

# Training Nurses in Cognitive Behavioral Therapy: Enhancing Community Care of Patients With Serious Mental Illness

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## Abstract

Serious mental illnesses (SMI) affect 6.3% of all adults in the United States and impose an enormous burden on the sick individuals, their families, and society at large. Recovery, as opposed to symptom control, is increasingly being considered as an achievable and desirable treatment goal for individuals with SMI. Pharmacotherapy is critical to the treatment of (SMI) but has limitations, including:

- High non adherence rates;
- Poor response of negative and cognitive symptoms to treatment; and
- Inadequate functional improvement.

Adjunctive psychosocial treatments are being investigated to improve therapeutic outcomes. In the past 10 to 15 years, cognitive behavioral therapy (CBT) has emerged as the most effective evidence-based adjunctive treatment for these disorders. Access to this type of therapy, however, is constrained by a lack of healthcare professionals trained in CBT. Educating registered nurses in CBT would significantly expand the pool of therapists available to treat the high proportion of individuals with SMI living in the community.

This article examines evidence that nurses trained in CBT improve specific outcomes. Three case vignettes are provided to illustrate the effectiveness of CBT interventions offered by nurses. Recommendations are presented for future models of practice.

## Introduction

SMI affects 6.3% of all adults in the United States<sup>[1]</sup> and poses an enormous burden on the sick individuals, their families, and society at large. According to the 1999 World Health Organization global burden of disease study, severe mental illnesses (bipolar disorder, schizophrenia, severe major depression, and others) collectively account for more than 15% of the overall burden of disease from all causes.<sup>[2]</sup>

Historically, the care of SMI was provided in institutions. In the 1950s and 1960s, the care of SMI moved from institutions to community settings for a variety of reasons,

including:

- Advances in pharmaceutical management;
- Better understanding of the course and outcome of mental illnesses;
- Advocacy efforts of mental health patients and their families; and
- Political legislation aimed at mental health reform.

Pharmacotherapy is critical to the treatment of SMI and consistently shows efficacy in:

- Improving positive psychotic symptoms (delusions, hallucinations, disorganized thinking, and catatonic behavior);
- Improving, to a limited extent, negative symptoms (alogia, affective blunting, anhedonia, amotivation, and attentional impairment); and
- Reducing the risk of relapses and hospitalizations.

However, pharmacotherapy has limitations:<sup>[3]</sup>

- Roughly 30% of individuals with positive psychotic symptoms respond partially or not at all;
- Negative symptoms and cognitive symptoms do not adequately respond to pharmacotherapy;
- Symptomatic improvement does not necessarily lead to functional improvement; and
- Medication nonadherence rates are as high as 60%.

In addition, patients with SMI continue to have a lowered life expectancy and die about 9 years earlier compared with the general population due to multiple factors, including:<sup>[4]</sup>

- Higher medical comorbidity;
- Increased risk of suicide; and
- Toxicity from psychotropic medications.

One of the long held myths in psychiatry is that illnesses like schizophrenia have a progressively deteriorating course and uniformly poor outcome. Three lines of evidence

challenge this myth:

1. Longitudinal studies have consistently found that one half to two thirds of people diagnosed with schizophrenia and other major mental disorders significantly improve or recover;<sup>[5]</sup>
2. Better outcomes for schizophrenia in developing countries compared with developed countries;<sup>[6]</sup> and
3. Personal accounts of highly functioning and recovered individuals.<sup>[7]</sup>

Recovery, as opposed to symptom control, is considered an achievable and desirable treatment goal for individuals with SMI.<sup>[8,9]</sup> The limitations of pharmacotherapy and increased expectation of recovery for SMI have renewed interest in adjunctive psychosocial treatments such as CBT.

## **Efficacy of CBT**

Historically, psychotherapy (particularly insight-oriented therapies) was considered ineffective for disorders like schizophrenia. For a number of decades, there was limited research in the use of psychotherapy for schizophrenia and other psychotic disorders.<sup>[10]</sup> The past decade, however, has seen increased interest in CBT for treatment of SMI because it has emerged as the most effective evidence-based short-term therapy for such disorders as schizophrenia, bipolar disorder, and severe major depressive disorder.<sup>[11]</sup>

A number of recent meta-analyses have demonstrated the effectiveness of CBT in improving positive and negative symptoms in schizophrenia.<sup>[12,13]</sup> Zimmermann and colleagues,<sup>[12]</sup> for example, in their meta analysis, concluded that CBT as an adjunct to antipsychotic medication increased the chances of reducing positive psychotic symptoms from 41% to 59% compared with medication alone; the effect size was in the moderate range. The CBT efficacy was even better at 3 and 12 months posttreatment, indicating enduring effects of therapy.

Also, a short version of CBT-based therapy called compliance therapy improved medication adherence in psychotic inpatients,<sup>[14]</sup> and these beneficial effects were preserved at 18-month follow-up.<sup>[15]</sup>

In addition to the efficacy studies, effectiveness of CBT as an adjunct to antipsychotics has been demonstrated in clinical settings.<sup>[16]</sup> First-person accounts of individuals who have recovered from their illness have indicated the importance of individual therapy like CBT to their recovery.<sup>[17]</sup> Recent practice guidelines such as from the National Institute for Clinical Excellence (NICE) now recommend CBT as an adjunct to pharmacotherapy in the treatment of schizophrenia.<sup>[18]</sup>

## **Cognitive Theory**

According to CBT, schizophrenia is due to a combination of biological vulnerability

combined with psychological vulnerabilities and cumulative stressors. The psychological vulnerabilities described are tendencies that lead toward cognitive distortions, such as:<sup>[19]</sup>

- Egocentric bias -- irrelevant events construed as having personal relevance;
- Externalizing bias -- internal sensations or symptoms attributed to external agents; and
- Intentionalizing bias -- attributing hostile or malevolent intentions to other people's behavior.

Symptoms are maintained by:<sup>[20]</sup>

- Significant stressful life events and circumstances;
- Increased sensitivity to minor stressors; and
- Stress from fear of the psychotic symptoms themselves.

The principles that underlie CBT for SMI include:<sup>[21]</sup>

1. Establishing a collaborative relationship where the therapist is more of a coach and educator as opposed to an authority figure;
2. Providing structure and consistency;
3. Having a therapist who plays an active role;
4. Using a normalizing rationale that emphasizes that every human brain is vulnerable to develop psychosis;
5. Being flexible as to where therapy is provided, the duration of individual sessions, and the choice of topics discussed in each session; and
6. Providing homework (related to skill building), which plays a central role in sessions.

## **Barriers to Therapy**

Most individuals with SMI receive treatment in public facilities where there are barriers to providing CBT. Major obstacles to making psychosocial treatments like CBT more widely available include:<sup>[22]</sup>

- Availability of and access to adequately trained professionals;

- Time constraints to provide individual therapy; and
- Attitudes of clinicians that SMI is biologically based and individual therapies do not help or that SMI individuals are "too resistant" to this kind of intervention.

CBT remains an underutilized treatment modality, provided only by highly trained psychologists, social workers, advanced practice nurses (APNS; psychiatric mental health nurse practitioners and clinical nurse specialists), and few psychiatrists.<sup>[22]</sup> Additional providers of CBT are essential to increase its availability. Other healthcare professionals, such as community nurses and case managers, can demonstrate their ability to provide quality treatment through the use of CBT. Turkington and associates<sup>[23]</sup> found that community psychiatric nurses who were trained in CBT therapy were able to provide therapy during community visits to patients' homes. The investigators concluded that nurses can safely and effectively deliver a brief CBT intervention to patients with schizophrenia.

### **How Can Nurses Use CBT in Community Settings?**

In the United States, mental health nurses and APNs in the community work primarily in 4 settings:

1. Case management teams;
2. Assertive community treatment (ACT) teams;
3. Partial hospitalization programs; and
4. Outpatient clinics.

Nursing schools prepare future nurses with some of the basics required to work in the community settings:

- Psychopharmacology;
- Assessment skills related to mental and physical health status;
- Community resource identification and referral;
- Psychosocial aspects of care; and
- Family interventions.

This training in the biological, psychological, and social aspects of illnesses positions nurses as the preferred choice as case managers in partial hospitalization, case management, and ACT teams. CBT training that focuses on 3 areas can enhance the knowledge and skills of nurses, including APNs, to deal with SMI:

1. Improving medication adherence;
2. Promoting positive health and wellness; and
3. Engaging families.

This focused training is likely to improve the overall outcomes for individuals with SMI and help them in their recovery.

### **Improving Medication Adherence**

Partial adherence and non-adherence are very common in SMI and are the primary reason for relapses and hospitalizations.<sup>[24]</sup> Administering medications, educating patients about the effects of medications, creating systems for medication adherence (eg, "Medi Planners," containers for sorting and tracking medications) and monitoring for therapeutic and adverse effects are critical tasks central to the profession for a nurse in any setting.<sup>[25]</sup>

Cognitive theory looks at medication non-adherence as being secondary to automatic thoughts and dysfunctional beliefs about medication and complicated regimens that burden the cognitive capacity of vulnerable individuals. Dysfunctional beliefs about medications by the patient with SMI typically include the following:<sup>[26]</sup>

- Underestimating benefits of medication therapy;
- Overestimating the side effects;
- Beliefs that medications are not necessary;
- Beliefs that medication is harmful or part of a conspiracy; and
- Beliefs that medication could change their personality or make them addicted.

Teaching patients about the actions and side effects of their medications along with CBT techniques (to elicit and refute automatic thoughts and dysfunctional beliefs) offer the nurse an ideal opportunity to improve medication adherence.

Dysfunctional beliefs about medication can be assessed by enquiring in a gentle and non-threatening manner the positive and negative thoughts that individuals have about their medication. Questions such as, "Did you have any thoughts about stopping your medication recently?" or "What do you consider the downside of taking medication?" can help the therapist understand the automatic thoughts about medication.

Questions like, "What does it mean to you to be taking this medication?" are also helpful in eliciting underlying beliefs about medication. Medication use for most individuals is meaningless unless it is tied into their life goals. CBT helps reframe dysfunctional beliefs about medication, connects medication adherence with life goals, and thereby promotes

long-term adherence.

### **Promoting Health and Wellness**

Physical problems are common in individuals with SMI and contribute to morbidity, lower quality of life, and lowered life expectancy.<sup>[27]</sup> Behavioral risk factors, dysfunctional and delusional beliefs about medical problems, negative symptoms, problems with access, and stigma against individuals with mental illness are factors that contribute to medical morbidity in SMI. Behavioral risk factors include:

- High incidence of cigarette smoking;
- Poor dietary habits;
- Sedentary lifestyle; and
- High incidence of substance abuse.

Paranoia, lack of trust in physicians, and dysfunctional beliefs about physical illnesses and preventive care prevent individuals from visiting their physicians. In addition, many patients with SMI have poor access to primary care providers and specialists due to inadequate health insurance coverage. Finally, fear of stigma and bias prevent many patients with SMI from accessing care.<sup>[28]</sup>

CBT can improve monitoring and treatment of medical conditions in those with SMI by addressing factors that contribute to medical morbidity such as negative symptoms and dysfunctional and delusional beliefs. Nurses working as cotherapists with cognitive behavioral psychologists have successfully provided smoking cessation group therapy for those with SMI that helped individuals to quit smoking and reduce risk from this important behavioral risk factor.<sup>[29]</sup>

### **Engaging Families**

A high proportion of patients with SMI (estimated to range between 30% and 60%) live with their family, and a substantial percentage of the remaining have regular contact with relatives.<sup>[30]</sup> Family relationships that are supportive enhance medication adherence, reduce hospitalizations, and improve functioning. However, SMI leads to enduring psychological burden for family members, causing many to disengage from their sick relatives.

Interventions that educate the family members, enhance their coping skills, and reduce family burden can keep family members engaged in the care of the relative with SMI. Family behavioral psychoeducation, a cognitive behavioral family intervention, reduces family tension, hospitalizations, and risk of relapse by up to 50%.<sup>[31]</sup>

Community psychiatric nurses in England have been shown to assist the relatives and caregivers of patients with schizophrenia by increasing their knowledge of the condition as well as by enhancing their coping abilities. They were able to prevent deterioration in

the health of the family members.<sup>[23]</sup>

## **Case Studies**

The following 3 scenarios show how nurses in an ACT team setting used various CBT techniques to address symptoms of patients with SMI. The first 2 cases describe techniques used to address positive psychotic symptoms while the third one describes interventions for anxiety, depressed mood, associated dysfunctional beliefs, and dependent behaviors.

### **Case 1: An 83-Year-Old Woman With Schizophrenia**

Mrs. K is an 83-year-old woman with the diagnosis of schizophrenia, paranoid type, who had severe persecutory delusions about Mr. R threatening to kill her (auditory hallucinations), controlling some of her bodily functions (such as walking), and spreading stories about her. Her psychiatrist treated her with clozapine and CBT.

The interventions included a behavioral experiment to predict whether the threats from Mr. R would come true, documenting the date and time of threats, and writing down, at the end of the day, if the threat turned out to be true. A review of close to 100 threats over a 3-week period showed that every one was an empty threat.

The first author (NP) involved in this case used an analogy that Mr. R was a "barking dog" that did not bite; the patient was both amused and relieved on hearing the analogy. Subsequently, she referred to Mr. R as barking dog and continued to remind herself that he is all bark and no bite.

Additional interventions addressed delusions of control and beliefs that Mrs. K could not walk. These were addressed by educating that muscle strength can be built by exercise, teaching Mrs. K how to perform knee-strengthening exercises, and encouraging her to walk while the nurse was there for support.

Final interventions examined evidence for and against the belief that the person in the voice of Mr. R was spreading stories about her. In this technique, both the patient and the therapist would think like detectives trying to solve a puzzle and look at all the evidence to both support and oppose the belief that Mr. R was spreading stories.

The nurse on the team reinforced therapeutic techniques via telephone calls and home visits and participated in planning the interventions. The nurse designed the second intervention independently. This intervention was a creative way to address delusions of control and provide education about muscular strength. Mrs. K consistently reported that talking to the nurse was very helpful and that the interventions were effective in making her feel understood and safe in the presence of the therapists.

Mrs. K's improvement was substantial -- to the point that she went on her very first cruise with her family. Currently, Mrs. K denies any delusions or hallucinations and has moved from an assisted living facility to live with her family.

### **Case 2: A 26-Year-Old Man With Schizoaffective Disorder**



Mr. M, a 26-year-old single white male with diagnoses of schizoaffective disorder and alcohol dependence in remission, has been living in a residential setting for males with co-occurring disorders, where he is treated by an ACT team. Mr. M has a persecutory delusion that knives are dangerous and that people can use unsecured knives to attack him. He has a distrust of "punks" (young male individuals with black leather jackets and hooded attire) that go to certain Alcoholics Anonymous (AA) meetings. On seeing people he interpreted as "punks," he would get a strong impulse to go, and he would leave AA meetings.

A modified form of exposure in vivo was used to allow Mr. M to attend AA meetings. That consisted of attending AA meetings with an evening mentor who stayed with him to "wait out" the anxiety and urge to leave. The intervention involved:

- Waiting thru the anxiety;
- Making reassuring eye contact with the evening mentor (who was trained by staff); and
- Trying to make it until the break at the meeting.

A psychiatric APN was the person "on call" if needed. Mr. M has been attending AA meetings successfully without a mishap, for over a year. The evening mentors continue to provide Mr. M with support.

A second intervention addressed Mr. M's fear of knives. The nurse took him to speak with the cook, and he was assured that there was a policy to lock all knives used for cooking. On nights when Mr. M was feeling paranoid, the nurse would implement a protocol where the patient talks with the evening staff person, takes a medication ordered as needed for anxiety, and if he is still feeling paranoid, they talk about the fact that the knives are locked and challenge his paranoid thought.

Mr. M has been able to return to bed without checking the knives after he is given the opportunity to challenge his paranoid thought about the knives. This simple intervention works and can be used by evening and night staff at the residence without calling the on-call nurse.

### **Case 3: A 52-Year-Old Woman With Bipolar Disorder**

Ms. S, a 52-year-old white female with bipolar disorder in depressed phase, presented with symptoms of depressed mood, anxiety, beliefs that she cannot be on her own, that she is not capable of handling ordinary tasks, and the compulsive behavior of checking. She was living with her parents and both of them entered nursing homes within a short period of time. Being alone in the house made Ms. S very anxious, and she would engage in safety behaviors like:

- Making numerous calls to the ACT team;

- Going to the psychiatric emergency room; and
- Making frequent attempts to be hospitalized.

In this situation, the community nurse was the primary person providing CBT interventions in the patient's home under supervision of the psychiatrist. The effectiveness of a nurse providing interventions in the patient's home to reinforce the therapy provided in the office by a more experienced therapist has been reported earlier.<sup>[32]</sup> The nurse used the following interventions to help the patient:

- Identify the triggers for anxiety;
- Come up with a list of activities to deal with anxiety;
- Examine the evidence for and against the belief that she has no control over her life;
- Set graded behavioral tasks and support her through them, such as walking to the grocery store or going to the diner and ordering food;
- Schedule and participate in pleasant activities such as watching television or going for a walk; and
- Learn how to become independent with medications.

The nurse started by filling the medication box and in gradual steps taught Ms. S to do it independently without supervision. These interventions allowed Ms. S to better control her anxiety and depressed mood, recognize that she was not totally helpless, and prevent multiple crisis visits and possible hospitalizations.

## **Training in CBT**

Training nurses in CBT can be time and labor intensive. A graded approach ensures that training for a large number of nurses can be done cost effectively. Basic introduction to CBT theory and approach should be part of nursing curriculum as this approach is effective for a number of non-psychiatric conditions.

For individuals already working with patients who have SMI, 6-month and 1-year part time courses leading to certification (similar to those offered in England<sup>[20]</sup>) would prepare nurses to handle simple cases while the complicated cases can be handled by highly specialized therapists. This is similar to the 3-tier model of graded training proposed by Aaron Beck.<sup>[33]</sup>

Individual nurses and APNs who are interested in training could enhance their skills through workshops and other continuing education activities as well as reading some recommended books.

## Conclusion

Recovery should be a goal and expected outcome for all individuals with SMI. Recovery can be facilitated through comprehensive care of individuals with SMI that includes:

- Pharmacotherapy;
- Psychotherapy; and
- Family psychoeducation.

CBT, as an adjunct to pharmacotherapy:

- Improves medication adherence;
- Reduces positive and negative symptoms;
- Enhances coping skills to deal with the consequences of SMI; and
- Facilitates recovery.

The lack of availability of trained professionals limits access to CBT from the vast number of those with SMI living in the community. Educating nurses who work in various community settings is one way of expanding the available pool of professionals to provide CBT. Providing CBT as an adjunct to pharmacotherapy can enhance recovery for many individuals with SMI.

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