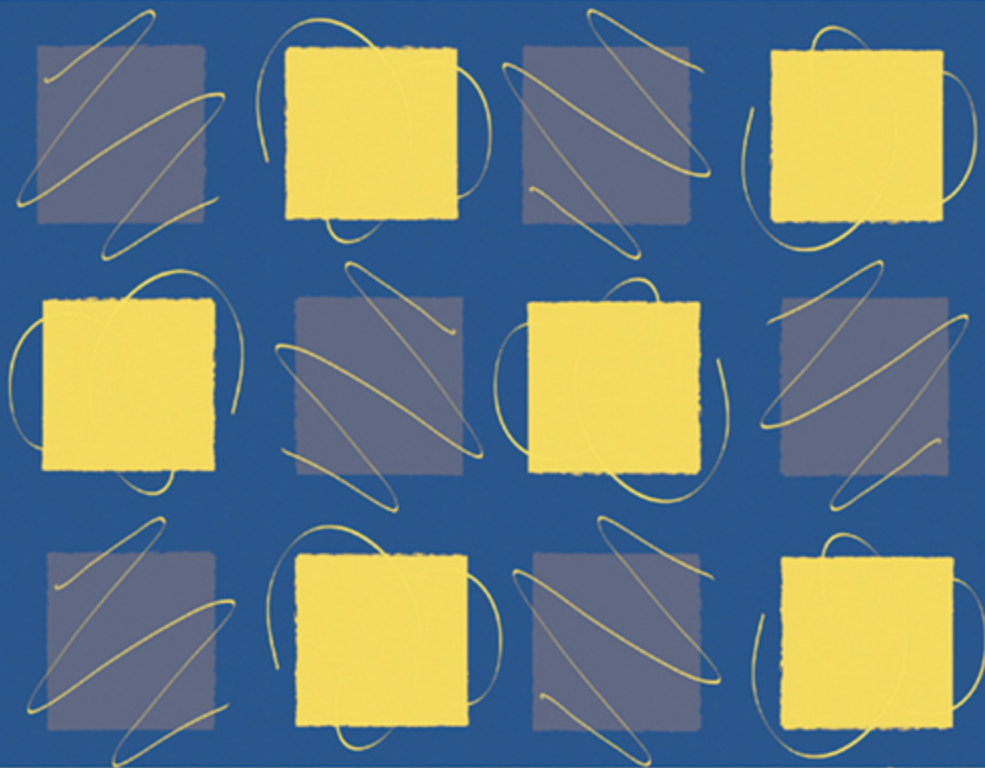# Behavioral Treatment for Substance Abuse in People with Serious and Persistent Mental Illness

A Handbook for Mental Health Professionals

Alan S. Bellack ◆ Melanie E. Bennett ◆ Jean S. Gearon

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PREFACE

The seeds of this book were planted in Philadelphia in the early 1990s. ASB and colleagues had been conducting clinical trials and psychopathology studies at Medical College of Pennsylvania (MCP) with people who had schizophrenia. As was standard practice at the time, we excluded people from our studies who had comorbid drug abuse. It was assumed that they were behaviorally difficult to engage, and that they had a different, more severe disease course with greater cognitive impairment. MCP was located in central Philadelphia and, during the late 1980s and early 1990s, drug abuse, especially abuse of crack cocaine, was an epidemic in the area. This tragic circumstance increasingly affected people with schizophrenia, and over time more and more patients were being excluded from our studies due to drug abuse. Kim Mueser, PhD, a colleague at MCP, recognized the significance of this problem and was lead author on an early, seminal paper that identified the magnitude and possible causes of this problem (Mueser, Yarnold, & Bellack, 1992), and a subsequent paper that discussed the implications for treatment (Mueser, Bellack, & Blanchard, 1992). In examining the literature it quickly became apparent that there was no empirically sound treatment available for people with dual disorders and we began conceptualizing what an effective treatment might entail. A fortuitous circumstance about the same time was that the National Institute of Drug Abuse (NIDA) issued an innovative program announcement for *treatment development* grants. Most NIH funding mechanisms at the time required extensive pilot data, which required the availability of local resources. In contrast, this mechanism was designed to provide pilot costs for investigators interested in developing new treatments: essentially venture capital. ASB and MB submitted an application and were funded to develop an innovative program that we called Behavioral Treatment for Substance Abuse in Schizophrenia (BTSAS). Shortly after the grant was funded, MEB moved to New Mexico, and ASB moved to Baltimore, where he hired JSG to help run the project. Preliminary data were sufficiently promising that we received funding for a competitive renewal in 1998. To our great good fortune MEB moved to Maryland at about the same time, and she rejoined our team.

This book is the culmination of 10 years of work. It evolved gradually as we learned more about how to conduct the treatment. We dropped some elements that did not work as planned or were not relevant to our subjects. Similarly, we refined many elements and added others. In many respects the consumers who volunteered for our studies were our tutors. However, the changes have primarily been evolutionary rather than revolutionary. The content of the current program is very similar to what we initially proposed, although it is much more clinically sophisticated. In the course of conducting our studies we also expanded the treatment beyond schizophrenia to include other consumers with serious mental illness; hence, the current title: *Behavioral Treatment for Substance Abuse by People with Serious and Persistent Mental Illness: A Handbook for Mental Health Professionals.*

As indicated by the second part of the title (*A Handbook for Mental Health Professionals*), the book is designed to be a practical guide, not a didactic overview of dual disorders and their treatment. It contains *skill sheets* that provide detailed lesson plans, and extensive examples of the specific language to be used by clinicians. It also discusses problems that frequently arise and issues involved in implementing treatments in public mental health clinics. It is our intent that a clinician who has some experience working with dual disordered clients can read the text and actually *do* the treatment, not simply understand how it is done by experts. There is a significant lag in our field between research on evidence-based practices and application of these practices on the front lines. *Behavior Treatment for Substance Abuse* has an evidence base, and we hope this book will provide enough clinical guidance that the evidence can be effectively disseminated.

The text is divided into three sections. Part I contains five chapters that provide a background for the approach and describes some general clinical parameters of the intervention: chapter 1 provides an introduction to the treatment of people with dual disorders; chapter 2 gives an overview of the scientific background; chapter 3 describes training philosophy and general strategies; chapter 4 discusses social skills training, and chapter 5 discusses assessment strategies.

Part II contains six detailed chapters that cover each component of BTSAS: chapter 6 discusses motivational interviewing; chapter 7 looks at urinalysis and goal setting; chapter 8 discusses social skills and drug refusal skills training; chapter 9 considers education and coping skills training; chapter 10 discusses relapse prevention and problem solving; and chapter 11 covers graduation and termination.

Part III includes two chapters that deal with a number of ancillary topics that are important for some clients and some settings; chapter 12 discusses dealing with problem situations, and chapter 13 discusses implementing BTSAS for substance abuse in clinic settings, along with strategies and potential modifications.

There is also an Appendix that contains handouts for participants. The handouts duplicate materials presented by group leaders during group sessions. They are given to participants when new material is introduced so they can follow along during group, as well as take the material home to serve as reminders.

We are indebted to the large group of clinicians who worked on the project over the years, without whom the background research and manual development would have been impossible. We are also indebted to the consumers who graciously volunteered to be research subjects in our studies.

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Part **I**

INTRODUCTION TO TREATING
PEOPLE WITH DUAL DISORDERS

Drug and alcohol abuse by people with severe and persistent mental illness (SPMI) is one of the most significant problems facing the public mental health system. Referred to variously as people with dual disorders or dual diagnosis, mentally ill chemical abusers, and individuals with co-occurring psychiatric and substance disorders, these patients pose major problems for themselves, their families, clinicians, and the mental health system. Lifetime prevalence of substance abuse was assessed at 48% for schizophrenia and 56% for bipolar disorder in the Epidemiological Catchment Area study (Regier et al., 1990), and estimates of current abuse for the SPMI population range as high as 65% (Mueser, Bennett, & Kushner, 1995). Rates of abuse are likely to be even higher among impoverished patients living in inner city areas where drug use is widespread. Substance use disorders (SUDs) in people with SPMI begins early in the course of illness, and has a profound impact on almost every area of the person's functioning and clinical care. People with SPMI and SUDs show more severe symptoms of mental illness, more frequent hospitalizations, more frequent relapses, and a poorer course of illness than do those with a single diagnosis. They also have higher rates of violence, suicide, and homelessness. They manifest higher rates of incarceration, greater rates of service utilization and cost of health care, poorer treatment adherence, and treatment outcome. People with schizophrenia are now one of the highest risk groups for HIV, and there are ample data to indicate that substance use substantially increases the likelihood of unsafe sex practices (Carey, Carey, & Kalichman, 1997), the primary source of infection in this population. Women with schizophrenia and comorbid substance use disorders are at substantial risk of being raped and physically abused (Gearon, Kaltman, Brown, & Bellack, 2003). Substance use also impairs information processing, which is particularly problematic for people with schizophrenia, given the range of cognitive deficits characterizing the disorder (Tracy, Josiassen, & Bellack, 1995).

The toxic effects of psychoactive substances in individuals with schizophrenia and bipolar disorder may be present even at levels of use that may not be problematic in the general population. Although people with SPMI may abuse lower quantities of drugs, they are more likely to experience negative effects as a result of even moderate use. There is evidence to suggest that they are more sensitive to lower doses of drugs (supersensitivity model). For example, in challenge studies, patients with schizophrenia

have been shown to be highly sensitive to low doses of amphetamine that produce minimal response in controls (Lieberman, Kane, & Alvir, 1987). Other studies have shown that people with SPMI can experience negative clinical effects, such as relapse, following self-administered use of small quantities of alcohol or drugs (Mueser, Drake, & Wallach, 1998).

Why do people with SPMI use street drugs if the consequences are so severe? It is widely assumed that they use substances as a form of self-medication: to reduce symptoms of mental illness and to alleviate side effects of medications, especially the sedating effects of many neuroleptics. However, the data suggest that substance abuse by many people with SPMI is motivated by the same factors that drive excessive use of harmful substances in less impaired populations: negative affective states, interpersonal conflict, and social pressures. Empirical data do not document a consistent relationship between substance use and specific forms of symptomatology. Alcohol is the most commonly abused substance by people with SPMI, as well as in the general population. Preference for street drugs varies over time and as a function of the demographic characteristics of the sample. For example, Mueser, Yarnold, and Bellack (1992) reported that between 1983 and 1986 cannabis was the most commonly abused illicit drug among people with schizophrenia, whereas between 1986 and 1990 cocaine became the most popular drug, a change in pattern similar to that in the general population. For many people with SPMI, availability of substances appears to be more relevant than the specific neurological effects. Poly-drug abuse is also common, with availability determining which drugs are used when.

In addition, the pattern of use appears to be somewhat intermittent or adventitious, rather than a persistent daily activity. For example, in our research, carefully diagnosed subjects meeting DSM-IV criteria for drug dependence reported using drugs on about nine days each month, primarily on weekends and when they received their benefit checks (American Psychiatric Association, 1994). Many dual disordered people also seem to be able to go for periods of time (weeks or months) with little or no drug use, and then resume regular use. Relatively few of these individuals fit the profile of the daily (or almost daily) cocaine or heroin abuser, whose daily activity is focused on how to get money and access drugs. Given this pattern of intermittent drug use, people with dual disorders generally do not report extreme cravings or withdrawal symptoms. Rather, they seem to be very much affected by social and environmental cues, especially including people with whom they often use drugs, and time (e.g., the week before benefit checks arrive). It is also worth noting that many people with SPMI do not have enough money to maintain an expensive drug habit. They often access drugs from friends and family. Some dually disordered women exchange sex for drugs, but it appears as if they are more likely to be taken advantage of than to be active sex workers.

TREATMENT OF SUBSTANCE ABUSE IN PEOPLE WITH SPMI

There is extensive literature on the treatment of dual disordered SPMI patients (Bellack & Gearon, 1998; Drake, Mueser, Brunette, & McHugo, 2004), and there is a broad consensus on a number of elements required for effective treatment, including: There should be integration of both psychiatric and substance abuse treatment (Mueser, Noordsy, Drake, & Fox, 2003). The traditional service models in which substance abuse and psychiatric (mental health) treatment are implemented by distinct clinical teams with different funding streams does not work for these very impaired individuals. They are unable to coordinate services between two distinct clinical systems, and they need a consistent message from all relevant clinicians: drug use is harmful. We will discuss some models of integrated care in chapter 13). Treatment should be conceptualized as an ongoing process in which motivation to reduce substance use waxes and wanes (Bellack & DiClemente, 1999). BTSAS is designed to be a six-month program because the literature suggests that this is a reasonable minimum time frame. However, that duration was partly determined by the exigencies of our NIH grants; a longer duration will often be desirable or

necessary. An extended treatment period is required for two reasons. First, it is necessary for the participants to experience both successes and failures in reducing drug use. Failures, in particular, provide an opportunity for the therapists to teach the person how to cope with lapses, and how to prevent lapses (an occasional bad day or weekend) from turning into relapses (i.e., full return to pretreatment rates of use). Second, motivation to reduce drug use waxes and wanes over time. It is important to have the person engaged in group when motivation is waning, so the group can provide a motivational boost, and so the person can learn how to cope with periods of low motivation and strong urges to use drugs. Third, a *harm reduction* model is more appropriate than an abstinence model, especially during the early stages of treatment when the patient has uncertain motivation to change (Carey, Carey, Maisto, & Purnine 2002). The term *harm reduction* refers to an approach that values anything that reduces risk or *harm* associated with drug use. As indicated above, people with dual disorders are at risk for a host of adverse consequences, ranging from psychiatric relapse to sexual abuse to HIV infection. Any day that they avoid drugs decreases the risk of those adverse consequences. Of course, abstinence is the most appropriate long term goal for everyone. But, the evidence suggests that if abstinence (or a commitment to become abstinent immediately) is a precondition to entering treatment most dual disordered persons will not enroll. Further, if the clinician persistently and aggressively promotes abstinence and is critical of efforts to cut down use, the attrition rate is very high. Thus, the program should promote reduced drug use in the short term, and keep abstinence in mind as a long term goal.

While there is widespread agreement that integrated treatment employing a psychoeducational approach that is sensitive to motivational level is the best treatment strategy (i.e., a general structure for delivering treatment), there is a dearth of empirical data on effective techniques for producing change (i.e., specific treatment procedures). This literature has been surveyed in three recent reviews, each of which used somewhat different criteria for identifying and evaluating clinical trials. Drake, Mueser et al. (2004) found 16 studies of outpatient treatment, 4 using quasi-experimental designs and 12 using experimental designs. Nine studies tested brief interventions (1 to several sessions) to increase engagement or motivation to change. Seven studies evaluated integrated treatment (primarily some form of assertive case management), of which only three tested the effects of a specific substance abuse intervention. Jerrell and Ridgely (1995) compared a 12-step program, behavioral skills training, and intensive case management. While each of the latter two interventions was more effective than the 12-step condition on a variety of outcome domains, the effects on substance use were quite modest. Barrowclough et al. (2001) compared a multimodal intervention that included cognitive behavioral therapy and family psychoeducation to routine care in a study conducted in the United Kingdom. They found a modest advantage for the experimental treatment initially and at an 18-month follow-up (Haddock et al., 2003). While Drake, Mueser et al. (2004) were generally positive about the effectiveness of available treatments, they concluded that, "As yet there is little evidence for any specific approach to treatment...."

Dumaine (2003) and Ley, Jeffery, McLaren, and Siegfried (2003), in an analysis done for the *Cochrane Review*, each found only six randomized trials of psychosocial treatments for dually disordered clients. While still advocating the use of integrated, psychoeducational interventions, Dumaine (2003) reported that the largest effect size, which was for intensive case management without a specific psychoeducational component, was only 0.35, and the largest effect size for a specific psychosocial treatment procedure was only 0.25. In the least optimistic view of the literature, Ley et al. (2003) concluded that: There is no clear evidence supporting an advantage of any type of substance misuse program for those with serious mental illness over the value of standard care, and no one program is clearly superior to another. These reviews were each written before the most recent outcome data for BTSAS became available. As indicated below and described more fully in a paper published in the *Archives of General Psychiatry* (Bellack, Bennett, Georon, Brown, & Yang, 2006), BTSAS may be the most promising approach developed to date.

WHY IS IT SO DIFFICULT TO REDUCE DRUG USE BY PEOPLE WITH SPMI?

An extensive body of research on substance abuse and addiction in the general population indicates that critical factors in abstinence and controlled use of addictive substances include high levels of motivation to quit, the ability to exert self-control in the face of temptation (urges), cognitive and behavioral coping skills, and social support or social pressure. Unfortunately, people with SPMI, especially those with schizophrenia, often have limitations in each of these areas. First, several factors can be expected to diminish motivation in people with schizophrenia. They frequently suffer from some degree of generalized avolition (lack of motivation or drive) and anergia (lack of energy or initiative) as a function of neurological dysfunction (hypoactivity of the dorsolateral prefrontal cortex), medication side effects, or other social, psychological, and biological factors that contribute to negative symptoms. Thus, they may lack the internal drive to initiate the complex behavioral routines required for abstinence. This hypothesis was supported in a survey of dually diagnosed persons, which found that depending on the substance abused, as many as 41% had little motivation to reduce their substance use and only 52% were participating in substance abuse treatment. Another negative symptom, anhedonia, may compromise the experience of positive emotions, thereby limiting the ability to experience pleasure and positive reinforcement in the absence of substance use and restricting the appraisal of the advantages of reduced substance use. While people with other diagnoses (e.g., bipolar disorder) have a different neurobiology, they may also suffer from secondary negative symptoms (e.g., negative symptoms driven by medication side effects, cumulative effect from failure experiences and frustration in life).

A second issue is the profound and pervasive cognitive impairment that characterizes schizophrenia and is often present in bipolar disorder. Research since the mid-1990s indicates that persons with schizophrenia have prominent cognitive impairments, including deficits in attention, memory, and higher level cognitive processes, such as abstract reasoning, maintenance of set, the ability to integrate situational context or previous experience into ongoing processing, and other "executive" functions. They have been shown to have profound deficits in problem solving ability on both neuropsychological tests (e.g., the Wisconsin Card Sorting Test), and on more applied measures of social judgment. There are several lines of evidence, which suggest that cognitive impairment is largely (but not completely) independent of symptoms, and that many of these higher level deficits may result from a subtle neurodevelopmental anomaly reflected in frontal-temporal lobe dysfunction. Moreover, cognitive performance deficits are not substantially ameliorated by treatment with typical antipsychotic medications.

These higher-level cognitive deficits would be expected to make it very difficult for people with schizophrenia to engage in the complex processes thought to be necessary for self-directed behavior change. They may have difficulty engaging in self-reflection or in evaluating previous experiences to formulate realistic self-efficacy appraisals. Deficits in the ability to draw connections between past experience and current stimuli may impede the ability to relate their substance use to negative consequences over time, and modify decisional balance accordingly. Deficits in problem solving capacity and abstract reasoning may impede the ability to evaluate the pros and cons of substance use or formulate realistic goals. Problems in memory and attention may also make it difficult for people with SPMI to sustain focus on goal-directed behavior over time.

Third, people with schizophrenia have marked social impairment. They are often unable to fulfill basic social roles, they have difficulty initiating and maintaining conversations, and they frequently are unable to achieve goals or have their needs met in situations requiring social interaction. These deficits are moderately correlated with symptomatology, especially during acute phases of illness, but the disruptive effects of acute symptoms do not account for the panoply of interpersonal deficits exhibited by most of these patients. The precursors of adult social disability can often be discerned in childhood, and may be associated with early problems in attention. This pattern of social impairment would leave people with schizophrenia who abuse drugs vulnerable in a number of ways: they would have difficulty developing social relationships with individuals who do not use drugs; would have difficulty resisting

social pressure to use; and they would have difficulty developing the social support system needed to reduce use.

BEHAVIORAL TREATMENT FOR SUBSTANCE ABUSE BY PEOPLE WITH SPMI (BTSAS)

BTSAS is an innovative behavioral treatment to address illicit drug use among people with SPMI. We have developed BTSAS over a 10-year period with the support of a series of grants from the National Institute of Drug Abuse (NIDA). BTSAS was specifically designed to address the special needs of dual disordered persons, especially those with schizophrenia. It will be apparent to experienced clinicians that many of the elements of BTSAS are similar to techniques widely used in interventions with less impaired populations of substance abusers. However, we have systematically modified the techniques to accommodate to people with SPMI. Notably, a variety of strategies and tactics are employed to address cognitive impairment, and the typical pattern of low and variable motivation.

BTSAS contains six integrated components:(1) motivational interviewing to enhance motivation to reduce use; (2) structured goal setting to identify realistic, short-term goals for decreased substance use; (3) a urinalysis contingency designed to enhance motivation to change and increase the salience of goals; (4) social skills and drug refusal skills training to teach participants how to refuse social pressure to use substances, and to provide success experiences that can increase self-efficacy for change; (5) education about the reasons for substance use and the particular dangers of substance use for people with SPMI, in order to shift the decisional balance towards decreased use; and (6) relapse prevention training that focuses on behavioral skills for coping with urges and dealing with high risk situations and lapses. Each of these components will be described in more detail in later chapters of this book.

Several steps are taken in consideration of cognitive deficits. Sessions are highly structured, and there is a strong emphasis on behavioral rehearsal. The material taught is broken down into small units. Complex social repertoires required for making friends and refusing substances are divided into component elements such as maintaining eye contact and how to say, "No." Patients are first taught to perform the elements, and then gradually learn to smoothly combine them. The intervention emphasizes *overlearning* of a few specific and relatively narrow skills that can be used automatically, thereby minimizing the cognitive load for decision making during stressful interactions. Extensive use is made of learning aides, including handouts and flip charts, to reduce the requirements on memory and attention. Participants are prompted as many times as necessary and there is also extensive repetition within and across sessions. Participants repeatedly rehearse both behavioral skills (e.g., refusing unreasonable requests) and didactic information (e.g., the role of dopamine in schizophrenia and substance use), and receive social reinforcement for effort. Rather than teaching generic problem solving skills and coping strategies that can be adapted to a host of diverse situations, we focus on specific skills effective for handling a few key, high risk situations (e.g., what do you do when you are offered coke by your brother or by one specific friend, rather than what to do when *anyone* offers it to you). While this might be viewed as placing a limit on generalization, data clearly show that people with schizophrenia have great difficulty in abstraction and applying principles in novel situations. Hence, they are more likely to benefit from a narrow repertoire of skills to minimize demands on these higher-level processes.

Training is done in a small-group format (4 to 6 is preferred). The group format allows participants to benefit from modeling and role-playing with peers. The small size provides ample opportunity for all group members to get adequate practice, while minimizing demands for sustained attention (i.e., they can rest while peers are role-playing, etc.). This group size also allows therapists to control even highly symptomatic participants. The treatment can be adapted for either a closed membership or open-enrollment format. The open membership format is convenient in settings where enrollment is slow, so consumers do not have to wait long to begin treatment. Groups for people with SPMI generally do not develop the cohesiveness that is seen in groups for less impaired persons, so that new admissions

are not disruptive to current members. Moreover, the modular nature of the teaching units and the highly tailored nature of the training make it easy to filter in new members. Units (e.g., conversational skills training) can be repeated in whole or in part as needed. Presenting previously covered units for new members has the added benefit of giving existing members additional practice, which is always advantageous in working with persons with schizophrenia.

Abstinence is generally viewed as the most appropriate goal for less impaired substance abusers, and it has been suggested that it is the most appropriate goal for people with SPMI as well. Nevertheless, abstinence is not a viable goal for all people who enter treatment. Many will "vote with their feet" and drop out if pressured to abstain. There also is increasing evidence with less impaired populations that outcomes are better when people select their own goals than goals being imposed by programs. Consequently, we employ a harm avoidance model and promote abstinence, but do not demand it as a precondition for participation. Moreover, our experience is that some people with SPMI profit from substance abuse training without ever formally admitting that they have a problem and want to reduce usage. As long as they actively participate in the education and training, they can acquire skills and information that may be of use at some time in the future. In addition, we also assume that they may become more amenable to making changes if they have first acquired some skills and developed an increased sense of efficacy for resisting social pressure and saying no to drugs. Hence, we increase social pressure on reducing drug use very gradually so as to avoid conflict or early termination. We begin goal setting for reduced substance use (via motivational interviewing) and the urinalysis contingency in the second week of treatment, but we are less proactive in setting goals for change in the early sessions than we are once subjects have acquired some substantive training in social skills and coping skills.

In contrast to traditional substance abuse programs, the atmosphere in BTSAS groups is supportive and positively reinforcing. Therapists actively search for ways to provide social reinforcement and encouragement. Even when members have used drugs or express waning motivation, the therapists support effort and encourage participation. Notably, they are *never* critical or punishing. Members are never admonished to do better or work harder, and they are never made to feel guilty or unwanted. Rather, therapists acknowledge how difficult it is to reduce drug use and work to support participants during difficult times. Group members are encouraged to provide social reinforcement and encourage one another as well. It is common for members to applaud for one another when they provide clean urine samples or work hard in a difficult role play rehearsal.

While the treatment is very supportive, it is also highly structured. As will be apparent in subsequent chapters, BTSAS has a very detailed curriculum. Each session has a structure, in which treatment procedures are carried out in a standardized order and in a prescribed manner. Many of the session worksheets presented in later chapters contain specific language for how material is to be presented. There is relatively little chitchat in sessions. The bulk of the time is devoted to urinalysis procedures, goal setting, role-play rehearsal, and didactic teaching. BTSAS is *not* a verbal psychotherapy. Participants will often raise questions and problems that warrant therapeutic discussion, but they are generally referred to other clinical staff for help with these issues. This style takes some getting used to for many experienced clinicians whose proclivity is to do conversational therapies; conversely, it works quite well for new therapists because it provides the structure they generally need in order to be effective.

EMPIRICAL SUPPORT FOR BTSAS

BTSAS was developed in a systematic, empirical manner. There was no established treatment for substance abuse in schizophrenia or other people with SPMI when our program was initiated in the mid-1990s. A number of promising strategies were employed in programs for less impaired populations, but most procedures could not be applied in their standard format given the cognitive and motivational impairments that characterize people with schizophrenia and other SPMIs. For example, a common

strategy to enhance motivation for less impaired persons who abuse substances is to enlist the aid of supportive family members, friends, and employers. However, many people with SPMI do not have contact with family members or friends who are not also drug users, and they generally are unemployed. Less impaired persons often can identify meaningful life goals associated with reduced drug use, such as better employment opportunities, and reconciliation with spouses. In contrast, many people with SPMI are not married and do not have good employment options, even when clean and sober. Consequently, our first step was to identify strategies that were applicable for people with SPMI, and that could be adapted to their special needs and difficulties. We focused exclusively on strategies that had good empirical support. Our plan was to develop a new intervention de novo by sequentially administering preliminary treatment modules to small groups of SPMI volunteers, and adding and refining elements as needed, based on our observations. One of our primary goals was to develop a treatment manual that could be used in research to evaluate BTSAS and, if the results were positive, could be disseminated to the clinical community. The evolution of the treatment and development of the manual was very much a bootstrapping process in which we drafted manual sections, recruited and treated a cohort of subjects with it, revised as needed, and applied the new iteration to a subsequent cohort. When we were satisfied that the module was working effectively and could be administered in a consistent manner, the next draft module was added. By the conclusion of the initial five-year NIDA grant we had completed a draft manual and had collected sufficient pilot data to justify funding of a subsequent trial. We had also demonstrated that therapists could be trained and could deliver the intervention appropriately, that the intervention is safe, and that people with SPMI would attend.

The pilot development work was followed by a controlled trial that compared BTSAS with a contrasting group treatment that represented good clinical practice in the community (Bellack et al., 2006). Subjects were 110 patients at community clinics and a VA outpatient clinic in downtown Baltimore, MD. All subjects met DSM-IV criteria (American Psychiatric Association, 1994) for current dependence on cocaine, opiates, or cannabis, along with objective criteria for severe mental illness, including: (1) a diagnosis of schizophrenia or schizoaffective disorder or other severe mental disorder including bipolar disorder, major depression, or severe anxiety disorder; (2) has worked 25% or less of the past year; or (3) receives payment for mental disability (SSI, SSDI, VA disability benefits). The sample was representative of community samples of SPMI patients in the United States. Participants were 59.5% male, 88% ethnic minority (primarily African American), and 42.9% never married. Mean age was 42.2 years (sd = 7.17), with 11.6 years of education (sd = 2.24). Diagnostically, 48.4% had a current psychotic disorder, 54% had a current mood disorder, 35.7% had a current alcohol use disorder, and the large majority (80.2%) met criteria for a past alcohol use disorder. The mean number of past psychiatric hospitalizations for the sample was 5.62 (sd = 7.43) and the mean age of onset of psychiatric disorder was 26.2 years (sd = 10.8). The sample reported a mean of 5.43 years of heroin use (sd = 8.23), 10.22 years of cocaine use (sd = 8.53), 10.01 years of marijuana use (sd = 10.23), and 11.7 years of polydrug use (sd = 10.6).

After providing informed consent and participating in baseline assessments, subjects were randomly assigned to BTSAS or the contrast condition, Supportive Treatment for Addiction Recovery (STAR). STAR is a manualized intervention based on a sophisticated treatment model developed by Osher, Drake, Noordsy, and their colleagues at Dartmouth. Like BTSAS, STAR was administered in small groups twice per week for six months. STAR groups are interactive, supportive, flexible, and unstructured, and are intended to help participants understand how substance use complicates their lives. The therapist stance is nondirective, and there is an emphasis on having members share with one another, rather than having the therapists dictate the content of group sessions. The primary goals of the therapists are to engage participants in treatment and to generate discussion among them. The groups are designed to be supportive and encouraging, and to provide a safe and nonjudgmental place for members to talk about substance use and their ideas and feelings about it. Some didactic education is provided about the effects of drugs and factors involved in reducing drug use when it fits into the discussion, but there is no formal curriculum or session by session plan regarding these issues. The

group sets its own pace and determines its own topic, and the therapists encourage, but do not require, participant interaction.

Therapists for both BTSAS and STAR were trained to administer the respective treatments before they were certified to conduct protocol groups. Most therapists were relatively inexperienced clinicians with a master's degree in psychology, counseling, social work, and related disciplines; none were drug counselors. Therapists were closely supervised throughout the project. All sessions were videotaped for supervision sessions and for subsequent (blinded) ratings of therapist performance. All therapists in both treatment conditions were shown to be very effective in administering the respective treatments appropriately.

Overall, the data provide strong support for the efficacy of BTSAS. Urine samples were collected from all subjects at every session beginning in session 3, providing an objective measure of drug use throughout the six months of the trial. Subjects in BTSAS had a significantly higher proportion of clean urines over the six months of treatment than subjects in STAR: M = 0.70 vs. 0.51 (p = 0.0434). Urine tests provided an indication of cocaine and heroin use over the preceding two to three days, and cannabis use over the previous 28 days. The twice per week urine samples thus provide a rough estimate of periods of continuous abstinence. These data also show a pronounced advantage for BTSAS. Subjects in BTSAS had significantly more four-week blocks of continuous abstinence (M = 44.12% vs. M = 8.82%, p = 0.001), and more multiple four-week blocks of abstinence (M = 29.41% vs. M = 2.94%, p = 0.003). There was also a trend for BTSAS subjects to have more eight-week blocks of continuous abstinence. BTSAS subjects also attended significantly more sessions (M = 27.2 [out of 50] vs. 17.5, p = 0.0042). That is noteworthy in this difficult-to-treat population, as patients who attend drug treatment generally do better than those who do not (Timko & Moos, 2002). In addition, 57.4% of subjects enrolled in BTSAS completed the six months of treatment vs. 34.7% for STAR, a highly significant difference. The relative risk of dropout (hazard ratio, HR) for BTSAS was about half that for STAR (HR [95% CI] = 0.51[0.30, 0.85]).

We assessed subjects on a variety of clinical measures. At Baseline and Posttreatment, inpatient admissions (psychiatric reasons or substance abuse) declined from 27.3% in the 90 days prior to Baseline to 8.0% in the 90 days prior to the Posttreatment assessment for subjects in BTSAS (X^2 = 4.36, p = 0.0368), compared to 26.5 and 20.7%, respectively for STAR (ns). Prior to treatment, 48.5% of BTSAS subjects reported having enough money for food, clothing, housing, and transportation compared with 69.2% at the end of treatment (X^2 = 6.61, p = 0.0102). This could reflect reduced expenditures on drugs. There was no change for subjects in STAR (48.5% prior to treatment and 50.0% afterwards). Subjects in BTSAS also reported a small, but significant increase in General Life Satisfaction from pre- to posttreatment (M = 4.12 [1.87] to M = 4.69 [1.85], t_{66} = 1.95, p = 0.0549), and there was a trend toward increased ability to independently perform activities of daily living on the SFS: M = 27.8 (6.65) to 30.2 (5.69), t_{66} = 1.76, p = 0.0838). Again, neither of these variables was significant for STAR. These data suggest that the treatment effects were clinically meaningful as well as being statistically significant.

BTSAS is not a panacea for people with dual disorders. Some 30 to 40% will not participate in treatment, and others will participate for a while and then drop out. Even among those who stick it out, only a small percentage become abstinent during the six months of the intervention. However, our data indicate that our ability to engage and retain participants is at least as good as in the best trials of drug treatment for less impaired people, and our rates of reduced drug use are comparable. Despite common wisdom to the contrary, our experience is that people with SPMI and drug abuse can be effectively engaged in treatment and can be helped to substantially reduce their drug use over time. Without trying to sound like Pollyannas, we can attest that a large percentage of people who have participated in BTSAS actually like it! They receive considerable positive reinforcement for attending and doing well, which takes the form of social approval from peers and therapists, as well as small financial incentives. Participants applaud for one another when they provide clean urine samples and report success experiences between sessions, and they get extensive praise and encouragement for their work during sessions. Conversely,

as will be discussed further below, a cardinal rule of BTSAS is that problems and failures are *never* followed by criticism or censure. Thus, BTSAS provides a safe and supportive environment in which participants can work hard to deal with a very, very difficult problem. It may be the only such environment most participants have ever experienced. Based on watching hundreds of hours of videotaped sessions, as well as examining the data, we believe that the positive environment, with its emphasis on harm reduction and success, is among the critical elements of BTSAS.

ORIENTATION TO THE REMAINDER OF THIS VOLUME

The material presented above is intended to provide an overview of the issues surrounding drug use by people with SPMI, and introduce the reader to BTSAS. There is an extensive literature on drug use and its treatment in this population, and the interested reader is referred to papers and chapters contained in the reference list as a good starting point for more detailed information. The remainder of this book will focus on the clinical application of BTSAS. We will provide much greater detail about each element of the treatment and how they should be administered. We make ample use of visual support materials in sessions, and provide participants with many handouts to reduce the need for them to memorize material. Samples of these materials are reproduced throughout the chapters. BTSAS has been successfully administered by a large number of therapists during the 10 years of our development work and clinical trial. Most therapists have been relatively young, with recent master's degrees in psychology, counseling, and social work. They are representative of clinicians in the public mental health system in the United States, who are typically thrown into the clinical fray after graduation with little direct supervision or continued training. This book is designed with them in mind. In contrast to most books in the field, it provides little in the way of theory or conceptualization. Rather, it provides a step-by-step guide for what to do and how to do it. Some clinical experience with dual disordered clients is desirable, but we have often found that many experienced clinicians have developed bad habits along the way (e.g., they find it easier to be critical than to be positively reinforcing), and need to unlearn things, as well as learn how to do BTSAS. We have attempted to provide a manual that can be picked up de novo and used effectively by someone who has good clinical instincts and some technical knowledge about mental illness and substance abuse. We cannot guarantee that it has to be done exactly the way we recommend in order to be effective, but we can guarantee that most clinicians will not have good results if they simply borrow scattered ideas and techniques. Remember, in our controlled trial, STAR was a thoughtful, highly regarded *treatment as usual* administered by trained and motivated clinicians, yet it did not fare very well in comparison to BTSAS.

SCIENTIFIC BACKGROUND

INTRODUCTION

When we began to develop BTSAS, several things were clear. First, there is a great need to treat substance use disorders among people with SPMI. As we have reviewed in chapter 1, people with SPMI show alarmingly high rates of substance use disorders and a range of severe and persistent negative consequences of use (for reviews see Bennett & Barnett, 2003; Dixon, 1999). Moreover, the toxic effects of psychoactive substances in individuals with schizophrenia and bipolar disorder may be present even at use levels that may not be problematic in the general population (Bergman & Harris, 1985; Lehman, Myers, Dixon, & Johnson, 1994; Mueser et al., 1990). Clearly, substance abuse by people with SPMI is one of the most significant problems facing the public mental health system.

Second, there is general agreement that treatment needs to address both psychiatric and substance use disorders, and that these interventions are likely to be most effective if they are delivered in an integrated fashion. "Integrated treatment" refers to treatment that occurs within the same overall system, in which there are trained and knowledgeable staff members with experience of both types of disorders, and medication is perceived as an option for patients who require it (Drake et al., 1998). This means having substance abuse treatment services housed within mental illness treatment systems as well as mental health services available in substance abuse treatment facilities, along with staff within each system who are trained to recognize, diagnose, refer, and treat dual disorders. Evidence suggests that such an approach can make a difference in terms of treatment outcome. Moggi and colleagues (1999) examined the impact that the strength of dual diagnosis treatment orientation had on substance abuse treatment outcome among male inpatients with dual disorders. Patients in programs with a strong emphasis on dual diagnosis treatment had substantially better outcomes than those in programs lacking such emphasis, including fewer psychiatric symptoms, higher rates of employment, and longer time in the community after one year.

Third, despite the widespread belief that integrated treatment is the best treatment *strategy* (i.e., a general structure for delivering treatment), there is a lack of empirical data on effective *techniques*

(i.e., specific treatment procedures) for producing change. This literature has been surveyed in three reviews, each of which used somewhat different criteria for identifying and evaluating trials. Drake et al. (1998) reviewed 36 reports on integrated substance abuse and mental health treatment, of which only two employed experimental designs and two others employed *quasi-experimental* designs. While the authors were optimistic about the potential benefits that could be achieved by integrated treatments, they were unable to specify which specific strategies were most effective in reducing drug use among SPMI clients. Dumaine (2003) and Ley, Jeffrey, McLaren, and Siegfried (2003) conducted wider searches of the literature on psychosocial treatment for dual disordered patients, and each found six randomized trials. While still advocating the use of integrated treatment, Dumaine (2003) reported that even the strategy that showed the largest effect size (general intensive case management without a specific psychoeducational component) appeared to be only minimally effective (effect size of 0.35). Ley et al. (2003) concluded that there was no clear evidence supporting any one or set of strategies in treating substance use disorders in dually diagnosed SPMI clients.

With this as background, we decided to develop BTSAS as a specific program (set of strategies) that would decrease substance use in SPMI clients as part of an integrated system of mental health and substance abuse care. To select a set of strategies that would have the greatest likelihood of being effective, we decided to turn to the substance abuse treatment literature more generally (i.e., in primary substance abusers) that finds several effective interventions for substance use disorders in primary substance abusing populations. Our goal in developing BTSAS was to take strategies that have been found to be effective in primary substance abusers, tailor them to meet the needs of the SPMI population, and integrate them with strategies that have been found to be helpful in managing patients with SPMI more generally. In this chapter, we review the different literatures that guided our development of BTSAS, as well as the strategies that have been incorporated into the BTSAS program. We present a brief review of the literature that supports the efficacy of each in treating substance abuse. In later chapters we will present more detail regarding how these strategies have been tailored to meet the unique needs of SPMI clients.

THE BTSAS PHILOSOPHY

There are several core characteristics of the BTSAS program: (1) The treatment environment must be positive, supportive, and reinforcing. (2) Attention must continually be paid to helping clients overcome obstacles to treatment participation. (3) The program must emphasize enhancing motivation to change and teaching and practicing skills for drug-free living. (4) Treatment must be broad based and integrated with mental health services. The strategies that are a part of the BTSAS program each play into one or more of these core features.

Creating a Positive, Supportive, and Reinforcing Treatment Environment For BTSAS

At the outset, the BTSAS program was designed to be positive (not negative), supportive (not harsh), and reinforcing (not punishing) in how it guided therapists to interact with clients. There is evidence that this is the sort of setting that tends to help clients make changes in their substance use. For example, Bien, Miller, and Tonigan (1993) reviewed the literature on brief interventions for alcohol problems in primary alcohol clients. First they reviewed studies of brief interventions for drinking in a range of treatment contexts (general health care settings, self-referred drinkers, specialist treatment settings), followed by an analysis of the methodological issues that were found among these studies. Overall, the authors found that brief interventions are more effective than no treatment, are often more effective than more extended treatments, and can be useful to improve the effectiveness of any further treatment for alcohol problems. Following this review, these authors identified some of the common elements found in effective brief interventions. In this way, the authors examined the underlying elements

that make effective brief interventions just that, effective. In other words, effective brief interventions have certain characteristics. Bien and colleagues summarized these characteristics with the acronym FRAMES (Feedback, Responsibility, Advice, Menu, Empathy, Self-Efficacy). We wanted to incorporate these characteristics into BTSAS.

First, effective interventions were marked by therapist–client collaboration. Rather than telling clients what was best or what to do, these interventions all involved assisting clients in figuring out what they felt they could do and what they wanted to do in terms of their substance use (**R**esponsibility), and then allowed the client to pursue options from there. Therapists were direct and honest, providing explicit feedback (**F**eedback) to clients on the exact nature and extent of their drinking problems and offered clear advice (**A**dvice) to change. However, therapists and clients in these interventions worked together to develop goals, explore, and select treatment options (**M**enu), and pursue change. Importantly, effective brief interventions stressed that change was possible, and overall were optimistic and strived to instill in clients the belief that they could change (**S**elf-efficacy). The underlying message conveyed by such strategies is that change is possible, is ultimately in the hands of the client, and that the role of the therapist includes helping the client figure out the ways in which substance abuse is affecting his or her life, and collaborating with patients to identify appropriate goals and interventions.

Incorporating this sort of underlying philosophy required some tailoring to the unique needs of a dual-diagnosis population. The strategies that comprise BTSAS involve clear and direct feedback and advice for change. Importantly, feedback and advice are not conveyed via confrontation or communicated with a tone of disappointment. Rather, feedback is provided in a matter-of-fact way, one that gives information without judgment. For example, as described in more detail in Chapter 10, feedback is given in each session on urinalysis contingency results. Clients with positive urine tests are provided with this information, reinforced for attending in spite of a dirty urine sample, and directed toward problem solving with the goal of developing a plan so that the client can cope more effectively in a high risk situation in the upcoming week. BTSAS also incorporates the idea of a menu of treatment options and therapist–client collaboration. When describing the BTSAS program to new clients, therapists tell them that they will learn many skills and need to decide for themselves which skills and strategies will be the most useful for them. Clients are encouraged to attend sessions that might not, at first, seem relevant to them, in order to learn something new to try out and to discover if this new skill can be of use to them. Importantly, clients are not told to "do what we say" and their substance use problems will be gone. Rather, clients are urged to comment on the skills, to try them out and change them around if need be in order to see what will work best for them in different high risk situations.

Second, Bien and colleagues found that effective brief interventions were marked by high levels of therapist empathy: showing support and being understanding, patient, and importantly, nonjudgmental (**E**mpathy). Primary substance abusing clients have been found to show better outcomes when treated by empathic therapists (see Miller, Benefield, & Tonigan, 1993 for a review). That empathy is an important component of effective treatment for substance abuse may seem obvious, but substance abuse treatment is not typically characterized by the kinds of support and encouragement that is more often shown to treatment of other patient populations. It is not unusual in substance abuse treatment as it is practiced in this country to see a harsh or confrontational tone to therapist–client interactions and to programming more broadly. This is most aptly illustrated by the fact that in many substance abuse treatment programs, clients who use drugs—even once—are often immediately terminated from the program. Given that clients come to such programs for treatment of their drug use, and the fact that achieving complete abstinence can take some amount of time, having a requirement of stable abstinence for continued enrollment in treatment would seem to set clients up to fail. These harsh attitudes toward substance abusers, and the idea that these clients are weak or flawed and need only show strength, smarts, or willpower in order to stop their drug use, are longstanding biases that impact treatment to this day (see Miller & Hester, 1995 for a review).

In developing BTSAS, we wanted to make sure that such biases were not a part of the work we did

with SPMI clients. These clients experience biases and stressors of their own, live lives that are difficult and oftentimes filled with hardship, and are likely to decompensate psychiatrically when under stress. It was important to us to develop BTSAS as unequivocally positive, reinforcing, and nonjudgmental, so that clients would feel comfortable, calm, and safe during their time in the BTSAS program. Therapists continually reinforce clients for any positive behaviors, including attendance at BTSAS sessions, other clinic appointments, reduced use, self-reported use of the skills learned in session, and clean urines.

Helping Clients Overcome Obstacles to Treatment Participation

SPMI clients generally have a long list of problems that stand in the way of them ever connecting with and engaging in substance abuse treatment, let alone completing treatment and benefiting from it. We wanted the BTSAS program to set clients up to succeed by building into the program a focus on enhancing motivation to change as well as practical strategies to overcome common obstacles to treatment participation. We had two important influences in this regard. The first was the Transtheorectical Model of Change (TTM), also referred to as the Stages of Change model, developed by Prochaska and Diclemente (1982). The idea guiding the model is that people come to treatment at different stages of motivation or readiness for change, and many clients are opposed to or ambivalent about change. In the precontemplation stage, clients are not considering change. In this stage, clients view the positive aspects of substance use as more important or salient than the negative consequences they incur. Precontemplators may be coerced into substance abuse treatment, or they may come for help with another issue that they believe is their central problem and they see as unrelated to their substance use. In the contemplation stage, clients are more aware of the costs of substance use and the benefits of change, but are not fully convinced that change is the best path for them. Here the client starts to understand the benefits of change, but he or she remains ambivalent about actually changing due to strongly held beliefs about the positive aspects of drug use. In the action stage, the client makes attempts to reduce or stop substance use. In the action stage, the client attempts to cut down or quit using, and in the maintenance stage the client is trying to stick with changes he or she has made. Finally, many clients will relapse, return to an earlier stage, and begin the process again.

The TTM illustrates that clients need different kinds of help depending on their readiness to change. While the assumption is that a client is ready for change when he shows up for treatment, a relatively large proportion of clients are undecided, don't think change is necessary, or have attempted change and failed. This is particularly true of clients with SPMI, who, as we reviewed in chapter 1, are generally not considering changing their substance use and face a number of practical and symptomatic barriers to change. That is, given the difficulties of working with a dually diagnosed SPMI population, it is critical to figure out how to help clients in any of these stages of change when they present for treatment. An SPMI client who is in the precontemplation stage of change may need a therapist to help her talk about her substance use in a nonjudgmental atmosphere, which might then allow for a more candid and realistic discussion of the negative consequences of her use. For the SPMI client who is in the contemplation stage, a therapist needs to help that client think more seriously about change, recognize how life would be better without drug use, and reinforce any small steps the client makes toward change. SPMI clients who are ready to make a change need help in developing skills and strategies to achieve their goals. This is a situation in which SPMI clients likely differ in important ways from less impaired populations. Many primary substance abusers are able to figure out ways to change their drug use once they have made a commitment to change: "The underlying view is that change is ultimately in the hands of the client, who has unique skills and resources to draw upon once a commitment to change is made" (Miller et al., 1998, p. 209). By contrast, SPMI clients often have few if any ideas as to how to practically achieve substance use reductions, they have few role models or sources of support, and they typically have cognitive deficits that make delaying gratification and thinking about the future consequences of some present-day action extremely difficult.

Our goal with BTSAS is to teach SPMI clients what to do and have them practice doing it so that when they are ready to change their use they have the skills and strategies to do so. Overall, the emphasis of the TTM on there being something that can be done for clients at any stage of change, and that a therapist must adjust how he or she works to the differing needs and motivational levels of clients, is a useful framework for substance abuse treatment for SPMI clients, and the one on which BTSAS is based.

In addition to using the TTM as a foundation for thinking about how to approach substance abuse treatment for dually diagnosed SPMI clients, we wanted to figure out how to assist clients in very practical ways so that substance abuse treatment was seen as "do-able." That is, what could we do to help clients be able to attend BTSAS sessions? This sort of active approach characterizes many types of interventions for SPMI clients in the mental health field, including case management, assertive community treatment, and other active outreach programs that help clients in practical ways to function in the community. We believe that the same sort of active, persistent quality was needed in order to get SPMI clients to engage in, participate in, and benefit from substance abuse treatment. Not surprisingly, this was being applied to primary substance abusers. For example, Miller (1995) reviewed ways to increase motivation for change in substance abuse treatment clients, including removing barriers to treatment, utilizing external contingencies where appropriate, and using what Miller termed "practical persistence" with clients. First, Miller stressed that seemingly simple problems can derail clients on the way to treatment, and removing practical barriers makes treatment more accessible. Applied to clients with SPMI, these practical barriers include but are not limited to paying for transportation to the clinic; scheduling conflicts (with other treatment appointments or work schedules); discomfort in group treatment sessions; poorly managed symptoms that leave clients too ill to negotiate meeting their basic needs; poorly organized lives that lead to forgotten appointments; general stress and chaos that make substance abuse treatment low on the list of a client's acute needs. Removing these sorts of practical barriers at the start of substance abuse treatment involves learning about a particular client and being creative in terms of problem solving potential solutions. For example, clients who do not have regular transportation need to be helped at the start of treatment to obtain a bus pass or other regular ride so that they know how they are getting to the clinic for treatment sessions. Schedules need to be coordinated from the beginning of treatment, with the substance abuse therapist interacting with mental health service providers to make sure that sessions do not conflict and that the client understands when and where he has to be each day. Other practical solutions include encouraging a client who oversleeps to get and use an alarm clock or have someone provide him with a wake-up call, enlisting the help of family members or other concerned people in a client's life in getting clients to and from appointments, and helping the client manage money so that he or she can pay for transportation to and from sessions if needed. Confronting and removing practical barriers to treatment attendance was an essential component of BTSAS.

Second, Miller defined use of external contingencies as using "leverage or pressure from the outside…to persuade or coerce a client to change or seek help" (Miller, 1995, p. 97). With primary substance abusers, the "outside" can include spouses, jobs, or legal authorities. Applied to a client with SPMI, this could take the form of working to coordinate all mental health and SA treatment so that all providers could reinforce treatment attendance and help one another find clients who were not attending their appointments. That is, the SPMI client needs to understand that all involved in his care (both substance abuse and mental health) are interested in his substance abuse treatment, and are working together to help this along. In addition, for those clients with legal problems, substance abuse treatment should utilize any possible legal consequences of nonattendance as a strong reason for keeping up with treatment appointments. Importantly, it is critical for this to be done within a reinforcing and positive framework, rather than have it take on a punitive tone. For example, a substance abuse treatment provider can remind an SPMI client on probation that attendance at SA treatment will help the client stick to the conditions of his probation, and any reductions in use would also help the client be seen as hard working and making progress by his probation officer. In this example, probation was not used as a potential punishment (if you don't come to substance abuse treatment groups, I'll tell your probation

officer and you will go to jail). Rather the situation is being framed as one that could help the client with his probation, as well as signal to the client that the two systems (substance abuse treatment and legal troubles) are connected and impacted by one another. Another useful area of outside influence for SPMI clients can be housing, because many clients are in housing situations that require drug abstinence. This is another situation in which any collaboration needs to be implemented in a positive and supportive way that communicates that the two domains are working together to help the client. For example, a substance abuse treatment provider can link with a housing program that requires abstinence in order to create a program in which the client is rewarded for nonuse (perhaps with additional privileges within the housing program). The two systems work together in the event of a slip or relapse (i.e., the client can maintain housing if he or she is actively working in substance abuse treatment to limit the slip and to prevent a full-blown relapse). Often these concepts (slips vs. relapse, maintaining housing through a slip as a way to help a client get back on track) will be new to housing programs and so should be addressed at the start of substance abuse treatment.

Third, Miller stressed the benefits of what he termed "practical persistence"—therapists being active and assisting clients in concrete ways. Miller cited studies that found that contact (such as a note or call) after a missed visit can greatly increase the likelihood that a client will return to treatment, and that when making a referral, the probability that a client will actually get there is dramatically increased by placing the call and making the appointment from the office, rather than just giving the client the phone number to call him- or herself (see Miller, 1995 for a review). This sort of active assistance to help clients receive services or achieve goals is a standard part of many types of mental health care for SPMI clients, such as case management or assertive community treatment (ACT). Incorporating this sort of active assistance into substance abuse treatment for dually diagnosed SPMI clients is critical in that these are clients who often lack the skills to remember appointments, follow through on referrals or other treatment recommendations, or reengage with treatment after a period of absence. BTSAS therapists make frequent calls to clients to reinforce attendance, to check in with clients who have missed sessions, and to remind clients of important upcoming appointments (whether related to substance abuse treatment, medical treatment, or mental health treatment).

Emphasis On Enhancing Motivation and Teaching Skills for Drug-Free Living

BTSAS has as its focus to help clients learn ways to reduce or stop drug use and maintain a drug-free or drug-limited lifestyle in the future. To do this, we developed BTSAS with a behavioral approach that emphasized enhancing motivation to change and teaching and practicing skills for drug-free living. The primary substance abuse treatment literature provides support for this approach. Miller and colleagues, both in 1995 (Miller, Brown et al., 1995) and again in 1998 (Miller, Andrews, Wilbourne, & Bennett, 1998), did large-scale reviews of the alcohol treatment outcome literature. In the 1995 chapter, the authors reviewed 219 studies of alcohol use disorder treatment, and the 1998 chapter added an additional 85 studies. Studies had to meet several criteria: Studies examined at least one treatment for alcohol problems; there was some comparison between the study intervention and a control or alternative intervention; some procedure was used to equate treatment groups; and there were some measures of drinking outcome (quantity, frequency, level of drinking-related problems). Importantly, the authors made ratings of these studies that took into account the size of the treatment effect for the different interventions that were included in a study; the methodology (more rigorous studies were rated higher than less rigorous ones); and the features of treatment (inpatient or outpatient setting, group or individual format, harm reduction or abstinence focus). Based on these ratings, the treatment strategies that were used in these studies were assigned a score (cumulative evidence score) that took into account the number of studies in which the strategies were found to have some effect on drinking outcomes and the methodological quality of those studies. The findings of these reviews offer a complete look at the alcohol treatment literature and a rigorous rating system for different treatment strategies.