

# Cognitive Behavior Therapy for Schizophrenia

Douglas Turkington, M.D.  
David Kingdon, M.D.  
Peter J. Weiden, M.D.

**Objective:** A growing body of evidence supports the use of cognitive behavior therapy for the treatment of schizophrenia. A course of cognitive behavior therapy, added to the antipsychotic regimen, is now considered to be an appropriate standard of care in the United Kingdom. The objective of this article is to offer a broad perspective on the subject of cognitive behavior therapy for schizophrenia for the American reader. **Method:** The authors summarize current practice and data supporting the use of cognitive behavior therapy for schizophrenia. **Results:** Five aspects of cognitive behavior therapy for schizophrenia are addressed: 1) evidence from randomized clinical trials, 2) currently accepted core techniques, 3) similarities to and differences from other psychosocial interventions for schizophrenia, 4) differences between the United States and United Kingdom in implementation, and 5) current directions of research. **Conclusions:** The strength of the evidence supporting cognitive behavior therapy for schizophrenia suggests that this technique should have more attention and support in the United States.

(Reprinted with permission by the American Journal of Psychiatry 2006; 163:365–373)

Although cognitive behavior therapy is better known for the treatment of depression, some of the earliest literature on it pertains to the treatment of schizophrenia. Over 50 years ago, Beck described the case of a patient with a systematized paranoid delusion who was successfully treated with a new structured psychotherapy (1). The therapy explored in detail the sequence of life events preceding the emergence of the person's paranoid delusions. The patient was asked to identify his "persecutors" and to write down their manner of dress, facial expressions, general behavior, and demeanor. Having done this, the patient began to feel more confident in examining the behavior of people he had previously assumed to be members of a government agency. Gradually he started to drop some of the people from his list of "persecutors," and eventually he dropped all of them. The benefit of the therapeutic intervention appeared to last after the therapy sessions ended, with no return of the delusion at follow-up. During the 1970s and 1980s, when interest in cognitive behavior therapy in the United States primarily focused on depression, case reports arising out of the United Kingdom described successful outcomes using cognitive behavior therapy along with antipsychotic medications for persistent symptoms of schizophrenia (2–5).

The successful outcomes of these cases formed the impetus to further study these techniques, and they ultimately led to a series of prospective randomized, controlled studies testing cognitive behavior therapy for schizophrenia. The strength of the current evidence is such that cognitive behavior therapy is now accepted as part of the evidence-based treatment for medication-resistant schizophrenia in the United Kingdom.

## EVIDENCE SUPPORTING EFFICACY FOR SCHIZOPHRENIA

Cognitive behavior therapy for the treatment of schizophrenia developed against a backdrop of intense skepticism because of past failures of other individual psychotherapies with schizophrenia patients. In particular, a series of controlled trials conducted in the 1960s and 1970s showed that psychoanalytically oriented psychotherapy was ineffective, and at times even harmful, for patients with schizophrenia (6, 7).

For many years thereafter, it seemed self-evident that symptoms of schizophrenia simply would not respond to any kind of individual psychotherapy. At best, it was a waste of time to try to "talk patients out of" their delusions or hallucinations. The net

result of such skepticism has been the recognition that any promising psychotherapeutic intervention requires extensive testing. Therefore, the proponents of cognitive behavior therapy for schizophrenia had a strong impetus to conduct randomized, controlled trials of this technique. As a result, the literature generated from randomized, controlled trials on the efficacy and effectiveness of cognitive behavior therapy for medication-resistant schizophrenia is larger than for any other individual psychotherapy of schizophrenia in recent history (8–14).

In 1996, Drury and colleagues (15) reported a randomized study of individual and group cognitive behavior therapy versus recreational activities and support (12 sessions over a maximum of 6 months) during and immediately following an acute psychotic episode. In this study, positive symptoms responded more quickly and completely in the group given cognitive behavior therapy, but these benefits were not durable over a longer period, i.e., 5 years, of follow-up (16). Bach and Hayes randomly assigned inpatients to a short course (four sessions) of a treatment based on cognitive behavior therapy that is known as “acceptance and commitment therapy,” and they reported a significantly lower readmission rate within the first 4 months after discharge (17) but have not reported on longer-term follow-up. A further randomized clinical trial by Kuipers and colleagues targeted “stabilized” outpatients experiencing “distressing” psychotic symptoms who were assigned either to a course of 20 cognitive behavior therapy sessions given by expert clinical psychologists over 9 months or to treatment as usual (18). The cognitive behavior therapy group had a greater overall reduction of psychiatric symptoms and a better categorical response rate (50% versus 31% improvement rate).

Some of the limitations of these early prospective studies of cognitive behavior therapy for schizophrenia included 1) relatively small numbers of patients, 2) absence of psychotherapy comparison groups, 3) lack of blinded independent research assessors, and 4) lack of fidelity ratings of therapy sessions. While the magnitude of the effects of cognitive behavior therapy in many of these trials was modest, these findings challenged the belief that psychotic symptoms are not amenable to verbal interventions and were encouraging enough to support further research on the efficacy and effectiveness of cognitive behavior therapy for schizophrenia. The overall pattern of results favoring cognitive behavior therapy over usual care seen in these earlier studies was encouraging and set the stage for another generation of more sophisticated, rigorous

randomized, controlled trials of cognitive behavior therapy for schizophrenia.

Two important studies addressed the concern about the specificity of cognitive behavior therapy over and above nonspecific benefits of supportive psychotherapy. Following previous work using enhancement of problem solving and coping strategies (19, 20), Tarrier and colleagues used a three-arm design to test an intensive short-term program of cognitive behavior therapy. They delivered two sessions of cognitive behavior therapy per week over 10 weeks for a cohort of symptomatic but compliant outpatients with schizophrenia. There were two comparison groups, one that received an active treatment (the same number of supportive counseling sessions given over the same time) and one that received routine care (21). The results at the end of therapy showed the greatest improvement in number and severity of positive symptoms in the group that received cognitive behavior therapy, less improvement in the supportive counseling group, and slight deterioration with routine care. However, the improvements favoring cognitive behavior therapy over supportive counseling were not sustained on long-term follow-up. After 1 year (22) and 2 years (23), both therapy groups were comparably less likely to relapse than the group given routine care.

A different pattern of specificity was observed in another randomized, controlled trial using an active psychotherapy comparison group. Sensky and colleagues compared 9 months of cognitive behavior therapy with “befriending,” a supportive therapy designed to control for nonspecific therapy factors, including the time spent with the subjects (24). After 9 months of therapy, there was no benefit of cognitive behavior therapy over befriending; both groups had made substantial improvements in depressive, positive, and negative symptoms. However, in contrast to the study by Tarrier et al., this trial indicated that the benefit from cognitive behavior therapy was more durable than that from befriending. The patients who received cognitive behavior therapy continued to show symptom improvement during the next 9 months while the scores of the befriending group began to return to their previous levels. These data therefore suggest a moderately strong nonspecific effect in the psychological treatment of patients with schizophrenia. However, at least in the case of befriending, clinical benefits appear to exhibit less durability.

## MEDICATION ADHERENCE TRIALS

Most of the studies on cognitive behavior therapy excluded patients who were judged not to be adhering to their regimens of antipsychotic medication

and therefore not suitable for estimating adherence effects. There are a few randomized, controlled trials that used adherence rather than persistent symptoms as the primary outcome, and the results have been inconsistent (14). Kemp and colleagues conducted a study of a brief intervention using cognitive behavior therapy for acute inpatients in which the goal was to improve medication adherence after discharge (25). Their final cohort consisted of 74 inpatients treated for an acute psychotic episode who were randomly assigned either to supportive counseling or to six sessions of “compliance therapy” during hospitalization plus outpatient booster sessions. The patients assigned to compliance therapy had better adherence and fewer relapses than those assigned to supportive counseling (35% versus 60% relapse rate; hazard ratio = 2.1) (26). A study from Ireland failed to replicate the efficacy of compliance therapy (27) in relation to that for a supportive psychotherapy control group, although it is unclear whether the intervention included the components of cognitive behavior therapy that were used in the original study. Despite the inconsistency, the efficacy of cognitive behavior therapy for improving medication adherence seems to be more promising than that of traditional individual psychoeducation approaches, which have been consistently disappointing in their failure to show adherence benefits (28).

## EFFECTIVENESS TRIALS

More recently, a series of “real-world” effectiveness studies have been published. Gumley and colleagues showed relapse prevention benefits from using cognitive behavior therapy for identifying prodromal signs of relapse (29). Durham and colleagues found modest benefits in relapse prevention and positive symptom control with cognitive behavior therapists who had limited prior training and supervision in cognitive behavior therapy for psychosis (30), although methodological problems make these findings equivocal. Further studies have shown that cognitive behavioral techniques can be used effectively in clinical practice by mental health nurses (31) given brief (2–3-week) training with ongoing clinical supervision. Overall, therefore, the studies of the effectiveness of cognitive behavior therapy generally favor the cognitive behavioral intervention, albeit less strongly than some of the predecessor efficacy trials.

## LIMITATIONS OF CURRENT EFFICACY LITERATURE

The literature on cognitive behavior therapy has been favorable enough to make use of this interven-

tion for schizophrenia a treatment recommendation in the United Kingdom. However, the evidence from the literature on cognitive behavior therapy is not definitive. There remain issues in interpreting the specificity of cognitive behavior therapy as well as the durability of any benefit beyond the period of the intervention itself. For example, the Tarrier studies demonstrated short-term specificity of the effect for cognitive behavior therapy over and above that of supportive counseling, but they did not show durability of that effect (22, 23). In contrast, the Sensky study showed just the opposite. This study failed to show short-term benefits from cognitive behavior therapy over and above those from befriending but did show greater durability of the improvements from the cognitive behavioral intervention (24). The reason for the contradictory findings is not known and therefore is unresolved. These unanswered questions point to the need for other randomized, controlled trials focusing on the specificity and durability of any putative benefits of cognitive behavior therapy.

Given these remaining uncertainties about the efficacy of cognitive behavior therapy in the United Kingdom, there are a number of questions when considering how to interpret the evidence for a U.S. treatment environment. There has been a dearth of controlled studies of the efficacy of cognitive behavior therapy for schizophrenia in the United States. The feasibility of transferring cognitive behavior therapy as currently practiced in the United Kingdom to U.S. practice settings is unknown, although successful U.S. and Canadian pilot projects are emerging (32–35). Nonetheless, it seems reasonable that greater consideration be given within the U.S. mental health system to supporting research and services to better understand the possible role of cognitive behavior therapy as a treatment option for persons with schizophrenia.

## KEY TECHNIQUES

Cognitive behavior therapy as practiced for schizophrenia is not identical to that used for depression or anxiety disorders (36). Rather, the techniques are modified to address some of the specific limitations imposed by the illness (e.g., cognitive dysfunction) or its secondary effects (e.g., stigma and loss). This section is meant to be illustrative rather than comprehensive and focuses more on cognitive behavioral techniques that differ from those of other approaches (37). Some of the key stages of cognitive behavior therapy include 1) developing a therapeutic alliance based on the patient’s perspective, 2) developing alternative explanations of schizophrenia symptoms, 3) reducing

the impact of positive and negative symptoms, and 4) offering alternatives to the medical model to address medication adherence.

Ideally, cognitive behavior therapy for schizophrenia should consist of at least 10 planned sessions over 6 months with specially trained therapists for patients who are referred because of persistent symptoms after an initial course of pharmacotherapy and supportive treatment (38).

### DEVELOPING A THERAPEUTIC ALLIANCE BASED ON THE PATIENT'S PERSPECTIVE

A therapeutic alliance is essential to any successful psychotherapy, including cognitive behavior therapy. Basic techniques include developing empathy, respect, unconditional positive regard, and honesty. One of the cardinal features of cognitive behavior therapy is its focus on subjective and behavioral connections among the patient's beliefs, feelings, and actions, irrespective of whether these beliefs are "reality based." The approach involves collaboration without preconceived ideas through guided discovery (39, 40) and understanding of the person's experiences and beliefs.

The following example illustrates how a clinician with a cognitive behavioral orientation might respond when a patient describes a delusional belief:

Patient: "The Mafia has my house under surveillance!"

Clinician: "Well, that is possible. . . . But why do you think it is the Mafia? Could it be some other organization? Or is something else happening altogether? How could we find out?"

The clinician oriented in cognitive behavior therapy is interested in the specifics of the patient's experience. He or she tries to learn more about them and does not challenge the patient's beliefs while at the same time being careful not to collude with the delusion. In contrast, a clinician using a biomedical approach would be more likely to ignore the specific content of the delusion and, rather, discuss the delusion as a symptom of a neurobiologic disorder.

### DEVELOPING ALTERNATIVE EXPLANATIONS OF SYMPTOMS

Cognitive behavior therapy explores and develops the patient's own understanding of his or her symptoms. The goal is to find explanations of the patient's experiences that are acceptable to both patient and clinician. It aims to improve understanding of the psychosis by using a vulnerability-stress model. Strengths and vulnerabilities are identified. The antecedent period is explored carefully, any

pertinent stressors are elicited, and the possible effects of stress are discussed. A formulation is drawn up collaboratively, with care to ensure that neither the patient nor the patient's caregiver is led to feel he or she is to blame for the symptoms or the illness. The following example illustrates working toward such a collaborative formulation:

Clinician: "Can you tell me your understanding of these voices that you hear?"

Patient: "Well, they started during the Bosnian war. There was a lot of aircraft activity over my house. Some sort of military transmission from the planes set it off and it has continued since."

Clinician: "Do you remember much about what was happening to you at the time?"

Patient: "I know what you are trying to say. It is all in my mind."

Clinician: "Well, we agreed that you hear somebody talking. . . . What is causing it seems less clear. . . . I accept that this started when aircraft were going over your house. However, do you think the sort of voices you hear could be worsened by loud noise and other things?"

Patient: "What sort of other things?"

Clinician: "Well, for example, it is known that people who are deprived of sleep for substantial periods—maybe from the stress of loud noises—can hear voices, among other things. These voices can sound just like the ones you describe. Some people describe it rather like dreaming awake or even a "living nightmare."

Initially, such alternative explanations may be considered by the patient but not necessarily accepted. With time, however, explanations that are mutually acceptable to both the patient and therapist may evolve (40).

### REDUCING THE IMPACT OF POSITIVE SYMPTOMS

The goal of cognitive behavior therapy is not to try to persuade or force the patient to agree that he or she has symptoms of a mental illness. Rather, the goal is to reduce the severity of, or distress from, the symptom regardless of whether the patient accepts a diagnostic label.

Delusions are appropriate targets for a collaborative formulation approach. One commonly used technique to start the formulation process is known as "peripheral questioning" (41). The clinician begins by asking a series of peripheral questions about the person's belief system, with the goal of understanding how the patient arrived at his or her convictions (e.g., "How could others control your thoughts? What mechanism would they use?"). Peripheral questioning is linked with graded reality testing, which in turn can lead to the introduction

of doubt and the generation of alternative hypotheses. Education about real-world issues can help patients understand the factual assumptions made to support their belief systems (e.g., “Can microchips really be inserted without your knowledge when you are asleep?”). Such ideas can be explored with appropriate homework exercises (e.g., “Shall we find out—perhaps on the Internet—what we can about the use of microchips in operations? Also we could check about regulations concerning such operations”).

For more systematized delusions, the clinician can use “inference chaining” (42). This technique involves a process of looking for the key personalized meaning underlying a delusion, e.g., it can be used to respond to a statement like “I am the Second Coming of Christ.” A reply might be, “What does that [being the Second Coming of Christ] mean to you?” Should the patient reply, “It means that the world will be put to rights,” the subsequent question might be, “Why is that so important to you personally?” The immediate answer, “All the wrongs from the past will be judged,” could be followed with, “And why is that so important?” The subsequent response, “I was always being bullied at school,” would represent a successful use of inference chaining. In this case, the patient was a victim of bullying at school and responded to this traumatic experience by always demanding “fair” treatment. He became very paranoid shortly after being fired from a job for what he believed to be unfair reasons. Inference chaining identified this current feeling of life being unfair and his powerlessness in relation to it and allowed specific discussion of it. This process in a sense bypassed the delusion and resulted in constructive engagement and discussion and a lowering of his distress from his delusional beliefs.

Hallucinations can also be better understood by discussing the details of the experience. The clinician might start with, “Is it like somebody talking to you? Or shouting?” Testing out the exact location of the voices can follow, as well as other details, such as “Do other people hear their voices? If not, why not?” Discussion of circumstances in which people without mental illness hear voices can be relevant (“normalizing”). These symptoms can be provoked in “normal” people, for example, by sleep deprivation, sensory deprivation, bereavement, trauma, and solitary confinement (4). Normalizing is commonly used during the initial engagement with an acutely psychotic patient. Rather than try to explain that hallucinations are caused by a mental illness, a clinician using cognitive behavior therapy will often focus on the effects of stress, such as sleep deprivation (as in the preceding example). This may be exacerbating or even triggering the patient’s hallucinations. This explanation often

brings improved understanding and hope, as well as reducing the sense of alienation from others. The functions of medication are described as improving sleep and acting directly on overactive regions of the brain.

Beliefs about the voices themselves can include omnipotence and omniscience (43). The content of voices can be usefully debated; for instance, if the voices are making abusive statements, the accuracy of these statements can be debated. Often patients are deeply ashamed and embarrassed by the voice content and will avoid social interaction because of the possibility that others might hear what the voices are saying. The “voice hearing” experience may be better understood by using a “voice diary” to look for variation among different points in the day or among different activities. Situations that trigger an increase in voice intensity can be identified, with the generation of improved coping strategies. Affective responses to hearing voices (usually anger and anxiety) are often linked to unhelpful behaviors that maintain and exacerbate the voices. Once this pattern is identified, patients can gradually learn to engage more constructively with their voices. Patients can be trained to take a mindfulness approach to their voices, leading to acceptance and increased commitment to tackling normal day-to-day activities (17).

## RELATIONSHIP TO MEDICATION MANAGEMENT

One of the potential concerns is whether cognitive behavior therapy can be misunderstood as a substitute for antipsychotic medication, rather than an addition to it. Another possible concern is whether a complication of a cognitive behavioral approach is medication nonadherence among patients who otherwise would remain adherent to their medication, possibly by underemphasizing the relationship between symptoms and antipsychotic medication. There is no evidence that this is a complication of cognitive behavior therapy. In fact, while better adherence was not an outcome in the studies of treatment-resistant schizophrenia, some reviews showed better retention in the groups receiving cognitive behavior therapy than in groups receiving other supportive therapies (14).

Persistent denial of illness is the strongest predictor of medication nonadherence (44–49). Cognitive behavior therapy does not insist on acceptance of a diagnosis of schizophrenia. An agreement can be reached that treatment, both psychological and psychopharmacological, may be helpful to counter the continuing negative effects of past traumatic events, sensitivity to stress, or even use of illicit drugs, without forcing the issue of acceptance or rejection of a diagnostic label.

## CLINICAL LIMITATIONS

Not surprisingly, cognitive behavior therapy is not effective for all patients. Some are simply too thought disordered or agitated to use cognitive behavior therapy, although the effect of medication may lead them to become more amenable to treatment. Some may be too paranoid and unable to form a viable therapeutic alliance. There is no evidence at the current time that cognitive behavior therapy is of benefit for patients who consistently refuse antipsychotic medication. Differences between the cultural backgrounds of the clinician and the patient may also be problematic; for instance, there is some evidence of this in the United Kingdom, where therapists who were not African Caribbean were found to be less effective with African Caribbean than with white patients (50). There may be cultural barriers to forming an alliance or developing shared formulations.

There remain considerable barriers to implementation, especially when cognitive behavior therapy is not considered a standard psychosocial intervention for schizophrenia. The training experience in the United Kingdom indicates that learning basic cognitive behavior therapy for schizophrenia requires a minimum of 2 weeks of intensive training plus ongoing supervision with an expert cognitive behavior therapy supervisor for clinicians who are already experienced in treating schizophrenia (31). Introduction of cognitive behavior therapy is often met with skepticism, ranging from therapeutic nihilism (e.g., “individual psychotherapy of any form cannot work for schizophrenia” or “people with schizophrenia are too cognitively impaired for psychological approaches”) to concerns about some of the specific techniques used (e.g., concern that normalizing the interpretation of symptoms represents collusion with the patient’s denial of illness) (51).

## DIFFERENCES FROM OTHER INDIVIDUAL PSYCHOTHERAPIES

### SUPPORTIVE (REALITY-BASED) PSYCHOTHERAPY

Supportive psychotherapy, which is an accepted approach for helping patients with schizophrenia, deals with the loss, disability, and stigma arising from having to live with an illness such as schizophrenia (37). A major difference between cognitive behavior therapy and supportive psychotherapy is that cognitive behavior therapy uses specific techniques with the goal of actively reducing the severity of some of the core symptoms leading to distress and disability.

## BIOMEDICAL MODEL PSYCHOEDUCATION

Current views characterizing schizophrenia as a brain disorder have dictated the use of a biomedical orientation for psychoeducation (52). Biomedical models share the concept of a specific diagnosis that has a final common pathway in significant abnormalities in CNS functioning. The potential complications that arise from communicating this concept may not be fully appreciated. Patients who accept a diagnostic label of schizophrenia have more depressive symptoms than those who do not (50). Investigators in two European studies using a randomized design found that the psychoeducation group experienced more depressive symptoms (53) and even suicidal ideation (54), and they expressed caution about using psychoeducation because of these risks. Cognitive behavior therapy tends to be more focused on symptoms than diagnosis and may help the patient accept necessary treatment without at the same time risking a worsening of affective and suicidal symptoms (24, 31). Cognitive behavior therapy is perhaps more acceptable—or less demoralizing—for patients struggling with the personal meaning of what is happening to them.

## PERSONAL THERAPY

In the 1990s, Hogarty and colleagues developed and tested an individual psychotherapy known as “personal therapy” (55, 56). Personal therapy is a phase-specific individual treatment containing elements of psychoeducation, social skills training, and work on medication adherence (57). Psychoeducation, a cornerstone of personal therapy, is based on a biomedical model of illness causation, and so many of the key components of cognitive behavior therapy are not included in personal therapy, e.g., developing explanations for psychotic symptoms, normalizing, reality testing, and formulation. Unlike personal therapy, cognitive behavior therapy is designed to work directly on understanding and coping with the positive symptoms of psychosis rather than “containing” them (57).

## COGNITIVE REMEDIATION

Cognitive behavior therapy and cognitive remediation share the term “cognitive,” but they are very different treatments. Cognitive remediation is a rehabilitation approach whose techniques are adapted from the literature on brain injury. Schizophrenia is associated with cognitive deficits that impair social and occupational functioning (58). The goal of cognitive remediation is to improve neurocognitive function and teach patients strategies to

compensate for deficits (59). Cognitive remediation and cognitive behavior therapy share a hopeful, optimistic approach that focuses on the patients' strengths. Cognitive remediation directly works toward improving neurocognitive functioning by using a model of brain injury and neuronal plasticity, whereas cognitive behavior therapy works through understanding the personal meaning of the content of the thoughts, sometimes known as "metacognition" or "thinking about thoughts."

### **PSYCHOANALYTICALLY ORIENTED PSYCHOTHERAPY**

Cognitive behavior therapy differs from classic psychoanalytic therapies in that family conflicts and issues in childhood are viewed to be less causally related to schizophrenia. The classic psychodynamic therapy of schizophrenia as practiced in an earlier era uses free association within an open therapeutic space to allow the emergence of transference and countertransference phenomena. Patients with psychotic symptoms usually cannot tolerate an unstructured therapeutic environment, and classic psychoanalysis may therefore be too regressive for the psychotic patient (6). The structure and approach of cognitive behavior therapy in this regard are completely different. There remain some techniques that are shared by cognitive behavior therapy and more modern psychoanalytically oriented psychotherapy of schizophrenia. Both focus on the therapeutic relationship and the personal meaning of psychotic symptoms. However, a cognitive behavioral approach tends to be more structured and explicitly collaborative.

### **COMBINATIONS AND CONTRAINDICATIONS**

Cognitive behavior therapy can be used alongside most biologic models of schizophrenia. It is perfectly acceptable for a psychiatric practitioner to believe in a biologic/medical causation of schizophrenia and still embrace a cognitive behavioral model to use with patient care. Although a cognitive behavioral approach would not contradict a biologic point of view in a patient whose personal explanation fits that model, it does not insist on it for patients who prefer other explanations. Therefore, cognitive behavior therapy is not compatible with any kind of biomedically based intervention that requires using the diagnostic label "schizophrenia," forbids any exploration of a personal meaning (formulation) of psychotic symptoms, or precludes the possibility of meaningful recovery. On the other hand, cognitive behavior and personal ther-

apy seem contradictory and incompatible. Similarly, cognitive behavior therapy and psychodynamic therapy, as currently practiced, seem technically too different at least to be offered simultaneously, despite some commonality in relation to exploring meaning and developing the therapeutic relationship. Cognitive behavior therapy and cognitive remediation are more compatible because of their different and complementary goals, although one should be mindful of not overtaxing patients with two simultaneous interventions, both of which require homework and active participation.

### **DIFFERENCES BETWEEN THE UNITED KINGDOM AND UNITED STATES**

Although it is not universally available in the United Kingdom, cognitive behavior therapy for schizophrenia appears to be more widely practiced there than in the United States. The fundamental reasons for the transatlantic difference certainly do not include the locations from whence the ideas underlying the cognitive behavioral approach have come. The history of American psychiatry in the last century includes many leading figures who made contributions to the psychological approach to patients with schizophrenia that are now part of the fundamentals of the cognitive behavioral approach to schizophrenia—Adolf Meyer, Harry Stack Sullivan, Leston Havens, John Strauss, and Aaron Beck. For example, Meyer was concerned about the problems of diagnostic labeling and wrote, "It is unfortunate that Kraepelin turned the attention of psychiatry [toward having] more concern for the fortune-telling role of the physician than for the benefit of the patient" (60, p. 292). Sullivan emphasized the importance of being interested in the personal meaning of psychotic symptoms and warned that ignoring the content of the patient's delusions could be misinterpreted by the patient as a confirmation of those very beliefs (61). Sullivan also promoted the concept of normalization and the importance of interpersonal relationships in therapy (61). Sullivan's work was further developed by Havens (51, 62), who introduced many of the specific techniques, such as normalizing, that are now cornerstone features of cognitive behavior therapy.

Given this history on the American side of the Atlantic, the question becomes, Why has there been so little interest in the United States in cognitive behavior therapy for schizophrenia? We hypothesize that part of the explanation of the resistance to the use of psychotherapy in the treatment of schizophrenia in the United States comes from historical differences between psychiatry in the

United Kingdom and the United States. In the United States, between the 1950s and the 1980s the treatment of schizophrenia was a central focus of an acrimonious battle between the early generation of biologic psychiatrists and psychoanalysts. The outcome of this struggle was that antipsychotic medications became recognized as the primary treatment for schizophrenia, but the fallout was an almost complete disavowal of interest in any kind of individual psychotherapy for the treatment of schizophrenia on the American side of the Atlantic. In contrast, neither psychoanalysis nor biological psychiatry has ever had the same dominance in British psychiatry, so the academic atmosphere in the United Kingdom may have been more open to continued work on individual psychotherapy for schizophrenia (63, 64).

Another aspect of the discrepancy in support for research on cognitive behavior therapy has been the difference in the approaches to health care research and delivery, i.e., the presence in the United Kingdom of universal health care and its absence in the United States. The U.K. National Health Service encourages multidisciplinary research and clinical practice. Such control over service delivery makes standardization of mental health training and licensing much more feasible in the United Kingdom than the United States.

## NEW DIRECTIONS

The effectiveness of cognitive behavior therapy is being evaluated in patients with comorbid alcohol or substance abuse (65, 66), in combination with atypical antipsychotics (67), and in the earlier stages of schizophrenia (68, 69). Further, cognitive behavior therapy may have a role in preventing or delaying transition from a preschizophrenia state to a full-blown diagnosis of schizophrenia (70, 71).

## DISCUSSION

Evidence-based interventions such as cognitive behavior therapy should be made available to patients with schizophrenia in the United States. American-based guidelines such as those issued by the American Psychiatric Association (72) and the Schizophrenia Patient Outcomes Research Team (PORT) (73) may accelerate this process, as they now recommend cognitive behavior therapy for treatment-resistant patients. Further research is urgently needed, especially in the United States, but it would seem appropriate to target research questions that are most pertinent to the U.S. treatment environment. For example, it would be important to adapt current treatment manuals for cognitive

behavior therapy to match the mental health training backgrounds of U.S. practitioners and to design active control interventions that emulate current psychosocial or psychoeducational practices in the United States. It seems no longer appropriate for providers of treatment for schizophrenia in the United States to ignore the current evidence supporting the efficacy of cognitive behavior therapy. Yet, conversely, it would be imprudent to uncritically accept and inflexibly transplant this approach from the United Kingdom to the United States.

There appears to be a clinically significant benefit of cognitive behavior therapy for patients with ongoing persistent symptoms of schizophrenia. If patients with medication-resistant schizophrenia are to have any chance of receiving individual cognitive behavior therapy from well-trained mental health clinicians within the U.S. treatment service environment, a major change in attitudes, research funding, and training programs will be needed. The implications for training go beyond the production of specialist cognitive behavior therapists. Although specialists are needed as expert clinicians, supervisors, and trainers, the use of cognitive behavioral techniques is well within the scope of practicing clinical psychiatrists, psychologists, and community mental health professionals (74). There should be greater knowledge of the possible complications arising from the biomedical model of psychoeducation and of the existence of high-quality evidence supporting the efficacy and effectiveness of cognitive behavior therapy for schizophrenia. If the promise of cognitive behavior therapy for schizophrenia is replicated in the United States, it will represent a major advance that can supplement the better-known pharmacological advances available for this difficult illness.

## REFERENCES

1. Beck AT: Successful outpatient psychotherapy of a chronic schizophrenic with a delusion based on borrowed guilt. *Psychiatry* 1952; 15:305-312
2. Tarrier N, Harwood S, Yussuf L: Coping strategy enhancement (CSE): a method of treating residual schizophrenic symptoms. *Behav Psychother* 1990; 18:643-662
3. Chadwick P, Lowe CF: Measurement and modification of delusional beliefs. *J Consult Clin Psychol* 1990; 58:225-232
4. Kingdon DG, Turkington D: The use of cognitive behavior therapy with a normalizing rationale in schizophrenia: preliminary report. *J Nerv Ment Dis* 1991; 179:207-211
5. Milton F, Patwa VK, Hafner RJ: Confrontation vs belief modification in persistently deluded patients. *Br J Med Psychol* 1978; 51: 127-130
6. Stanton AH, Gunderson JG, Knapp PH, Frank AF, Vannicelli ML, Schnitzer R, Rosenthal R: Effects of psychotherapy in schizophrenia, I: design and implementation of a controlled study. *Schizophr Bull* 1984; 10:520-563
7. Gunderson JG, Frank AF, Katz H, Vannicelli ML, Frisch JP, Knapp PH: Effects of psychotherapy in schizophrenia, II: comparative outcomes of two forms of treatment. *Schizophr Bull* 1984; 10:564-598
8. Rector NA, Beck AT: Cognitive behavioral therapy for schizophrenia: an empirical review. *J Nerv Ment Dis* 2001; 189:278-287
9. Cormac I, Jones C, Campbell C: Cognitive behaviour therapy for schizophrenia. *Cochrane Database Syst Rev* 2002; (1): CD000524

10. Bustillo JR, Lauriello J, Horan WP, Keith SJ: The psychosocial treatment of schizophrenia: an update. *Am J Psychiatry* 2001; 158:163–175
11. Tarrier N, Wykes T: Is there evidence that cognitive behaviour therapy is an effective treatment for schizophrenia? a cautious or cautionary tale? *Behav Res Ther* 2004; 42:1377–1401
12. Gaudiano BA: Cognitive behavior therapies for psychotic disorders: current empirical status and future directions. *Clin Psychol* 2005; 12:33–50
13. Gould RA, Mueser KT, Bolton E, Mays V, Goff D: Cognitive therapy for psychosis in schizophrenia: an effect size analysis. *Schizophr Res* 2001; 48:335–342
14. Pilling S, Bebbington P, Kuipers E, Garety P, Geddes J, Orbach G, Morgan C: Psychological treatments in schizophrenia, I: metaanalysis of family interventions and cognitive-behavior therapy. *Psychol Med* 2002; 32: 763–782
15. Drury V, Birchwood M, Cochrane R, Macmillan F: Cognitive therapy and recovery from acute psychosis: a controlled trial, I: impact on psychotic symptoms. *Br J Psychiatry* 1996; 169:593–601
16. Drury V, Birchwood M, Cochrane R: Cognitive therapy and recovery from acute psychosis: a controlled trial, 3: five-year follow-up. *Br J Psychiatry* 2000; 177:8–14
17. Bach P, Hayes SC: The use of acceptance and commitment therapy to prevent the rehospitalization of psychotic patients: a randomized controlled trial. *J Consult Clin Psychol* 2002; 70:1129–1139
18. Kuipers E, Garety P, Fowler D, Dunn G, Bebbington P, Freeman D, Hadley C: London-East Anglia randomised controlled trial of cognitive-behavioural therapy for psychosis, I: effects of the treatment phase. *Br J Psychiatry* 1997; 171:319–327
19. Tarrier N, Beckett R, Harwood S, Baker A, Yusupoff L, Ugarteburu I: A trial of two cognitive-behavioural methods of treating drug-resistant residual psychotic symptoms in schizophrenic patients, I: outcome. *Br J Psychiatry* 1993; 162:524–532
20. Tarrier N, Sharpe L, Beckett R, Harwood S, Baker A, Yusupoff L: A trial of two cognitive behavioural methods of treating drug-resistant residual psychotic symptoms in schizophrenic patients, II: treatment-specific changes in coping and problem-solving skills. *Soc Psychiatry Psychiatr Epidemiol* 1993; 28:5–10
21. Tarrier N, Yusupoff L, Kinney C, McCarthy C, Gledhill A, Haddock G, Morris J: Randomised controlled trial of intensive cognitive behaviour therapy for patients with chronic schizophrenia. *BMJ* 1998; 317:303–307
22. Tarrier N, Wittkowski A, Kinney C, McCarthy C, Morris J, Humphreys L: Durability of the effects of cognitive-behavioural therapy in the treatment of schizophrenia: 12-month follow-up. *Br J Psychiatry* 1999; 174:500–504
23. Tarrier N, Kinney C, McCarthy E, Humphreys L, Wittkowski A, Morris J: Two-year follow-up of cognitive-behavioral therapy and supportive counseling in the treatment of persistent symptoms in chronic schizophrenia. *J Consult Clin Psychol* 2000; 68:917–922
24. Sensky T, Turkington D, Kingdon D, Scott JL, Scot J, Siddle R, O'Carroll M, Barnes TRE: A randomized controlled trial of cognitive-behavioral therapy for persistent symptoms in schizophrenia resistant to medication. *Arch Gen Psychiatry* 2000; 57:165–172
25. Kemp R, Hayward P, Applewhaite G, Everitt B, David A: Compliance therapy in psychotic patients: randomised controlled trial. *BMJ* 1996; 312:345–349
26. Kemp R, Kirov G, Everitt B, Hayward P, David A: Randomised controlled trial of compliance therapy: 18-month follow-up. *Br J Psychiatry* 1998; 172:413–419
27. O'Donnell C, Donohoe G, Sharkey L, Owens N, Migone M, Harries R, Kinsella A, Larkin C, O'Callaghan E: Compliance therapy: a randomised controlled trial in schizophrenia. *BMJ* 2003; 327:834
28. Zigmunt A, Olsson M, Boyer CA, Mechanic D: Interventions to improve medication adherence in schizophrenia. *Am J Psychiatry* 2002; 159: 1653–1664
29. Gumley A, O'Grady M, McNay L, Reilly J, Power K, Norrie J: Early intervention for relapse in schizophrenia: results of a 12-month randomized controlled trial of cognitive behavioural therapy. *Psychol Med* 2003; 33:419–431
30. Durham RC, Guthrie M, Morton RV, Reid DA, Treliving LR, Fowler D, Macdonald RR: Tayside-Fife clinical trial of cognitive-behavioural therapy for medication-resistant psychotic symptoms: results to 3-month follow-up. *Br J Psychiatry* 2003; 182:303–311
31. Turkington D, Kingdon D, Turner T: Effectiveness of a brief cognitive-behavioral therapy intervention in the treatment of schizophrenia. *Br J Psychiatry* 2002; 180:523–527
32. Rector NA, Seeman MV, Segal ZV: Cognitive therapy of schizophrenia: a preliminary randomized controlled trial. *Schizophr Res* 2003; 63:1–11
33. Temple S, Ho B: Cognitive therapy for persistent psychosis in schizophrenia: a case-controlled clinical trial. *Schizophr Res* 2005; 74: 195–199
34. Cather C, Penn D, Otto MW, Yovel I, Mueser KT, Goff DC: A pilot study of functional cognitive behavioral therapy (fCBT) for schizophrenia. *Schizophr Res* 2005; 74:201–209
35. Granholm E, McQuaid JR, McClure FS, Auslander LA, Perivoliotis D, Pedrelli P, Patterson T, Jeste DV: A randomized, controlled trial of cognitive behavioral social skills training for middle-aged and older outpatients with chronic schizophrenia. *Am J Psychiatry* 2005; 162:520–529
36. Kingdon DG, Turkington D: *Cognitive Therapy of Schizophrenia: Guides to Evidence-Based Practice*. New York, Guilford, 2005
37. Kates J, Rockland LH: Supportive psychotherapy of the schizophrenic patient. *Am J Psychother* 1994; 48:543–561
38. National Institute for Clinical Excellence: *Clinical Guideline 1: Schizophrenia—Core Interventions in the Treatment and Management of Schizophrenia in Primary and Secondary Care*. London, National Institute for Clinical Excellence, 2002
39. Beck AT, Rush AJ, Shaw B: *Cognitive Therapy of Depression*. New York, Guilford, 1979
40. Romme M, Escher A: Hearing voices. *Schizophr Bull* 1989; 15: 209–216
41. Turkington D, Siddle R: Cognitive therapy for the treatment of delusions. *Advances in Psychiatr Treatment* 1998; 4:235–242
42. Turkington D, Kingdon D: Cognitive-behavioural techniques for general psychiatrists in the management of patients with psychoses. *Br J Psychiatry* 2000; 177:101–106
43. Chadwick P, Birchwood M: The omnipotence of voices: a cognitive approach to auditory hallucinations. *Br J Psychiatry* 1994; 164:190–201
44. Appelbaum PS, Gueheil TG: Drug refusal: a study of psychiatric inpatients. *Am J Psychiatry* 1980; 137:340–346
45. McEvoy JP, Appelbaum PS, Apperson LJ, Geller JL, Freter S: Why must some schizophrenic patients be involuntarily committed? the role of insight. *Compr Psychiatry* 1989; 30:13–17
46. David AS: Insight and psychosis. *Br J Psychiatry* 1990; 156:798–808
47. Trauer T, Sacks T: The relationship between insight and medication adherence in severely mentally ill clients treated in the community. *Acta Psychiatr Scand* 2000; 102:211–216
48. Kemp R, David AS: Insight and adherence to treatment in psychotic disorders. *Br J Hosp Med* 1995; 54:222–227
49. Kemp R, David AS: Psychological predictors of insight and compliance in psychotic patients. *Br J Psychiatry* 1996; 169:444–450
50. Rathod S, Kingdon DG, Turkington D, Smith P: Insight into schizophrenia: the effects of cognitive behavioral therapy on the components of insight and association with sociodemo-graphics—data on a previously published randomised controlled trial. *Schizophr Res* 2005; 74:211–219
51. Weiden PJ, Havens LL: Psychotherapeutic management techniques in the treatment of outpatients with schizophrenia. *Hosp Community Psychiatry* 1994; 45:549–555
52. Anderson CM, Reiss DJ, Hogarty GE: Schizophrenia in the family: a practitioner's guide to psychoeducation and management. *Schizophr Bull* 1980; 6:490–505
53. Carroll A, Fattah S, Clyde Z, Coffey I, Owens DG, Johnstone EC: Correlates of insight and insight change in schizophrenia. *Schizophr Res* 1999; 35:247–253
54. Owens DG, Carroll A, Fattah S, Clyde Z, Coffey I, Johnstone EC: A randomized, controlled trial of a brief interventional package for schizophrenic out-patients. *Acta Psychiatr Scand* 2001; 103:362–369
55. Hogarty GE, Kornblith SJ, Greenwald D, DiBarry AL, Cooley S, Ulrich RF, Carter M, Flesher S: Three-year trials of personal therapy among schizophrenic patients living with or independent of family, I: description of study and effects on relapse rates. *Am J Psychiatry* 1997; 154:1504–1513
56. Hogarty GE, Greenwald D, Ulrich RF, Kornblith SJ, DiBarry AL, Cooley S, Carter M, Flesher S: Three-year trials of personal therapy among schizophrenic patients living with or independent of family, II: effects on adjustment of patients. *Am J Psychiatry* 1997; 154:1514–1524
57. Hogarty GE: *Personal Therapy for Schizophrenia and Related Disorders: A Guide to Individualized Treatment*. New York, Guilford, 2002
58. Green MF: What are the functional consequences of neurocognitive deficits in schizophrenia? *Am J Psychiatry* 1996; 153:321–330
59. Green MF: Cognitive remediation in schizophrenia: is it time yet? *Am J Psychiatry* 1993; 150:178–187
60. Winters EE (ed): *The Collected Papers of Adolf Meyer, vol III: Medical Teaching*. Baltimore, Johns Hopkins Press, 1951
61. Sullivan HS: *Schizophrenia as a Human Process*. New York, WW Norton, 1962
62. Margulies A, Havens LL: The initial encounter: what to do first? *Am J Psychiatry* 1981; 138:421–428

