

# Group Cognitive-Behavioral Social Skills Training for Older Outpatients With Chronic Schizophrenia

Eric Granholm

John R. McQuaid

Lisa A. Auslander

Fauzia Simjee McClure

*Veterans Affairs San Diego Healthcare System  
and University of California, San Diego*

The number of older patients with schizophrenia is increasing rapidly. There is significant need for empirically validated psychotherapy interventions for these patients. Cognitive-behavioral and social skills training interventions have been shown to improve outcomes for younger patients with schizophrenia, but have not been studied in older patients. This article describes a group intervention for older patients with schizophrenia, cognitive-behavioral social skills training (CBSST), which we are currently studying in a randomized controlled clinical trial. CBSST teaches cognitive-behavioral coping techniques, social functioning skills, problem solving, and compensatory aids for neurocognitive impairments. We highlight special issues and specific techniques relevant to working with older patients, and discuss the costs and benefits of using a group rather than individual approach with this population. To illustrate the approach, two case examples with outcome data are presented.

There is significant need for the development of effective psychotherapy interventions for older patients with chronic schizophrenia. By 2020, Americans over age 45 will constitute 41% of the entire population (Jeste et al., 1999). The population of patients with psychotic disorders, like the general population, is also aging rapidly. In the absence of more effective interventions, this will mean a dramatic increase in the number of middle-aged and elderly patients with psychotic disorders (Jeste et al., 1999). Antipsychotic medications typically reduce positive symptoms, but a substantial proportion of patients with schizophrenia are non-adherent with medication (Fenton, Blyler, & Heinsen, 1997). In addition, even patients who experience reduced positive symptom severity do not necessarily experience improvements in functioning and quality of life. Empirically validated manualized psychosocial interventions that compliment pharmacotherapy for older schizophrenia patients are needed. This article describes

a group intervention for older patients with schizophrenia, cognitive-behavioral social skills training (CBSST), which we are currently studying in a randomized controlled clinical trial (Granholm, McQuaid, McClure, Pedrelli, & Jeste, 2002; McQuaid et al., 2000).

The articles in this special issue and several recent reviews (Cormac, Jones, Cambell, Silveira da Mota, & Neto 2002; Dickerson, 2000; Rector & Beck, 2001) have established that cognitive-behavioral therapy (CBT), which primarily challenges beliefs about delusions and hallucinations, is a promising new treatment for patients with schizophrenia. Several studies from the United Kingdom (Chadwick & Birchwood, 1994; Drury, Birchwood, Cochrane, & MacMillan, 1996; Garety, Kuipers, Fowler, Chamberlain, & Dunn, 1994; Kuipers et al., 1997, 1998; Sensky et al., 2000; Tarrrier, Beckett, et al., 1993; Tarrrier, Sharpe, et al., 1993) have shown that CBT can improve outcomes for patients with schizophrenia, when compared to standard treatment and supportive contact control conditions.

Social Skills Training (SST) is a related, but more behavioral, empirically validated psychosocial intervention for schizophrenia (Eckman et al., 1992). Whereas CBT focuses more on how beliefs affect behavior and mood, SST focuses more on practicing pragmatic skills of living. SST teaches interpersonal, symptom management, and problem solving skills. Behavioral and social learning principles are employed to train skills involving medication-management, early detection of symptoms, symptom self-management, coping with life stress, grooming and hygiene, interpersonal problem solving, and conversation skills. Goals of treatment are clearly specified, sessions are clearly planned, agendas are provided in manuals and patient workbooks, and homework (in vivo practice) assignments are given. Prepackaged SST modules are available (Psychiatric Rehabilitation Consultants, 1991), with manuals for therapist training, patient workbooks, and demonstration videos.

Findings from numerous studies of younger schizophrenia patients have documented the efficacy of SST for improving social skills (Heinssen, Liberman, & Kopelowicz, 2000). Benton and Schroeder (1990) conducted a meta-analysis of 27 studies of schizophrenia patients that used SST modules. They concluded that SST improved acquisition, durability, and generalization of social skills, improved social adaptive functioning, and, to a lesser extent, reduced length of hospital stay and reduced relapse rates.

### ISSUES AND STRATEGIES WITH OLDER PATIENTS

In prior studies of psychosocial treatments for schizophrenia, patients were typically younger than 50 years old with acute or pharmacologic treatment-resistant symptoms. We are not aware of any published research examining the efficacy of psychotherapy interventions in older patients with more chronic symptoms. Despite the limitations of existing medication treatment strategies and the inevitable increase in profound personal and societal cost associated with aging and schizophrenia, development and testing of psychosocial rehabilitation programs for older patients with schizophrenia has been unfortunately slow.

In designing CBT and SST interventions for older patients, several modifications are required to address the unique needs of older patients. Areán (1993) describes several factors relevant to working with the elderly in psychotherapy, which we have incorporated into CBSST. First, the educational, collaborative approach of interventions like CBT and SST are recommended as being more acceptable to older patients than other forms of psychotherapy. Our therapists, manuals, and workbooks refer to the CBSST group as a "class," because older patients are less likely to adhere to "therapy" than a "class," and older patients with chronic mental illness are reluctant to try yet another "group." Second, we incorporated an emphasis on repeated practice of basic procedures and neurocognitive compensatory aids (described below) to help compensate for neurocognitive decline associated with both schizophrenia and aging. Third, older patients often lose important supports as friends and relatives become disabled or die.

Psychosocial interventions for this population should address issues of loss, expanding social support and leisure activities, and improving interpersonal communication skills. Fourth, CBT can help in modifying ageist beliefs that interfere with treatment. Cohort-related beliefs can devalue therapy (e.g., "Don't air your dirty laundry"), and ageist beliefs held both by therapists and patients (e.g., "I'm too old to learn or change") may interfere with participation in therapy. Finally, older individuals are more likely to face chronic, unchanging stressors and persisting symptoms that require acceptance and adaptation to new situations (Gallagher-Thompson & Thompson, 1995). In particular, coping with subacute persisting symptoms, chronic medical problems, and dealing with sequelae of long-term antipsychotic medication treatment should be a focus of treatment.

### GROUP VERSUS INDIVIDUAL FORMAT

Despite the growth of research examining CBT for psychosis, only one published study of which we are aware examined group (as opposed to individual) CBT (Wykes, Parr, & Landau, 1999) and one study used both group and individual formats (Drury et al., 1996). The group model has several benefits relative to individual treatment. The group format is widely used in mental health clinics, which increases the likelihood that empirically validated group interventions will be successfully disseminated and acceptable to such sites. Groups are also cost-effective, because more patients can be treated by fewer therapists in group relative to individual formats. Social interaction in groups has several benefits, including providing social reinforcement for change and progress in skills building (e.g., completing homework assignments), enhancing social support systems (e.g., patients sometimes maintain contact with one another outside of group), and allowing a safe place to practice interpersonal communication skills. Groups can also provide a shared identity with others (i.e., healing power of connections with others: "me too," "not alone," and "common concern" influences). Confronting or observing mistakes in thinking in others can also improve insight into one's own symptoms. Finally, in open groups, more experienced group members model behavior and coach newer members, which promotes a sense of mastery in experienced members and provides believable models of improvement for newcomers.

One important disadvantage of group relative to individual CBT is that it is more difficult to develop fully a detailed case formulation for each patient in a highly structured group. There is less time to explore fully the unique content and history of each patient's delusional system and hallucinations in groups. However, it is possible for group leaders to integrate the development of a formulation into the group process. For example, the initial sessions of our groups focus on psychoeducation about schizophrenia. Group leaders describe how stress and coping influence positive symptoms and have each patient discuss their first break and their most recent episode, with an effort to highlight the life events that often precipitate episodes. The relationship between this life context and emerging beliefs about voices and delusional content is discussed. During this process, therapists use Socratic questioning to elucidate each patient's beliefs about their voices and delusional system. In this way, the therapists learn about how each patient understands and thinks about their hallucinations and/or delusion(s). This provides a rudimentary formulation for each group member. As treatment proceeds, this formulation is used to guide individualization of the structured homework assignments, as well as a tool for facilitating patient participation in group.

Group therapists working with schizophrenia patients also must be particularly skilled at managing time and focusing tangential or even disorganized interactions. It can be challenging to relate disorganized patient content back to the session topic, but this is a therapist skill that must be sharpened. In addition, it is often assumed that patients with severe paranoia might be too guarded in group interactions or show poor adherence to group interventions.

We have found it helpful for newer paranoid members to hear other more experienced, comfortable members share their symptoms. The therapists can ask more experienced members to share this during psychoeducation about the symptoms of schizophrenia. The "me-to" experience of learning that others are struggling with similar paranoia and other symptoms seems to normalize and override any fear or concern about persecution. This sharing of common symptoms and beliefs in group can be beneficial in such circumstances, but this can also present some challenges in other situations. For example, when the group brainstorms about alternative explanations for a delusional belief (alternatives therapy), it can be difficult for the group to generate alternative explanations, if several members share a common delusional belief. For example, when several patients share similar supernatural beliefs about voices (e.g., devil, voodoo, or witchcraft powers), we have found it helpful to first fully entertain the evidence for supernatural causes presented by the group. It is usually possible to reflect an understanding of why patients hold beliefs and to normalize their conclusions, without agreeing or disagreeing to them (e.g., communication with the dead, magic, voodoo, etc., are consistent with the belief systems of some cultures/subcultures). Following this normalization of supernatural alternatives, we have found the group setting can be helpful for generating contrary evidence and alternative explanations for beliefs. It is often easier for members to see flaws in the logic of others and generate alternatives in the absence of the emotional conviction that another member has attached to delusional beliefs.

### NEUROCOGNITIVE COMPENSATORY STRATEGIES

It is particularly important to address neurocognitive impairment in psychotherapy interventions designed for patients with schizophrenia, because moderate to severe neurocognitive impairment is common in this population. Addressing neurocognitive impairment is also an important aspect of interventions designed for the elderly (Areán, 1993; Gallagher-Thompson & Thompson, 1995). Several compensatory strategies are integrated into the CBSST intervention described below. First, multiple presentation modalities are used to provide information (writing extensively on dry-erase boards; posters; distributing laminated wallet cards describing skills; patient workbooks; group discussion; lecture). Second, simple mnemonic compensatory strategies are trained (e.g., use of schedule books, pocket pads, Post-it notes on the refrigerator; pill boxes). Several acronyms are taught to help patients remember skills (e.g., the "3Cs," "SCALE," described below). Mnemonic aids and environmental structuring strategies are also used to promote medication adherence (e.g., putting bottles where they will be noticed easily). We have found that older patients often have difficulty reading or understanding labels on medication bottles, so strategies involving relabeling bottles with larger font labels and color-coding bottles are provided. A third strategy, repetition of information, is a cornerstone of the intervention. Basic themes are repeated throughout the session and a summary is provided at the end of each session. As described below (Modular Treatment and Rolling Admissions section), the entire intervention content is presented twice. Finally, the therapist uses behavioral rewards to reinforce attention to task (e.g., answer questions, volunteer to read aloud), which may help compensate for motivational and attentional deficits.

### GROUP CBSST

The intervention integrates CBT and SST interventions and modifies these interventions for use with older patients with psychosis. Cognitive therapy is combined with role-play practice of communication skills and problem-solving training applied to everyday functioning

activities. Aids to compensate for neurocognitive impairment are included and the treatment manual includes a patient workbook. Age-relevant content modifications include challenging ageist beliefs (e.g., "I'm too old to learn"), age-relevant role-play situations (e.g., talking to a doctor about eyeglasses), and age-specific problem solving (e.g., finding transportation). CBSST, therefore, targets the multidimensional deficits that lead to disability in aging patients with schizophrenia.

The CBT components of the manual were based on (a) a manual developed by Muñoz and Miranda (1993); (b) general CBT techniques (Beck, Rush, Shaw, & Emery, 1979; Lewinsohn, Muñoz, Youngren, & Zeiss, 1986); (c) CBT techniques developed specifically for patients with schizophrenia (Kingdon & Turkington, 1994); and (d) techniques developed specifically for older patient populations (Areán, 1993). SST components were based on prepackaged SST interventions available from Psychiatric Rehabilitation Consultants (1991). The manual is divided into three modules, each providing training in a different skill set: (a) Thought Challenging; (b) Asking for Support; and (c) Problem-Solving. Each module has 4 sessions, for a total of 12 manualized sessions, but patients receive each module twice, for a total of 24 sessions. This repeated presentation of information is provided in an attempt to compensate for neurocognitive impairment. Doctoral-level psychologists or senior graduate students in clinical psychology provide the 24 sessions during 6 months in a group format in weekly 2-hour sessions (with a lunch break after the first hour). Groups are limited to a maximum of eight members.

### Modular Treatment and Rolling Admissions

It is difficult to engage this population in treatment. One obstacle to adherence with traditional group therapy is that several patients must be recruited to start simultaneously. This may require some group members to wait significant periods of time before initiating treatment, leading to prolonged suffering and reduced likelihood of participation. For example, if closed groups with a regimented sequence of 12 treatment weeks are used, patients would be required to wait as many as 12 weeks before entering treatment. Alternatively, completely open enrollment can be disruptive to group cohesion and process, and limits the structure that can be imposed on a group (e.g., organized progression through different topics that build upon one another). To address these issues, we use a modified rolling admissions design (Muñoz & Miranda, 1993). Participants can start at the beginning of any module. The modules are designed to be self-contained, including orientation to the group in the first session, and progression through relevant skills across sessions. Two groups can be run simultaneously, with staggered entry points (i.e., one group starts a module 2 weeks after the other group). As a result, the maximum wait time to enter one of the two groups is two weeks. A study of patients with depression at our site found no differences in attendance or outcome related to module entry point (McQuaid, Callaghan, Laumakis, Pedrelli, & Guarino, 1998). In our ongoing CBSST trial, participants complete all three modules twice. This procedure provides repeated exposure to the material to help compensate for neurocognitive impairment. This procedure may also improve self-efficacy, because patients who have already benefited from one exposure to the material often find it rewarding to demonstrate their skills and help teach newcomers who have not yet been exposed to the material.

### Thought-Challenging Module

Although the focus of this module is on cognitive therapy interventions, these techniques are also used when appropriate in the other two modules. Patients are introduced to the general concepts of CBT, including the relationship between thoughts, actions and emotion (generic cognitive model), automatic thoughts, thought challenging by examining evidence

for beliefs, and mistakes in thinking (e.g., jumping to conclusions, mind reading, all-or-none thinking). Through group discussion and homework assignments, patients are taught to identify thoughts, identify relationships between thoughts, feelings, and behaviors, and identify mistakes in thinking. Thought records are used to elucidate the relationship between situational triggers (e.g., people speaking outside my room) and thoughts (e.g., "They've come to hurt me") and subsequent changes in feelings (e.g., fear) or behaviors (e.g., isolation, aggression) in response to thoughts. Thoughts that lead to distressing feelings or maladaptive behaviors are labeled "unhelpful," and are examined for accuracy. Alternatives therapy, Socratic questioning, and thought chaining (Beck & Rector, 2000) are used to help patients examine the logic of beliefs and generate more adaptive alternatives to mistakes in thinking or thoughts without sufficient evidence. The primary thoughts targeted are beliefs about voices and beliefs about daily events that patients use as evidence to confirm delusions.

To gather evidence to evaluate thoughts, behavioral experiments are conducted inside group and outside group (homework). One common belief is that a voice is from an external agent that is omnipotent (e.g., the voice of God or the devil). A behavioral experiment to test this belief might involve training patients in distraction techniques to stop or quiet hallucinations, such as humming, using a Walkman, shadowing what the voices say, watching TV, or counting. If patients can control the voices to any extent using these techniques (in session if hallucinations are triggered, or at home for homework), this is discussed as evidence against the omnipotence of the voices. How can simply humming or turning on the TV control God?

To simplify learning and help patients remember and use cognitive techniques in everyday life, mnemonic aids are also provided (e.g., laminated wallet cards containing information about skills). For example, to foster thought challenging, we use an acronym, "The 3Cs: Catch it, Check it, Change it." The "it" is a thought. Table 1 shows examples of a thought record that incorporates the 3Cs. Thought records like the example in Table 1 are completed both in group and as homework assignments. Situational antecedents are typically first linked to the feelings and behaviors that arise in them. In group, we use a "red flag" technique, which is, literally, a red flag that is waved by the therapist when a patient describes a distressing feeling or unwanted behavior that occurred in response to a situation. This is done to emphasize that patients need to use these feelings and behaviors as an alert to examine their thinking (Catch it). Once the thought that is linked to the feeling or behavior is identified and written down, possible mistakes in thinking are identified and the evidence for and against the thought is reviewed (Check it). If there is evidence against the thought, it is replaced in favor of a more balanced, more adaptive thought (Change it). The group setting can facilitate thought challenging, because other members are often better able to articulate logical flaws, contrary evidence, and alternative thoughts than the patient who has an emotional conviction attached to the inaccurate thought.

### Asking for Support

The primary goal of this module is to improve communication skills and psychosocial interactions (e.g., how to ask someone for support, such as a friend, family member, or a health-care professional). The predominant therapeutic technique is the behavioral role play. Role plays are also useful for generating thoughts that can interfere with adaptive social interaction (e.g., "He thinks I'm dumb"; "He won't want to talk to me"; "He wants something from me"). These thoughts can then be targeted for change (e.g., using the 3Cs). An important focus of role plays is on identifying warning signs of psychotic symptom exacerbation and practicing reporting these to the doctor. Expressing positive and negative feelings, and making a positive request are also emphasized, to improve assertive, clear, and comfortable sharing of feelings in social interactions. Improving everyday leisure activities and psychosocial

TABLE 1. THOUGHT RECORD INCORPORATING THE 3C'S: CATCH IT, CHECK IT, CHANGE IT

Situation	Feelings/ Behaviors	Catch It	Check It	Change It
Walked in a room and people stopped talking	Afraid; angry  Left; isolated	"They were talking about me."	<i>Mistakes:</i> Mind reading; jumping to conclusions <i>Evidence against:</i> Just looking at me doesn't mean talking about me; last time this happened, it wasn't true.	"They're probably talking about something else."  "Even if they are, who cares."
When home alone, abusive and critical voices: "You're ugly"; "Kill yourself"	Afraid; helpless  Shouted to be left alone	"This is Satan's voice."  "If I don't do it, terrible things will happen and I'm going to Hell."	<i>Mistakes:</i> Jumping to conclusions; predicting the future <i>Evidence against:</i> Didn't obey before, and bad things never happened; Satan is powerful, but I ignored with no problems, so probably not Satan.	"Voices can't hurt me."  "Voices are from my illness, not Satan."
Kid on bus staring at my hand movements and laughing	Depressed  Isolated	"People think I'm strange because of my side effects—if I saw me, I would."	<i>Mistakes:</i> All or none thinking; over-generalization; mind reading <i>Evidence against:</i> Some people may think I'm strange, but some who know me like me, like my friend Jim.	"Just because he laughed at me doesn't mean nobody likes me."

functioning are common role play topics for these skills (e.g., asking a roommate to change their behavior; asking someone to go to the movies). The role plays are recorded on videotape and played back in the group. Patients critique the strengths and weaknesses of their own performance and each other's performance, according to a list of key skills displayed on a poster board (e.g., eye contact, speech volume, etc.). The group setting is ideal for role plays. Members with better skills model for others, and this leads both to a sense of mastery for the skilled patient and an increased perception that the skill is learnable for the unskilled patient. Patients can sometimes accept feedback better from peers than from therapists, and situations played between group members are more similar to in vivo experiences than role plays between therapist and patient.

Given the loss and isolation experienced by these older patients, one central goal of the group is to help patients to recognize and identify support persons in their life. Patients often have a difficult time recognizing that some people in their life truly are support persons, such as health care practitioners, board-and-care providers, and peers. Often, patients believe that only family or relatives can act as support persons. Because most patients no longer have connections with their family or relatives, it becomes increasingly important to identify support persons and help patients to recognize that many others in their life outside of family can act as supports.

### Solving Problems

To facilitate learning and retention, basic problem solving skills are taught using the acronym, SCALE—Specify, Consider all possible solutions, Assess the best solution, Lay out a plan, and Execute and evaluate the outcome. The focus is on problems related to illness and disability, including coping with persisting symptoms, coping with stress (e.g., loss of a family member or friend), remembering to take medication, using public transportation, increasing leisure activities, improving hygiene and nutrition, and getting eye glasses or hearing aids. For example, patients identify persisting symptoms, monitor them in homework assignments, and use SCALE to identify coping strategies. Therapists guide this process to ensure that cognitive (e.g., silent self-talk and “check-it-out”) and behavioral (e.g., distraction by music or activities) strategies for coping with persisting hallucinations and delusions are identified. The group setting is ideal for steps involving brainstorming and selecting the best solution.

### Importance of Homework

The goal of CBSST is to provide skills that generalize and are used by the patient outside of the group in everyday life. To that end, the group program includes both practice of skills in the group sessions as well as homework assignments. In-session practice is a crucial means by which patients understand the difficult concepts in this intervention. Homework assignments are crucial for generalizing these skills to the “real world.” We use the term “at-home practice,” rather than “homework,” to emphasize the importance of practice outside of group and to reduce the negative connotation associated with “homework” assignments back in school days. Compliance with at-home activities can vary considerably among clients. To facilitate homework completion the group leaders guide, instruct, and explain the rationale for completing home activities, and activities are reviewed in class. The group leaders go over several examples, so that clients can more easily do the remainder of the assignment at home (Glaser, Kazantzis, Deane, & Oades, 2000). We also use principles of operant conditioning to facilitate homework completion (e.g., positive attention and praise to those who complete homework). The group leader makes clear to the patients that homework completion is expected and failure to complete assignments is the topic of group problem-solving to help

the patient do a better job next time. We have had success in obtaining 80% homework completion in 80% of patients in our groups. Previous research with other patient populations has shown that CBT incorporating homework assignments helps clients improve at least 60% more than those in treatment without homework (Glaser et al., 2000).

### Case Examples

Two cases from our ongoing clinical trial are presented below. Pretreatment baseline and post-treatment outcome data are presented for the two cases in Tables 2 and 3, respectively, for positive, negative and general psychopathology symptoms on the Positive and Negative Syndrome Scale (PANSS; Kay, Fiszbein, & Opler, 1987) and depression on the Hamilton Rating Scale for Depression (HAM-D; Hamilton, 1967). The Beck Cognitive Insight Scale (BCIS) (Beck, Baruch, Balter, Steet, & Warman, 2004) was also administered to measure change in cognitive processes targeted by CBT, such as objectivity, resistance to feedback, willingness, and ability to self-reflect and evaluate beliefs and misperceptions, and overconfidence in beliefs.

The first case, Mr. Jones, was a 65-year-old, single, unemployed (on disability), White male, with 8 years of education, who had been living at a board-and-care facility for several years. Mr. Jones was diagnosed with schizoaffective disorder and was first hospitalized at age 40. He had been ill for 25 years. Mr. Jones had no contact with his family members, but unlike the majority of patients in our project, he had several friends and engaged in various hobbies (e.g., painting, poetry, and walking) and social activities (e.g., going out for coffee with friends, parties held at the board-and-care). He attended all 24 CBSST classes and almost always completed his homework assignments (91% completion rate).

Mr. Jones reported auditory hallucinations, which were mostly of male voices that were demeaning and denigrating (e.g., "You're stupid"; "No one likes you") and sometimes told him to hurt himself by jumping out of a window or running out into the street in front of a moving vehicle. His primary source of distress was the belief that the voices were from an external agent that could harm him, although he could not (or would not) associate any specific identity with the voice. Behavioral reality experiments were used to test whether the voices were from an external agent. For homework, he and the other class members were given earplugs and asked to carry them with them and put them on when they heard voices. Mr. Jones agreed in advance that, if he still heard the voices with earplugs in, he would conclude that the voices originated inside his head. Eventually, through such exercises and class discussions about outcomes, Mr. Jones came to realize that the voices did not originate outside his head, and he began to accept the hypothesis that they originated in his own thoughts.

In other sessions, behavioral coping techniques for controlling hallucinations were introduced (humming, using a Walkman) and experiments in class and for homework were set up to test whether voices could be controlled ("turned off" or quieted). Mr. Jones was able to quiet the voices by engaging in his artwork, watching TV, and listening to music, so he agreed that if he could have this power over the voices, maybe they did not have power to harm him.

The 3Cs technique was also used to challenge Mr. Jones's automatic thoughts about voices. One of his automatic thoughts was "I must be a terrible person if the voices are telling me to kill myself." Mr. Jones learned to "catch" this thought by noticing his feelings of worthlessness and sadness and using these feelings as "red flags" to alert him to examine his thinking in thought records. Once he was able to "catch" (identify) his unhealthy thought about being a terrible person, he "Checked" the evidence for it with the help of other classmates (e.g., "Classmates tell me I'm a terrific person, and they like me, so the voices are wrong and I won't listen to them"). Finally, he was able to "change" it to a healthier thought

(e.g., "I'm a good person who deserves to live"). These interventions reduced distress about voices by reducing certainty that the voices were from an omnipotent, omniscient outside agent that could harm him. He learned the voices could be wrong and could be controlled.

Table 2 shows that Mr. Jones achieved clinically meaningful reduction (> 20% reduction; Kay, Opler, & Fiszbein, 1986) in positive symptoms (50% reduction), but little change (8% reduction) in negative symptoms on the PANSS. Part of Mr. Jones' success in coping with positive symptoms in CBSST may have been related to his high cognitive insight. His insight score on the BCIS at the beginning of treatment was quite high (nearly 2 standard deviations above the mean for our sample). This suggests that, even at the beginning of treatment, Mr. Jones was already fairly receptive to feedback from others and open to the possibility that he could be wrong about his beliefs. Despite being near ceiling on this measure, he still showed a moderate improvement in insight in therapy ( $d = .35$  for change in BCIS), which suggests that he was able to learn to examine his thinking and become even more self-reflective. High cognitive insight may predict improvement in positive symptoms in CBSST. Mr. Jones did, however, show some increase in depression. It is possible that high insight is also associated with depression. As patients give up their beliefs about psychotic symptoms and their worldview changes after decades of conviction, they are forced to accept new realities (e.g., illness) and new views. This can be a distressing process that should be addressed in treatment.

The second case is Mr. Smith, a 48-year-old, separated, unemployed (on disability), African American male, with 11 years of education, who had been living independently in his own apartment. Mr. Smith was diagnosed with paranoid schizophrenia and first hospitalized at age 17. He had been ill for 31 years. Mr. Smith had no contact with his family members but had a few friends. He attended all 24 CBSST classes and completed the majority of his homework assignments (83% completion rate).

Mr. Smith's most distressing psychotic symptom was paranoia. He had legal problems for petty theft and aggressive behavior and was on probation. His fear was that people in authority (e.g., police and his parole officer) were constantly watching and following him. Every time he saw an officer, he thought that the officer was after him for some reason, even though he knew he wasn't doing anything wrong. He thought he was labeled as the "trouble maker" and that his picture was passed around so that all officers knew what he looked like and could identify him. He believed this was part of the parole officer's plan to let all the other officers know that he was a bad person. Sometimes, he would take different routes home from the grocery store to throw them off, so they would not know exactly where he lived,

TABLE 2. CASE EXAMPLE. MR. JONES: CHANGE IN CLINICAL SYMPTOMS AND COGNITIVE INSIGHT

Variable	Baseline	End of Treatment	% Change
PANSS Positive Total (7-49) <sup>a</sup>	14	7	-50%
PANSS Negative Total (7-49) <sup>a</sup>	13	12	-8%
PANSS General Psychopathology Total (16-112) <sup>a</sup>	22	25	+14%
HAM-D 28-Item Total (0-82) <sup>b</sup>	11	13	+18%
BCIS R-C Composite Score (-18-27) <sup>c</sup>	15	17	+13% ( $d = .35$ )

<sup>a</sup>Positive and Negative Syndrome Scale. Higher scores reflect greater severity.

<sup>b</sup>Hamilton Rating Scale for Depression. Higher scores reflect greater severity.

<sup>c</sup>Beck Cognitive Insight Scale. Higher scores reflect greater cognitive insight.

even though he believed that some officers did know where he lived. He even raised concerns that security personnel at the hospital were briefed about him, which threatened treatment adherence. He also felt that his parole officer would unjustly prolong his probation period.

Whenever Mr. Smith shared his persecutory thoughts about the parole officer or police, one of his classmates would quickly grab the red flag from in front of the class and start waving it and say, "You're doing it again, that's an automatic thought." A therapist more typically uses the "red flag" technique, but patients would sometimes notice negative affect linked to unhealthy thoughts and would wave the flag to signal this to trigger use of the 3Cs. The way Mr. Smith caught his own automatic negative thoughts outside group was by paying attention to his feelings—whenever he started feeling nervous, anxious, and scared, he focused on the thought that was going through his mind at that moment. The thoughts often turned out to be, "The parole officer just does not like me and does not want to see me doing well in life," or "That police officer is staring at me—he must be keeping an eye on me to make sure I don't steal anything from this grocery store," and so forth. Mr. Smith was encouraged to write down these negative automatic thoughts, as soon as he had the opportunity. He kept a small writing pad and pen in his pocket and this helped him to quickly catch his thoughts and check and change them.

When checking the evidence for thoughts, it became clear that Mr. Smith paid careful attention to the body language of his parole officer and jumped to conclusions about the meaning of the officer's facial expression or his tone of voice. His classmates were not convinced that this was sufficient evidence that the officer was spying on Mr. Smith and helped present alternative hypotheses. By using this "alternatives therapy," Mr. Smith entertained alternative hypotheses about the officer's speech and demeanor, including that the officer was tired or unhappy at his job or just had an argument with someone else or had an overwhelming caseload or just had a bad day. That is, he entertained the hypothesis that the officer's body language did not have anything to do with Mr. Smith. Mr. Smith was able to recognize that he really had no concrete evidence that the parole officer or the police were out to get him. His classmates were great resources in this process. They would debate the evidence, until Mr. Smith would finally say something like, "Okay, I see, you're right, I don't have any good evidence . . . maybe I am taking it all too personally . . . maybe, the cops just happened to be at the store when I was there and weren't really spying on me." He was able to change it to the thought, "The parole officer has done some nice things for me before, so maybe he really isn't out to get me."

Problem solving (using SCALE) and communication training role plays were also applied to this issue with the parole officer. The specified problem (S) was that Mr. Smith needed to communicate with his parole officer, but was very intimidated and afraid of him. Several potential solutions were compiled (C) in class (e.g., do nothing, call on the phone, write a letter, talk in person). Mr. Smith assessed these options (A) and decided to talk with him in person, because he was concerned with the officer's body language, as noted above. A plan was laid out (L) in class and he wrote it down in the workbook on a problem-solving form detailing the SCALE steps. Role plays were used to practice the plan of talking with the parole officer. At first, he made little eye contact and was rather quiet without much elaboration. He also slouched when he sat. His classmates noted all this and gave him feedback about it and he showed improvement with practice. Mr. Smith practiced asking the parole officer questions like, "How am I doing so far? . . . Sometimes, I feel like you may not like me, is that true?" He planned to dress better for the meeting, improve his grooming, write a list of his concerns, and use all the communication skills he learned in class. All group members had a wallet-size laminated reminder card containing the communication skills, and Mr. Smith brought his to the meeting. Mr. Smith executed the plan and then evaluated (E) the

outcome in class. He found out that the parole officer really wasn't out to get him, and that his job was to monitor him, but not spy on him. Since then, he was able to communicate more with his parole officer, who commented that, by asking questions and having more dialogue, Mr. Smith appeared to take a more sincere interest in his own welfare. Mr. Smith said he wished he had asked these questions long ago, so that he wouldn't have felt so anxious and nervous all the time—which exacerbated his suspiciousness.

Role plays and activities scheduling were also used to increase leisure activities. Mr. Smith participated in a number of role plays involving meeting new people and asking women for a date (his goal). Toward the end of CBSST treatment he developed an intimate relationship with a woman from his neighborhood and began to participate more regularly in an arts and crafts workshop. In the past, he had only occasionally attended this workshop.

As can be seen in Table 3, at the end of treatment, Mr. Smith showed clinically meaningful improvement (> 20% reduction, Kay et al., 1986) in positive symptoms (22% reduction), general psychopathology (29% reduction), and, especially, negative symptoms (57% reduction) on the PANSS. His depression (HAM-D) also decreased dramatically (79% reduction). It is possible that increased activities, having a girlfriend, and gaining confidence in speaking to persons in authority contributed to these gains. It is also possible that increased cognitive insight lead to reduced clinical symptom distress and improved social functioning. He showed a remarkable (280%;  $d = 2.5$ ) improvement in cognitive insight, suggesting a meaningful increase in his willingness and capacity to critically examine and modify beliefs in CBSST.

### SUMMARY AND CONCLUSIONS

These case examples show that older patients with chronic schizophrenia, who have been ill for 25 or 30 years, can benefit from cognitive and behavioral interventions delivered in a group format. CBSST is a skill building approach delivered in a "class," with an emphasis on practice and learning. This class-like setting is more appealing than "group therapy" to most older patients. Specific skills are broken down into simple steps and taught using mnemonic aids and acronyms to compensate for neurocognitive impairment associated with both schizophrenia and aging. Three general skills are trained: (a) willingness and ability to examine the accuracy of beliefs; (b) interpersonal communication; and (c) problem solving. Once

TABLE 3. CASE EXAMPLE – MR. SMITH: CHANGE IN CLINICAL SYMPTOMS AND COGNITIVE INSIGHT

Variable	Baseline	End of Treatment	% Change
PANSS Positive Total (7-49) <sup>a</sup>	18	14	-22%
PANSS Negative Total (7-49) <sup>a</sup>	23	10	-57%
PANSS General Psychopathology Total (16-112) <sup>a</sup>	35	25	-29%
HAM-D 28-Item Total (0-82) <sup>b</sup>	38	8	-79%
BCIS R-C Composite Score (-18-27) <sup>c</sup>	-5	9	+280% ( $d = 2.5$ )

<sup>a</sup>Positive and Negative Syndrome Scale. Higher scores reflect greater severity.

<sup>b</sup>Hamilton Rating Scale for Depression. Higher scores reflect greater severity.

<sup>c</sup>Beck Cognitive Insight Scale. Higher scores reflect greater cognitive insight.

trained, these skills can be applied to many problems, including positive symptoms, negative symptoms, depression, and psychosocial functioning. Our preliminary data and the cases presented here suggest that a willingness to self-reflect and question certainty about beliefs may predict symptom improvement in CBSST.

These case examples, like all previous CBT studies of schizophrenia, have focused primarily on positive (and to some extent, on negative) symptom reduction. However, psychosocial functioning impairments are often more profound than positive symptom deficits, especially in older patients with schizophrenia with chronic illness for from 25 to 30 years. There is a need for CBT interventions that target psychosocial deficits. CBSST includes cognitive techniques to address inaccurate thoughts that interfere with leisure activities, social interaction, volunteer jobs, work, and so forth. CBSST also includes communication training and problem-solving interventions that target interpersonal and adaptive functioning. In our clinical trial (Granholm et al., 2002), we are currently analyzing outcome data from measures of psychosocial functioning. We are also examining whether neurocognitive impairments predict outcome in CBSST, especially on measures of psychosocial functioning. Severity of neurocognitive impairment has been found to be a better predictor of poor psychosocial functioning than is positive symptom severity (Green, Kern, Braff, & Mintz, 2000).

CBT research should continue to focus on both symptom and psychosocial functioning outcomes and should examine factors that may predict and/or mediate different outcomes, such as neurocognitive impairment and insight. Given the heterogeneity of schizophrenia, it is unlikely that a single intervention will work equally well for all types of patients (e.g., acute or chronic, medication-resistant or -responsive, young or old, neurocognitively normal or impaired, insightful or unaware). Researchers should continue to develop and test group and individual CBT interventions that are tailored to the unique needs of different subgroups of patients with schizophrenia.

## REFERENCES

- Areán, P. A. (1993). Cognitive behavioral therapy with older adults. *The Behavior Therapist, 17*, 236-239.
- Beck, A. T., Baruch, E., Balter, J. M., Steer, R. A., & Warman, D. M. (2004). A new instrument for measuring insight: The Beck Cognitive Insight Scale. *Schizophrenia Research, 68*, 319-324.
- Beck, A. T., & Rector, N. A. (2000). Cognitive therapy of schizophrenia: A new therapy for the new millennium. *American Journal of Psychotherapy, 54*, 291-300.
- Beck, A. T., Rush, A. J., Shaw, B. F., & Emery, G. (1979). *Cognitive therapy of depression*. New York: Guilford Press.
- Benton, M. K., & Schroeder, T. J. (1990). Social skills training with schizophrenics: A metaanalytic evaluation. *Journal of Consulting and Clinical Psychology, 58*, 741-747.
- Chadwick, P., & Birchwood, M. (1994). The omnipotence of voices. A cognitive approach to auditory hallucinations. *British Journal of Psychiatry, 164*, 190-201.
- Cormac, I., Jones, C., & Cambell, C. (2002). Cognitive behavior therapy for schizophrenia. *Cochrane Database System Review, 2* [CD00524].
- Dickerson, F. B. (2000). Cognitive behavioral psychotherapy for schizophrenia: A review of recent empirical studies. *Schizophrenia Research, 43*, 71-90.
- Drury, V., Birchwood, M., Cochrane, R., & Macmillan, F. (1996). Cognitive therapy and recovery from acute psychosis: A controlled trial. I. Impact on psychotic symptoms. *British Journal of Psychiatry, 169*, 593-601.
- Eckman, T. A., Wirshing, W. C., Marder, S. R., Liberman, R. P., Johnston-Cronk, K., Zimmermann, K., et al. (1992). Technique for training schizophrenic patients in illness self-management: A controlled trial. *American Journal of Psychiatry, 149*, 1549-1555.
- Fenton, W. S., Blyler, C. S., & Heinssen, R. K. (1997). Determinants of medication compliance in schizophrenia: Empirical and clinical findings. *Schizophrenia Bulletin, 23*, 637-651.

- Gallagher-Thompson, D., & Thompson, K. W. (1995). Psychotherapy with older adults in theory and practice. In B. Bongar & L. E. Beutler (Eds.), *Comprehensive textbook of psychotherapy: Theory and practice*. (pp. 359-379). New York: Oxford University Press.
- Garety, P. A., Kuipers, L., Fowler, D., Chamberlain, F., & Dunn, G. (1994). Cognitive behavioural therapy for drug resistant psychosis. *British Journal of Medical Psychology*, *67*, 259-271.
- Glaser, N. M., Kazantzis, N., Deane, F. P., & Oades, L. G. (2000). Critical issues in using homework assignments within cognitive-behavioral therapy for schizophrenia. *Journal of Rational-Emotive & Cognitive-Behavior Therapy*, *18*, 247-261.
- Granholt, E., McQuaid, J. R., McClure, F. S., Pedrelli, P., & Jeste, D. V. (2002). A randomized controlled pilot study of cognitive behavioral social skills learning for older patients with schizophrenia. *Schizophrenia Research*, *53*, 167-169.
- Green, M. F., Kern, R. S., Braff, D. L., & Mintz, J. (2000). Neurocognitive deficits and functional outcome in schizophrenia: Are we measuring the "right stuff"? *Schizophrenia Bulletin*, *26*, 119-136.
- Hamilton, M. (1967). Development of a rating scale for primary depressive illness. *British Journal of Social and Clinical Psychology*, *6*, 278-296.
- Heinssen, R. J., Liberman, R. P., & Kopelowicz, A. (2000). Psychosocial skills training for schizophrenia: Lessons from the laboratory. *Schizophrenia Bulletin*, *26*, 21-46.
- Jeste, D. V., Alexopoulos, G. S., Bartels, S. J., Cummings, J. L., Gallo, J. J., Gottlieb, G. L., et al. (1999). Consensus statement on the upcoming crisis in geriatric mental health: Research agenda for the next two decades. *Archives of General Psychiatry*, *56*, 848-853.
- Kay, S., Fiszbein, A., & Opler, L. A. (1987). The Positive and Negative Syndrome Scale (PANSS) for schizophrenia. *Schizophrenia Bulletin*, *13*, 261-276.
- Kay, S. R., Opler, L. A., & Fiszbein, A. (1986). Significance of positive and negative syndromes in chronic schizophrenia. *British Journal of Psychiatry*, *149*, 439-448.
- Kingdon, D., & Turkington, D. (1994). *Cognitive-behavioral therapy of schizophrenia*. New York: Guilford Press.
- Kuipers, E., Fowler, D., Garety, P., Chisholm, D., Freeman, D., Dunn, G., et al. (1998). London-East Anglia randomized controlled trial of cognitive behavior therapy for psychosis. III: Follow-up and economic evaluation at 18 months. *British Journal of Psychiatry*, *173*, 61-68.
- Kuipers, E., Garety, P., Fowler, D., Dunn, G., Bebbington, P., Freeman, D., et al. (1997). London-East Anglia randomised controlled trial of cognitive-behavioural therapy for psychosis. *British Journal of Psychiatry*, *17*, 319-327.
- Lewinsohn, P., Muñoz, R., Youngren, M., & Zeiss, A. (1986). *Control your depression*. New York: Simon & Schuster.
- McQuaid, J. R., Callaghan, G. M., Laumakis, M. A., Pedrelli, P., & Guarino, J. E. (1998, August). *Initial treatment focus and outcome of cognitive-behavioral group therapy*. Poster presented to the 106th Annual Convention of the American Psychological Association, San Francisco, CA.
- McQuaid, J. R., Granholt, E., McClure, F. S., Roepke, S., Pedrelli, P., Patterson, T. L., et al. (2000). Development of an integrated cognitive-behavioral social skills training intervention for patients with schizophrenia. *Journal of Psychotherapy Research and Practice*, *9*, 149-156.
- Muñoz, R. F., & Miranda, J. (1993). *Group therapy manual for cognitive-behavioral treatment of depression: Revised*. Unpublished manual, San Francisco General Hospital, Depression Clinic, San Francisco.
- Psychiatric Rehabilitation Consultants. (1991). *Modules in the UCLA social and independent living skill series*. Camarillo, CA: Author.
- Rector, N. A., & Beck, A. T. (2001). Cognitive behavioral therapy for schizophrenia: An empirical review. *Journal of Nervous and Mental Disease*, *189*, 278-287.
- Sensky, T., Turkington, D., Kingdon, D., Scott, J. L., Scott, J., Siddle, R., et al. (2000). A randomized controlled trial of cognitive-behavioral therapy for persistent symptoms in schizophrenia resistant to medication. *Archives of General Psychiatry*, *57*, 165-172.

- Tarrier, N., Beckett, R., Harwood, S., Baker, A., Yusopoff, L., & Ugarteburu, I. (1993). A trial of two cognitive behavioral methods of treating drug-resistant residual psychotic symptoms in schizophrenic patients. I. Outcome. *British Journal of Psychiatry*, 162, 524-532.
- Tarrier, N., Sharpe, L., Beckett, R., Harwood, S., Baker, A., & Yusopoff, L. (1993). A trial of two cognitive behavioural methods of treating drug-resistant residual psychotic symptoms in schizophrenia patients. II. Treatment-specific changes in coping and problem-solving skills. *Social Psychiatry and Psychiatric Epidemiology*, 28, 5-10.
- Wykes, T., Parr, A.-M., & Landau, S. (1999). Group treatment of auditory hallucinations. *British Journal of Psychiatry*, 175, 180-185.

*Offprints.* Requests for offprints should be directed to Eric Granholm, PhD, Veterans Affairs San Diego Healthcare System, Room 116B, 3350 La Jolla Village Drive, San Diego, CA 92161. E-mail: [egransholm@ucsd.edu](mailto:egransholm@ucsd.edu)