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Evaluating Substance Abuse in Persons with Severe Mental Illness

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Prepared by:

Kim T. Mueser, Robert E. Drake, Robin E. Clark, Gregory J. McHugo, Carolyn Mercer-McFadden, & Theiman H. Ackerson

Kim T. Mueser, Ph.D.
New Hampshire-Dartmouth Psychiatric Research Center
Main Building
105 Pleasant St.
Concord, NH 03301
Telephone: (603) 271-5747 FAX: (603) 271-5265

Human Services Research Institute
2269 Massachusetts Avenue
Cambridge, MA 02140
www.tecathsri.org

U.S. Department of Health and Human Services
Substance Abuse and Mental Health Services Administration
Center for Mental Health Services
www.samhsa.gov

This Toolkit is one of a series of such kits commissioned by the Evaluation Center@HSRI. The Center is a grant program of the Substance Abuse and Mental Health Services Administration, Center for Mental Health Services. The mission of the Evaluation Center is to provide technical assistance related to the evaluation of adult mental health system change.

The Center offers six programs all of which are designed to enhance evaluation capacity. ***The programs are:*** the Consultation Program, consultation tailored to the needs of individual projects; **the Topical Evaluation Networks**, which provide a forum for ongoing dialogue via electronic conferencing; **the Toolkit Program**, which provides evaluators with tested methodologies and instruments related to specific topics; **the Materials Program**, an evaluation materials program which supplies evaluators with original papers on selected topics and identifies relevant literature in the field; **the Mini Grant Program** that provides seed grants for significant evaluations in the area of adult mental health system change; and **the Training Program** designed to enhance the evaluation skills of producers and consumers of evaluations.

The Toolkits are designed to provide evaluators with complete descriptions of methodologies and instruments for use in evaluating specific topics. Based on information from a needs assessment study conducted by the Center and on feedback from evaluators in the fields, we have identified a number of important topics that evaluators are frequently interested in examining. Expert consultants have been engaged to review the background of these topics and to compile Toolkits that provide evaluators with state-of-the-art evaluation techniques to use in their own work.

The Evaluation Center@HSRI is also interested in supporting "user groups" for its Toolkits. These groups will provide a forum for Toolkit users to share their expertise and experiences with the Toolkits. If you would like to participate in a user group, please fill in the form enclosed and return it to the Evaluation Center@HSRI.

We hope that this Toolkit on evaluating substance abuse in persons with severe mental illness will be helpful to those evaluators who are interested in assessing the impact of system changes on the life circumstances of persons with severe mental illness.

H. Stephen Leff, Ph.D.
Director

Virginia Mulkern, Ph.D.
Associate Director

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INTRODUCTION

Over the past decade families, clinicians, and mental health administrators have become increasingly aware of the problem of substance abuse in persons with severe mental illness (Lehman & Dixon, 1995; Minkoff & Drake, 1991; Ridgely et al., 1986). Previously, psychiatric patients were rarely asked about their use of alcohol or drugs, nor were the possible effects of substance abuse on the course of the disorder given more than cursory consideration. Moreover, clinicians who did suspect that their patients might have a problem with substance abuse were limited by the lack of validated instruments for assessing substance use disorders in persons with severe mental illnesses and by the lack of effective treatments.

Fortunately, substantial progress has been made in recent years in understanding the scope of the problem of co-occuring substance use disorders, in the development of reliable and valid measures for evaluating substance abuse in people with severe psychiatric disorders, such as schizophrenia and bipolar disorder, and in providing effective treatment for persons with both disorders. This toolkit provides the information needed to assess the presence of substance use disorders in persons with a psychiatric disorder, the severity of the alcohol and drug abuse, and where on the continuum of recovery from substance abuse patients fall. In our review, we have placed a premium on measurement tools that are psychometrically sound, user friendly, and time efficient to administer. At the same time, we highlight the limitations of existing instruments and discuss possible threats to the validity of assessments.

We begin with a review of the scope of the problem of substance use disorders in persons with severe psychiatric disorders, including prevalence rates and impact on the course of illness and adjustment. Next, we discuss problems inherent in the measurement of substance abuse in psychiatric clients,

and consider the difference between assessment and treatment planning. We then review the recovery process for persons with a substance use disorder, as such a process has implications for the measurement of these disorders, and we describe specific rating scales that can be used to monitor the recovery process. Methodological and training aspects of assessing substance use disorders in severely mentally ill persons are also discussed, as well as strategies for the processing and analysis of obtained data. Finally, we consider the public policy and dissemination implications of conducting substance use assessments on this population.

Scope of the Problem

Definitions

The diagnostic term "substance use disorder" refers to a habitual pattern of alcohol or illicit drug use that results in significant impairments in areas of adjustment, such as work, social relationships, economic well-being, involvement in the legal system, or physical health. Traditionally, substance use disorders have been divided into two mutually exclusive classifications—substance **abuse** and substance **dependence**—with the latter diagnosis representing the more severe disorder. Although there is some evidence that the abuse/dependence distinction may be etiologically important (Noordsy et al., 1994) and prognostically useful in the population of severely ill psychiatric patients (Bartels et al., 1995), the same assessment issues pertain to both classifications. For the purposes of this review we will follow nomenclature from the Diagnostic and Statistical Manual of Mental Disorders (DSM) and refer to a person with either substance abuse or substance dependence as having a **substance use disorder**.

The time-frame for which a substance use disorder is assessed can have important treatment implications. Generally, assessment techniques focus on

providing "lifetime" or "current" diagnoses of a substance use disorder. The specific DSM criteria for specifying the course of a substance use disorder change with each new edition. The DSM-IV uses at least one month without abuse or dependence to indicate early remission and at least one year to indicate sustained remission. Although persons with a lifetime substance use diagnosis that is in remission may be seen as not requiring substance use-related treatment services, their high vulnerability to relapses of their substance use indicates that these patients often require ongoing treatment and assessment.

The term "comorbidity" refers to the presence or co-occurence of two different medical conditions. Thus, persons with a psychiatric disorder (such as schizophrenia) and a substance use disorder (such as alcohol abuse) can be described as having **comorbid disorders**. They are also sometimes referred to as having a **dual diagnosis**. In the next section, we review the research on the prevalence of comorbid substance use disorders in persons with severe psychiatric illnesses.

Prevalence

Estimates of the prevalence of substance use disorders in persons with severe mental illness vary considerably, from as low as 10% to as high as over 65% (Safer, 1987; Goodwin & Jamison, 1990; Mueser et al., 1990; Mueser, Bennett, & Kushner, 1995). The high variability in prevalence rates appears to be due to differences across studies in factors such as the treatment setting in which patients are sampled (e.g., community mental health center, acute inpatient, chronic inpatient), whether the community is urban or rural, the demographic mix of the study sample (e.g., proportion of males), and the methods for assessing psychiatric and substance use disorders (e.g., structured clinical interview, chart review) (Galanter, Castaneda, & Ferman, 1988). For example, young males are significantly more prone to develop a substance use

disorder (Mueser, Yarnold, & Bellack, 1992), so that samples comprised of a high proportion of these clients, as is the case with many studies of "young, chronic" mental clients (Pepper, Kirshner, & Ryglewicz, 1981; Safer, 1987), tend to yield high estimates of the prevalence of substance use disorders. Similarly, clients assessed in an emergency room setting are more likely to have a substance use disorder than clients living in state hospitals (Ritzler et al., 1977; Barbee et al, 1989). Thus, the actual rate of substance use disorders in persons with severe psychiatric disorders is determined, in large part, by the mix of clients receiving treatment in that setting. Table 1 contains a list of some of the most important predictors of substance abuse in persons with psychiatric disorders.

Table 1

Predictors of Substance Use Disorders in Clients with Severe Psychiatric Illnesses

Patient Predictors	Who is Most Vulnerable
Gender	Males
Age	Young
Education	Clients with lower educational levels
Race/SES	No differences for alcohol abuse. Minorities and clients with lower SES are more likely to abuse illicit drugs (e.g., cocaine, marijuana); White and higher SES clients are more likely to abuse prescription drugs (e.g., sedatives)
Premorbid functioning social/sexual	Clients with **higher** premorbid functioning

Setting Predictors	Where Abuse is Most Likely
Population density	Urban
Treatment setting	Clients presenting to emergency rooms are most likely to have substance use disorders; patients in state hospitals are less likely

Although specific estimates vary, there is overwhelming evidence that persons with severe mental disorders are at increased risk for substance use disorders. The most comprehensive study on the comorbidity of psychiatric and substance use disorders was conducted as part of the Epidemiological Catchment Area (ECA) study (Regier et al., 1990), in which over 20,000 persons living in the community or institutional settings were assessed. The ECA study found that all people with a psychiatric disorder were more prone to substance abuse, but persons with severe mental illness were especially vulnerable. For example, clients with schizophrenia were more than four times

as likely to have had a substance use disorder during their lifetime, and those with bipolar disorder were more than five times as likely to have such a diagnosis, than persons in the general population.

The results of the ECA study, combined with numerous other prevalence studies, indicate that persons with severe psychiatric illness are more likely to have problems with alcohol and drug use than less ill clients or people with no psychiatric disorder. Overall, about half of all persons with a severe psychiatric illness have had a substance use disorder at sometime during their lives, and between 25% and 35% have a current substance use disorder. By comparison, less than 20% of people in the general population have a substance use disorder during their lives. The high rate of substance use disorders among psychiatric clients underscores the importance of accurate assessment in these persons. As described in the next section, there is a high cost, both clinically and economically, of the failure to diagnose and treat substance use disorders in this population.

Consequences of Substance Abuse

Substance abuse among persons with severe mental illness can have negative clinical effects, such as precipitating relapses and rehospitalizations, and increasing suicidality and violence; it can lead to adverse medical consequences, such as vulnerability to HIV+ infection, and precipitate psychosocial instability, such as financial problems, housing loss, and homelessness; furthermore, substance abuse can result in higher service utilization, treatment costs, and economic burden to the family (Bartels et al., 1992; Bartels et al., 1993; Clark, 1994; Cournos et al., 1991; Drake, Osher, & Wallach, 1989; Yesavage & Zarcone, 1983). The impact of substance abuse on symptoms is often so marked that clinicians are advised to first explore substance use when a psychiatric client presents with an otherwise unexplained

symptom exacerbation. Despite the serious consequences of substance abuse, there are reasons to be optimistic. In most cases, the impact of substance abuse appears to be temporary, and dually diagnosed clients who attain stable remission improve clinically and resemble non-abusing clients (Zisook, et al., 1992). Thus, successfully reducing substance abuse may result in positive outcomes in areas such as symptoms, community tenure, and service utilization.

Evaluation Difficulties

A wide range of different problems complicate the assessment of substance use disorders in persons with severe psychiatric disorders (Drake, Alterman, & Rosenberg, 1993). The major problem in most psychiatric settings is that clinicians simply fail to take a careful history of substance use. For example, a study by Ananth et al. (1989) found that 84% of substance disorder diagnoses that were detected on structured interview were missed when clients were evaluated in emergency settings and on entrance to a state hospital. Clients who are in our research studies on dual disorders are identified as having a substance disorder on only a minority of discharge summaries from a variety of hospitals. Taking a careful history of clients' alcohol and drug use behavior does not guarantee detection of a substance use disorder, but it is the most important first step in the evaluation process. Many clients who do not volunteer information about their use of substances freely admit to alcohol or drug abuse when a history is taken, enabling the clinician to establish a diagnosis.

Some clients are willing and able to describe their substance use behavior, while others are not. When evaluated directly, people with severe mental illness are prone to the usual problems that accompany self-report (e.g., recalling the details of past behavior, responding to the demand characteristics of the situation). In addition to these problems of self-report, however, they

may have difficulty participating in a structured interview during a symptom exacerbation or in crisis (Barbee et al., 1989). Another common difficulty is that cognitive, psychotic, and mood-related distortions characteristic of psychiatric disorders can interfere with accurate recall. Furthermore, it is often difficult or impossible to discern the causal effects of substance use on psychiatric clients, since they often experience multiple stressors during times of crisis; thus, for example, it may not be possible to determine the role(s) played by substance abuse in precipitating any of the elements of a crisis which include medication noncompliance, a symptom exacerbation, an episode of homelessness, and a hospitalization.

In addition to problems understanding the effects of substance use, psychiatric clients are prone to denial when they have experienced severe sanctions, such as having been extruded from a program or a housing setting, because of substance abuse. Denial is more common for marijuana, cocaine, and other illicit drugs than for alcohol (Stone et al., 1993; Galletly, Field, and Prior, 1993), probably because of laws prohibiting possession and use of such substances. Minimization often occurs due to genuine confusion about the effects of substance use. People with severe mental illnesses have typically had a number of terrible experiences in their lives, and substance abuse, although deleterious, may not be easily identified as a causal agent. In part, this is because clients are typically aware of the short-term positive effects of substance use, such as decreases in anxiety and depression, improved sleep, and temporary feelings of well-being, rather than the long-term negative effects which may be more difficult to detect, such as increases in hallucinations, suicidal thoughts, and interference with the ability to manage one's life.

Another critical problem in evaluating substance abuse in psychiatric clients is that the usual standards for assessment are different in these persons compared to people with a primary substance use disorder, but no psychiatric

illness. In other words, the dimensions of assessment—pattern of use, consequences, the dependence syndrome, and subjective distress—are all quite different for persons with severe mental illness than for those without a psychiatric disorder. Thus, people with a severe mental illness tend to incur adverse consequences on using relatively small amounts of alcohol or other drugs (Janowsky et al., 1973; Treffert, 1978; Knudsen & Vilmar, 1984; Drake, Osher, and Wallach, 1989; Lieberman, Kinon, & Loebel, 1990). The consequences that they experience, although often typical for persons with severe mental disorder, are not the consequences that are assessed on standard instruments for primary substance abusers. For example, psychiatric clients often encounter difficulties managing their illness, complying with prescribed medications, budgeting disability funds, maintaining housing, and participating in rehabilitation. On the other hand, most clients do not encounter problems with jobs, spouses, and revocation of driver's licenses because they are rarely employed, married, or own their own vehicles.

Because of their sensitivity to the effects of alcohol and other drugs, psychiatric clients often do not develop the syndrome of physiological dependence, including tolerance or withdrawal when they stop using the substance (Drake et al., 1990). Finally, due to the salience of other problems in their lives and the difficulty in making accurate causal connections between substance abuse and adjustment, they often have little subjective distress regarding alcohol and other drug use. For these reasons, standard instruments developed for primary substance abusers are usually inadequate to the task of assessing these problems in persons with severe mental illness. For example, instruments like the Addiction Severity Index (McLellan et al., 1990), which rely on pattern of use and subjective distress, often fail to detect the extent of substance abuse problems in this population.

At this point in time, there is a pressing need to develop new instruments for the assessment of substance abuse in patients with severe psychiatric disorders. Until more refined instruments are available, we recommend taking a multimodal approach. Such an assessment recognizes that no single instrument and no one source of information is sufficient to diagnose a substance use disorder accurately in this population. Rather, the most accurate assessment process makes use of several instruments, pays attention to issues of relevance for this population (e.g., effects on symptoms, treatment compliance, housing stability), obtains information from multiple sources (e.g., patient, relatives, case manager, drug screens), and includes a repeated, longitudinal component. In this toolkit we describe some simple scales and strategies for assessing and monitoring substance abuse over time.

Evaluation vs. Treatment Planning

The approach described here addresses the task of monitoring clients who are in treatment. It is not intended to serve the function of a comprehensive assessment for the purpose of treatment planning. We have reviewed the more complex approach suitable for a thorough clinical assessment elsewhere (Drake & Mercer-McFadden, 1995). Clinical assessment links the four tasks of detection, classification, detailed assessment, and treatment planning in a process of reciprocal feedback. The goal is to involve the client in an effort to identify and address all of the biological, psychological, social, and environmental factors that sustain the abusing behaviors.

The Recovery Process

An understanding of the process of recovery from a substance use disorder can aid clinicians in monitoring substance abuse and progress in treatment. Longitudinal research on persons with a primary drug or alcohol use

disorder indicates that these disorders are usually chronic over the lifetime, associated with increased mortality rates, and receive only limited amounts of treatment (Vaillant, 1983, 1988; Hser, Anglin, & Powers, 1993). Despite the persistence of these disorders, some persons do achieve sustained abstinence, with about 2-5% reaching stable remission per year, and 1-2% returning to substance abuse. Less information is available about the natural course of clients with severe mental illnesses and substance use disorders, but one long-term study (seven years) of dually diagnosed clients indicates a rate of recovery similar to that in primary substance abusers (Bartels et al., 1995). However, there is also encouraging evidence suggesting that integrated substance abuse and mental health treatment can accelerate the rate of remission in dual diagnosis clients (Drake, Mueser, Clark, & Wallach, in press; Mueser, Drake, & Miles, in press).

CLINICIAN RATING SCALES

Introduction

A large proportion of persons with severe psychiatric disorders are affected by substance abuse, and clinical research points to the need to treat psychiatric and substance use disorders in an integrated fashion. Accordingly, all mental health clinicians who work with these individuals must develop competence in the detection and treatment of substance use disorders. Simply referring clients with a substance use disorder to other clinicians or other treatment facilities never worked very well in the first place, and is no longer a credible approach. Moreover, as mental health clinicians develop expertise in the assessment and management of substance use disorders, their ability to monitor substance abuse accurately assumes even greater importance, for several reasons.

First, considering clients' high vulnerability to substance use disorders, monitoring is necessary to identify who needs substance abuse treatment services and to pinpoint the possible causes of symptom exacerbations and other crises. Second, substance use behavior needs to be repeatedly evaluated over extended periods of time and in different settings in order to monitor response to treatment. Third, regular monitoring is necessary even for clients whose substance abuse is in remission, since they continue to be at high risk for relapse of their substance use disorder. We will describe several clinical scales for assessing alcohol and drug use in psychiatric clients, and for evaluating the stage of treatment for clients' substance use disorder.

Specific Clinician Rating Scales

Our clinician rating scales were originally developed for case managers to use in monitoring their clients; some are now incorporated as part of standardized data collection across the New Hampshire mental health system. We subsequently began to use these scales for research purposes and have repeatedly demonstrated their reliability and validity.

Alcohol and Drug Use Scales The Clinician Rating Scales (CRS) for alcohol and drug use, shown in Tables 2 and 3 (p. 15 and 16), were developed to enable clinicians to assess and monitor substance use in persons with severe mental illness. The scales were based on DSM-III-R criteria, but can be modified in accordance with changes in diagnostic criteria in subsequent revisions of the DSM. Case managers who follow their clients closely in the community have access to multimodal assessment data about their use of alcohol and drugs, including self-reports, observations across different situations, collateral reports from significant others and friends, and medical evaluations from different treatment settings. Case managers can easily be trained to incorporate these data into their CRS ratings in order to monitor clients' substance use disorders over time. Because of the problems of self-report and poor validity of standard instruments with this population, reviewed above, clinicians' ratings that incorporate multiple perspectives are usually superior to assessments based on client self-reports alone.

Table 2

Client Name: _____

Date of Rating: _____

Clinician Alcohol Use Scale

Please rate your client's use of alcohol over the past six months according to the following scale. If the person is in an institution, the reporting interval is the time period prior to institutionalization. You should weight evidence from self-report, interviews, behavioral observations, and collateral reports (family, day center, community, etc.) in making this rating.

____ **1 = ABSTINENT** Client has not used alcohol during this time interval.

____ **2 = USE WITHOUT IMPAIRMENT** Client has used alcohol during this time interval, but there is no evidence of persistent or recurrent social, occupational, psychological, or physical problems related to use and no evidence of recurrent dangerous use.

____ **3 = ABUSE** Client has used alcohol during this time interval and there is evidence of persistent or recurrent social, occupational, psychological, or physical problems related to use or evidence of recurrent dangerous use. For example, recurrent alcohol use leads to disruptive behavior and housing problems. Problems have persisted for at least one month.

____ **4 = DEPENDENCE** Meets criteria for moderate plus at least three of the following: greater amounts or intervals of use than intended, much of time used obtaining or using substance, frequent intoxication or withdrawal interferes with other activities, important activities given up because of alcohol use, continued use despite knowledge of substance-related problems, marked tolerance, characteristic withdrawal symptoms, alcohol taken to relieve or avoid withdrawal symptoms.
For example, drinking binges and preoccupation with drinking have caused client to drop out of job training and non-drinking social activities.

____ **5 = DEPENDENCE WITH INSTITUTIONALIZATION** Meets criteria for severe plus related problems are so severe that they make noninstitutional living difficult. For example, constant drinking leads to disruptive behavior and inability to pay rent so that client is frequently reported to police and seeking hospitalization.

Table 3

Client Name: _____

Date of Rating: _____

Clinician Drug Use Scale

Please rate your client's use of drugs over the past six months according to the following scale. If the person is in an institution, the reporting interval is the time period prior to institutionalization. You should weight evidence from self-report, interviews, behavioral observations, and collateral reports (family, day center, community, etc.) in making this rating.

____ **1 = ABSTINENT** Client has not used drugs during this time interval.

____ **2 = USE WITHOUT IMPAIRMENT** Client has used drugs during this time interval, but there is no evidence of persistent or recurrent social, occupational, psychological, or physical problems related to use and no evidence of recurrent dangerous use.

____ **3 = ABUSE** Client has used drugs during this time interval and there is evidence of persistent or recurrent social, occupational, psychological, or physical problems related to use or evidence of recurrent dangerous use. For example, recurrent drug use leads to disruptive behavior and housing problems. Problems have persisted for at least one month.

____ **4 = DEPENDENCE** Meets criteria for moderate plus at least three of the following: greater amounts or intervals of use than intended, much of time used obtaining or using substance, frequent intoxication or withdrawal interferes with other activities, important activities given up because of drug use, continued use despite knowledge of substance-related problems, marked tolerance, characteristic withdrawal symptoms, drugs taken to relieve or avoid withdrawal symptoms. For example, binges and preoccupation with drugs have caused client to drop out of job training and non-drug social activities.

____ **5 = DEPENDENCE WITH INSTITUTIONALIZATION** Meets criteria for severe plus related problems are so severe that they make noninstitutional living difficult. For example, constant drug use leads to disruptive behavior and inability to pay rent so that client is frequently reported to police and seeking hospitalization.

Mark drugs used: __ Cannabis __ Cocaine __ Hallucinogens __ Opiates
__ PCP __ Stimulants __ Sedatives/Hypnotics/Anxiolytics
__ Over-the-counter __ Other _____

The CRS encompasses a simple classification system that corresponds to DSM-III-R criteria and also to severity in terms of clinical distinctions that are considered meaningful for this population. Thus, as described in Tables 2 and 3, the categories of abstinent, use without impairment, abuse, dependence, and dependence with institutionalization comprise the CRS. An unusually large proportion of clients with severe mental illness abstain from alcohol or drug use, particularly those patients with poor premorbid functioning and more severe symptoms (Ritzler et al., 1977; Mueser et al., 1990; Dixon et al., 1991; Arndt et al., 1992). This isolation may be due to their severe social isolation and lack of awareness of social norms, including potentially destructive norms, which renders them less likely to be exposed to substance use and less able to maintain a pattern of regular use (Cohen & Klein, 1970). Non-problematic use is documented because these clients tend to develop substance abuse if they continue using. Therefore, these clients are important candidates for education and early intervention to prevent the development of a substance use disorder (Drake & Wallach, 1993).

Abuse, according to DSM-III-R criteria (American Psychiatric Association, 1987), is defined as a pattern of substance use that leads to significant impairment or distress in vocational, social, emotional, or medical functioning, or results in recurrent use in situations which are physically hazardous. These criteria can easily be tailored to persons with severe mental illness because they typically experience some negative effects of their substance abuse, such as inability to manage funds, maintain housing, or participate in rehabilitation. Dependence involves greater severity of the addiction process and is operationalized in terms of DSM-III-R criteria: e.g., greater amounts or intervals of use than intended, much of time used obtaining or using substance, frequent intoxication or withdrawal interferes with other activities, important activities given up because of substance use, continued use

despite knowledge of substance-related problems, marked tolerance, characteristic withdrawal symptoms, substance taken to relieve or avoid withdrawal symptoms. Other criteria, which are more typical of clients with severe mental disorder, should probably also be included in this definition. Evidence from at least two studies indicates that the abuse-dependence distinction may be particularly important for these clients (Bartels, Drake, and Wallach, 1995; Noordsy et al., 1994). Finally, when clients have difficulty maintaining themselves outside of institutional or homeless settings because of their involvement with substances, they are rated as severely dependent.

The CRS is reliable, sensitive, and specific when used by case managers who follow their mentally ill clients over time in the community (Drake, Osher, & Wallach, 1989; Drake et al., 1990). Test-retest reliabilities over one to two weeks on small samples have been close to 100%. Inter-rater reliabilities, established by comparing ratings of clinical case managers and team psychiatrists, have yielded Kappa coefficients between .85 and .95 for current use disorder (Drake, Osher, and Wallach, 1989). An independent study used the CRS to rate recent and past alcohol and drug use disorders, each separately, and found intraclass correlation coefficients ranging between .58 - .82, (Mueser et al., 1995). When CRS ratings were compared to consensus diagnoses generated by a team of experienced psychiatrists using all clinical, research, and treatment data available for each client to establish a current diagnosis of substance abuse or dependence, the CRS achieved a high sensitivity (94.7%) and specificity (100%) (Drake et al., 1990).

The ratings refer to an individual's particular pattern of substance use. As Table 3 indicates, categories of abuse should include not just the usual groups of abused drugs, but also over-the-counter medications (e.g., antihistamines, "diet" pills) and prescribed medications (e.g., benzodiazepines),

two types of substances that are often abused by persons with severe mental illness.

The Substance Abuse Treatment Scale The Substance Abuse Treatment Scale (SATS) was developed to assess and monitor the progress that persons with severe mental illness make toward recovery from substance use disorder. Empirical observations by clinicians and clients' self-reports indicated that persons with severe mental illness typically recover from substance use disorders in a sequential fashion: First they become engaged in some type of treatment relationship. Second, they develop motivation to moderate or eliminate their use of alcohol or drugs. Third, they adopt active change strategies to attain controlled substance use or, more typically, abstinence. Fourth, they endeavor to maintain specific changes and build supports to prevent relapses. These observations led Osher and Kofoed (1989) to postulate four stages in the recovery process, which they called **engagement**, **persuasion**, **active treatment**, and **relapse prevention**. Clinicians who have used this four-stage model in New Hampshire since 1989 observed that they were actually able to differentiate early and late aspects of each stage, thus expanding the model to a total of eight stages—pre-engagement, engagement, early persuasion, late persuasion, early active treatment, late active treatment, relapse prevention, and recovery—that corresponded to progress and treatment needs. These eight stages were defined with operational criteria, as shown in Table 4 (next page).

Substance Abuse Treatment Scale

Instructions: This scale is for assessing a person's stage of substance abuse treatment, not for determining diagnosis. The reporting interval is the last **six months**. If the person is in an institution, the reporting interval is the time period prior to institutionalization.

1. **Pre-engagement** The person (not client) does not have contact with a case manager, mental health counselor or substance abuse counselor.
2. **Engagement** The client has had contact with an assigned case manager or counselor but does not have regular contacts. The lack of regular contact implies lack of a working alliance.
3. **Early Persuasion** The client has regular contacts with a case manager or counselor but has not reduced substance use more than a month. Regular contacts imply a working alliance and a relationship in which substance abuse can be discussed.
4. **Late Persuasion** The client is engaged in a relationship with case manager or counselor, is discussing substance use or attending a group, and shows evidence of reduction in use for at least one month (fewer drugs, smaller quantities, or both). External controls (e.g., Antabuse) may be involved in reduction.
5. **Early Active Treatment** The client is engaged in treatment, is discussing substance use or attending a group, has reduced use for at least one month, and is working toward abstinence (or controlled use without associated problems) as a goal, even though he or she may still be abusing.
6. **Late Active Treatment** The person is engaged in treatment, has acknowledged that substance abuse is a problem, and has achieved abstinence (or controlled use without associated problems), but for less than six months.
7. **Relapse Prevention** The client is engaged in treatment, has acknowledged that substance abuse is a problem, and has achieved abstinence (or controlled use without associated problems) for at least six months. Occasional lapses, not days or problematic use, are allowed.
8. **In Remission or Recovery** The client has had no problems related to substance use for over one year and is no longer in any type of substance abuse treatment.

Recovery from a substance use disorder is a longitudinal process that takes place over months or years. When clinicians do not understand the longitudinal process, they often bring unrealistic expectations to the interaction, offer interventions for which the client is not ready, and become frustrated. Use of the SATS reminds the clinician of the longitudinal process and permits the identification of treatment options that are appropriate for the client's current stage of recovery. Other advantages of using the SATS to assess and monitor clients are that it allows the clinician to evaluate progress before abstinence is obtained and permits monitoring over time of specific patients and programs (McHugo et al., in press).

Use of the SATS does not imply that recovery is a linear process. Substance abuse is a chronic, relapsing disorder. Clients typically backslide and cycle between stages, particularly early in treatment, as a natural part of the recovery process. Nevertheless, at any one point in time, treatment needs to be provided which is matched to the client's current stage of recovery (Drake & Noordsy, 1994). Thus, for example, a client who is homeless and living in a shelter must typically be engaged in a collaborative treatment relationship, or working alliance, before he or she will be interested in pursuing substance abuse treatment. As another example, once the client is engaged in a treatment relationship, he or she must have some motivation to pursue abstinence before successfully participating in one or more active, abstinence-oriented interventions. Before motivation is present, motivational interventions are more appropriate than strategies designed to reduce alcohol and drug use.

Initial studies of the SATS (McHugo et al., in press) indicate high inter-rater and test-retest reliability, with intraclass correlations typically around 0.9. Clinician ratings of the SATS also correspond strongly to ratings made by researchers, as well as to clinician ratings of substance use, and to client self-reports about alcohol and drug use. Correlations are in the 0.3 to 0.6 range on

these measures of similar constructs, used to assess convergent validity. As a measure of discriminant validity, SATS ratings are correlated with assessments of progress in other functional domains in the 0 to 0.3 range.

The SATS can be used as either a process or an outcome measure. As a process measure, the SATS yields useful information to clinicians as to their most proximate goals in therapy and the techniques that may aid in helping a client progress to the next stage of treatment. Thus, the most immediate goal when working with a client in the pre-engagement phase is to work towards the next stage, engagement, by establishing an interpersonal, helping relationship. Efforts to convince the client to address his or her substance abuse problem before such a relationship is established usually fail and may drive the person away from treatment. As an outcome measure, the SATS enables clinicians and program evaluators to assess the success (or lack thereof) of treatment for substance use disorders. A total lack of change or multiple backslidings over many years, as evident from repeated assessments with the SATS, might be used to question the interventions or programs being used to treat those specific clients. In sum, the SATS can be used to guide the clinician's therapeutic work and to inform clinicians and program evaluators as to whether progress is evident in particular clients or groups of clients.

Necessary Data for Valid Clinician Ratings

We have briefly described in the preceding section the need for information from multiple sources for clinicians to make reliable and valid ratings on the CRS and SATS. This procedure relies on the clinician's actively pursuing, obtaining, and synthesizing information from a wide array of different sources. It assumes that case managers or other clinicians using these scales know their patients well, understand the various clinical presentations of

substance use disorders and the recovery process, and are unbiased in their assessments. These assumptions are supported by previous research we have conducted on the use of these scales by clinicians in a variety of mental health settings. In this section we elaborate on the necessary types of data, including self-report measures, direct observations, collateral reports, urine drug tests, and assessments from other treatment settings.

Self-report Measures No single self-report instrument has great validity in this population, but such assessments can provide invaluable information about some clients' use of alcohol and drugs. To obtain specific information about clients' recent substance use, we recommend assessing the pattern of use over the past six months using the Time-Line Follow-Back (TLFB) method (Sobell et al., 1980). An example of a TLFB assessment form is provided in Table 5 (p. 26). The TLFB involves having the client estimate the specific amount of alcohol and different types of drugs consumed each month over the past six months. Although these estimates may be biased towards underreporting, they are nevertheless useful in characterizing the pattern of abuse in clients who admit to at least some alcohol or drug use.

Table 5

Drug/Alcohol 6-Month Follow-Back Calendar

I.D. Number: _____ Date: ____/____/____

Instructions to Interviewer: Probe for patterns of alcohol and drug use, starting with information from the past 30 days obtained on the ASI. Work backwards, month by month, and emphasize days of abstinence within each month.

ALCOHOL						
Month	1	2	3	4	5	6
Kind						
How Much						
How Often						
DRUGS						
Month	1	2	3	4	5	6
Kind						
How Much						
How Often						

Once a pattern of substance use has been established, specific consequences of use can be evaluated by employing a checklist derived from the DSM. We also recommend supplementing the items on this checklist with additional items that are frequent problems in persons with severe mental illnesses, such as those listed in Table 6 (next page). Self-report information, when combined with knowledge of common consequences of substance abuse in the psychiatric population, is often sufficient to evaluate the severity of a substance use disorder.

Table 6

Checklist of Common Consequences of Substance Abuse in Persons with Severe Mental Illness

Consequence	Examples
Housing instability	getting evicted from apartment, group home, family
Symptom relapses apparently unrelated to life stressors	increases in psychotic symptoms, worsening of depression, mania
Treatment noncompliance	failing to attend medication or other clinic appointments
Violent behavior or threats of violence	getting into fights, throwing objects, cursing at others
Sudden, unexplained mood shifts	depression and hopelessness, anger, euphoria, anxiety, expansiveness
Suicidal ideation or attempts	thoughts or talk about hurting or killing oneself, contemplating death, thinking of plans to hurt oneself
Cognitive impairments	increased confusion, memory problems, difficulty planning ahead not related to a stress-induced symptom relapse
Difficulty budgeting funds	frequent attempts to borrow money, stealing money, pawning one's own or others' possessions
Prostitution	trading sex for money, food, clothing, or drugs/alcohol
Social isolation	increased avoidance of others
Social difficulties	frequent arguments with family, friends
Employment difficulties	frequently tardy or absent, arguments with employer or other employees, having pay docked, job loss
Hygiene and health problems	deterioration in personal hygiene and grooming, medical problems, weight loss
Legal problems	arrests for disorderly conduct, drunken driving, possession of illicit drugs, shoplifting

Clinician Ratings Based on Direct Observations One of the most critical sources of information about substance abuse is the clinician's own observations of clients' behavior at the mental health center or other treatment settings. For example, if clients appear for appointments or attend groups when they are intoxicated, there is strong evidence that they have a substance use disorder. Other behavior changes may also provide clues about a possible substance abuse problem, such as missed appointments, unexplained symptom relapses, sudden interpersonal conflicts, or budgeting problems in a client who is ordinarily able to manage his or her money (see Table 6 for other common consequences). Although observations of clients in treatment settings are useful, information gleaned across different situations and at different times of the day in non-treatment settings is also very helpful. Such information is available to clinicians whose work is not solely clinic-based and who have the flexibility to meet with clients in more naturalistic settings (e.g., at their homes, restaurants, parks).

Collateral Reports Clinicians are frequently privy to a limited and biased sample of behavior based on their own contacts and observations of clients. This over-reliance on a select sample of behavior can sometimes be overcome by obtaining collateral reports from others who have regular contact with the client. Other treatment providers, as well as shelter workers, housing staff, and family members are the most commonly available people, but reports may be available from others as well (e.g., friends, members of the clergy, law enforcement officials). When obtaining collateral reports about clients' substance use behavior, it is useful for the clinician to review with the informant some of the common consequences of substance abuse in persons with severe mental illness (Table 6), and the specific criteria included in the CRS (Tables 2 and 3). This discussion may highlight for the informant critical

behaviors characteristic of a substance use disorder, improving their ability to aide in the monitoring of these problem behaviors. An important goal when soliciting collateral reports is to develop a working relationship with others who are familiar with the client's behavior outside of the usual treatment setting, so that ongoing information can be obtained from these same sources.

Urine Drug Tests Urine drug tests cannot inform clinicians about the consequences of substance use, but they can identify which clients have been recently using substances. Our experience has been that urine drug screens are more likely to be resisted by the clinicians who must administer them than by the clients who provide samples. Therefore, once obstacles within a given treatment setting have been overcome, such screens can be readily obtained, and they provide a unique insight into clients' substance use. We recommend regular testing whenever the clinical situation suggests possible substance abuse and regular testing (e.g., at least every month) for those who are in the process of recovery (Drake, Alterman, & Rosenberg, 1993).

Assessments from Other Treatment Settings Finally, clinicians need to be aware of all information available about clients' substance use history in records from other treatment settings. Clients are often inconsistent about what they tell different treatment providers, and an accurate assessment can only be made when all possible sources of information have been compiled. For example, general medical records may provide information on alcohol-related problems.

Frequency of Clinical Assessments

Substance use disorders in both the general population and among persons with severe mental illness tend to be chronic, often life-long conditions. Because of the severity and persistence of these disorders, they tend to improve with treatment at exceedingly slow rates. Stable changes often appear after

years, rather than weeks or months, of attempts to change. The short-term picture, i.e., what happens over 30 days following an intervention, is not strongly predictive of stable changes. Therefore, for the purposes of both clinical and program evaluation, assessments need to be conducted on a regular basis over long periods of time. We recommend conducting formal clinician assessments (CRS, SATS) on all clients in a mental health program every six months, although on-line clinicians should conduct informal assessments on a more frequent basis (e.g., monthly) in order to best meet clients' needs. Furthermore, we recommend that routine assessments be conducted for at least a two-year period on any client who has a history of substance use disorder, even if that disorder is currently in remission. Long-term follow-up assessments are especially important in order to evaluate the success of programs aimed at improving the course of dually diagnosed clients. Most of the available evidence suggests that brief programs lasting one year or less tend to produce only transient improvements in substance use disorder in this population.

For example, our studies in New Hampshire show a slow but steady progression toward attaining stable abstinence, so that few clients appear to improve markedly over any six month interval, but significant progress can be observed over two or three years (Drake, McHugo, & Noordsy, 1993; Drake, Mueser, Clark, & Wallach, in press; McHugo et al., in press). These studies document that recovery occurs slowly, in stages, over years. By three years, one third to one half have typically achieved substantial abstinence, and many others have moved into active, abstinence-oriented treatment with reduction in their use.

Setting

Substance abuse is an extremely environmentally sensitive disorder (Galanter, Castaneda, & Ferman, 1988; Moos et al., 1990). This means that a

client's substance use behavior in one environment may not generalize to another setting. Thus, abstinence in an institutional setting, whether prison or hospital, or in a residential treatment setting, is not predictive of abstinence in less restrictive settings in the community, as such clients often relapse when they return to their usual community living situations. The implications of this limitation are two-fold. First, assessments of substance use behavior need to be routinely conducted when a client's environment has changed, because there is little generalization of assessments across different settings. Second, intervention for clients with substance use disorders in highly restrictive environments must also extend the treatment into clients' natural settings if treatment gains are to be maintained. The failure to provide a continuity of care from inpatient or residential-based treatments for substance use disorders may be one reason why such approaches have not been found to have long-term impact (Drake, Mueser, Clark, & Wallach, in press). Thus, from the perspective of program evaluation, substance use disorders require ongoing assessment, especially following a change from a more restrictive to a less restrictive living arrangement.

TRAINING

The training of clinicians in the use of the substance abuse assessment scales described here can be divided into five steps: introduction to the concepts, description of the specific scales, practice and discussion using each scale, and reliability and validity checks. The essential components of each of these steps are reviewed below.

Introduction to the Concepts

Clinicians need to be introduced to three broad concepts before they can learn to provide valid ratings on the CRS and SATS: 1) the prevalence of substance use disorders in the general and psychiatric populations; 2) the defining characteristics of substance use disorders (i.e., the definitions of "substance abuse" and "substance dependence"); and 3) the concept of "stages of treatment." The introduction to these concepts is best achieved by a combination of assigned readings, didactic presentations, and group discussions. For assigned readings on the prevalence of substance use disorders in the severely mentally ill, we recommend the chapter by Mueser, Bennett, and Kushner (1995). For the definition of substance use disorders, we recommend reading the relevant sections from the DSM on substance use disorders and the article by Drake, Alterman, and Rosenberg (1993) on assessment. Concerning the stage of treatment concept, we recommend Osher and Kofoed's (1989) article. These articles are reprinted with permission in Appendix A.

We have had the most success training clinicians when we have assigned the relevant articles in advance and started each session with a brief, didactic review of the content of the article. This introduction is then followed by an open discussion of the concept in which the main purpose is to elicit clinicians' understanding of the material, correct misconceptions, and enable them to see

the relevance of the information to their clients. Although this educational component of training precedes instruction in the actual use of the scales, trainers need to be alert to opportunities to provide additional education to clinicians about these concepts throughout all aspects of the training process.

Description of the Specific Scales

After clinicians have become familiar with the core concepts behind the scales, they are introduced to the scales themselves. Copies of the scales are handed out or projected on an overhead screen, a brief overview of the entire scale is provided, and then the specific items on each scale are reviewed in the order they appear. As with all aspects of the training process, we suggest that trainers periodically stop and ask clinicians to paraphrase their understanding of specific points, in order to evaluate their comprehension of the presented material. Furthermore, eliciting specific case examples from clinicians during the course of describing the scales can help them understand how different points on each scale translate into actual clinical cases. When introducing the specific scales, discussion of the two CRS scales (alcohol and drug) can be combined into a single session. However, we caution against including a discussion of the SATS in the same session, as the function of this scale is somewhat different, and discussion of all three scales in a single session runs a significant risk of information overload for the participants.

Practice & Discussion Using Each Scale

When clinicians understand the purpose and components of a scale, they are ready to begin learning how to use it. Before clinicians rate their own clients, it is useful to give them practice rating clinical vignettes which the trainers have prepared in advance. These vignettes serve to describe prototypical cases that illustrate a particular rating on the scale. Clinicians must

be familiar with how such clear-cut cases should be rated before they are prepared to evaluate other, less obvious cases. Table 7 provides a series of clinical vignettes that illustrate each point on the SATS. These specific vignettes could be used for training, or other vignettes could be generated that more closely approximate the clients receiving services in a particular setting.

Vignettes can be used in two different ways when training clinicians. First, a vignette can be provided to illustrate a particular point on the rating scale, thus translating an abstract idea into a clinical example. Second, clinicians can be presented with a vignette and requested to identify which rating would best correspond to that example. This allows clinicians to "test" themselves and provides information to the trainer about their understanding of the use of the scale. When training is conducted in a group format, the responses of different clinicians can be discussed and clarifications can be made concerning the correct answer. We recommend using clinical vignettes both to illustrate the rating scales and to provide clinicians initial practice in using the scales.

After clinicians have demonstrated sufficient understanding of the use of the scale with clinical vignettes, they can begin practicing the scale on their own clients. At first it is preferable to ask each clinician to rate a small number of each of their clients (2-4 clients) and to bring back their ratings to the group. It is optimal if each clinician who is providing ratings can rate clients who can also be rated by another clinician. This will permit comparison of the different ratings. Clinicians should be requested not to discuss with each other how a client would be rated until after they have made their ratings. Ratings should then be discussed in the group, with an effort made at reconciling differences through reaching a consensus. The process of rating clients and then discussing the ratings usually needs to continue for several training sessions. Trainers can

keep track of agreement to determine when clinicians are able to use the scales accurately.

Reliability & Validity Checks

Reliability and validity checks need to be conducted on a regular basis for all clinicians who provide ratings on these scales. We recommend that routine reliability and validity checks be conducted every six months. The **reliability** of ratings refers to the level of agreement achieved by independent raters for a particular scale (i.e., how consistent a rating is across different clinicians). To assess reliability, different clinicians should provide independent ratings on the same clients. It is best if the clinicians are not aware that a reliability check is being conducted, since such information could influence their ratings. Ratings of the same clients can then be compared across different clinicians. Usually, ratings of at least ten different clients need to be obtained to determine whether they are reliable, and ratings of more clients are preferred. Although there are complicated statistical formulas for evaluating level of agreement between raters, a simple approach is to determine the percentage of agreement between different pairs of clinicians. A level of 80% agreement is considered acceptable. If some clinicians fall below this level, additional training sessions should be considered. If many clinicians fall below this level a special meeting may be required to evaluate whether the clients rated posed special problems in using the scales, or whether there are significant differences in how clinicians understand the scales are to be used.

The **validity** of ratings refers to how accurate the ratings are in terms of what they are intended to measure. In other words, does a rating really reflect the severity of a client's substance use disorder or his/her stage of treatment? Unlike the question of reliability, there is no simple answer to this question. However, by examining other measures which are believed to be related to

substance abuse, one can gather information pertinent to the validity of a clinician rating. For example, if a urine drug screen reveals the presence of cocaine in the urine of a client, one would expect that client to have a rating on the CRS-Drug of at least "2" (recent use) and probably higher. If a client was arrested for "drunk and disorderly conduct," then he or she would be expected to have a rating of at least "3" (alcohol abuse) on the CRS-Alcohol scale. If a client has regular contact with the case manager and has been attending groups for dually diagnosed persons, he or she would be rated at least a "3" (Early Persuasion) on the SATS. The specific information available to assess the validity of clinician ratings will vary across clients and programs. Despite the difficulty in evaluating the validity of clinician ratings, such checks are essential to be confident that the rating scales are being used as intended, and in order to troubleshoot problems related to their use.

DATA PROCESSING & ANALYSIS

The processing and analysis of ratings based on the clinician scales is straightforward, as the scales themselves are quite simple. Improvements in client's substance use disorders (CRS) and stage of treatment (SATS) over time can be examined by computing within group t-tests (two time points) or repeated measures analyses of variance (more than two time points), with the ratings of each scale treated as a continuous dependent variable. Evaluations can also be conducted using these scales to determine whether clients have changed their group membership over time. For example, on the CRS a rating of "3" or higher denotes that the client has a substance use disorder. Thus, ratings of "1" or "2" can be collapsed to form a "no disorder group," and ratings of "3," "4," or "5" can be collapsed to form a "substance use disorder group," and subsequent analyses could be performed to evaluate whether the number of clients with a disorder changed as a function of treatment. Similarly, ratings on the SATS could be combined to represent the four stages of recovery from substance abuse ("1" and "2," "3" and "4," and so on).

Dissemination/Public Policy

Growing emphasis on the cost-effectiveness of treatment highlights the need for valid, easy-to-use outcome measures that can be applied consistently across a wide variety of settings. Better measurement of substance abuse and other outcomes has tremendous potential to improve the effectiveness of treatment. If used consistently, valid and reliable client outcome measures are likely to have a broad impact on financing of care, on demand for treatment and on provider training.

Private corporations and government agencies are relying increasingly on outcome data to make financial decisions. Maine, New Hampshire, and other

states have already begun experimenting with reimbursement mechanisms that tie payments to client outcomes. Among private insurers and providers, treatment outcomes are rapidly becoming a factor in competition for contracts and for clients. Large managed care firms are rushing to set up departments for measuring outcomes. With these high stakes, the validity and reliability—even the use—of outcome measures are likely to be scrutinized carefully and challenged repeatedly. In such an environment it is critical that providers use the best measurement techniques possible and that they apply them appropriately and consistently across clients and settings.

From the purchaser's perspective, it is essential to account for the limitations of outcome measures that were discussed in the preceding sections. Caution is especially important when outcomes are measured over short periods of time. Until we understand better the longitudinal course of substance abuse and mental illness, payers should be careful about tying strong financial incentives to outcomes. Incentives that are too strong could encourage providers to emphasize short-term results at the expense of more lasting improvements or to exclude from treatment those clients who are more severely impaired.

Assessment of substance abuse in people with mental illness, like other outcome measures, is not free. Although the approaches we have discussed are relatively inexpensive, the cost of careful evaluation can range from a small addition to the workload of clinicians and administrative staff for collection and analysis of data to expenditures for special interviewers, urine tests, computer equipment, software, and expert data analysis. Because the quality of measurement often increases with expenditures for more sophisticated techniques, there is a tradeoff between cost and quality. Ultimately, providers and payers must decide what level of accuracy and cost they are willing to accept.

Additional interest in measuring and monitoring substance abuse by people with mental illness is already increasing the demand for specialized training in treatment of dual disorders. To be effective, such training should be available on a continuous basis. Ongoing formal instruction from an outside trainer would strain the meager training budgets of most providers, but some organizations have addressed the problem by identifying staff members with the requisite skills and interest to be in-house trainers and by supplementing their efforts with outside trainers from time to time.

Despite increasing awareness of the need to monitor outcomes carefully, students in most clinical training programs get very little training in the theory and techniques of outcome measurement. Even when such instruction is a part of their training, it rarely focuses on the specific problems of dual disorders. Increasing demands to show results from expensive clinical interventions make it doubly important that present and future providers have an understanding of the basic principles of outcome measurement. Incorporating into clinical curricula training in how to evaluate substance abuse and in how to use such information for improving treatment interventions would help prepare future clinicians to function effectively in a world in which outcomes achieved, rather than services provided, are the measure of success.

Table 7

Vignettes for Substance Abuse Treatment Scale

1 = Pre Engagement

The person does not have contact with a case manager, mental health counselor, or substance abuse counselor.

John was seen by Emergency Services after being picked up by the police for disturbing the peace. He had been drinking heavily and was yelling loudly at passerby's to "stop looking at him". He had no particular residence and no visible means of support. From old hospital records it was found that he had been in a state psychiatric hospital for 20 years and had been discharged 5 years ago. After a brief period of hospitalization for stabilization on medications and detoxification he was referred to the community support program at the local mental health center (MHC). He did not keep any appointments at the center but is often seen in the company of other clients of case management.

Jeanne, a woman of indeterminate age, lives in a SRO building and has high visibility in the local community because of her "weird" behaviors which become worse when she is using substances. Police and local merchants have called the MHC about her and several attempts have been made by MHC outreach staff to get her into the center. She continues to refuse these offers.

2 = Engagement

The client has had contact with an assigned case manager or counselor but does not have regular contacts. The lack of regular contact implies lack of a working alliance.

Lionel, a young single man who has been diagnosed in the past as suffering from schizophrenia, occasionally shows up at the mental health center and demands to see someone. He knows he has a case manager but cannot remember his name. He last saw his case manager 3 months ago when he

wanted to get fuel assistance. His contacts are infrequent, and usually involve wanting money, food or cigarettes. Lionel smokes marijuana on a daily basis but does not speak with his case manager about it.

After a brief hospitalization at the local psychiatric unit following a psychotic episode, Pamela, a young college student, was assigned a case manager. She saw her case manager on 2 occasions following discharge but has not been seen for several months at the MHC and has not responded to phone calls or letters. The client‘s mother has called the case manager and says that she is worried about Pamela‘s increasing paranoia and indiscriminate use of substances.

3 = Early Persuasion

The client has regular contacts with a case manager or counselor but has not reduced substance use more than a month. Regular contacts imply a working alliance and a relationship in which substance abuse can be discussed.

Julie sometimes initiates contact with her case manager and usually keeps her appointments. Most of her contacts are in regards to basic needs. She is able to listen when her case manager brings up her binges and other substance use but does not contribute to the conversation or acknowledge a problem. The case manager’s approach is to increase Julie‘s awareness of substance use without any demands for abstinence.

Fred has been a client of the MHC for many years. He was a long time resident of the state hospital prior to his involvement at the MHC.
Fred continues to drink at least a quart of wine daily and is not compliant with taking his Haldol. He does meet weekly with his case manager and sometimes calls when in crisis. The meetings usually deal with concrete needs and activities of daily living.

4 = Late Persuasion

The client is engaged in a relationship with a case manager or counselor, is discussing substance use or attending group, and shows evidence of reduction in use for at least one month (fewer drugs, smaller quantities, or both). External controls (e.g., Antabuse) may be involved in reduction.

Ezekial, a young man with a history of schizoaffective disorder and heavy marijuana use, was placed in a group home. His mother became representative payee to control his funds. Since his placement, his relationship with the case manager has improved. He attends weekly sessions and is about to start a substance abuse group. It appears that his substance use has decreased so as not to be a daily occurrence. Ezekial is able to discuss in his sessions what the effects of substances are and on rare occasions verbalizes a goal of abstinence.

Star lives in a supported apartment with two other clients of the mental health center. She attends a day treatment program at the MHC 3 days a week and sees her case manager twice a month. Star attends a "Double Trouble" AA group once or twice a month in the community. Her case manager reports the number of "parties" at the apartment have decreased considerably and Star has not been binging as much.

5 = Early Active Treatment

The client is engaged in treatment, is discussing substance use or attending a group, has reduced use, for at least one month, and is working toward abstinence (or controlled use without associated problems) as a goal, even though he or she may still be abusing.

Joe is a 44 year old twice divorced father of two who has a 20 year history of bipolar disorder and polydrug abuse. In the past year, he has taken more responsibility for his substance abuse. He is beginning to discuss it with his case manager and in weekly group meetings at the MHC. He has started to chart his weekly use and though not abstinent he says that eventually he wants

to be clean and sober. He complies with his psychiatric medications and is attempting to make social contacts with non abusers.

Crystal is a grandmother with years of polysubstance abuse. Her psychiatric symptoms are controlled with medication which she receives every other week from the MHC nurse. She sees her case manager at least monthly. Six months ago she went on a binge of drinking and also smoking crack. She was out of control, was brought to the ER, and scared her daughter and her 2 grandchildren. Since that incident she has contracted with her case manager and her daughter not to use crack and is trying to cut down on her drinking. She wants to be able to still drink in a controlled manner, but if this does not work then she states that she would have abstinence as a goal. She has begun to attend AA again and is calling her case manager weekly to report her progress and discuss her concerns.

6 = Late Active Treatment

The person is engaged in treatment, has acknowledged that substance abuse is a problem, and has achieved abstinence (or controlled use without associated problems), but for less than six months.

Gina is a young single woman with bipolar disorder who is active in NA and AA for her cocaine addiction. She has been abstinent for 2 months and prior to that has had a 5-month and a 4-month period of abstinence. After her last lapse she asked to be in a more structured living situation associated with a treatment program. She knows that cocaine is her drug problem and uses this as a focus of her weekly meetings with her case manager. Her goals include abstinence and getting to work.

Jonathan has been actively engaged in the case management program at the MHC for over one year. During this time he has made much progress on his daily abuse of alcohol and has now been abstinent for 3 months. With the help of his case manager and the weekly substance abuse groups, he realizes that his delusions and his behavior are affected by his substance abuse. He now takes his psychiatric medications regularly.

7 = Relapse Prevention

The client is engaged in treatment, has acknowledged that substance abuse is a problem, and has achieved abstinence (or controlled use without associated problems) for at least six months. Occasional lapses, not days of problematic use, are allowed.

Vanessa a middle-aged woman with a bipolar disorder sees her case manager weekly. She has been sober for 2 years with one lapse of 2 days several months ago. She became depressed over a love relationship, loss of a job and financial problems, and slipped. Following this she went into an 8-week day treatment program and has continued to work with her case manager in treatment to deal with these issues.

Sky is active in AA, where he has a sponsor, and also attends the weekly substance abuse group at the MHC. He actively engages other clients and confronts them about their abuse. He has been clean and sober for 2 and 1/2 years. He still has cravings but has utilized his case manager and community support system to get through these periods. Sky has completed a year of college and is active in the mental health consumer group.

8 = Recovered

The client has had <u>no</u> problems related to substance use for over one year and is no longer in any type of substance abuse treatment.

Jefferson is a long-term client of the mental health system. He has an excellent relationship with his case manager where the focus is on social skills and maintaining himself in the community. For many years he had a heavy alcohol dependency but has not used any substances in over 22 months and has no craving to do so. He is maintained on his injection of Prolixin and his social needs are met by the consumer run drop-in center.

Arianne began abusing cocaine following her first psychotic break in college. Her polydrug abuse spanned 10 years but with the help of the appointment of a guardian, enforced medication compliance and payeeship, she gradually became engaged with her case manager. Since she was not

comfortable attending groups she and her case manager confronted the substance abuse problem along with stabilizing her psychiatric symptoms. She has not had any substances in over 3 years, works 10 hours a week at the newspaper, and sees her case manager monthly.

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