Evaluating Substance Abuse in Persons with Severe Mental Illness

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, 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.

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.

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. 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.

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. 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.

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.