Integrative Principles for Treating Substance Use Disorders

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This article, based on B. McCrady, D. Haaga, and J. Lebow (2006), provides guidance for the treatment of substance use disorders by identifying empirically based principles that underpin effective treatment systems and effective treatments. To promote the flexible application of empirically based principles to individual clients, the authors (a) integrate therapeutic, participant, and relationship factors (drawn from reviews by B.S. McCrady & P.E. Nathan, 2006; D.A.F. Haaga, S.M. Hall, & A. Haas, 2006; and J. Lebow, J. Kelly, L.M. Knobloch-Fedders, & R. Moos, 2006) into a comprehensive description of treatment, (b) integrate common and specific principles of changes into articulated descriptions of treatment, and (c) identify directions for research to improve the sensitivity and specificity of treatment. J Clin Psychol 62: 675–684, 2006.

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Clients with substance use disorders (SUDS) present numerous challenges to the clinician or treatment program staff responsible for helping them. These disorders are often chronic and recurrent; they are frequently comorbid with other psychological, physical, and social problems; and clients' motivation for change typically fluctuates. Unfortunately, most mental health professionals do not receive sufficient training in the treatment of substance use disorders, making the job more difficult yet.

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Clinicians experience a tension between, on the one hand, the desire to provide effective treatments supported by research, and, on the other hand, the realities of busy schedules, the different "faces" of each client, and the proliferation of treatment manuals that specify a set of procedures for specific and narrow bands of clients. Clinicians resolve this tension in a variety of ways—they may provide the same familiar treatment to all clients, they may use treatment manuals that are not fully appropriate for their clients, or they may refer to various treatment guidelines (such as the SAMHSA TIPS series, Substance Abuse and Mental Health Administration, 1993–2004; the American Psychiatric Association Practice Guidelines, American Psychiatric Association, 1995; or the Patient Placement Criteria published by the American Society of Addiction Medicine, Mee-Lee, Shulman, Fishman, Gastfriend, & Griffith, 2001). Alternatively, clinicians may refer substance-abusing clients to other practitioners, or they may simply "wing it." None of these alternatives is entirely satisfying; and none is optimal for providing successful treatment.

In this article, based on McCrady, Haaga, and Lebow (2006), we provide an alternative for the treatment of substance use disorders by identifying empirically based principles that underpin effective treatments and treatment systems, and by discussing the flexible application of these principles to individual clients. Our overall goal is to give clinicians guidance about how to deliver effective treatment for clients with substance use disorders. Specifically, we (a) integrate therapeutic, participant, and relationship factors (drawing on McCrady & Nathan, 2006; Haaga et al., 2006; and Lebow et al., 2006, respectively) into a comprehensive description of treatment, (b) integrate common and specific principles of change, and (c) identify directions for research to improve treatment effectiveness.

Overarching Perspectives

Results of research on the treatment of substance use disorders can best be seen through the lens of several overarching perspectives about these findings (Moos, 2003). First, contextual factors are important to understanding substance use disorders. Persons with these disorders "exist in a complex web of social forces" (Moos, 2003, p. 3). Treatment is only one of many forces with an impact on someone with a substance use disorder, and may not be an enduring or significant long-term force unless it includes careful attention to the reshaping of the social environment. In short, "individuals who are able to establish and maintain relatively positive social contexts are likely to recover" (Moos, 2003, p. 3).

Second, the length of treatment and provision of continuity in care are significantly related to positive treatment outcome (Moos, 2003). Although there are many studies that support the effectiveness of brief interventions for mild drinking problems (Bien, Miller, & Tonigan, 1993), and randomized clinical trials of differing set lengths suggest few differences in outcome (Miller & Hester, 1986), continued attachment to treatment consistently has been associated with better outcomes, and therapeutic concern about retention and continuity of care therefore is important. Viewing substance use disorders as chronic and relapsing conditions suggests the need for a long-term perspective on the process of change, and an accompanying long-term plan to foster maintenance. Although treatment may be time-limited, a long-term maintenance plan should be integral to any treatment.

Third, the type of provider makes a difference in the outcomes of treatment for substance use disorders (Moos, 2003). Specifically, clients treated by addictions specialists and mental health clinicians typically have more success than do clients treated by

primary care providers. If mental health clinicians have more finely honed therapeutic skills for the treatment of SUDs, they are likely to improve treatment outcomes further.

Finally, the context in which treatment is provided affects outcome. Many clinicians see SUD clients within a larger treatment program, and attention to the organization and structure of the program may make the individual clinical work of the clinician easier and more effective. Extensive research suggests that the most effective treatment programs are clear and well organized, actively involve clients in the program, provide a supportive and emotionally expressive environment, and emphasize self-direction, work, and social skills development.

Specific Relationship Factors

Whether a clinician practices independently or within a structured substance abuse or mental health treatment system, a number of principles apply to the development of the therapeutic relationship with a client with a substance use disorder. When thinking about relationship factors, the clinician needs to consider relationships in the broadest context, including the relationship between client and therapist, between client and the larger treatment program, and between client and members of her or his social network.

Most proximal to the clinician is the therapeutic alliance. As with other (nonsubstance-abusing) clients, developing and maintaining an effective working alliance with the client is critical. Several elements can contribute to an effective working alliance. Clinicians will be most successful if they can provide accurate empathy, respect the experience of the client in therapy, and avoid confrontational struggles. Equally important is the ability to provide goal direction for clients as well as a moderate level of structure for the therapy. Clinicians should help clients develop goals for themselves, provide direction in helping them work toward their goals, and convey a clear expectation that clients can meet their goals. The therapist needs to create structure to the treatment to help clients work toward their goals, and to maintain that level of structure over time. Many clients with substance use disorders experience chaos in multiple areas of their lives, making the stability and structure of the therapy all the more important.

The relationship between the client and the treatment program also requires attention. To enhance retention and positive treatment outcomes, programs should be involving, supportive, and expressive. As with the individual therapy session, treatment programs should provide structure and consistency over time. Additionally, they should stress autonomy and self-direction among clients, expecting clients to take responsibility for their treatment, and to follow through on treatment requirements. A focus on development of specific skills in both the occupational and interpersonal realms will help clients begin to restructure their environments outside of the treatment setting.

Treatment Factors

Common principles for treatment of psychological disorders often apply well to the treatment of substance use disorders. Most prominently, therapeutic techniques should be provided within the context of a well-developed working alliance in therapy that is structured and goal-directed. These characteristics appear to be universal among all effective psychotherapies for substance use disorders.

Beyond the working alliance, empirical research suggests that a number of specific therapeutic elements are characteristic of effective treatments in this population. There is little evidence for the differential effectiveness of individual versus group therapy for treating individuals with SUDs. These decisions are probably best made in relation to

client and therapist preferences and schedules. However, given the social–interpersonal nature of SUDs and the importance of the social environment to the successful resolution of these disorders, involvement of a significant other looks to be helpful in contributing to the effectiveness of treatment. Equally important is explicitly helping the client restructure his or her social environment in ways that support change. Positive outcomes are made more likely by facilitating involvement with social networks supportive of abstinence, such as a specific supportive family member, sponsor, or peer; and by helping the client access social environments supportive of abstinence.

A second key aspect of therapy with SUDs is a focus on client motivation for change. Motivation is best conceptualized as a fluctuating state influenced by the environment as well as the client's cognitive and emotional weighing of the perceived harm versus benefits of substance use and of abstinence. A range of therapeutic techniques may be used to enhance clients' awareness and appreciation of the extent and severity of their substance use problems and the desirability of change. These include motivational interviewing, the use of decisional balance sheets, or involvement with a self-help group, but regardless of the specific techniques used, a continuing focus on client motivation seems central to successful change.

A third key component of therapy is a focus on helping the client to develop awareness of repetitive patterns of thinking and behavior that perpetuate substance use. Positive expectations about the effects of drugs, distorted perceptions of drinking or drug use norms in their social environment, and low self-efficacy for coping with difficult situations without alcohol or drugs exemplify patterns of thinking that may perpetuate use. Clinicians also should help clients become more aware of behavioral patterns that lead to use, such as spending time in drinking environments or with people who support and encourage use, and become more aware of the types of experiences and events that lead to use. Helping the client develop awareness of dysfunctional patterns of thinking and behaving should be accompanied by a focus on helping the client learn alternative coping skills to manage these dysfunctional thoughts and behaviors.

Cognitive–behavioral therapy provides one set of strategies for challenging dysfunctional patterns of thinking and learning new coping skills. Twelve-step-oriented counseling and self-help groups also are effective in enhancing cognitive and behavioral coping skills. Focusing on cognitive and behavioral coping skills may have the secondary effect of increasing the client's self-efficacy for change, but therapists also can work directly on increasing self-efficacy. Enhanced self-efficacy, in turn, may foster greater use of coping skills in the natural environment.

A fourth key component of therapy is attention to the affective experience of the client. Clients may view substance use as a way to attenuate negative emotions, or to enhance positive experiences. Additionally, affect regulation is disrupted in the early weeks of abstinence or decreased use if the client is experiencing withdrawal. Accompanying the physiological aspects of adapting to a change in drug use is the client's experience of both positive and negative emotions, which may have been blunted when using psychoactive substances. Effective therapies attend to the affective experiences of the client, particularly in relation to their substance use. Effective treatments help clients learn to accept a normal range of emotions, and to manage negative emotions without use.

Finally, there is strong evidence for the role of conditioning in the development and maintenance of substance use disorders. The clinician should carefully assess for indicators of specific conditioned responses to alcohol or drugs, and develop ways to change these conditioned responses. Repeated exposure to alcohol- or drug-related situations without using can both decrease strength of conditioned responses and increase self-efficacy for coping with such situations without using drugs.

Participant Characteristics

Many client characteristics have been studied as possible predictors of response to treatment for substance use disorders (Haaga et al., 2006). Although less attention has been given to the personal characteristics of therapists, some literature has examined the relationship between static therapist characteristics and treatment outcome. Despite this extensive database, relatively few client or therapist characteristics are consistent predictors of response to treatment.

Three client variables appear to predict a more positive response to treatment. First, clients with positive expectancies about treatment tend to have better outcomes. Development of a working alliance with the client can enhance client expectancies, and positive client expectancies may partially mediate the relationship between alliance and outcome.

Second, greater client readiness to change predicts greater treatment success. As with client treatment expectancies, the therapist may have an important impact on client readiness to change. As noted above, maintaining and enhancing motivation to change are crucial therapeutic tasks. One specific factor that may contribute to readiness to change is the degree to which substance abuse has directly affected physical health, either by contributing to specific medical conditions or by complicating medical conditions with other etiologies. In the treatment of smokers, for instance, those whose smoking is particularly high risk because of a medical condition are especially responsive to therapy if the smoking contributed to their risk status. In other substance use disorders, studies have focused less on specific differences between substance users at high and low risk for medical disorders, but natural history studies suggest that those with medical conditions are more likely to reduce or eliminate use than are those without medical conditions.

A third client factor related consistently to treatment outcome is severity of the substance use disorder. In particular, greater severity of the substance use disorder is associated with a poorer response to treatment. It might seem contradictory that greater motivation predicts better response to treatment, but substance abuse severity predicts worse response, given that having experienced severe consequences should, in principle, increase motivation to change. However, motivation is best understood as a balance between perceived positive and negative consequences of use compared to perceived positive and negative consequences of change. Those with the most severe problems may indeed perceive many negative consequences from substance use, but they may not be able to envision clear positive consequences of abstinence if they already have irreversible medical problems, or have lost their family and occupation.

Interactions Among Participant Characteristics, Therapist Behaviors, and Therapeutic Techniques

The challenge to the clinician is to integrate the variety of empirically supported relationship factors and treatment techniques to respond to the unique presenting problems of individual clients. Here, research provides some guidance, but patient-treatment matching research is less developed than other areas of SUDS treatment research. Moreover, research on the matching of multiple client characteristics to multiple therapeutic interventions provided within a uniquely developed therapeutic relationship is not available. In this section, we summarize consistent findings relating client characteristics to therapeutic elements in predicting outcome.

The therapist's approach is essential when clients are ambivalent about changing or about being in treatment. Therapists should titrate their level of confrontation to the level of the client's reactance. Therapists should avoid arguing with angry clients, or pushing

them hard to accept their diagnosis or the need to change. Instead, it would be preferable to engage in "rolling with the resistance" (e.g., Miller & Rollnick, 2002), a therapeutic stance intended to defuse and neutralize client anger and resistance to therapy. Recognizing the ambivalence with which many clients enter treatment, therapist behaviors and treatment techniques should be tailored to the degree of client readiness to change. Clients who are unsure if their substance use is a problem may respond well to an intervention that helps them consider the problems caused by their use and whether they should change, whereas they may respond negatively if pushed to make active behavior changes. Conversely, clients who enter treatment ready to change may be impatient with an intense focus on motivational issues rather than simply learning the skills the client needs to change behavior.

Selection of the optimal therapeutic modality also may be determined partly by client factors. With clients who have little commitment to remain in treatment or change their substance use, therapists would do well to involve the family or other members of the social support system in treatment. Interventions then could focus on family support, how the family interacts with the user, limit setting, and behavioral contracts. Therapy should discourage family confrontation of the client. However, if the client's social network is one that encourages substance use, therapy should focus instead on facilitating access to social systems supportive of abstinence, even if these social systems are completely separate from the client's family or natural social network.

A third area of client-treatment matching relates to comorbid disorders. About 50% of those with substance use disorders have another comorbid Axis I disorder, and about one third have a comorbid Axis II disorder. There is not sufficient research to determine the best treatment methods for addressing most patterns of comorbidity. For smokers, mood management appears to be particularly effective with smokers with comorbid depression. For clients presenting with both excessive drinking and smoking, research suggests that treatment can address smoking cessation concurrent with alcohol cessation without increasing the risk for relapse to drinking. For chronically mentally ill clients with substance use disorders integrated service delivery systems that address mental health and substance use treatment needs within the same treatment setting are more effective than are systems requiring clients to access services in different settings or with different providers (Rosenthal & Westreich, 1999).

A fourth area of research on patient-treatment matching focuses on the relation between severity of the substance use disorder and intensity and length of treatment. For heavy drinkers with low alcohol dependence, less intense, briefer treatments are appropriate (Bien et al., 1993), and outcomes of intensive inpatient therapy may even be worse (Rychtarik et al., 2000). Clients with severe alcohol dependence have better outcomes with more intensive initial treatment, and may respond more positively to treatment that focuses on 12-step counseling and involvement with 12-step groups than either cognitive–behavioral or motivational enhancement therapies (Project MATCH Research Group, 1997). For high levels of dependence on alcohol or drugs, strategies to develop a long-term maintenance plan are important (Moos, 2003).

A fifth area to consider in patient-treatment matching is the profile of problems that the client brings to treatment. Besides focusing on substance use and related psychological problems, clinicians should assess for other social service and medical care needs and arrange for attention to these needs. Some research supports the greater effectiveness of treatment plans that address multiple areas of need, rather than solely the presenting substance use disorder (McLellan et al., 1997).

A sixth area to consider in client-treatment matching is client sex. Research here is quite limited. However, randomized clinical trials and nonrandomized comparison group

studies have suggested that female-specific treatment may be more effective than generic substance abuse treatment provided in mixed male and female treatment programs.

Among smokers, women, especially young women, often express significant concerns about weight control when stopping smoking. Treatment efforts to restructure cognitions about weight gain appear to be valuable in achieving and maintaining smoking cessation among women concerned about gaining weight in the wake of smoking cessation (Perkins et al., 2001).

Finally, although the overall focus of this series is on treatment of adult disorders, it is worth noting that in the treatment of adolescents with substance use disorders, it is particularly important to use approaches that involve multiple systems, including the family, peers, and others (Henggeler, Schoenwald, Borduin, Rowland, & Cunningham, 1998). Additionally, because a large proportion of adolescents with substance use disorders have other comorbid problems, addressing these comorbid problems also will improve treatment outcomes (Bukstein, 1995).

Summary and Principles

Several principles guiding the treatment of substance use disorders can be extracted from the preceding discussion. These are highlighted in Table 1.

Future Research Directions/Needs

Controlled research has thus provided a set of principles that clinicians can use to treat clients with substance use disorders. However, there are many gaps in the literature, particularly in providing a nuanced treatment approach to individual clients. We see six major areas of research as particularly likely to enhance clinical practice.

First, there is a major need for controlled studies of treatments for clients with SUDs and comorbid disorders. The selection of appropriate treatments for multiple problems, the timing and sequencing of provision of multiple treatments, and the complexity of delivering more than one empirically supported treatment when elements of the treatments may be contradictory are all areas for future research to address.

Second is the need for more research on treatments for specific demographically distinct populations. Although initial findings on female-specific treatments are promising, replication is needed. Also needed are studies on client-treatment matching for specific racial or ethnic groups, age-specific populations (such as adolescents or older adults), or gay, lesbian, or bisexual clients.

Third is the need to develop more research on treatment effectiveness for "typical" substance-abusing clients who present with multiple problems and social complications. Randomized clinical trials often screen out complicated clients with multiple disorders, as well as socially unstable clients who may be unavailable for research follow-up. Development and testing of treatment protocols for complex clients would provide important information for clinicians working with these populations.

A fourth area of research that would inform practice would be studies of "master" therapists with particularly high client adherence and positive outcomes. Randomized clinical trials consistently report differences in outcomes between therapists following the same treatment protocol. Research could examine hypothesized active relationship factors (e.g., empathy, therapist alliance), and also attempt to identify other factors such as the approach that master clinicians take to the instillation of hope, enhancing positive outcome expectancies, and flexibility in the application of standard treatment interventions.

Table 1
Principles for Treatment Substance Use Disorders

1. Structure and organization of the treatment setting
   - Clear and well organized.
   - Actively involve the clients in the program.
   - Provide a supportive and emotionally expressive environment.
   - Emphasize self-direction, work, and social skills development.
   - Expect clients to take responsibility for their treatment and follow through.
2. Type of provider and what the provider does
   - Treatment by addictions specialists or mental health clinicians.
   - Development of an effective therapeutic alliance is crucial.
     - > Accurate empathy
     - > Respect for the experience of clients in therapy
     - > Avoidance of confrontational struggles
   - Provide goal direction for the clients.
   - Provide a moderate level of structure for the therapy.
   - Handle ambivalence about changing or being in treatment:
     - > Titrate level of confrontation to the level of clients' reactance
     - > Avoid arguing with angry clients
     - > Avoid pushing clients hard to accept their diagnosis or the need to change
3. Level of care, continuity of care, and elements of treatment
   - Pay attention to retaining clients in treatment.
   - Determine the intensity and length of treatment partly by considering the severity of the substance use disorder.
     - > For heavy drinkers with low alcohol dependence, less-intense, briefer treatments are appropriate and intensive inpatient therapy yields poorer outcomes.
     - > Clients with severe alcohol dependence have better outcomes with more intensive initial treatment, and respond most positively to treatment that focuses on 12-step counseling and involvement with 12-step groups.
   - Assess and arrange for attention to clients' other social service and medical care needs
4. Contextual factors
   - Involve a significant other.
   - Help clients restructure their social environments to include persons that support change and abstinence.
   - With clients who have little commitment to remain in treatment or change their substance use, involve the family or other member of the social support system in the treatment to foster retention in treatment.
   - In the treatment of adolescents with substance use disorders, use approaches that involve multiple systems, including the family, peers, and others.
5. Client characteristics
   - Greater client readiness to change is associated with greater treatment success.
   - Greater severity of the substance use disorder is associated with a poorer response to treatment.
6. Specific therapeutic elements
   - Focus on client motivation.
   - Help clients develop awareness of repetitive patterns of thinking and behavior that perpetuate their alcohol or drug use.
   - Attend to the affective experiences of clients.
   - Consider the role of conditioning in the development and maintenance of substance use disorders. Clinicians should carefully assess for indicators of specific conditioned responses to alcohol or drugs, and develop ways to change these conditioned responses.
   - Enhance positive outcome expectancies.
7. Client-treatment matching
   - Assess for comorbid disorders and use empirically supported treatments for additional presenting problems.
   - Use female-specific treatment with women clients.

Fifth, clinicians need to be knowledgeable about the context in which SUDs occur and the complicating problems they experience. Research is needed to consider both comprehensive care models and case management, as well as how to allocate and organize the sequencing and delivery of treatment through stepped care or other service delivery models.

Finally, evidence exists to support the effectiveness of different treatment modalities, but research is lacking that considers when to select specific treatment modalities (individual, group, family, couple), considering both client characteristics and specific therapeutic conditions.

Conclusion

There is no empirically complete formula to allow clinicians to plan and deliver with complete confidence the right treatment for any incoming client with a substance use disorder. Nevertheless, the empirically based principles summarized in this article provide a more research-informed and potentially effective approach to treatment than either the application of a one-size-fits-all standard treatment protocol or the use of idiosyncratically selected interventions.

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