredemeier, K., & Beck, A.T. (2017). Six-month follow-up for recovery-oriented cognitive therapy for low-functioning individuals with schizophrenia. *Psychiatric Services*, 68(10), 997-1007.

Implementation Outcomes

7. **SAMSHA Recovery Outcomes:**

- a. This project focused on several training cohorts who participated in an initiative aimed at introducing CT-R, in a state mental health system, across serious mental health care for those who were constantly or chronically hospitalized.
- b. 376 individuals in a state mental health system. The individuals chosen had difficulty remaining in the community and all had significant functional impairment: prominent negative symptoms = 214 (57%); delusions = 184 (49%); hallucinations = 163 (43%); thought disorder = 26 (7%); behavioral obstacles such as substance use, aggressive behavior, hypervigilance = 304 (81%); environmental obstacles = 192 (51%); and physical health problems = 28 (7%).
- c. At least 67% of individuals achieved recovery in at least one recovery dimension.

8. **Acute care setting:**

- a. CT-R training conducted in inpatient settings greatly improved staff perceptions of the intervention and the therapeutic environment.
- b. After the training, staff had better understanding of the program and showed an improvement in attitudes (i.e., felt like they had more time, knew what to do and felt safer).

- c. The rates of using seclusion and restraints were reduced.

Chang, N., Grant, P., Luther, L., Beck, A. (2014). Effects of a recovery-oriented cognitive therapy training program on inpatient staff attitudes and incidents of seclusion and restraint. *Community Mental Health, 50*(4), 415-421.

Additional articles that inform our work

9. Blog posts

<https://beckinstitute.org/connection-belonging-and-purpose-in-the-world-of-social-distancing/>

<https://beckinstitute.org/preparing-for-back-to-school-season-in-a-constant-state-of-conflict/>

10. Negative Symptoms (study shows that elevated negative symptoms are the greatest predictors of re-hospitalization)

Patel, R., Jayatilleke, N., Broadbent, M., Chang, C. K., Foskett, N., Gorrell, G., ... & Roberts, A. (2015). Negative symptoms in schizophrenia: a study in a large clinical sample of patients using a novel automated method. *British Medical Journal Open, 12*(5).

11. Power of Beliefs (first study is review of literature showing beliefs relating to factors that hold people back; second study shows reductions in defeatist beliefs predicts better social and work experiences)

Beck, A. T., Himelstein, R., & Grant, P. M. (2019). In and out of schizophrenia: Activation and deactivation of the negative and positive schemas. *Schizophrenia research, 203*, 55–61.

Mervis, J. E., Lysaker, P. H., Fiszdon, J. M., Bell, M. D., Chue, A. E., Pauls, C., ... & Choi, J. (2016). Addressing defeatist beliefs in work rehabilitation. *Journal of Mental Health, 25*(4), 366-371.

12. Identifying the Challenge (these two studies show that individuals given a serious mental health diagnosis have shortened life expectancy relative to everyone else)

Saha, S., Chant, D., & McGrath, J. (2007). A systematic review of mortality in schizophrenia: Is the differential mortality gap worsening over time? *Archives of General Psychiatry, 64*(10), 1123–1131.

Lee, E. E., Liu, J., Tu, X., Palmer, B. W., Eyler, L. T., & Jeste, D. V. (2018). A widening longevity gap between people with schizophrenia and general population: a literature review and call for action. *Schizophrenia Research, 196*, 9-13.

13. Importance of Connection (First reference is a review paper showing connection as a basic human need; second is a new book that explores the importance of connection to health and wellbeing)

Baumeister, R. F., & Leary, M. R. (1995). The need to belong: desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, 117(3), 497-529.

Murthy, V. H. (2020). *Together: The healing power of human connection in a sometimes lonely world*. New York: HarperCollins Publishers LTD

14. Importance of Hope and Purpose (First book presents research supporting connection, purpose, and hope as strong contributors to health and wellbeing; second shows that people given a diagnosis of schizophrenia who are high achieving identify connection, purpose, and a way to handle stress as key to their success)

Harding, K. (2019). *The rabbit effect: Live longer, happier, and healthier with the groundbreaking science of kindness*. New York: Atria Books.

Cohen, A.N., Hamilton, A.B., Saks, E.R., Glover, D.L., Glynn, S.M., Brekke, J.S., & Marder, S.R. (2017). How occupationally high-achieving individuals with a diagnosis of schizophrenia manage their symptoms. *Psychiatric Services*, 68(4), 324-329.