
The Role of Psychotherapy in the Treatment of Substance-Use Disorders

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Psychotherapies for substance-use disorders are reviewed, with particular attention to modifications of standard treatments necessary to make them effective for patients with disorders. Treatments reviewed include cognitive-behavioral therapies (Relapse Prevention, Cognitive Therapy, Contingency Contracting, Behavioral Treatment, Cue Exposure, Network Therapy, and Aversion Therapy) and psychodynamic/interpersonal methods (Supportive-Expressive Therapy, Interpersonal Therapy, Motivational Interviewing, and Modified Psychoanalytic Therapy). The psychotherapies selected are individual, verbally based treatments for substance-use disorders; except for modified psychoanalytic therapy, all have been presented in treatment manuals and empirically studied. Research shows that these forms of psychotherapy can be effective, with some treatments providing more benefit than others for specific subpopulations, but no one treatment is consistently more effective than any other. General guidelines consistent across psychotherapies for substance-use disorders are discussed, with emphasis on phases of treatment, the importance of a compassionate stance by the therapist, the difficulty of engaging substance abusers in treatment, the need for urine and breath-alcohol testing, assessment of comorbid disorders, countertransference problems, the need for multiple treatment modalities, evaluation of the therapist's effectiveness, adjusting the amount of treatment, and appropriate termination. Directions for future research are also discussed. (HARVARD REV PSYCHIATRY 1994;2:84-96.)

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For many years "psychotherapy" and "substance abuse" were not used in the same sentence without the word "contraindicated" as well. People with substance-use disorders were viewed as unable to benefit from therapy, and there was little training in how to treat them.^{1,2} Vaillant suggested that psychotherapy was "wasteful" for patients with alcoholism and might be misused by them to reinforce denial.³ Even when psychotherapy was used for this population, specific attention was sometimes not paid to the substance abuse itself. Rather, it was assumed that the substance-use disorder would be resolved once some more primary problem (such as character pathology) was treated.^{1,2,4} For example, Gerald¹ described the psychoanalysis of an alcoholic daily drinker seen two to five times per week for over a year, for whom the topic of alcohol was never raised during sessions.

The results of early studies also appear to have discouraged clinicians and psychotherapy researchers from directing their attention toward substance abuse.⁵ Nyswander, for example, reported a low rate of engagement in treatment by substance abusers,⁵ and Hayman found that 90% of psychiatrists reported that they were unable to treat alcoholism successfully.⁶ In Vaillant's longitudinal study of men with alcoholism, only 7% of those who attained abstinence attributed their recovery to psychotherapy.⁶ Historically, then, people with substance-use disorders who were seeking psychosocial treatments were primarily left to 12-step self-help groups such as Alcoholics Anonymous (AA), Narcotics Anonymous (NA), and Cocaine Anonymous (CA).

Over the past decade, however, interest in psychotherapy for patients with substance-use disorders has burgeoned. Such interest derives in part from a recognition of the need for effective treatments for such disorders. In the United States, the cost of substance abuse (in health care, loss of productivity, and law enforcement) is greater than that of all other mental illnesses combined.⁷ Substance-use disorders have the highest prevalence rate of all psychiatric disorders among males in all age groups and among females aged 18–24.⁷ The increasing recognition that some patients have both a substance-use disorder and one or more additional psychiatric disorders has also prompted interest in incorporating psychotherapeutic techniques into the treatment of such patients;⁸ methods specifically designed to treat the co-occurring psychiatric disorder are believed necessary over and above those aimed solely at achieving abstinence.⁹ A number of studies have documented high prevalence rates of mood, anxiety, and personality disorders in patients with substance dependence; some of these patients may have poorer treatment retention and outcome in standard substance-abuse treatment than do those without co-occurring psychiatric illnesses.⁸ In one major investigation patients with severe psychiatric symptoms (as measured by the Addiction Severity Index¹⁰) had better outcomes from a combination of psychotherapy plus drug counseling than from drug counseling alone.¹¹ Psychotherapy may also be an important treatment option for patients who are averse to 12-step counseling¹² or for whom pharmacological treatments are unavailable, unsuccessful, or contraindicated.¹³

In this review we will outline some of the major psychotherapies for substance-use disorders, with particular attention to modifications of standard treatments that are believed necessary to make them effective for patients with such disorders. General guidelines for psychotherapy with an addicted patient will also be discussed. We will focus on therapies that have treatment manuals available, that have received some empirical validation, and that are intended for the treatment of patients with substance-use disorders in general (rather than specific subpopulations such as

patients for whom treatment has been mandated). We have limited the paper to verbally based individual psychotherapies for treating patients who abuse psychoactive substances that cause major mood, cognitive, or behavioral changes (thus excluding nicotine and caffeine).

Our literature search was conducted primarily using PsychLit, with search terms as follows: (substance-abuse, -abusing, -dependent, addict, -ed, -ion, -ion-treatment, -ive, -ive-behaviors, drug-abuse, -abusers, abusing, -addicted, -addiction, drug-and-alcohol dependence, drug-dependency, -dependence, alcohol-abuse, -abusing, -and alcoholism, -dependence, -dependent, -impaired, -intoxication, -rehabilitation, -treatment, alcoholic, alcoholism-, alcoholism, -treatment) and (psychotherapeutic, -counseling, -outcomes, -processes, -techniques, psychotherapy-), not (caffeine, nicotine, adolescent-, child-, family, group). Dates were limited to January 1987 through March 1993, and language to English. Additional literature was found based on references cited in articles obtained from this search.

INDIVIDUAL PSYCHOTHERAPIES FOR SUBSTANCE-USE DISORDERS

Thus far, models have been developed within two major orientations of psychotherapy: cognitive-behavioral and psychodynamic/interpersonal. We will describe variants of these models, highlighting their techniques and underlying principles and examining their efficacy. For most of the treatments, few empirical studies are available; we have selected the main studies within each domain, with the goal of an illustrative rather than a comprehensive approach. (See Table 1 for a summary of each study's methodology and main results.)

Cognitive-behavioral treatments

Relapse Prevention (RP), developed by Marlatt and Gordon,¹⁴ seeks to promote patients' self-control to prevent them from relapsing to dependence. Originally developed for patients who abuse alcohol, it has since been adapted for those suffering from cocaine or polysubstance abuse.¹⁵ RP derives from social learning theory and incorporates behavioral skills training, cognitive therapy, and lifestyle change procedures. It is a short-term therapy that can be integrated with other treatment approaches. Specific strategies of RP include addressing ambivalence (e.g., clarifying goals and constructing a decision matrix of pros and cons of drug use), reducing exposure to drug cues and modifying the response to them (by identifying high-risk triggers of use and taking a "stop, look, think" approach to forestall drug consumption), reviewing coping strategies (determining what has worked to curtail drug use and planning ahead for high-risk situations), distraction, exploring the decision-making chain

TABLE 1. Summary of Outcome Studies Reviewed

Study	Therapy*	Sample	Methodology†
Carroll et al. ¹³	RP vs. IPT (12 sessions)	42 cocaine-dependent outpatients	<i>Strengths:</i> P, R, C, D3, M, O, U, I, A, ST <i>Weaknesses:</i> AR, AD <i>Unclear from report:</i> E, S
Woody et al. ^{5,20}	CBT + DC vs. SE + DC vs. DC (24 sessions)	110 methadone-maintained opioid-addicted patients	<i>Strengths:</i> P, R, C, D3, E, M, O, U, I, ST <i>Weaknesses:</i> B, AR, AD <i>Unclear from report:</i> A, S
Anker & Crowley ²¹	CC + standard psychotherapy vs. control + standard psychotherapy	67 cocaine-abusing patients	<i>Strengths:</i> P, C, D3, U <i>Weaknesses:</i> R, AR, M, O, I, AD, ST <i>Unclear from report:</i> E, A, S <i>Not applicable:</i> B
Higgins et al. ²²	BT vs. DC (24 weeks)	38 cocaine-dependent outpatients	<i>Strengths:</i> P, R, C, D3R, U, ST <i>Weaknesses:</i> B, E, AR, M, O, I, AD <i>Unclear from report:</i> A, S
O'Brien et al. ²⁶	CE + SE vs. CE + DC vs. SE vs. DC (23 sessions)	21 drug-free, formerly cocaine-dependent patients	<i>Strengths:</i> P, R, C, B, O, U, I <i>Weaknesses:</i> ST, AD <i>Unclear from report:</i> D, E, M, AR, A, S
Galanter ²⁸	NT + individual therapy	60 substance-dependent patients	<i>Strengths:</i> D3R, E <i>Weaknesses:</i> P, R, C, M, AR, O, U, I, A, S, ST, AD <i>Not applicable:</i> B
Holder et al. ²⁹ (review of 29 studies)	AT	—	—
Rounsaville et al. ³²	Weekly IPT vs. monthly low-contact treatment (6 months)	72 methadone-maintained opioid-addicted patients	<i>Strengths:</i> P, R, D3‡, E, M, O, U, I, ST, AD <i>Weaknesses:</i> B, AR <i>Unclear from report:</i> A, S
Holder et al. ²⁹ (review of 9 studies)	Brief MI (1 or 2 sessions)	—	—

*AT, Aversion Therapy; BT, Behavioral Therapy; CC, Contingency Contracting; CE, Cue Exposure; control, absence of treatment being tested; CBT, Cognitive-Behavioral Therapy; DC, Drug Counseling; IPT, Interpersonal Therapy; MI, Motivational Interviewing; NT, Network Therapy; RP, Relapse Prevention; SE, Supportive-Expressive Therapy.

†A, Attempt made to prevent patients from undergoing uncontrolled adjunctive treatments; AD, adequate description of training of personnel on the study (independent raters, therapists); AR, adherence ratings validating therapists' conformity to treatment manuals; B, balanced design (patients in all subgroups offered same amount of treatment); C, control or comparison group included; D, DSM-based diagnoses for selection of patients (D3, DSM-III; D3R, DSM-III-R); E, experienced therapist(s) (all at least 2 years); I, independent outcome ratings in addition to patients' or therapists' report; M, use of treatment manuals; O, varied outcome measures, including standardized tests; P, prospective design; R, random assignment to treatments; S, sample size determined by power analysis; ST, statistical testing of outcome data; U, urinalysis used.

‡DSM-III criteria used to diagnose axis II disorders; Research Diagnostic Criteria, to diagnose axis I disorders.

Main results

For severe users, higher retention and abstinence rates for RP than IPT

For less-severe users, RP and IPT comparable in efficacy

At week 4, higher retention rate for RP than IPT

High attrition rate (45% of patients failed to complete treatment)

Significant improvement over baseline from all 3 treatments

Greater gains on a variety of measures for CBT + DC or SE + DC than for DC alone

Severity of psychiatric symptoms predicted response to treatment: low-severity patients, good results in all 3 treatments; mid-severity, good results in all 3 but highest gains with CBT + DC or SE + DC; high-severity, improvement only with CBT + DC or SE + DC, but outcomes generally worse than for other patients

Assignment to treater (independent of orientation) also important in predicting outcome

CC accepted by only 48% of patients, with higher acceptance rates over time

Higher rates of abstinence and retention in treatment for CC than controls

Higher rates of abstinence and retention in treatment for BT ($n = 19$) than DC ($n = 19$)

Greater physiological arousal (skin temperature and galvanic resistance) from drug-related than neutral cues

Response to drug-related cues largely extinguished by 15th session

Better retention in treatment and more clean urine samples with CE than without

“Substantial improvement” (abstinence or greatly reduced substance use; positive life changes) in 77%

Outcome not influenced by drug of choice or AA attendance; worse outcome predicted by more-severe drug use or refusal of disulfiram

No evidence of effect for physical methods of inducing aversion (based on 20 controlled studies); fair evidence for visual methods (based on 9 controlled studies)

Positive outcomes in patients' self-ratings of psychological symptoms and self-defined target problem areas with both treatments

No differences between the 2 treatments, except less reduction in targeted problems among controls at 24 weeks

Low rates of patient engagement and retention in treatment (5% of eligible patients participated in study; only half of these completed it)

8 of 9 controlled studies showed positive effects, indicating “good” evidence of efficacy

leading to drug use (e.g., rationalizations, minimizations, cognitive distortions), making lifestyle modifications (e.g., attending 12-step meetings and rediscovering positive hobbies and activities), and learning from slips to prevent full relapse (e.g., discussing a brief lapse that has occurred to learn what precipitated it and what strategies might prevent future escalation to longer binges and larger quantities). In RP therapy a focus on abstinence generally precedes efforts to introduce lifestyle modifications. For patients with severe dependence, the strategies are sequenced so that behavioral interventions come before cognitive ones (i.e., concrete, measurable, action-oriented strategies are first, followed by internal restructuring and mental techniques), although no specific time frame is offered. Because RP provides common-sense strategies in a short period of time, this treatment may be particularly suited for patients who are resistant to psychodynamically oriented therapies, but no research has yet been conducted on this point.¹⁵

RP has been shown to be effective for patients who abuse alcohol, cocaine, or multiple substances.¹³ For example, Carroll and colleagues¹³ compared RP to Interpersonal Therapy (IPT, described below) for 42 outpatients with cocaine dependence who received 12 sessions of treatment. Among severe users (based on a median split on the Addiction Severity Index), patients who received RP had significantly higher rates of abstinence and recovery than did those who had IPT: 54% versus 9% abstinence, and 54% versus 0% recovery, respectively. "Abstinence" was defined as no cocaine use for 3 consecutive weeks at any time during treatment; "recovery," as no cocaine use for 3 consecutive weeks by the point of treatment termination. For patients with less-severe cocaine problems, the two treatments were equally effective. RP showed significantly greater retention of patients than IPT at week four of the treatment, however.

Cognitive-Behavioral Therapy (CBT), developed by Beck and colleagues,¹⁶ is a modification of the cognitive therapies previously developed by the same group for other disorders such as depression¹⁷ and anxiety.¹⁸ This treatment is based on the premise that negative feelings and behavior can be diminished through identification and modification of maladaptive thoughts. For example, a cocaine addict who believes "I cannot tolerate my cocaine cravings" will be more likely to use than one who thinks "This craving will pass, and I will feel stronger if I stay abstinent." The treatment thus distinguishes "addictive beliefs," which promote substance use, from "control beliefs," which promote abstinence, and seeks to inculcate control beliefs by employing cognitive strategies such as flashcards, imagery, Socratic questioning (e.g., "What is the evidence for that belief?" "What are alternative ways of understanding the situation?"), distraction, analysis of advantages and disadvantages of drug use, and daily thought records to restructure cognitions. Behavioral strategies such as relaxation train-

ing, activity scheduling, and goal setting are also employed. Specific modifications of standard CBT for substance abusers include educating patients to handle drug cravings, having patients learn from slips and relapses, and having them focus on life problems associated with addiction (e.g., legal problems, eviction, AIDS). In addition, the therapist's assessment and formulation of each case include the patient's drug history, family history of drug use, and triggers for drug use, as well as a historical description of the development of the patient's beliefs regarding addiction.

The effectiveness of CBT is well established with other psychiatric populations.¹⁹ The major study of CBT in substance-use patients was conducted by Woody and colleagues,²⁰ who compared 6 months of three types of treatment—CBT plus 12-step drug counseling, supportive-expressive psychotherapy (SE; see description below) plus 12-step drug counseling, and 12-step drug counseling alone—in a total of 110 methadone-maintained patients. Although patients in all three groups improved significantly from their baseline status, the patients who received psychotherapy experienced greater gains than those who had drug counseling alone. Specifically, of 15 analyses on a variety of measures (including the Addiction Severity Index, the Beck Depression Inventory, the Maudsley Personality Inventory, and the Symptom Checklist-90), all 11 analyses that showed significant differences between groups indicated better outcomes for one or both of the psychotherapy treatments than for drug counseling alone. The doses of methadone, the numbers of prescriptions for ancillary medication, and the percentages of urine samples positive for opioids were also significantly higher for the patients receiving drug counseling alone. When compared with SE, CBT was about equally effective, although patients receiving SE had made a slightly higher number of significant positive changes (12 versus nine), particularly in areas such as psychiatric symptoms and employment.²⁰ Severity of psychiatric symptomatology, as indexed by a composite of pretreatment ratings from several psychological tests, was found to predict response to treatment. Patients with less-severe psychiatric symptoms did well in all three types of treatment. Those with moderately severe symptoms did well in all three treatments but had significantly better outcomes in either CBT or SE than in drug counseling alone. Those with very severe symptoms improved in CBT or SE but did poorly in drug counseling alone; they responded less well to *all* treatments than did low- and moderate-severity patients.⁵ A similar but larger study comparing the same treatments for cocaine addiction, the National Institute of Drug Abuse's "Treatment of Cocaine Addiction Collaborative Study," is currently under way.

Contingency Contracting (CC) is an adjunctive behavioral treatment based on negative reinforcement. It was first

described for patients with substance-use disorder by Anker and Crowley.²¹ A patient who enters CC agrees to develop a written contract specifying a particular adverse consequence (for example, a letter sent to the patient's employer reporting drug abuse) if relapse occurs. The efficacy of this method was studied in 67 cocaine abusers who were offered CC in addition to standard psychotherapy. Thirty-two patients agreed to participate, and their results were compared with those of the 35 patients who declined and were treated with standard psychotherapy. Patients in the CC group had higher rates of abstinence and retention in treatment at 3 months (81%) than did those in the non-CC group (0%), although the nonrandom assignment of patients in this study compromises any conclusions that might be drawn. In addition, just 48% of patients chose the CC group, suggesting that only more highly motivated people may be willing to accept this form of treatment. (Anker and Crowley indicated, however, that the rate of acceptance may be considerably higher if CC is presented properly. Over the course of the study, the rate of acceptance grew from 18% to 76%.)²¹

Behavioral Treatment (BT), as described by Higgins and coworkers,^{22,23} involves a contingency-management system based on positive reinforcement. Patients are reinforced with payment vouchers—a method originally suggested by Stitzer and colleagues²⁴—rewarding drug-free urine samples, giving increasing payments over a series of negative samples (e.g., \$1.50 for the first, \$3.00 for the third). They can cash in the vouchers for items agreed on by the patient and the counselor, such as camera equipment or ski passes. In addition, a “community reinforcement” component is added in four major realms, based on a model described by Hunt and Azrin,²⁵ to increase the patient's level of positive reinforcement for not using drugs. First, the patient is offered joint therapy sessions with a non-drug-abusing family member or friend. This significant other is informed of urinalysis results, and if the patient has been abstinent, the pair is allowed to engage in positive activities they had previously agreed on. If the urine test has indicated drug use, they refrain from the activity, but the significant other can provide social support to promote abstinence. Second, the patient is taught to identify and change antecedents and consequences of drug use (for example, through restructuring daily activities and learning drug-refusal skills and alternative behaviors). Third, counseling is offered to help the patient go back to school, change jobs, obtain housing, and pursue financial, legal, and social services. Fourth, the patient is encouraged to develop recreational activities to substitute for drug use, with payment vouchers provided to offset their cost.

In a randomized study of outpatients with cocaine dependence,²² 19 patients receiving BT were compared to 19 patients in 12-step counseling (group and individual). The BT group had significantly higher rates of retention for the

full 24 weeks of treatment (58% versus 11%) and significantly higher cocaine abstinence rates (68% versus 11% at 8 weeks). However, the study population was all Caucasian, and none of the patients used crack. Moreover, most of the patients in the sample who were also dependent on alcohol were on disulfiram during the treatment trial (with more patients in BT than in 12-step counseling receiving that drug). Such details may limit the generalizability of the findings until further research has been conducted.

Cue Exposure (CE) treatment, developed by Childress and colleagues,²⁴ is an adjunctive behavioral method that relies on Pavlovian extinction training. CE is typically paired with psychotherapy or RP techniques such as relaxation training or refusal training. During treatment sessions, patients are repeatedly exposed to drug-related cues that induce craving (e.g., they may handle drug paraphernalia or watch videotapes of cocaine-administration rituals). It is hoped that frequent occurrence of the cue without the drug to reinforce it will reduce response to the cue, thus decreasing the likelihood of drug use when such a cue is encountered in the future.

In one investigation²⁶ 30 cocaine-dependent patients were tested (9 in the pilot study and 21 in the main study) for physiological response to drug-related cues; they were given treatment to reduce cue responsiveness and were evaluated for retention in treatment and for cocaine use after treatment. The 21 patients in the main study were randomly assigned to one of four treatment groups: supportive-expressive therapy plus either CE or control, or drug counseling plus either CE or control. All subjects had already achieved abstinence. The CE treatment consisted of 15 1-hour inpatient sessions and eight outpatient sessions; the control treatment was self-help tapes for the same time periods. The study produced three main findings. First, physiological arousal (as measured by skin temperature and galvanic resistance) was significantly associated with drug-related as opposed to neutral cues. Second, response to drug-related cues was largely extinguished by the fifteenth session. Third, patients who received CE had better treatment outcomes than did controls (7 versus 3 weeks retention in treatment, and “more weeks with clean urines”). Unfortunately, the outcome results were not subjected to statistical testing in this study, and patients in the pilot study were not analyzed separately from those in the main investigation. Also, one-third of subjects reported no subjective experience of arousal, and many patients reported continued craving in their natural environment, suggesting that the therapy may need further refinement.

Network Therapy (NT), developed by Galanter,^{6,7} augments individual therapy with a combination of social-cohesion and cognitive-behavioral methods. The term “network treatment” comes from Speck and Attneave,²⁷ who developed a technique for managing psychotic patients that

draws on the patient's family and social network. As applied to patients with a substance-use disorder, the method involves inviting the patient's family and/or friends to therapy sessions (typically once a week for the first month, less often thereafter). The therapist guides the people in the network to focus on the patient's abstinence. They are charged with reporting on the patient's drug use and recovery activities, setting up structured activities (e.g., phone calls) between the patient and themselves, identifying triggers of cravings, confronting denial, and offering support. The foundation of the treatment is based on the concepts of cohesiveness (promoting support for the addict), cognition (helping the addict to attain a realistic appraisal of his or her addiction through significant others), and coercion (using an implied threat of social sanction to help keep the patient motivated to maintain abstinence).⁶ The cognitive-behavioral components of the treatment are primarily drawn from RP techniques: for example, identifying substance-abuse cues and learning strategies to avoid them, and using guided recall to explore antecedents of craving. The use of written contingency contracts (see above) and, for alcoholics, disulfiram may also be integrated into the model.⁷

The only study of NT thus far is by Galanter,²⁸ who conducted a chart review of 60 patients he treated during 12 years of practice; 92% of them received NT. The patients, who abused both alcohol and cocaine, were predominantly male and upper middle class. All were also in weekly psychotherapy, 13% received antidepressants, and 36% received disulfiram. Seventy-seven percent showed a substantial improvement, as evidenced by elimination or vast reduction in substance use and by positive life changes as rated on a four-point scale of the author's construction. Interestingly, drug of choice and AA attendance (30% of patients went to at least ten 12-step meetings) did not influence outcome, although greater severity of drug use and refusal of disulfiram predicted worse outcomes. This study was limited, however, by the confounding of multiple simultaneous treatments, the lack of standardization of the psychotherapies that patients were receiving, the study's retrospective and nonblind design, and the lack of a control group.

Aversion Therapy (AT) attempts to condition patients against the use of drugs by pairing images or intake of a substance with some unpleasant experience—for example, electric shock, visualization of adverse consequences, or nausea induced by a drug specifically given for that purpose. This technique has been used most often for patients with alcoholism. A review of research results indicates no evidence of effect for physical methods of inducing aversion (based on 20 controlled studies) and fair evidence for visual methods (based on nine controlled studies).²⁹

Psychodynamic/psychoanalytic/interpersonal treatments
Supportive-Expressive Therapy is a psychoanalytically ori-

ented treatment based on work by Malan, Sifneos, and Luborsky, as well as the Menninger Foundation model.^{5,30} It has been modified for cocaine addiction by Mark and Luborsky.¹² The supportive component involves creating a safe alliance with the therapist, which allows the expressive component (focusing on identifying and working through problem patterns in relationships) to be conducted.⁵ As described in Luborsky's treatment manuals, the framework of treatment is the "Core Conflictual Relationship Theme," a case conceptualization organized around three questions: What is the patient's central wish in life? What has the patient come to expect from others (central response from others)? How has the patient responded to frustration in attaining her or his basic wishes (central response from self)? Interpretation and support are then used to guide the patient in resolving relationship dilemmas. For substance abusers SE also emphasizes transference-countertransference, resistance, attention to the patient's anxiety during the session, and focus on the patient's responsibility for himself or herself. The largest study of SE for patients with a substance-use disorder (opioid addiction) has been described above under CBT.

Interpersonal Therapy, originally developed by Klerman and colleagues,³¹ has been modified for substance abuse by Rounsaville and coworkers.³² IPT is a focused treatment that lasts 9–12 months and addresses one or two problem areas in the patient's interpersonal functioning. It derives from the interpersonal school of therapy of the 1930s and 1940s, based on the work of Harry Stack Sullivan, and later including that of neo-Freudians Frieda Fromm-Reichmann, Erich Fromm, and Karen Horney. IPT emphasizes the patient's interactions with other people, with particular attention to areas such as interpersonal disputes (e.g., identifying mismatched expectations within a relationship), role transitions (coping with a changed social role such as divorce or a new job), and interpersonal deficits (e.g., reducing isolation or social anxiety). The techniques of IPT derive directly from psychodynamic therapies and include exploratory methods (nondirective exploration, supportive acknowledgment, extension of the topic discussed, and receptive silence), encouragement of affect (accepting painful affects, expressing affects in interpersonal relationships), clarification, and communication analysis (identifying ambiguous or insufficient communication). Behavior-change techniques, such as limit setting, advice and suggestions, education, modeling, and decision analysis (consideration of alternative actions), are also used.

IPT has been found to be helpful for patients with depression³³ or low-severity cocaine addiction (in the study by Carroll and colleagues¹³ described above under RP). In a study of 72 patients with opioid addiction,³² 37 were randomly assigned to receive weekly IPT for 6 months and 35 had monthly "low contact" control treatment over the same period. Both treatments showed significant positive out-

comes at 12 and 24 weeks in patients' self-ratings of psychological symptoms on the Symptom Checklist-90 and in self-defined target problem areas; six other measures (including urine tests, employment, arrests, personality scores, and social functioning) were nonsignificant. When the two treatments were compared, no differences were found except for significantly less improvement in targeted problem areas by the control group at 24 weeks. This study was limited by low rates of patient engagement and retention in treatment, with only 5% of eligible patients participating in the study, and only half of these completing it.

Motivational Interviewing (MI), developed by Miller and Rollnick,³⁴ is a hybrid approach that includes client-centered, systems, and cognitive-behavioral methods and also draws from the social psychology of persuasion. Five principles guide this treatment: the therapist should express empathy, help the patient to recognize discrepancies between her or his goals and current problem behavior, avoid argumentation, roll with the patient's resistance rather than opposing it directly, and support self-efficacy by emphasizing personal responsibility and the hope of change. Specific strategies include open-ended questions, reflective listening, affirmation, summarizing, and eliciting self-motivational statements (by means such as asking evocative questions, inquiring about pros and cons of a behavior, and exploring goals). The therapist is also trained to handle ambivalence that may impede motivation and to rely on formal assessment instruments (examining such areas as alcohol and drug use, life problems, readiness to change, functional analysis of behavior, and biomedical/neuropsychological effects) that are presented to the patient to help induce motivation for change.

Controlled research on MI has thus far been completed only on such treatment in a brief format, typically one or two sessions, as a precursor to other psychotherapy. In a review of nine controlled studies of brief MI, Holder and colleagues²⁹ reported that eight showed positive effects, indicating good evidence of efficacy for this treatment approach.

Modifications of psychoanalytic therapy for substance abusers were suggested as early as the 1930s by Simmel and Knight.⁴ Recent recommendations to modify such treatment for addicts have been described by, among others, Khantzian,³⁵ Brown,³⁶ Zimberg,³⁷ Wallace,³⁸ Kaufman and Reoux,³⁹ Gerald,¹ Levy,² and Yalisove,⁴ but as of yet no treatment manuals or empirical studies have been produced. Khantzian³⁵ suggested a rethinking of psychoanalytic formulations of addiction, emphasizing (in contrast to the early analytic literature on primitive drive theory) affect-regulation problems and self-care deficiencies. General modifications of psychodynamic/analytic therapy necessary for treating patients with addictions include reducing emphasis on insight; focusing primarily on drug use; increasing empathy, involve-

ment, and advice-giving by the therapist (i.e., avoiding a "neutral screen"); addressing management issues (e.g., need for hospitalization and confrontation of dangerous behavior) early in treatment; reducing the frequency of sessions to about one per week; delaying discussions of transference; reducing interpretations; avoiding confrontation of major defenses such as denial early in treatment; modifying standard technique as needed (e.g., telephoning a patient who has missed a session); and terminating with the idea that the patient may always return to treatment.^{1,2,4,12,35,39}

GENERAL GUIDELINES FOR PSYCHOTHERAPY OF SUBSTANCE-USE DISORDERS

Several recommendations for treating patients with a substance-use disorder are generally agreed upon across the different modalities. Although most such recommendations have not yet been empirically validated, they may help to provide the clinician with a useful framework that transcends modality and may serve as a guide to future research.

Notice phases of treatment. With substance-use disorders more than with other conditions, the phases of treatment and recovery are emphasized. Three phases—early, middle, and late—are typically recognized.^{12,39} Kaufman^{39,40} has provided one of the most elaborate models for this concept. He defined early treatment as "achieving abstinence," a position supported by virtually all writers above.*† Although some writers have suggested that "controlled drinking"—moderate alcohol use—may be possible for certain patients,^{2,14} this is a minority and highly controversial view within the field. (See Peele⁴¹ for a review of research on controlled drinking.) Methods central to the early phase of treatment include assessing the extent and impact of substance abuse, developing a plan for abstinence, reviewing the patient's recent drug use and craving at each session, diagnosing and treating coexisting psychiatric illness, and encouraging family participation. The second phase of treatment, "early recovery" (through the second year of treatment), involves supportive, directive psychotherapy with a focus on cognitive-behavioral methods, a continued goal of abstinence, and discussion of the substance-use disorder. Finally, in "advanced recovery" (beginning after 1–5 years of abstinence), treatment involves the goal of insight and personality change; reconstructive, psychodynamic therapy; reimplementation of cognitive-behavioral controls as needed; and exploration of underlying

*References 1, 3, 12, 14, 22, 35, 38.

†Indeed, abstinence may also be viewed as a prerequisite to psychotherapy; this view has been advocated largely within the psychodynamic framework.⁴¹

issues. Although one may argue with Kaufman's timetable, the idea of different agendas for different phases of recovery is relatively common.

Be compassionate. An old stereotype of treatment for patients with a substance-use disorder depicts harsh confrontation and breaking down of denial.¹⁴ It is widely agreed that in psychotherapy for patients with an addiction, support, compassion, empathy, and a collaborative approach are much more effective in promoting engagement and motivation. Of course, this does not imply that necessary limit-setting and boundaries should be eschewed; rather, these interventions can be seen as an essential component of support.

Be aware of the difficulty of engaging patients with a substance-use disorder in treatment. In contrast to some populations that heavily utilize treatment (e.g., patients with borderline personality disorder), people with a substance-use disorder are some of the most difficult individuals to engage and retain.⁴² Many of the empirical studies reviewed above have evidenced this phenomenon,^{5,13,21,32} with as few as 5% of eligible patients entering treatment, and only 50% of them completing treatment.³² To reduce the retention problem, particularly in the initial phase of treatment, the alliance should be solidly forged and ancillary services (e.g., assistance with housing, job problems, or child care) should be provided.

Obtain urine/breath-alcohol testing. There is no substitute for objective assessment of the patient's drug use. Patient self-reports are notoriously unreliable, particularly if any consequence (such as loss of a job) might occur if the patient uses drugs. All treatment-outcome studies and many clinical settings for addicts thus require drug testing.

Assess for comorbid disorders. As previously discussed, a major advance in treating patients with a substance-use disorder has been recognition of the high prevalence of coexisting psychiatric illness.⁸ Unless all comorbid disorders are targeted, treating the substance abuse (or the other psychiatric disorder) may be ineffective. As seen in the study by Woody and colleagues,²⁰ for example, severity of psychiatric symptoms predicted response to treatment. Clinicians are advised to assess actively for comorbid disorders and to provide or refer the patient for any adjunctive treatments necessary. For example, a patient with both cocaine addiction and major depression may benefit from an antidepressant medication. Assessment for concurrent psychiatric illnesses should occur after the patient has attained some degree of abstinence, however, to prevent misdiagnosis based on symptoms of drug intoxication or withdrawal.⁸ The length of time that is necessary to make a concurrent

diagnosis varies based on the drug(s) that the patient has been using and the disorder in question.⁴³

Monitor countertransference. Countertransference toward patients with a substance-use disorder is widely hypothesized to be more intense, more negative, and more likely to affect treatment than countertransference toward other populations. Patients can be viewed, for example, as manipulative, hopeless, or – alternatively – requiring special indulgence because of their problematic histories. Unless countertransference is actively monitored, therapists may be prone to engaging in power struggles with these patients or to experiencing cynicism, blaming, burnout, anger, or withdrawal. Suggestions for handling countertransference include seeking supervision or consultation about particularly difficult cases and performing an honest self-appraisal concerning one's emotional responses to patients.^{44,45}

Seek multiple treatment modalities. Rather than working with substance-use patients in isolation, therapists should encourage these patients to seek out a variety of treatment approaches. Depending on the particular case, a combination of treatments might include medication, behavioral treatment, psychodynamic therapy, self-help (such as AA, NA, CA, or Rational Recovery, a non-spiritually based group), employment or legal counseling, inpatient detoxification, a halfway or sober-house living situation (where addicts live together to promote abstinence), group therapy, or family treatment.

Some patients resist particular types of treatment, whereas others have a comorbid disorder that prevents their attendance in certain settings (for example, a person with a social phobia who refuses to attend group therapy). For a treatment to be effective, it must be acceptable. The therapist should not insist on a particular form of treatment but rather should engage the patient as much as possible in a treatment that he or she does accept¹² in order to construct a viable alternative plan of abstinence (e.g., medication if the patient refuses AA⁴⁰). Mark and Luborsky¹² stated that they had seen many different combinations of psychotherapy and 12-step groups; some patients succeed in one without the other, some gradually accept the initially resisted treatment, some shed a treatment after it has served its function, and some go through cycles of commitment to one modality or another. Earlier concerns about possible theoretical conflicts between modalities (e.g., the spiritual approach of AA versus the emphasis on personal responsibility in psychotherapy) appear to be unfounded; patients are capable of participating concurrently in multiple modalities.⁸

Do not confuse the causes of drug abuse with its results. Psychotherapy for substance abuse has been criticized in the past for assuming that the current profile of a

patient with a substance-use disorder explains the origin of the abuse (e.g., the person's low self-esteem led to substance abuse). This becomes circular reasoning that may help to reinforce the patient's use of substances: "I began drinking because my wife left me," rather than "My wife left me because I was drinking."⁴⁶ A sophisticated understanding of substance abuse will incorporate many possible pathways to addiction (e.g., biological predisposition, conditioned learning, unconscious factors) and numerous subtypes of patients with substance-use disorders.

Try to evaluate your effectiveness. Even if they have the same background, training, and theoretical orientation, therapists vary considerably in their success rates with substance-use disorder patients.^{44,47,48} In the study by Woody and colleagues,⁵ the treater to which a patient was assigned had a "quite dramatic" effect on outcome, independent of theoretical orientation, even though all of the therapists were experienced, used treatment manuals, and had ongoing supervision. General ways in which therapists may become more aware of their relative effectiveness and improve it include use of a treatment manual that has been empirically validated; supervision, workshops, and other formal education; comparing one's rates of treatment retention and abstinence with rates cited in the literature; and seeking feedback from patients.

Adjust the amount of treatment for the particular case, but provide more care when possible. At this point, no consensus exists as to how often a person with a substance-use disorder should be seen in psychotherapy. For example, Kang and coworkers⁴⁹ concluded that once-a-week psychosocial treatment was "insufficient" for cocaine abusers, while Carroll and colleagues¹³ showed that it was quite successful. Frequency, with this population as with any other, will depend on additional treatments the patient is receiving, severity and profile of the patient's clinical state, and initial response to treatment.

One finding consistent across the studies we have reviewed, however, is that the more treatment that has been provided, the better the patient has done. In the investigations where a new treatment was offered over and above standard ones,^{20,26,27} results were always better than for the standard treatment alone. Whether this means that that particular treatment combination is necessary or that just providing additional care of any type would be enough is not yet known.

Assess outcome by a variety of measures. Studies have found several measures to identify changes from baseline profiles and thus to ascertain whether treatment is effective. These include assessing a patient's symptoms; functioning in major life areas such as work; physical health; self-defined

problems; use of ancillary medications; achievement of abstinence; and attendance at sessions. Many of these measures can be easily administered in clinical practice to ascertain whether treatment is effective. Combining multiple sources of information also provides the most valid assessment of the patient's status. In the studies we have reviewed, sources of information have included patients, therapists, collaterals such as family members, independent evaluators, and physiological measures such as urine testing.

Know when to quit. If a patient continues treatment in a modality that is not working, damaging effects may occur.¹ For example, substance use may become progressively worse; the patient may begin to use new and more dangerous substances; life functioning may deteriorate to the extent that severe legal, housing, health, or employment problems result; or the patient may decide that he or she does not really want to give up drugs. Many patients will use drugs at some points during treatment, and functioning will vary; these alone are not indications to discontinue treatment. However, a persistently worsening pattern suggests the need for more care (involving other treaters), more-intensive care (e.g., a structured treatment setting), more supervision, or ending the treatment altogether. The particular type of treatment being provided may also be less effective than other modalities for the type of patient involved. Two studies, for example, have shown some treatments to be more efficacious than others among certain subpopulations: RP is better than IPT for patients with severe cocaine dependence,¹³ while drug counseling plus either CBT or SE is better than drug counseling alone for patients suffering from both opioid addiction and moderately to very severe psychiatric symptoms.²⁰ In general, patients with more-severe symptoms, whether of drug use or co-occurring psychiatric problems, tend to have worse outcomes^{20,28} and should thus be monitored with particular attention.

FUTURE DIRECTIONS

Although we have described empirical validation of treatments, such validation can be demonstrated only over time with a series of studies. Moreover, the research we reviewed also varied considerably in methodological rigor. The optimal test of a form of psychotherapy would be prospectively designed and would:

- provide clinicians with a treatment manual specifying the therapy in concrete detail and ascertain whether they had followed the manual during sessions ("adherence")
- select therapists who have demonstrated their capacity to provide high-quality clinical services ("competence")
- use a large sample of patients (with the size determined

by statistical power analysis), carefully selected (e.g., by rigorous diagnostic procedures) and randomly assigned to treatments

- use an adequate control or comparison group, members of which receive therapy that is demonstrably different from the treatment under study
- have a balanced design, such that all patients are offered equivalent amounts of treatment
- control for any nonstudy treatments that the patients might be receiving
- include adequate measures of outcome and statistical testing of outcome data

The studies reviewed above, for example, differed substantially in such factors as sample size (110 patients in Woody and colleagues' study²⁰ versus 38 in Higgins and coworkers' investigation²²), the diagnostic system used and its rigor of assessment (e.g., a checklist format for DSM-III-R diagnoses in Higgins and colleagues' study²² versus structured interview for DSM-III in Carroll and coworkers' study¹³), the use of a "pure" treatment (such as MI^{29,34}) versus combinations of psychotherapies or psychotherapy and psychopharmacology (the norm for virtually all other studies), the length of treatment (one or two sessions for MI,²⁹ 24 weeks for BT²²), and the use of random assignment to treatment (e.g., Woody and colleagues²⁰) versus nonrandom assignment (e.g., Anker and Crowley²¹).

In addition, although this review provides evidence for the efficacy of various psychotherapeutic treatments for addictions, several major criticisms cannot be overlooked. For example, the long-term outcomes of the treatments reviewed have not yet been demonstrated. Most of the treatments described in this review were short-term therapies (up to 24 weeks); whether they can have a lasting impact is an important question. The use of longer-term treatments, such as Kaufman's,^{39,40} has not yet been empirically studied, although such therapies are often practiced, particularly in psychodynamic modalities.⁴⁷

What treatment to assign for a particular patient is also still largely unknown. According to Paul, the goal is to determine "what treatment, by whom, is most effective for this individual with that specific problem, and under which set of circumstances."⁵⁰ Some promising findings in the studies reviewed in this paper include the relationship between severity of drug use and outcome (found for NT and IPT, above), and the beneficial effects of psychotherapy used in addition to drug counseling for patients with both addiction and severe psychiatric symptoms.⁵ Topics for future research might include the effects of patients' drug of choice, motivation level, or level of social support on the outcome of different treatments.

A related issue is the cost effectiveness of treatments, because most patients with a substance-use disorder prob-

ably do not have access to psychotherapy. Future research can identify subgroups of patients who are most likely to need psychotherapy rather than—or in addition to—other, less expensive treatments (such as psychopharmacology or standard drug counseling).^{5,13} The relationship between psychotherapy and other treatment modalities has received very little attention and clearly requires further study.¹³ Galanter,⁷ for example, found no added benefit for 12-step groups in addition to NT. Study of the impact of combined treatments will be particularly important because many therapies (e.g., CC, MI, and RP) are designed as adjunctive treatments to more traditional psychotherapy; others (e.g., CBT, IPT, and SE) are to be combined with modalities such as 12-step groups and/or psychopharmacology.

We also need to understand what components of the theoretically based therapies are "active" rather than "inert" ingredients. Higgins and colleagues²² are currently studying whether the material reinforcers (vouchers, payments) in their BT are necessary for positive outcomes, or whether social reinforcement is sufficient. It has also been suggested, for example, that many components of CBT may overlap with 12-step programs (in behavioral techniques such as "Replace the people, places and things that lead to substance use," and in cognitive restructuring strategies such as "Take one day at a time"). More-sophisticated studies identifying the components of treatments and determining whether they are specific to a particular orientation or consistent across modalities may help researchers to clarify the effects of therapies and to decide if so many different modalities are necessary.

Virtually all of the treatments described in this review have so far been empirically tested mainly by the people who developed them. Positive outcomes are more likely to occur under such conditions than if the treatments are tested by outside parties, who may have lower skill levels or subtle biases.⁵¹ Replication of findings is thus essential. Testing outcomes among a broader range of patients—differing in such aspects as drug of choice, sociodemographic and ethnic characteristics, and comorbid psychiatric conditions—is also important. In addition, studying the variability in therapists' effects—that is, the contribution made to outcome by differences in therapists' capabilities—is a necessary part of empirical validation of treatment outcomes. The phenomenon of therapist variability has been documented in the treatment of patients with substance-use disorders⁴⁴ as well as in other samples.⁵² In short, the truest picture of the benefits of psychotherapy for patients with a substance-use disorder can be determined only through an in-depth, composite understanding of theoretically based techniques, patient characteristics, and therapist characteristics.

This review has established several main points. First, the field of substance-use treatment appears to have undergone a shift in conceptualization of the usefulness of psy-

chotherapy. Once considered to be unhelpful in treating substance use, psychotherapy, with significant modifications, can be an important treatment both in its own right and as an adjunct to other treatments. Second, most of the psychotherapies described have shown some degree of effectiveness in empirical studies. This evidence remains preliminary, however, given that such research is just beginning. Whether any particular treatment is generally superior to others is also currently unknown. Third, several principles have been identified that could serve as guidelines for clinicians and therapists in any modality, although even these require further validation. Aside from these basic points, however, far more remains to be discovered than is already known.

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