

# Cognitive Enhancement Therapy and Cognitive Behavioral Therapy for Schizophrenia: Which Makes Sense for Whom and When by Samuel Flesher Ph.D.

We live in an age when the two innovative psychological treatments for individuals with schizophrenia begin with the word "cognitive". Cognitive Enhancement Therapy (CET) is one of several versions of cognitive remediation that have demonstrated effectiveness in treating both cognitive deficits and ameliorating functional disability in persons with a schizophrenia spectrum diagnosis. Cognitive Behavioral Therapy (CBT) has a proven track record of treating symptoms of depression, anxiety and obsessive compulsive disorder in the United States. CBT also has been used in the United Kingdom and elsewhere for treating some persistent positive symptoms of schizophrenia.

Both CET and CBT are interventions with demonstrated efficacy that deserve to be more widely available to appropriate populations in the United States. Despite these similarities these treatments are based on different assumptions and are used in very different ways. An understanding of each treatment, together with its assumptions about the illness and its indications is a first step in resolving some of the potential confusion.

#### Cognitive Behavioral Therapy

Cognitive Behavioral Therapy was pioneered in the United States by Albert Ellis and Aaron Beck. The assumption underlying CBT is that illogical or false beliefs are the root cause of many of the symptoms of mental illness. When people leap to conclusions about themselves, depression, anxiety and obsessions often follow.

The term "cognitive behavioral" is somewhat of a contradiction in terms. Early behavioral treatments focused only on behavior and deliberately ignored thoughts. The cognitive behavioral tradition compromised and used behavioral techniques in order to change cognition. This was revolutionary at the time for two reasons. First behaviorist did not believe in addressing thinking. Second, much of the community of treatment, in the tradition of Freud, believed that symptoms arise not in conscious thoughts, but rather in the unconscious mind. Practitioners of CBT were able to demonstrate the utility of dealing with irrational beliefs as a way of treating symptoms. CBT tended to be short term and targeted intervention. Therefore CBT was easy to research and lent itself well to the demands of managed care. For all these reasons, CBT became the standard of care for several different symptoms of mental illness in the United States.

CBT got to live in another form in the United Kingdom. The United Kingdom with a system of national health care made CBT a standard treatment available all over the country. The psychiatrists Douglas Turkington and Nicholas Tarrier developed applications of CBT to schizophrenia. This in some ways was a bold leap. Under the influence of Freud, most psychiatrists in particular and therapists in general had come to believe that symptoms of

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schizophrenia could not be treated by a talking therapy. In other words, talking patients out of their delusions was believed to be a fool's errand.

Years of practice and research demonstrated convincingly that a careful application of CBT to delusional beliefs could indeed work. The CBT practitioners build relationships with their clients and then carefully use logic and counter examples to counter the delusional beliefs. CBT has also been used for adherence to medication in schizophrenia. Understandably, some people in the United States want to import the successful use of CBT in schizophrenia to the United States.

#### **Cognitive Enhancement Therapy**

Interest in basic cognition in schizophrenia began early in the 20th century. David Shakow began studying reaction time in schizophrenia at Worcester State Hospital in Massachusetts in 1932. By the early 1980's the research on cognition and schizophrenia was voluminous. Keeping up with the various avenues of research became difficult. Understanding seemed elusive. In 1984 Keith Neuchterlien and Michael Dawson of UCLA published a series of articles in the Schizophrenia Bulletin that integrated and made sense of the research on schizophrenia and cognition. In the years since, the importance of cognition in schizophrenia has become evident.

Before we continue, we need some context about what is meant by cognition. Cognition as used in Cognitive Behavior Therapy means something very different from cognition as used in CET. In CBT, the behavioral therapist is interested mostly in the accuracy of the content of cognition. Suppose a client believes that people don't like her. This becomes a hypothesis that can be tested as part of the therapeutic process. Often clients discover in CBT that their negative or delusional beliefs are not correct. This can lead to an amelioration of symptoms.

Cognition for the CET coach means something very different. Cognitive impairments associated with schizophrenia are not so much problems with content, but problems with information processing. These include: problems with vigilance, attention, processing speed, working memory and planning. These impairments can be measured with various neuropsychological tests. Deficits in cognition in schizophrenia are present before the onset of symptoms, during episodes and even during remission. The deficits may are even be observed in "healthy" family members. Therefore the cognitive deficits of schizophrenia are believed to be a core feature of the illness. These cognitive deficits have also been referred to as markers of schizophrenia. In other words, in the absence of a definitive genetic test, cognitive deficits are one strong indication that an individual may have inherited a vulnerability to schizophrenia.

More recently, these well studied cognitive deficits in schizophrenia were identified with variables associated with functional disability in schizophrenia. Michael Green and his colleagues at UCLA have been particularly persistent in documenting the link between cognitive impairments and functional disability. Functional outcome measures include skill acquisition in rehabilitation, ability to solve interpersonal problems in role play situations and

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social/vocational community functioning. Functional outcome is, of course, in the end the goal of any recovery oriented intervention. The association between cognition and functional impairment is particularly important given that many studies are longitudinal. Cognition not only relates to functional outcome but predicts it.

Not surprisingly interest is growing in intervening to improve cognition. The logic is simple. Cognition predicts functional outcome, thus improved cognition may be a necessary step on the road to recovery. A major initiative inspired in this light is called Measurement and Treatment Research to Improve Cognition (MATRICS). The purpose of MATRICS is not to test new psychological approaches to cognitive remediation, but rather to test new drugs targeted to improve cognition. For the most part these drugs do not yet exist. While some neuroleptic drugs have very modest effects on cognitive deficits, clinically significant drug effects on cognitive deficits remain elusive.

Ironically, existing cognitive remediation treatments, including CET, have demonstrated significant effects on cognition. The draw of the magic bullet, a pill that will treat the underlying deficits, is understandably strong. No one can guarantee that such a pill will be available any time soon. CET, however, is ready now for those who are willing to take the effort to master it. CET is one of many remediation therapies that have demonstrated effects in cognition.

#### CBT and CET and the Future of Treatment for Severe Mental Illness

On the plus side, CBT for schizophrenia has demonstrated effects in the treatment of positive symptoms. As an individual therapy it is relatively easy to learn and implement. Certainly many individuals could benefit from a therapy that would offer symptom relief. On the down side the main practitioners of CBT for schizophrenia are from the United Kingdom and Australia. CBT has become a regular part of the treatment delivery system in these countries. The National Health Service in Great Britain mandates CBT as a standard treatment. Such a standard of care and training will take time in the United States.

CBT does have some drawbacks as a main line treatment. For a majority of individuals with schizophrenia, persistent positive symptoms are not a problem. Medications when adhered to often can control positive symptoms. CBT can be helpful in promoting adherence. Moreover, positive symptoms, unlike cognitive deficits do not correlate very well with functional disability or recovery. While CBT could help some patients to manage their symptoms, it would be hard to see how reduced symptoms alone in a minority of individuals would contribute toward recovery for the majority of the severely mentally ill.

CET on the other hand does directly address the cognitive deficits that predict functional recovery. We also know from the research, that social adjustment of those individuals in CET improves during the course of the treatment. These gains continue for at least a year after the treatment (Durability and Mechanism of Effects of Cognitive Enhancement Therapy, Hogarty, et. al). The reasons for this may lie in the fact that CET is a holistic intervention. Basic cognitive

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or non-social cognitive deficits are addressed at the same time the group experience focuses on remediating deficits in social cognitive deficits.

Social cognitive deficits are related to the more basic cognitive deficits. Problems in social cognition often lead to problems with work and relationships. CET therefore addresses the core issues of severe mental illness, the same issues that have been shown to be related to functional disability and recovery. While drug therapy for delusions and paranoia is available, currently there is no drug that can meaningfully treat these core cognitive deficits. While there is no drug, CET is available and has proven efficacy. On the downside, CET is more difficult to master than CBT.

Read more: "David Shakow - Begins clinical work at Worcester, Continues research at NIMH" - <u>http://psychology.jrank.org/pages/580/David-Shakow.html#ixzz0FOZngJTD&A</u>

Durability and Mechanism of Effects of Cognitive Enhancement Therapy, Gerard E. Hogarty, M.S.W., Deborah P. Greenwald, Ph.D. and Shaun M. Eack, M.S.W. Psychiatry Services 57:1751-1757, December 2006