Beyond the Therapeutic Alliance: Keeping the Drug-Dependent Individual in Treatment

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Table of Contents

Treatment for Drug Addiction: It Won't Work If They Don't Receive It

Lisa Simon Onken, Jack D. Blaine, and John J. Boren

Treatment won't work if it is not administered. Penicillin will not effectively treat streptococcal pneumonia if patients don't take it, and take it as prescribed. Insulin won't help a diabetic if it is not used. Cognitive therapy for panic disorder won't work if all the therapy sessions are missed. And treatment for drug addiction will not work if the addict is not engaged and retained in treatment. Although engagement, retention, and compliance are problems for the treatment of virtually every medical and mental disorder, these issues are especially problematic for drug addiction treatment.

People want bacterial infections to go away. They want to be free of the symptoms of diabetes. They want the panic attacks to stop. However, drug addiction is a disorder that many individuals do not necessarily want to stop. Unlike most medical and mental disorders, drug addiction has a strong component. If the pleasure associated with drug taking did not create so many social, financial, criminal, and medical problems, it is hard to imagine many people seeking treatment at all. Thus, while drug-addicted individuals want to stop the problems associated with drug use, they may not want to stop taking drugs.

Some want treatment, but the very thing for which they are seeking treatment can prevent them from coming—that is, they are involved in drug-taking behavior, making them unavailable for treatment. And for some, problems associated with drug addiction (e.g., medical problems, low income, lack of adequate transportation, inability to pay for child care) make it difficult to engage in treatment.

These and other factors contribute to a person's inclination and ability to change and readiness to engage in a particular type of treatment. One of the more exciting concepts put forth in the drug addiction treat-ment research field is Prochaska and associates' (1992) Stages of Change model, promoting the idea that people cycle through varying degrees of readiness for change and that treatments

should be tailored to meet the individual's readiness level, rather than imposing an inappropriate treatment on the individual.

In drug addiction treatment research, the issue of patient dropout is always present. Sometimes, it is merely acknowledged. Oftentimes, while it is acknowledged that statistical correction is inadequate, in the absence of alternatives, statistical corrections are nonetheless made. Most investigators do the best they can to retain patients in treatment, and then analyze their data with all of its flaws. A clinical trial of a drug addiction treatment without the problems created by dropout is, at this point, a fantasy.

It was because of the enormity of the problem of patient dropout that a meeting was held to address the issues of engagement and retention in drug addiction treatment. The name of the meeting, "Beyond the Therapeutic Alliance: Keeping the Drug-Dependent Individual in Treatment" was chosen because of the belief of the cochairs that far more was needed than a strong therapeutic alliance to engage and retain drug-addicted individuals in treatment. The purpose of the meeting was to review the literature on research in this area, but, even more important, to stimulate new research that addresses directly the issues of the engagement and retention of drug-addicted individuals in treatment. The meeting was held on May 10 and 11, 1994, and was chaired by Lisa Simon Onken, Ph.D., Jack Blaine, M.D., and John Boren, Ph.D., of the National Institute on Drug Abuse's Treatment Research Branch. Participants included Larry Beutler, Ph.D., Kathleen Carroll, Ph.D., Carlo DiClemente, Ph.D., Ellen Frank, Ph.D., Stephen T. Higgins, Ph.D., Kenneth I. Howard, Ph.D., Bruce Liese, Ph.D., Lester Luborsky, Ph.D., G. Alan Marlatt, Ph.D., A. Thomas McLellan, Ph.D., Cory Newman, Ph.D., and M. Duncan Stanton, Ph.D. The chapters that follow are the product of this meeting.

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Enhancing Retention in Clinical Trials of Psychosocial Treatments: Practical Strategies

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There is increasing awareness, from both clinical and research perspectives, of the substantial methodological and statistical problems associated with the typically high rates of attrition in clinical trials (Howard et al. 1990; Kalton 1983; Lackin and Foulkes 1986; Lavori 1992). These issues are particularly critical for trials involving substance abusers (Howard et al. 1990; Sparr et al. 1993), where rates of attrition often range from 25 to 90 percent (Baekeland and Lundwall 1975; DeLeon 1991; Wickizer et al. 1994). Traditionally, attrition has been conceived as patient driven; that is, investigators have focused their efforts on searching for patient characteristics associated with poor retention, such as demographic characteristics, social instability, and low motivation (e.g., Agosti et al. 1991; Babst et al. 1971; Baekeland and Lundwall 1975; Swett and Noones 1989; Szapocznik and Ladner 1977).

That perspective is now shifting, and current efforts to reduce attrition in clinical trials reflect increasing awareness that retention reflects a combination of conditions and efforts contributed by therapists, investigators, and research staff, in addition to patients (DeLeon 1991; DiClemente 1993). This chapter describes practical strategies for retaining substance-abusing patients in clinical trials, particularly studies evaluating psychosocial treatments. Examples are drawn from the series of trials evaluating psychotherapies and pharmacotherapies for cocaine abusers at Yale (Carroll et al. 1991, 1994*c*), as well as the National Institute on Alcoholism and Alcohol Abuse (NIAAA)-funded Project MATCH (Project MATCH Research Group 1993), a multisite collaborative clinical trial evaluating patient treatment matching in alcoholics. In these studies, which evaluated manual-guided psychotherapeutic approaches in outpatient settings with a variety of substance-abusing populations, retention was given close attention because of the need for adequate statistical power, the need to expose patients to an adequate dose of study treatments, the need to retain a study sample that reflected the larger population from which it was drawn, and the need to avoid statistical problems associated with differential attrition. Thus, the author's research team used a number of strategies intended to enhance retention. Use

of these strategies reflects three assumptions about retention: retention reflects a good fit between patient, setting, provider and treatment; attrition typically occurs early in treatment; and retention is an outcome.

RETENTION REFLECTS GOOD FIT

In both clinical and research settings, patient heterogeneity has usually been met with treatment homogeneity. That is, regardless of patients' background and preferences, the nature or severity of their substance abuse and related problems, or the factors that precipitated seeking treatment, many treatment programs offer only a single type of treatment (which is usually poorly defined as to content, goals, approach, treatment provider, and duration). With this one-size-fits-all model, variations in retention and outcome have traditionally been ascribed to patient factors and characteristics (e.g., Agosti et al. 1991; Keil and Esters 1982; Swett and Noones 1989; Szapocznik and Ladner 1977). Thus, patients who are a good fit for a given approach are more likely to remain in treatment, and those who are less well suited are more likely to drop out.

Given this approach, the search for universal patient characteristics associated with retention has been no more successful than the search for the alcoholic personality, as patient characteristics associated with dropout in one treatment setting are usually not replicated in another setting with a vastly different treatment approach. A more recent, and potentially more fruitful, approach to evaluating retention is recognition that retention may have more to do with what investigators and treatment providers do than who the patients are. For example, Herceg-Baron and colleagues (1979) found that attrition patterns varied as a function of the type of treatment (pharmacotherapy or psychotherapy) patients received in a study of treatments for depression.

ATTRITION OCCURS EARLY

While there is little consistency across studies and treatment settings in terms of characteristics of patients who drop out of treatment, there is a good deal of consistency across studies suggesting that most attrition occurs early, with the majority of dropouts usually occurring during the first month of treatment (Baekeland and Lundwall 1975; DeLeon 1991; Silberfeld and Glaser 1978; Swett and Noones 1989).

Again, in treatment settings that offer only a single approach, it may not make sense to ask the patient what he or she needs, desires, or expects out of treatment, as if the patient wants something other than what the center provides; very often, there is little that staff can do. Moreover, treatment staff are often so vague in explaining to the patient what to expect in treatment that the patient typically has only an uncertain idea of what treatment will actually consist of until it begins. Thus, early attrition may reflect self-selection, where patients may find themselves in the wrong treatment setting, wrong group, with the wrong therapist, participating in a treatment geared to a stage other than the one they are in. It is thus not surprising that dropouts usually seek treatment again elsewhere (Peterson et al. 1994).

RETENTION IS AN OUTCOME

In substance abuse treatment, retention is more or less the outcome. Better retention tends to be associated with better outcomes in terms of reductions in substance abuse (Simpson and Sells 1982). Furthermore, the treatments for substance abuse are considered effective to the extent they demonstrate the ability to retain patients. Methadone maintenance, despite its drawbacks, is the most successful pharmacologic strategy for opioid dependence, in large part because of its power to retain patients over extended periods. On the other hand, naltrexone, which is an elegant, safe, long-acting, and theoretically perfect treatment, is infrequently used and often perceived as ineffective largely because of its poor track record of retention. Similarly, the combined voucher and community reinforcement approach (CRA) approach described by Higgins and colleagues (this volume) has generated a great deal of excitement because several trials evaluating this approach have shown high retention and abstinence rates among cocaine abusers.

To the extent that potent treatments can be developed that are responsive to patients' needs, it is likely that treatment retention, compliance, and outcome will be improved. Moreover, procedures and strategies that have been found to improve treatment compliance and retention in clinical areas other than substance abuse (Meichenbaum and Turk 1987) are likely to be applicable and effective in improving treatment retention among substance abusers as well.

STRATEGIES RELATED TO PATIENTS

Some, but clearly not all, variation in retention in clinical trials may have to do with the types of patients included in different trials. Because different types of patients may respond to different treatments, sample heterogeneity versus homogeneity may be one determinant of attrition patterns within a trial. The appropriate level of sample heterogeneity in a trial depends on its aims and goals. For example, in small, tightly controlled efficacy studies in which investigators attempt to attribute all variation in outcome to treatments evaluated (explanatory trials), variability in other factors, including patients, should be held to a minimum (Sackett and Gent 1979). Conversely, in a generalizability study, which evaluates the effectiveness of the study treatment in the broader population of individuals with the disorder, a more heterogeneous population would be desirable.

Restrict Sample Variability

One means of avoiding attrition in clinical trials is to narrow inclusion and exclusion criteria to patients who are likely to comply with, remain in, and benefit from study treatments. Thus such a study might exclude patients with high psychopathology, those who do not have stable social supports, those who live far from the treatment site, and those who are not motivated for treatment. With this type of strategy, however, the study sample is likely to be highly select and may have little resemblance to the larger population from which it was drawn. For example, in the Veterans Administration's (VA) Cooperative Disulfiram Study, the relatively restrictive set of inclusion-exclusion criteria used yielded only 600 subjects from a potential pool of over 6,000 (Fuller et al. 1986).

The effects of restricted sample variability on retention and outcome may be also illustrated by the series of studies evaluating the effectiveness of desipramine treatment of cocaine dependence. An early trial, led by Gawin and colleagues at Yale (1989), suggested the effectiveness of desipramine over lithium and placebo for retention and other outcomes, using a sample that was composed primarily of white, employed, intranasal users with comparatively low levels of psychopathology. Later desipramine trials, which included more heterogeneous samples that varied across several dimensions (e.g., race, severity, route of administration, and level of psychopathology), generally failed to find a desipramine effect on retention or cocaine use, or found an effect only for subsamples with

lower severity cocaine use (Carroll et al. 1994*c*) or for subjects without antisocial personality disorder (Arndt et al. 1994).

Increase Difficulty of Treatment Entry

Another method for reducing attrition is to make it more difficult for substance abusers to enter treatment in the first place. While not necessarily always conceived as such, many methadone programs routinely make use of this strategy. That is, treatment applicants are placed on waiting lists of up to 6 months and are asked to call every 2 weeks to confirm their interest in treatment or place on the waiting list, and patients who fail to call are dropped from the list. Thus, individuals who persist with contacting the clinic over an extended period of time, or survive the waiting list, may be more motivated or stable and hence more likely to remain in treatment once admitted.

Similarly, Craig (1985) described a set of procedures that reduced the rate of dropouts from an inpatient substance abuse treatment program from 70 to 20 percent. These procedures included requiring a 2-day preadmission evaluation or completion of a 30- to 60-day outpatient program prior to inpatient admission for patients who had histories of negative behavior. Once admitted, patients completed treatment contracts, and were required to meet with their group before leaving against medical advice (AMA). In addition, the program offered the availability of a counselor during evenings and weekends when the majority of AMA discharges tended to occur.

An example of this type of approach in clinical trials is the use of the run-in (Lang 1990), where potential subjects have an opportunity to practice study procedures (e.g., return questionnaires each week, take study medication according to schedule) and are selected for the study on the basis of their ability to conform to those procedures. This strategy is also seen in studies that require patients to demonstrate their ability to become abstinent or their motivation for treatment before program entry. In such studies, patients entering the trial are more likely to be retained, to be compliant, and to have better response to treatment; however, it is less likely that results will generalize to other settings or studies that do not make such stringent demands on patients prior to entering treatment.

Anticipate Heterogeneity

When patient heterogeneity is built in to a study, higher attrition is likely. For example, the author's cocaine studies and Project MATCH were intended to evaluate the types of patients who respond to different treatments, thus heterogeneous samples were recruited and inclusion and exclusion criteria were broad by design. It was found that within the boundaries of study treatments and the research protocol, anticipating and accommodating the needs of diverse patients may prevent practical and clinical problems and, ultimately, attrition. For example, in studies hoping to recruit and retain substantial numbers of women, the provision of child care while patients attend treatment and research appointments may be critical. For subjects who work, it may be impractical to ask them to come to sessions during regular office hours, so offering some evening appointments may help retain patients. Similarly, to retain socially unstable or homeless patients, providing transportation to the clinic and establishing links to social service agencies may be needed to help subjects develop at least a minimum level of social stability to support them while in outpatient treatments.

It should be noted, however, that some of the strategies described in this section and the next essentially change the nature of the treatments provided and thus their use in any given trial must be considered carefully and monitored closely.

Build Flexibility into Treatments and Treatment Manuals

Another problem associated with a broad range of patients in a clinical trial is that heterogeneity may increase the number of patients who are less than ideally suited to study treatments and therefore at risk of attrition. In studies of psychosocial treatments, investigators may address this issue by helping therapists strike an appropriate balance between the need to adhere to a structured treatment manual and meeting the needs of individual patients. For example, in psychotherapy studies conducted by the author's group, sessions typically begin with 15 to 20 minutes of less structured time (conducted within a framework consistent with the theoretical underpinnings of that treatment type), where major events since the last session are reviewed and the patient is given the opportunity to raise questions or concerns. For the remainder of the session, therapists attempt to work material raised by the patient into discussion of the manual-driven session topic for that week so as to

respond to the patient's immediate concerns and maximize each session's relevance.
Flexibility and the ability to treat several different types of patients within a single treatment approach also characterized the process of developing treatment manuals for Project MATCH. In the manuals (Kadden et al. 1992; Miller et al. 1992; Nowinski et al. 1992), guidelines were provided, for example, for treating patients at different settings, and with varied levels of severity and psychopathology. In addition, therapists' ability to be responsive to the needs of individual patients was built into the treatment manuals themselves. For example, both the cognitive-behavioral and 12-step facilitation manuals included a small set of core session topics that were considered essential to deliver for each patient to have received an adequate dose of that treatment, but each manual also included several elective sessions that addressed special issues or concerns (e.g., coping with depression, learning assertive responding). After covering the material in the essential core sessions, the therapist and patient could select additional elective topics in order to tailor the treatment for each patient (Carroll et al. 1994*a)*.

Also, to handle crises that might arise in a highly diverse sample, therapists in each condition were allowed to offer up to two emergency sessions. Emergency sessions were conducted within the frame of reference and using techniques consistent with each treatment type. For example, when problems and crises arose, cognitive-behavioral therapists modeled a problemsolving approach, 12-step facilitation therapists encouraged their patients to deepen their involvement in Alcoholics Anonymous (AA), and motivational enhancement therapy (MET) therapists invited their patients to explore and make use of resources already available to them (Carroll et al. 1994*a*).

Finally, investigators may make use of safety nets to protect patients who do not respond to study treatments. For example, most clinical trials specify a set of clinical deterioration criteria where patients who respond poorly to their assigned study treatment can be withdrawn and provided a more intensive level of care. Beyond preventing therapists from deviating from the treatment protocol with more difficult patients (as they know they will not be asked to persist indefinitely with a treatment that is not helpful to a patient), these procedures, if made explicit to patients, may prevent some patients from dropping out without giving treatment a reasonable try by reassuring them they will receive more intensive treatment if clinically indicated.

Involve Significant Others

Involvement of significant others in treatment has long been recommended as a technique to improve retention in general (Meichenbaum and Turk 1987) and has been shown to be beneficial in treatment of substance dependence (e.g., DeLeon 1991; Higgins et al. 1994; Sorenson et al. 1985). Thus, in the author's clinical trials, therapists are allowed to offer up to two significant-other sessions (which are closely monitored and analyzed as process variables). Guidelines for conducting these sessions are described in the respective treatment manuals, and are designed not as family therapy but rather an opportunity for family members to learn what the patient's treatment and involvement in the research encompasses, ask questions and express concerns, and participate in future treatment planning. Thus, by accommodating significant others and attempting to make them allies of the research team, the therapists seek to prevent sabotaging of treatment, which might be more likely to occur if significant others were excluded entirely.

STRATEGIES RELATED TO THERAPISTS

While investigators cannot necessarily select patients who will be retained, it may be possible to select study therapists who are more likely to hold on to patients. Some strategies are described below.

Careful Selection of Therapists

Investigators should strive to select therapists who are likely to be good fits for the treatment protocols and who can work well with a variety of patients. While specific therapist selection criteria vary across studies, therapist selection criteria typically include: completion of a terminal degree in the therapist's discipline (usually an M.D., Ph.D., or M.S.W.); several years of clinical experience with a population closely related to the study population; and experience in and commitment to the type of study treatment the therapist will be conducting in the trial (Carroll et al. 1994*b*; Chevron et al. 1983). Use of comparatively stringent criteria to promote a highly experienced therapist cohort is important. Therapists' training in clinical trials is typically (and necessarily) limited to helping them adjust their usual approach to fit manual guidelines; there is no opportunity to teach basic therapy skills to novice clinicians (Rounsaville et al. 1986).

In addition to meeting selection criteria, the author and colleagues typically require therapist candidates to submit a videotaped work sample. By viewing a therapist's actual work, researchers can appraise a number of key qualities that would be impossible to evaluate on the basis of a curriculum vitae alone. For example, Luborsky and colleagues (1985, this volume) identified several characteristics associated with retention and outcome of substance-abusing patients including the therapist's interest in helping, skill, and ability to form a good working relationship (alliance). Finally, requesting a videotaped work sample is a good introduction for the therapists to the increased scrutiny required in clinical trials of psychosocial treatments (e.g., videotaping of all sessions, frequent supervision, and process evaluation). Experience suggests that therapist candidates who refuse to submit work samples generally have good reason for doing so.

Moreover, with the growth of interest in patient-treatment matching studies and the resultant need to deliver highly distinct treatments with a minimum of overlap (Carroll et al. 1994*a*), it is important to ascertain that therapist candidates are competent practitioners of the treatment type to which they profess commitment. It is extremely difficult, for example, both to train and prevent overlap in behavioral therapists who profess to do dynamic therapy and in 12-step-oriented therapists who say their approach is cognitive-behavioral.

It is also important to recruit therapists who are open to working with substance abusers. Investigators should note that not all therapists are good at this work. Some very competent therapists who are experienced in working with other types of patients have strong opinions about the value (or lack thereof) in conducting psychotherapy with substance abusers. If such attitudes are not identified and addressed, therapists who have low expectations of patient success may convey these expectations in a number of ways (e.g., conveying a lack of optimism about the patient's chance for success, prematurely diagnosing their patients as having antisocial personality disorder) and undermine retention (Baekeland and Lundwall 1975).

Address Retention as Part of Therapist Training

Therapist training provides another important opportunity for heightening the importance of retention in the trial and selecting out therapists who are less likely to hold patients. For example, during initial didactic training seminars where the therapists are introduced to

the goals and aims of the trial and the treatment manuals are reviewed, it is helpful to underline the importance of retention and the expectation that the therapists will make special efforts to retain their patients. It may be helpful to highlight and discuss differences between being a therapist in research clinical trials versus regular clinical practice (Weissman et al. 1982), including random assignment, the short-term nature of treatment, and the high level of scrutiny around treatment delivery. Substantial attention also is devoted during training to working through issues of patient heterogeneity, that is, helping therapists develop strategies for successfully retaining patients who vary with respect to severity, psychopathology, motivation, and other characteristics within their treatment approach. Thus prepared, therapists may feel less tempted to borrow from other approaches or give up on patients when they confront difficult clinical issues during the study.

Training therapists for clinical trials designed to evaluate psychotherapeutic treatments also requires completion of several closely supervised practice cases; this is intended to help therapists gain experience adapting their usual approach to be consonant with the treatment manuals and research procedures. Supervision is also an opportunity to reinforce the importance of retention by attending to and addressing any missed sessions or dropouts. Again, while even experienced therapists can have some difficulty with training cases, it has been found that therapists whose patients frequently drop out during training are often those with poorer retention during the main phase of the trial.

Build in Therapist Incentives for Retention

In regular treatment clinics where therapists' caseloads are heavy, missed sessions are often experienced by the therapists as good fortune, giving them precious extra hours to catch up on paperwork and phone calls. Thus, there is little incentive to follow up on patients who miss sessions and attempt to shore up connections with treatment where resolve may be tenuous. By not following up on such patients, therapists can passively cull their caseload of patients they perceive as unmotivated, disagreeable, time consuming, or otherwise unappealing.

Conversely, in clinical trials, a great deal of time and many valuable resources are devoted to recruitment, screening, preparation, and assessment of each subject. Loss of a single subject is costly practically as well as statistically. To heighten therapists' awareness

of the importance of retention, it may be useful to build in incentives for retention. For example, rather than paying all or part of study therapists' salaries, therapists are paid on a per diem basis, where they receive an hourly fee for every hour of patient contact. Thus, as their earnings will be reduced if their patients leave treatment, there is incentive to attend to early problems in developing a relationship, and to call and follow through with patients who are late or no-shows.

Close Monitoring of Therapists

Close attention to the therapists' delivery of study treatments and level of competence may also improve retention. Video- or audiotaping all sessions, which is done primarily to facilitate process analyses and evaluation of treatment discriminability, may also increase the quality of treatment and possibly reduce attrition. For example, therapists who are aware that everything they say to a patient is being taped and evaluated may be more likely to be consistently diligent about delivering study treatments and perhaps to deliver better, higher quality treatments. Provided consistently and carefully, ongoing supervision itself may increase the quality of treatment and increase retention by providing support, bolstering morale, and broadening therapists' repertoire by working through issues raised by difficult patients. Supervisors should be particularly alert to attrition and explore with each therapist the process that may have led to patients leaving treatment and missing sessions. Ongoing attention to warning signs of attrition, especially missed appointments, also may be helpful.

Stability and Flexibility

Patients whose sessions are scheduled to occur at the same time each week tend to be more likely to complete treatment. While some variability in the structure of scheduling may be patient determined (e.g., patients who are using, with unstable work schedules or family life, are unlikely to come in the same time each week), it is important that therapists understand the need for consistency and the undesirability of varying the schedule of sessions and missing sessions.

Moreover, stability and flexibility can be improved through having a larger pool of trained study therapists. Besides reducing the likelihood of therapist effects (Crits-Christoph and Mintz 1991), having more therapists ready to deliver study treatments may prevent the need to interrupt treatment for therapist vacations and other absences. Furthermore, a larger therapist pool may increase flexibility in

accommodating the needs of individual patients such as patients with unusual schedules, patients who express a strong preference for a male or female therapist, and other considerations.

STRATEGIES RELATED TO INVESTIGATORS AND RESEARCH STAFF

Research staff can use many strategies to improve retention in clinical trials. Several have been recognized for many years and few are limited to the special needs of substance abusers. For example, the general principles recommended by Meichenbaum and Turk (1987) are applicable, including short referral times, involving the patient in the planning and implementation of the treatment program, using reminders, discussion of the reasons for previously missed appointments, patient education, fostering a collaborative relationship based on negotiation, involvement of significant others, being patient oriented, and reducing the level of complexity of the protocol.

As with the other strategies listed above, it is important to note that only some of the following have been evaluated empirically for their actual impact on retention. More studies specifically evaluating these strategies and others are clearly needed. Furthermore, as these strategies may have an effect on retention and outcome, it is important for investigators using these strategies to monitor that they are applied appropriately and consistently across study conditions.

Rapid Response and Assignment to Treatment

Patients may never be more motivated than the first time they call the clinic. Several studies have shown that by cutting down the time between application for treatment and first contact, retention can be improved significantly (Baekeland and Lundwall 1975; Leigh et al. 1984; Stark et al. 1990). Furthermore, research screening and assessment procedures, including medical evaluations and lengthy diagnostic interviews, can delay randomization and the start of treatment to up to 1 month. Rates of successfully starting patients in the protocols have increased as the author's group reduced the interval between first contact to first treatment session to less than 1 week. Alternatively, lengthening the pretreatment patient evaluation period is akin to a run-in period, which may reduce the number of

patients who enter the protocol, but may in turn produce a more compliant sample of patients more likely to be retained.

Subject Preparation and Inoculation

Building on the broader literature on the effectiveness of role-induction procedures for general psychotherapy patients as a strategy to improve retention (Hoehn-Saric et al. 1964), some investigators have found these procedures (including educating subjects regarding their role as drug abuse treatment patients or research subjects) helpful among substance abusers. For example, Stark and Kane (1985) found that a drug treatment-specific role induction procedure was more effective in increasing rates of return for second appointments than was a standard intake interview. Sutherland and colleagues (1985) reported that new subjects meeting with a research psychologist (who conducted a research interview that included extensive self-reports of substance abuse and a request to fill out a drinking diary) had significantly better rates of attendance at subsequent sessions than those who saw only a drug counselor (71 percent versus 43 percent). Brown and Miller (1993) found that two sessions of motivational interviewing significantly improved treatment involvement and outcome compared to no such preparation.

Thus, in the author's clinical trials, study staff spend on average at least 2 hours with each patient explaining the study, its procedures, the implications of random assignment, the roles of the treatment and research staff, the benefits and risks of study participation, the nature of the treatment that may be received, the likely duration of assessment sessions, the importance of collecting accurate data, and why videotaping of treatment sessions is done. Study staff also prepare handouts containing this information; the handouts are intended to clarify the treatment protocol, inoculate patients against disappointment or surprise, and help them prepare for their roles as patients and research subjects. Potential barriers to study participation such as transportation and child care problems, work schedules, vacations, meetings with probation officers, and court cases, are ferreted out and discussed in advance. For example, the study staff routinely review a calendar with the patient, pointing out days when the patient can expect to come to treatment sessions, assessment interviews, and followups, so patients can identify interruptions and problems and these can be worked through in advance or avoided.

Frequent Contact and Monitoring

Nirenberg and colleagues (1980) found that telephone or letter contact immediately after missed sessions significantly improved rates of return to treatment. The author's research colleagues assume the patient is in the study until the patient says this isn't so. Therefore, if a patient misses a treatment or assessment session, research staff call or write several times until the patient comes in or formally withdraws. Patients are not accustomed to this level of interest, and the clear message of concern about what happens to them can be very persuasive if a patient is ambivalent about continuing. Patients who choose to withdraw are asked about their reasons for doing so and staff try to address these if possible. Also, because most study therapists do not work at the research clinic and may be difficult to contact on short notice, a member of the research team is available by phone to answer questions, handle crises, or link the patient with the therapist if necessary.

User-Friendly Practices

Attending to the details of a clinical trial, which takes consistent effort and attention, conveys respect for the patient and may also improve retention (DelBoca and Mattson 1994). For example, if the assessment battery takes several hours to complete, the staff offers the patient frequent breaks and refreshments. Assessment forms are evaluated for grade level and ease of reading. Clean, legible copies of assessment instruments are used. Subjects are encouraged to complete self-report instruments at the clinic where a staff person is available if they have questions or problems. All staff, including the security guards and receptionists, are polite to the patients. Staff and therapists ask the patients whether they prefer to be called by their first or last name. Parking is close to the clinic and safe. Personalized letters are sent to remind patients about followup interviews. Summarizations of the major findings of the study are sent to the patients as a means of thanking them for their participation and maintaining contact.

STATISTICAL COPING STRATEGIES

Finally, despite investigators' best efforts, some attrition may be inevitable in any clinical trial (Lavori 1990). The statistical problems associated with missing data and the flaws of many frequently used approaches for coping with them are well known. For example,

traditional statistical models for analyzing clinical trial data, such as analysis of variance (ANOVA), are very vulnerable to missing data in that they typically result in either deletion of cases with any missing data or imputation of missing values. Furthermore, the practice of carrying forward endpoint ratings for patients who drop out of treatment has been severely criticized and is particularly vulnerable to bias when differential attrition occurs across groups (Lavori 1992).

Recently, however, sophisticated statistical models for evaluating treatment effects have become available that are less vulnerable to some problems associated with missing data. Random effects regression models permit a more flexible approach for studying change over time (Bryk and Raudenbush 1987; Hedeker, unpublished observations) by treating time as a random as well as a fixed effect, modeling an individual's behavior as a function of an individual growth trajectory and analyzing the individual change trajectories by treatment group. Furthermore, in contrast to repeated-measures ANOVA analyses which usually involve deleting subjects with missing data or imputing values for missing data points, random effects regression models allow use of all available data.

The potential value of these approaches has been demonstrated recently by applying random effects regression models to recent clinical trials. For example, the author and associates were able to follow 80 percent of patients randomized to the cocaine psychotherapy-pharmacotherapy study up to 1 year after they completed treatment, but could not successfully reach all patients for all followups. Analysis of the data using several different statistical models (cross-sectional, repeated measures MANOVA, and random regression) consistently pointed to continuing improvement, or sleeper effects, in the groups that received relapse prevention compared to supportive clinical management (Carroll et al. 1994*b*). However, it was also found that the more restrictive MANOVA models also indicated several spurious interaction effects related to imputation of missing values or analyses based on non-representative subgroups (Nich and Carroll, submitted).

SUMMARY

Given the close links between retention and outcome in substance abuse treatment, it is important to recognize that treatments are successful to the degree they retain patients. This chapter described

some practical strategies for improving retention in clinical trials of treatment for substance abuse. To summarize:

1. Retention can be conceived as an important treatment outcome that reflects good fit between patient, therapist, treatment, and setting. Procedures and practices that improve the quality of treatment are likely to also improve retention.

2. Attending to the problem of retention may help solve the problem. While trials are ongoing, investigators should monitor retention closely, attending to and addressing variations in retention that might be associated with setting, seasonal variations, therapist factors, and research procedure factors.

3. More data are needed on effective methods of enhancing retention in different treatment settings. It should be noted that the strategies presented here reflect common sense and are for the most part drawn from experience with several clinical trials. Few of them have been evaluated empirically. However, more data on effective retention strategies are likely to have broad clinical and research utility. For example, it would be possible to design studies that evaluate an adaptation of Higgins' voucher system (this volume) to specifically reinforce retention in treatments that have higher rates of attrition, different methods of rewarding clinicians with higher rates of retention, and the effect on retention of adding babysitting services, to mention but some areas where further research would be illuminating.

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From the Initial Clinic Contact to Aftercare: A Brief Review of Effective Strategies for Retaining Cocaine Abusers in Treatment

Stephen T. Higgins and Alan J. Budney

Psychosocial and pharmacological treatments for cocaine abuse are associated with high rates of attrition (e.g., Gawin et al. 1989; Higgins et al. 1993; Kang et al. 1991; Weddington et al. 1991). This is particularly unfortunate because poor drug abuse treatment retention is associated with poor outcomes. For example, several studies report that longer treatment duration predicts improved outcome: the Drug Abuse Reporting Program (DARP) (Simpson 1984), the Treatment Outcome Prospective Study (TOPS) (Hubbard et al. 1984), program-based evaluation research in therapeutic communities (DeLeon 1984), and research on the efficacy of methadone maintenance treatment (Ball and Ross 1991). Definitions of outcome varied across these studies, but typically included drug abstinence. Across all of these data sets, treatment durations of 3 months or more predicted improved outcome, and in some reports the degree of improvement was proportional to the length of time spent in treatment (Simpson 1984).

Results from more recent studies that focused exclusively on cocaine abuse also support a positive relationship between treatment retention and outcome. Wells and colleagues (1994), for example, examined abstinence in a group of 92 cocaine abusers who participated in an outpatient trial in which they received relapse prevention therapy or a 12-step support group. Across the two treatment groups, greater retention, defined as more treatment sessions, predicted less cocaine use at posttreatment and 6-month followup. Similarly, Carroll and coworkers (1993) followed 150 cocaine abusers who applied for inpatient or outpatient treatment and assessed the relationship between total days enrolled in treatment from any source during the year after baseline interview and 12-month abstinence. Abstinent subjects had significantly more days in treatment than did nonabstinent subjects.

Thus, treatment retention is associated with positive outcomes in drug abuse treatment in general and cocaine abuse treatment in particular. Of course, no causal inferences can be based on these correlations.

The greater amount of treatment received by individuals who are retained longer may indeed cause the greater reductions in drug use and other positive behavior changes observed in them, but equally plausible are the possibilities that those very improvements in reducing drug use and related behaviors cause individuals to remain in treatment longer, or that some third variable(s) causes both the greater treatment retention and improved outcomes. Controlled trials experimentally manipulating the duration of treatment are needed to determine which of these three (or more) possibilities is more accurate.

Despite these limitations in the understanding of the relationship between treatment retention and other outcome measures, considerable interest exists in identifying methods to improve retention of cocaine and other types of drug abusers in treatment. This chapter reviews the published literature on effective interventions for improving retention in cocaine abusers. While still few in number, effective strategies have been identified for addressing the following three basic issues regarding retention in treatment for cocaine abuse: (1) increasing retention between initial clinic contact and intake appointment, (2) increasing retention during treatment, and (3) increasing retention between discharge from treatment and entry into aftercare. This review includes only controlled clinical trials conducted with cocaine abusers. Studies conducted with cocaine abusers enrolled in methadone maintenance therapy were excluded because the relatively high retention rates associated with that therapy would likely increase the probability of type II errors regarding effects of other interventions on retention.

ATTENDING INITIAL INTAKE APPOINTMENTS

The authors are aware of one experimental study that has reported identifying an effective strategy for increasing attendance at initial intake appointments in cocaine abusers (Festinger et al., in press). Seventy-eight cocaine abusers who contacted an urban, outpatient treatment clinic were randomly assigned to either an accelerated or standard intake condition. In the accelerated condition, interviews were scheduled on the same day as the initial contact or on the morning of the next business day if the contact had been made after 3 p.m. In the standard condition, interviews were scheduled 1 to 3 days after the initial contact. Fifty-nine percent (23/39) of those assigned to the accelerated protocol attended their scheduled interview versus 33 percent (13/39) of those assigned to the standard protocol ($p <$

0.05). No significant differences in retention rates during treatment were discerned between patients entered via the accelerated and standard procedures, with the former and latter groups attending a mean of 11.1 and 10.1 therapy sessions, respectively.

RETAINING COCAINE ABUSERS DURING TREATMENT

Psychosocial Interventions

Six controlled trials have been reported in which a psychosocial intervention increased retention during treatment for cocaine abuse (table 1). Two of those studies compared a multicomponent behavioral treatment to drug abuse counseling from a disease-model orientation (Higgins et al. 1991, 1993). The first of those two trials was 12 weeks in duration and assigned consecutively admitted patients to the two treatment groups, while the second study was 24 weeks in duration and randomly assigned patients to the two treatments. These treatments have been described in detail previously and are only briefly outlined in this report (see Higgins et al. 1993, 1994*a*). The behavioral treatment combined a contingency-management program with the community reinforcement approach (CRA). In the contingency-management program, patients earned incentives in the form of vouchers redeemable for retail items contingent on submitting objective evidence of recent cocaine abstinence (i.e., cocaine-negative urinalysis). The value of the vouchers increased with each consecutive negative urinalysis test and cocaine-positive tests reset the value of the vouchers back to their initial low value. CRA therapy systematically promoted improvements in patients' family relations, social and recreational practices, vocation, and reductions in other drug use. Drug abuse counseling consisted of supportive and confrontational individual and group therapy, didactic lectures and videotapes on cocaine dependence, reliance on the disease model of addiction, and a self-help orientation. Across both trials, retention was significantly better in the behavioral than the drug abuse counseling groups. In the first study, 85 percent (11/13) of subjects assigned to the behavioral group completed 12 weeks of treatment versus 42 percent (5/12) of those assigned to drug abuse counseling ($p = 0.03$). In the second study, 58 percent (11/19) of subjects assigned to the behavioral treatment completed 24 weeks of treatment compared to 11 percent (2/19) of patients assigned to drug abuse counseling ($p < 0.01$).

Study	Treatment comparisons	No. of subjects	Treatment duration	Significant retention effect	
Psychosocial interventions					
Alterman et al. 1994	Inpatient vs. day hospital	55 56	28-31 days	89% vs. 54%	completed treatment
Carroll et al. 1991	Relapse prevention vs. interpersonal psychotherapy	21 21	12 weeks	86% vs. 57%	completed Æ 4 weeks of treatment
Higgins et al. 1991	Behavioral vs. drug abuse counseling	13 15	12 weeks	85% vs. 42%	completed treatment
Higgins et al. 1993	Behavioral vs. drug abuse counseling	19 19	24 weeks	58% vs. 11%	completed treatment
Higgins et al. 1994*b*	Behavioral plus incentives vs. behavioral	20 20	24 weeks	75% vs. 40%	completed treatment

Study	Treatment comparisons	No. of subjects	Treatment duration	Significant retention effect	
Hughes et al. 1994	Residential w/children vs. residential	31 22	18 months	300 vs. 102	mean days of treatment
Pharmacological interventions					
Batki et al. 1994	Fluoxetine vs. placebo	32 total	12 weeks	11 vs. 3	median weeks of treatment
Gawin et al. 1989	Desipramine vs. lithium vs. placebo	24 24 24	6 weeks	37.9 vs. 32.7 vs. 30.6	mean days of treatment

The third study relevant to this section was designed to experimentally dismantle this multicomponent behavioral treatment to identify its active components (Higgins et al. 1994*b*). Forty patients were randomly assigned to the behavioral treatment with (N = 20) or without (N = 20) the incentive program in which patients earned vouchers by submitting cocaine-free urine specimens. The trial was 24 weeks in duration. The voucher program was in effect during weeks 1 to 12 of the trial, while during weeks 13 to 24 the two groups were treated the same. Seventy-five percent of patients assigned to the voucher group were retained for 24 weeks of treatment versus 40 percent in the no-voucher group ($p = 0.03$).

The fourth positive study randomly assigned 42 cocaine abusers to either relapse prevention or interpersonal psychotherapy treatment groups (Carroll et al. 1991). Relapse prevention is a cognitive-behavioral treatment that includes techniques to identify environmental and personal risk factors for drug use and provide skills training to help clients avoid high-risk situations and effectively cope with urges to use drugs. Interpersonal psychotherapy promotes changes in patients' interpersonal relations in order to resolve their drug use. The study was 12 weeks in duration and involved once-weekly individual therapy delivered by advanced graduate students in clinical psychology. Retention generally was higher in the relapse prevention group than the interpersonal psychotherapy group throughout the 12 weeks of treatment, but those differences were statistically significant only at week 4 (89 percent versus 57 percent, $p < 0.05$). Total number of dropouts was nearly twice as high in interpersonal psychotherapy than relapse prevention (13 versus 7), but that difference was not statistically significant.

Two subsequent trials examining the efficacy of relapse prevention have been reported. One compared it to case management in a randomized design with cocaine-dependent patients (Carroll et al. 1994) and the other compared it to 12-step-based counseling in an alternate-assignment trial with cocaine abusers (Wells et al. 1994). Each failed to observe significant differences between treatment groups in retention, but rates were somewhat higher in relapse prevention than in the comparison treatments in both trials.

In the fifth positive trial, cocaine-dependent adults (N = 111) were randomly assigned to a day hospital or inpatient treatment program (Alterman et al. 1994). Both programs were 28 days to 1 month in duration, utilized group therapy, and focused on overcoming patient denial, teaching everyday coping skills, and providing instruction on

environmental cues associated with relapse. Eighty-nine percent of patients assigned to inpatient treatment completed treatment versus 54 percent assigned to the day hospital program ($p < 0.001$).

In the sixth and final positive trial in this section, 53 cocaine-abusing women were randomly assigned to an 18-month residential treatment in which they could (N = 31) or could not (N = 22) bring one or two of their children to live with them (Hughes et al. 1995). Those assigned to the group that could bring children had a significantly longer mean length of stay (300 days) than those assigned to the group that excluded children (102 days) ($p < 0.05$).

Pharmacological Interventions

Two placebo-controlled, randomized trials were identified in which a pharmacotherapy for cocaine abuse significantly improved treatment retention (see table 1). The first was a 6-week trial comparing desipramine hydrochloride (2.5 milligrams per kilogram (mg/kg) body weight), lithium carbonate (600 mg), and placebo in 72 cocaine-dependent outpatients (Gawin et al. 1989). All subjects also received once-weekly individual, interpersonal psychotherapy. Subjects assigned to desipramine remained in treatment for an average of 37.9+1.6 days versus 30.6+2.5 and 32.7+2.3 days in the placebo and lithium groups (contrast of desipramine versus others: $p = 0.02$). The second positive report was a 12-week trial comparing fluoxetine (40 mg/day) and placebo in 32 cocaine-dependent outpatients (Batki et al. 1994). Subjects in the fluoxetine group were retained for a median of 11 weeks versus 3 weeks for the placebo group ($p < 0.01$).

Each of these positive trials is countered by negative trials in which desipramine or fluoxetine failed to improve retention. Five randomized, controlled trials have been reported in which desipramine failed to improve retention (Carroll et al. 1994; Giannini et al. 1987; McElroy et al. 1989; Tennant and Tarver 1985; Weddington et al. 1991); similarly, the positive results with fluoxetine reported by Batki and colleagues (1994) must be weighed against the negative results from a placebo-controlled trial reported by Grabowski and colleagues (1995). In that trial, 228 cocaine-dependent patients were randomized to one of three drug conditions (placebo, 20, and 40 mg/day fluoxetine) and one of two different frequencies of weekly clinic visits to pick up medication (2 or 5 days per week). All patients participated in individual cognitive behavior therapy sessions once per week. The study included a 2-week stabilization period followed by a 12-week trial. Of the 228 patients the stabilization

period and entered the 12-week trial. Dropout rates during stabilization did not differ between the treatment groups, but retention during the trial was significantly lower in those assigned to active medication versus placebo ($p = 0.04$). Moreover, retention varied as a graded function of dose ($p < 0.05$). The placebo group had the best retention rate, followed by the 20 mg group, with the lowest retention rate being observed in the 40 mg group (placebo > 20 mg > 40 mg). Visit frequency also significantly affected retention ($p = 0.0001$), with patients assigned to the low-frequency schedule of clinic visits being retained longer than those assigned to the high-frequency schedule.

It merits mention that preliminary results from an ongoing, randomized trial suggest that desipramine and flupenthixol decanoate may increase treatment retention in cocaine abusers compared to placebo when the medications are administered in an outpatient setting in which minimal psychotherapy is provided (Khalsa et al. 1994).

INCREASING AFTERCARE PARTICIPATION

Positive effects on aftercare entry have been reported in three controlled trials; all were psychosocial interventions. For two (Higgins et al. 1993, 1994*b*), aftercare results were included in a followup report published after initial outcomes were reported (see Higgins et al. 1995). In one of the two trials mentioned above comparing the multicomponent behavioral treatment and drug abuse counseling (Higgins et al. 1993), 4 of 19 (21 percent) subjects in the behavioral treatment entered aftercare versus zero of 19 in the drug abuse counseling group ($p = 0.03$). Similarly, in the trial described above comparing the behavioral treatment with versus without the voucher program (Higgins et al. 1994*b*), 14 of 20 (70 percent) subjects in the group with vouchers versus 6 of 20 (30 percent) in the group without them enrolled in aftercare ($p = 0.01$). In both trials, the differential rates of aftercare entry appeared to follow directly from the differences in retention rates observed across the treatments; that is, those treatments that engendered higher retention rates were also more likely to have patients enter aftercare.

That logic does not hold for the third trial relevant to this section, which is the day hospital program versus inpatient treatment comparison described above (Alterman et al. 1994). Despite significantly higher retention rates in the inpatient treatment group

in that study, no significant treatment differences were discerned in the number of patients who entered aftercare. Twenty-five (45 percent) patients assigned to day hospital versus 17 (31 percent) patients assigned to inpatient treatment entered aftercare (N.S.). Interestingly, significant treatment differences in the number of treatment completers who entered aftercare emerged favoring the day hospital group. Twenty-five of the 30 patients (83 percent) who completed day hospital treatment entered aftercare versus 17 of the 49 patients who completed inpatient treatment ($p < 0.01$). Thus, while less effective in retaining patients in treatment, the day hospital treatment was more effective than inpatient treatment in fostering aftercare participation in treatment completers.

No published reports noting positive outcomes of pharmacotherapies on aftercare entry were identified, although preliminary results from an ongoing trial suggested that desipramine may facilitate transition from inpatient care to outpatient aftercare when the blood levels of the medication are in the therapeutic range (Hall et al. 1994).

RELATIONSHIP OF RETENTION TO COCAINE ABSTINENCE

An obvious and important issue is whether the improved retention rates observed in these trials were associated with greater cocaine abstinence. Abstinence data were not reported in the trial examining accelerated intakes and thus there is no way to know how that practice relates to cocaine abstinence (Festinger et al., in press). Abstinence data were included in seven of the eight reports shown in table 1 regarding retention in treatment (the exception being Hughes et al. 1995). Significantly greater cocaine abstinence was documented in the treatment groups with superior retention in five of those seven reports (Batki et al. 1994; Gawin et al. 1989; Higgins et al. 1991, 1993, 1994*b*); a nonsignificant trend in the same direction was evident in a sixth report (Carroll et al. 1991). The exception was the Alterman and colleagues' study (1994) in which inpatient treatment was more effective in retaining patients during the initial treatment period while day hospital treatment was more effective in getting completers to enter aftercare. No significant treatment group differences were discerned in abstinence levels assessed at 7-month followup. In the two other trials in which there were treatment group differences in the number of patients who entered aftercare, significantly more abstinence was observed in the treatment groups with greater aftercare participation (Higgins et al. 1995). Thus, in

the majority of studies, treatments that increased retention also increased cocaine abstinence.

CONCLUSIONS

The most important conclusion to be drawn from this brief review is that the high rates of attrition so commonly observed with cocaine abusers are not inevitable. Strategies can be devised to improve retention between the initial clinic contact and intake interview, during the treatment episode, and between completion of treatment and entry into aftercare.

The efficacy of accelerated intakes is encouraging in that it illustrates how a relatively minor change in clinic policy can substantially alter attrition rates (Festinger et al., in press). Reported attendance rates at the initial intake interview in the work by Festinger and colleagues (in press) increased 1.8-fold in the accelerated procedure. The comparable retention rates observed during treatment in that study suggest that accelerated procedures do not necessarily result in the admission of a larger proportion of individuals who are unmotivated for treatment relative to standard admission procedures.

Results from one controlled and two uncontrolled studies also support the efficacy of accelerated intake procedures. In a controlled trial conducted with a mixed sample of different types of drug abusers (35 percent primary cocaine abusers), consecutive callers to an urban outpatient drug abuse clinic were randomly assigned to either a condition wherein they had the option to come to the clinic immediately or were provided an intake appointment that on average was scheduled 9.7 days after the initial contact (Stark et al. 1990). Having the option to come immediately significantly increased attendance relative to the scheduled appointment. However, during-treatment dropout rates were higher in those provided the immediate option than the standard appointment, suggesting that there are instances where accelerated intake procedures can increase subsequent attrition rates.

Before undertaking the experimental study described above, Festinger and colleagues (Festinger et al. 1995) retrospectively examined data from 232 initial clinic contacts for cocaine abuse treatment. The best predictor of whether a client would attend the intake session was whether the appointment was scheduled on the same day as the initial contact. Retention data were not reported in that study. Finally,

effects of same-day versus delayed intakes were examined in a methadone maintenance clinic using an A-B design (Woody et al. 1975). Results were reported as retention rates during months 2 to 5 after admission. Moving from a practice of completing intakes on 2 designated days per week to conducting them on the same day as the initial contact significantly increased the proportion of patients retained during the 4-month observation period. The accelerated and standard groups both evidenced a steady dropout rate across the observation period. However, there were no differences between the groups on that measure, which is consistent with the findings of Festinger and colleagues (in press) that those entered via accelerated procedures are no less likely to remain in treatment than those admitted via standard procedures. In summary, then, the efficacy of accelerated procedures for increasing attendance at the intake interview is consistent across four studies in cocaine and other types of drug abusers, and during-treatment dropout rates were comparable across the accelerated and standard admission procedures in two of the three studies in which that information was reported.

Briefly, there is another study using a mixed sample of drug abusers (31 percent primary cocaine abusers) that merits mention (Stark and Kane 1985). As with the accelerated intake work, it also illustrates an effective strategy for combating the high rates of attrition associated with the intake process using an intervention involving minimal clinical effort. Applicants for outpatient treatment were randomly assigned to one of four conditions immediately following their intake interview: (1) 15-minute general orientation regarding what to expect from psychotherapy, (2) 15-minute specific orientation regarding what to expect from psychotherapy for drug abuse, (3) 15-minute general drug education, or (4) a no-treatment control. The specific orientation to psychotherapy for drug abuse significantly increased the proportion of patients who returned for a second visit by 19 to 40 percent compared to the other treatment groups. Considerable dropout was observed in all groups during the subsequent 90 days. However, all groups were comparable on that measure, suggesting that the advantage of the specific orientation procedure was not nullified by a subsequent higher dropout rate. Because results from cocaine abusers were not described separately in this report, the efficacy of this procedure in that population remains unclear. However, considering the minimal effort involved and the large effects observed, it certainly merits further investigation in cocaine abusers.

Accelerated intakes, and perhaps a brief orientation session, can improve the proportion of patients who complete the intake process and enter treatment, but the challenge of how to effectively retain them during treatment is not addressed by those procedures. The studies by Higgins and colleagues do address that challenge, and demonstrate that providing a structured, behavioral intervention that includes incentives can improve treatment completion rates by as much as fivefold compared to drug abuse counseling, and almost twofold compared to the same behavioral treatment without incentives (Higgins et al. 1991, 1993, 1994*b*). At this time, the efficacy of that approach for retaining cocaine abusers during treatment has more empirical support than any other strategy. Each of the three trials demonstrating the efficacy of this treatment for increasing retention was conducted in the same clinic, which is located in a small metropolitan area with an almost exclusively caucasian population. Thus, replications in other settings are needed, especially clinics located in large urban areas with minority populations. However, the generality of the incentive program used in that treatment to urban clinics and to minority patients has been demonstrated in two trials examining effects on cocaine abstinence (Silverman et al. 1995; Tusel et al. 1995). Both trials were conducted in methadone maintenance clinics, which precluded assessing effects on treatment retention. However, considering that the incentives improved cocaine abstinence in both trials, there is evidence that they are efficacious in those settings and thus may increase retention as well.

An obvious concern regarding the use of incentives in any setting is cost. The incentives used in the studies by Higgins and colleagues increased treatment costs by approximately $600 per patient. While such extra costs pale when considered against the costs of inpatient hospitalizations for substance abuse (Alterman et al. 1994; Holder and Blose 1991), or the costs associated with treating the adverse consequences of drug abuse (e.g., acquired immunodeficiency syndrome (AIDS), prenatal drug exposure) (Drucker 1986; Phibbs et al. 1991), many community clinics are likely to be unable or unwilling to incur such extra costs. Hence, strategies for making incentives available for use in community clinics that require no additional financial expenditure on the part of the clinic are needed. Using access to public resources such as athletic or cultural facilities or requesting local businesses to donate retail items for use as incentives have been suggested previously (Higgins et al. 1994*a*). There may be any number of potential strategies of this type for implementing incentive programs in community clinics that would be efficacious and

fiscally feasible, although devising and managing them obviously will require considerable creativity and effort. When the potential therapeutic benefits of incentives are considered, such strategies certainly appear to merit exploration.

The initial trial by Carroll and colleagues (1991) suggested that relapse prevention may be an effective intervention for improving retention during outpatient treatment for cocaine abuse. However, that was less clear in the two subsequent trials in which relapse prevention was associated with somewhat higher retention rates than comparison treatments, but those differences were not statistically significant (Carroll et al. 1994; Wells et al. 1994). Nevertheless, considering the significant challenge that retaining cocaine abusers during treatment represents, and the positive trends evident across trials, relapse prevention certainly warrants further evaluation.

The finding that retention of cocaine-abusing mothers during residential treatment is improved by allowing their children to reside with them lends empirical support to a strategy that makes a great deal of practical sense (Hughes et al. 1995). Of course, this was only a single study. Thus, further information will be necessary to evaluate the value of this particular strategy. However, this study focuses attention on the more general issue of practical barriers to treatment completion. That is, drug abusers are faced with the same basic demands on their time that all of us confront. Efforts to identify how those everyday demands interfere with treatment retention and exploration of creative solutions to such barriers (e.g., flexible clinic hours, house calls, child care services in outpatient clinics) is an important direction for future research.

Little is known about the relative merits of treating cocaine abuse in inpatient versus outpatient settings. The study by Alterman and coworkers (1994) is the only controlled trial reported to date examining this topic. While retention rates in that study were significantly better for inpatient than outpatient care, that advantage appeared to be offset by the lower frequency at which inpatients entered aftercare upon discharge. No differences in abstinence rates were observed between the treatment groups at 7-month followup. Considering the greater expense of inpatient care, this study provides no compelling evidence to recommend inpatient over outpatient settings as a general strategy for treating cocaine abuse, especially without first exploring less costly options such as the use of incentives during outpatient care.

Relative to psychosocial interventions, less empirical support exists for the efficacy of pharmacotherapies in retaining cocaine abusers in treatment. The findings of Gawin and colleagues (1989) and Batki and coworkers (1994) suggest that there may be patient subgroups or particular circumstances in which antidepressant therapy can improve retention in outpatient settings. Patients with comorbid depression, for example, should benefit from such interventions and thus might be expected to remain in treatment longer than if they did not receive such care. However, as far as providing antidepressants to general clinical samples of cocaine abusers, the preponderance of empirical evidence suggests that these drugs do not improve retention. Moreover, at least one trial suggests that fluoxetine can adversely affect retention (Grabowski et al. 1995). The dose-dependent nature of that observation suggests that medication side effects may cause patients to terminate treatment prematurely. A great deal of research is ongoing to identify effective pharmacotherapies for cocaine abuse. Thus, avoiding a premature negative position on the potential utility of medications for retaining cocaine abusers in treatment is important. The quest for identifying effective new pharmacotherapies for cocaine abuse and for identifying circumstances under which existing medications might be more effective remains an active and important research area.

The ability of an intensive day hospital program to improve aftercare participation was discussed above (Alterman et al. 1994). The only other intervention demonstrated to influence aftercare participation thus far is behavioral treatment with incentives developed by Higgins and colleagues (Higgins et al. 1993, 1994*b*). Interestingly, those effects on aftercare were observed 3 months after the incentive program had ended, thereby demonstrating enduring effects of that treatment component. Other aspects of this multicomponent intervention may improve aftercare participation as well, but that remains to be demonstrated in controlled trials.

Finally, this review provides further evidence that improved treatment retention in cocaine abusers generally is associated with increased cocaine abstinence. That observation is consistent with a position that drug abuse treatment can be effective, but patients must be successfully retained so that they receive the recommended services. As was noted above, equally plausible alternative reasons for that relationship also exist. Clearly, much remains to be learned about how to improve treatment retention and how doing so affects other outcome measures, but this review illustrates that significant

inroads have been made in addressing each of the three major problems of attrition in cocaine abusers.

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Help-Seeking by Substance Abusers: The Role of Harm Reduction and Behavioral-Economic Approaches To Facilitate Treatment Entry and Retention

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Many substance abusers make repeated attempts to quit or control their drug use. Some attempts involve participation in formal treatment or self-help groups, but recovery also can occur outside the context of interventions (Sobell et al. 1991). It is important to determine what promotes help-seeking at some times and not others, and how influences on help-seeking may differ from influences on recovery (Tucker and Gladsjo 1993). Survey research has demonstrated that most substance abusers do not enter substance-focused treatments or self-help groups (Price et al. 1991; Regier et al. 1993), although those who seek care utilize other medical and mental health services with higher frequency than do individuals who do not have substance-related problems (Putnam 1982). The help-seeking problem thus involves underutilization of substance-focused services and over- or misutilization of other health and mental health services. Importantly, interventions aimed strictly at treatment retention cannot address the more general problem of why so many substance abusers avoid traditional drug treatment programs, and efforts to increase appropriate care utilization require knowledge of the help-seeking process.

There are several reasons that the clinical import of understanding the help-seeking process has not been widely recognized in the substance abuse area and why research is in the very early stages. First, although help-seeking for medical and other psychological disorders has been studied for decades, clinical research on substance disorders historically has not been well integrated into mainstream health-related research, so focal issues have often diverged in the literatures. Second, the urgent need for effective interventions for substance disorders has captured most of the research resources for several decades, and related issues such as help-seeking that were not specifically tied to interventions have been neglected. Indeed, the randomized controlled clinical trial, which is the sine qua non of evaluation research, assumes that treatment effects are not context dependent and treats the help-seeking process as a nuisance variable because randomization eliminates concern with how individuals came to seek care (Mechanic 1978;

Moos and Finney 1983; Moos et al. 1990; Vuchinich and Tucker, in press). However, treatment providers do not have the control over treatment delivery that is implicit in randomization (and in much research on treatment matching); practically speaking, clients vote with their feet with respect to selecting interventions and electing to remain in them or not. Thus, Moos and colleagues (1990) have argued for naturalistic studies of treatment entry and treatment outcome that evaluate how influences on help-seeking interact with treatment engagement and the behavior change process.

Third, dominant disease model views of substance disorders have a singular view of the help-seeking process that does not promote concern with the range of variables found to influence help-seeking for other health problems. This perspective holds that substance abusers will deny or minimize their problem and will be unmotivated to seek help until their disease reaches an advanced stage and overwhelming problems accrue in many areas of functioning (i.e., they hit bottom). Breaking through denial and accepting substance abuse as the central problem in their lives is considered essential for help-seeking and successful behavior change, neither of which is held to occur until late in the disease process. Apart from the use of confrontational interventions to break down denial, this perspective has little to say about the help-seeking process. Moreover, it contains circular assumptions about the role of intrinsic motivation in help-seeking and successful behavior change (Miller 1985; Pringle 1982) (i.e., only intrinsically motivated individuals will seek help and change, and those who do not were not intrinsically motivated). This view is at odds, however, with studies discussed later that show that entering treatment to reduce substance use is less common than entering treatment for substance-related problems and that labeling someone an alcoholic or drug addict has a detrimental, not facilitative, effect on help-seeking. Treatment participation is not always essential for successful behavior change, but little is known about what promotes entry into treatment at some times and not others. Moreover, the acquired immunodeficiency syndrome (AIDS) epidemic and the need to modify the drug-injecting practices of substance abusers who have little interest in stopping substance use also have made salient the need to understand factors that deter interactions with traditional treatment programs and that may promote interactions with low-threshold harm-reduction interventions (e.g., needle-exchange programs).

The following section summarizes research on help-seeking for substance disorders (also see reviews by Hartnoll 1992; Jordan and Oei 1989), which is a relatively new development compared to research on help-seeking for health and other psychological disorders (reviewed by Cockerham 1983; Mechanic 1978). This work has been guided by the health belief

(Rosenstock 1966) and related service utilization (e.g., Aday and Anderson 1974) models, which emphasize the interactive influence of barriers and incentives that are structural (e.g., economic, geographic factors) or functional (e.g., social influences, dysfunctions in daily living) in nature. Help-seeking for medical and mental health problems is more strongly related to functional than to structural variables and, as described in the following section, help-seeking for substance disorders shows similar relationships. In the next major section, interventions to facilitate referral and treatment entry are reviewed, including outreach programs, reducing waiting time for treatment access, role induction and preparation for treatment, case management, and motivational enhancement. Final sections discuss harm reduction and behavior-economic approaches as possible ways to facilitate treatment entry and retention.

CORRELATES OF HELP-SEEKING

These studies evaluated general associations between help-seeking status (treated versus untreated) and demographic, substance use, psychosocial, and health variables. Studies that lacked an untreated comparison group are not emphasized because of the problems that this creates for data interpretation.

Demographic Characteristics

Few significant demographic differences have been found in studies that compared treated and untreated opiate addicts or polydrug abusers who used opiates (Brunswick 1979; Graeven and Graeven 1983; O'Donnell et al. 1976; Power et al. 1992*a*; Rounsaville and Kleber 1985), cocaine abusers (Carroll and Rounsaville 1992; Castro et al. 1992; Chitwood and Morningstar 1985), and drug abusers with unspecified or highly variable drug histories (Keil et al. 1982; Morrison and Plant 1990). When differences were observed, they often suggested poorer functioning among treated than untreated subjects (e.g., Brunswick 1979; Castro et al. 1992; Graeven and Graeven 1983; Keil et al. 1982). Studies of treated and untreated problem drinkers (Bannenberg et al. 1992; Coney 1977; George and Tucker, in press; Hingson et al. 1982; Tucker 1995; Tucker and Gladsjo 1993; Weisner 1993) similarly observed few demographic differences, with the possible exception that women problem drinkers tend to be proportionately underrepresented in treatment samples (but also see Allen 1994; Room 1989).

The lack of robust relationships could be due in part to sampling problems; for example, some studies used the snowball method of recruitment and/or recruited treated and untreated subjects using different methods, and few included large or representative samples of relevant subgroups. However, the

pattern of positive and negative findings did not appear to vary systematically with these methodological features, and the lack of robust demographic differences is consistent with the broader health-related literature on help-seeking.

Substance Use Variables

The partition made in most diagnostic schemes between substance use and substance-related problems (e.g., McLellan et al. 1981) has proven relevant to help-seeking, because substance-related problems, but not substance use practices, have been consistently associated with treatment seeking. Studies of opiate addicts or polydrug abusers who used opiates either found no relationship between help-seeking status and opiate use (Power et al. 1992*a*; Rounsaville and Kleber 1985) or found higher opiate use among treated subjects (Brunswick 1979; Graeven and Graeven 1983; O'Donnell et al. 1976). Studies of cocaine abusers similarly showed either no differences in cocaine use (Carroll and Rounsaville 1992) or higher use among treated subjects (Castro et al. 1992; Chitwood and Morningstar 1985). The same relationships have been observed in studies with problem drinkers (Bannenberg et al. 1992; George and Tucker, in press; Hingson et al. 1980, 1982; Timko et al. 1993; Tucker 1995; Tucker and Gladsjo 1993; Weisner 1993).

Studies that assessed drug use other than the primary drug of abuse suggest that greater other drug use is associated with help-seeking when the primary drug of abuse is alcohol (Bannenberg et al. 1992; Brown et al. 1994; Tucker and Gladsjo 1993). The findings were more variable when the primary drug of abuse was an illicit substance, and several studies observed greater other drug use among untreated opiate or cocaine abusers (Brunswick 1979 (females only); Carroll and Rounsaville 1992; Graeven and Graeven 1983; Rounsaville and Kleber 1985). This suggests that the role of other drug use in help-seeking may depend on whether the primary drug of abuse is legal. Additional drug use by illicit drug users may not promote help-seeking to the same degree that illicit drug use does for problem drinkers.

Psychosocial Problems Related to Substance Misuse

Positive associations have been consistently observed between help-seeking and psychosocial problems related to substance misuse, and more robust relationships have been found for psychosocial than for demographic and substance use variables in studies that assessed all three variable classes. This general pattern has been found across studies of treated and untreated opiate (Graeven and Graeven 1983; Power et al. 1992*a*; Rounsaville and Kleber 1985), cocaine (Carroll and Rounsaville 1992; Chitwood and Morningstar

1985), polydrug (Morrison and Plant 1990), and alcohol (Bannenberg et al. 1992; George and Tucker, in press; Hingson et al. 1982; Tucker 1995; Tucker and Gladsjo 1993; Weisner 1993) abusers. In addition, uncontrolled descriptive studies that only included treated subjects found results suggesting that treatment entry was associated with increased psychosocial problems among opiate (Oppenheimer et al. 1988; Sheehan et al. 1986), cocaine (Brooke et al. 1992), marijuana (Stephens et al. 1993), and alcohol (Thom 1986, 1987; Weisner 1990*a*) abusers.

For example, Rounsaville and Kleber's (1985) treated opiate addicts had less adequate social functioning, more drug-related legal problems, and more depressive symptoms than did untreated addicts, but the groups did not differ substantially in their drug use patterns or demographic characteristics. Power and colleagues (1992*a*) found treated and untreated opiate addicts to be distinguished primarily by psychological, health, and financial problems (treated > untreated), whereas demographic and most drug use variables did not discriminate the groups. Studies with cocaine (Chitwood and Morningstar 1985), alcohol (e.g., Bannenberg et al. 1992; Tucker 1995; Tucker and Gladsjo 1993), and polydrug (Morrison and Plant 1990) abusers found similar results. The only exception was Carroll and Rounsaville (1992), who found greater legal problems, less adequate social functioning, and more polydrug abuse among untreated than treated cocaine abusers. Nevertheless, their treated subjects reported more cocaine-related problems with family and friends and at work.

Conclusions

These data strongly implicate psychosocial problems related to substance use in promoting help-seeking, whereas substance use patterns and demographic variables are not consistently related. This pattern emerged across studies that were highly variable in sampling procedures, measurement practices, and data analytic techniques. The association between help-seeking and psychosocial problems appears robust across drug classes, and the pattern of results is very similar to that found for other medical and psychological problems. This suggests that the variables controlling help-seeking for substance disorders are not fundamentally different from those controlling help-seeking for other health problems.

COMPONENTS OF THE HELP-SEEKING PROCESS

Despite the global associations observed between help-seeking and psychosocial problems, the above-mentioned studies do not elucidate the process by which such problems influenced decisions to seek care. Studies

that investigated components of the help-seeking process are selectively summarized next. These descriptive, largely uncontrolled studies further implicate psychosocial problems in promoting help-seeking.

Self-Recognition of Substance-Related Problems

Self recognition of substance-related problems has been associated with heavy (e.g., near daily) substance use and increased negative consequences (Hingson et al. 1980, 1982; Lorch and Dukes 1989; Skinner et al. 1982). In addition, studies conducted with alcoholics in treatment and/or Alcoholics Anonymous (AA) (Orford and Hawker 1974; Park 1973; Park and Whitehead 1973; Pokorny et al. 1981) indicated that alcohol treatment entry occurred quite late in the development of alcohol problems and that seeking medical care typically preceded treatment or AA attendance. Studies that included more representative samples of problem drinkers (Bucholz et al. 1992; Room 1989) and drug abusers (Price et al. 1991) similarly found alcohol or drug treatment to be preceded by contact with a health care professional. Thus, primary medical care settings may be early contact points for problem identification and possible referral.

These developmental sequences, however, may not be shared by untreated, minimally treated, or less severely impaired substance abusers. For example, this pattern does not appear to hold for adolescents. Lorch and Dukes (1989) found that most adolescents, including very heavy drug users, did not consider themselves to have a drug problem, although problem recognition was related to frequent engagement in burglary. Benson (1990) found that adolescents were most likely to express willingness to seek help for a drug problem from an adult friend and then a parent. Adolescents' drug problems thus appear more likely to surface in social and legal than in health care settings.

Room's (1989) national survey of adult drinking and help-seeking practices is especially noteworthy because it systematically assessed the role of the social network in problem recognition and help-seeking. Receipt of treatment typically was preceded by informal social controls; before entering treatment, most problem drinkers first experienced social pressure to cut down on drinking and then informally discussed their drinking problem with someone (a family member, friend, doctor, or co-worker, in that order). Studies of the help-seeking practices of family members of substance abusers similarly implicated the social network (Corrigan 1974; Gorman and Rooney 1979; Jackson and Kogan 1963; Sisson and Azrin 1986; cf. Finlay 1966). For example, Sisson and Azrin (1986) reported a successful behavioral intervention with family members (primarily wives) that reduced physical abuse to them and facilitated treatment entry by their alcoholic spouses.

These studies suggest that there is some sort of self-recognition process that is tied to increasing substance use (especially daily use) and to substance-related problems, but recognition does not inevitably lead to help-seeking. Treatment entry appears to occur late in the development of substance use problems, although further research on sequencing effects is needed. It is better established that treatment entry often is preceded by social pressure to reduce substance use and by informal discussions with social network members or health care professionals. Expanding their involvement may facilitate appropriate help-seeking and may reach substance abusers who avoid traditional intensive treatments.

Barriers to and Incentives for Help-Seeking

Problem recognition probably entails some consideration of helping resources and the barriers to and incentives for their use. Studies of incentives for treatment using treated problem drinkers (Beckman and Amaro 1986; Thom 1986, 1987) indicated that psychosocial (especially interpersonal) problems were primary motives, more so than a desire to reduce drinking. However, because most substance abusers do not seek help, certain studies are especially pertinent to understanding barriers to help-seeking, notably those that included untreated drug (Carroll and Rounsaville 1992; Klingemann 1991; Rounsaville and Kleber 1985) and/or alcohol (Cunningham et al. 1993; George and Tucker, in press; Tucker 1995) abusers, either solely or in comparison with treated subjects.

For example, Cunningham and colleagues (1993) found that alcohol and drug (primarily cocaine) abusers who entered treatment cited similar barriers that reflected embarrassment or pride, not wanting to share problems, and the stigmatizing effects of treatment. Untreated substance abusers cited similar barriers, but their negative attitudes towards treatment and concerns about labeling were even more pronounced; many also indicated that they did not perceive that their problem required treatment or they wanted to handle it on their own. Monetary cost was not a widely mentioned deterrent. Tucker (1995) and George and Tucker (in press) obtained similar results using problem drinkers with different help-seeking histories. Also, Klingemann (1991) found that untreated recovered heroin addicts and problem drinkers cited barriers reflecting pride in quitting on their own, or they were critical of current treatments; relative to problem drinkers, heroin addicts were more likely to lack information about treatment options. Carroll and Rounsaville (1992) and Rounsaville and Kleber (1985) reported that untreated substance abusers (cocaine and opiate abusers, respectively) cited as deterrents their belief that their substance use was under control and that treatment was not needed. About half of Rounsaville and Kleber's opiate addicts also indicated

that methadone maintenance treatment would "make their addiction worse" (p. 1076).

Role of Event Occurrences in Help-Seeking

Several studies investigated whether events reflecting substance-related problems preceded discrete help-seeking episodes by drug abusers (Brooke et al. 1992; Oppenheimer et al. 1988; Power et al. 1992*b*) and problem drinkers (Bardsley and Beckman 1988; George and Tucker, in press; Weisner 1990*a*, 1990*b*). Most studies found increased negative events, especially substance-related events, to precede treatment entry. However, only a few included an untreated comparison group, which is necessary to establish that patterns of events were uniquely associated with help-seeking and were not common occurrences in the lives of substance abusers.

A recent study (George and Tucker, in press) that included both treated and untreated problem drinkers and assessed events over a lengthy (2 year) pretreatment interval failed to find group differences. Instead, all groups reported increased events over the assessment period, which was suggestive of a memory-recency effect. Thus, further research that includes an untreated comparison group is needed to clarify the role of events in discrete help-seeking episodes. Although distinct patterns of event occurrences have been found to precede and maintain stable recoveries achieved with and without interventions (Klingemann 1991; Tucker et al. 1994, 1995), the role of events in help-seeking patterns remains uncertain.

Coercive Elements in Help-Seeking

Although court-ordered treatment has become increasingly common, traditional views of the essential role of client motivation in help-seeking and behavior change imply that coerced clients are more likely to have poor outcomes compared to volunteers (Pringle 1982). However, studies that compared treatment participation and outcomes among coerced and voluntary clients found similar outcomes across groups and reduced attrition among coerced clients (see reviews by De Leon 1988; Stitzer and McCaul 1987; Weisner 1990*c*). Although this suggests that coerced clients may require relatively more treatment to attain similar outcomes to volunteers (De Leon 1988), little evidence exists to support traditional notions that only intrinsically motivated clients benefit from interventions (cf. Miller 1985). In addition, Stitzer and McCaul (1987) argued that the potential of coercion to promote treatment participation and behavior change may be underestimated; many studies that evaluated legal coercion did not enact optimal contingencies between treatment participation and legal

consequences, or they did not implement empirically supported interventions.

However, because some negative consequences of coercion have been reported (Institute of Medicine 1990), when coercion is used to promote help-seeking, the least restrictive alternative that will satisfy a client's needs should be the intervention of choice (Weisner 1990*c*).

Summary Concerning Help-Seeking

Both correlational and process-oriented studies implicate psychosocial problems related to substance use in motivating help-seeking, although it is unclear whether discrete events reflecting such problems typically precede help-seeking or whether an accumulation of problems over time is more typical. Many substance abusers enter treatment primarily to address these problems rather than to reduce substance use. Most treatment programs, however, emphasize abstinence and are not problem-focused, which may contribute to many substance abusers' avoiding them.

In contrast to traditional notions that emphasize the importance of intrinsic motivation for help-seeking and behavior change, extrinsic influences (e.g., family, social, and job problems) provide a great deal of the incentive for help-seeking. Also contrary to traditional notions, recognizing substance-related problems and desiring to change them do not necessarily entail acceptance of labels such as "alcoholic" or "drug addict," nor does problem recognition inevitably lead to help-seeking. Many individuals with substance disorders reject such labels and recover without interventions (Sobell et al. 1991). Conversely, although substance abusers may participate in nontraditional interventions, such as community-based needle-exchange programs, they may come to seek medical or drug treatment through such gateways (Carvell and Hart 1990).

Process-oriented studies further suggest that informal social networks influence help-seeking patterns and that few substance abusers enter treatment without having experienced network messages to seek help. Among adults, treatment entry also is often preceded by discussion of substance-related problems with a health care professional. The frequent reticence of substance abusers to seek help, especially from formal treatment programs, seems to be rooted not in denial of their substance-related problems, but in concerns about privacy, labeling, and the stigmatizing effects of current treatments. Structural factors such as treatment cost and accessibility are less influential.

INTERVENTIONS TO FACILITATE REFERRAL AND TREATMENT ENTRY

Seeking treatment does not necessarily imply that an individual will successfully engage in treatment (Stark 1992). A very large number of individuals fail to appear for initial intake appointments; many drop out after only a brief period (e.g., Stark 1992; Stark and Campbell 1988). Based on patterns of perceived motivators for or barriers to treatment, researchers have proposed several interventions to increase treatment entry (Brooke et al. 1992; Kleyn and Lake 1990; Miller 1985; Oppenheimer et al. 1988). These clinical efforts may be directed at either helping individuals become more aware of their problems and consider a need to change (e.g., "restorative" strategies) or solidifying readiness to change among those with problem awareness and translating this among help-seekers into solidified motivation for treatment entry and compliance (e.g., "consummation" strategies) (Fiorentine and Anglin 1994). A number of interventions have been introduced in an attempt to increase treatment entry, but many have not been fully evaluated.

Outreach Efforts

The traditional view that the client needs to be motivated to change before interventions shall be provided has led many agencies to be reactive, waiting for the drug user to approach them for care (Hartnoll 1992). However, this philosophy has begun to change in a more proactive direction with increased concerns about the risk of human immunodeficiency virus (HIV) infection and transmission among drug users (Stimson et al. 1994). An important factor in attempting to facilitate help-seeking is presenting interventions that are low threshold, easily accessible, nonthreatening, and that have no attached stigma. To reduce perceived barriers, changes must be made in traditional aspects of treatment, including the type of services available and how and where treatment is offered (Cunningham et al. 1993), and services should be responsive to the heterogeneous needs of potential clients by providing a broad range of intervention approaches (Oppenheimer et al. 1988). This might involve moving treatment services from standard agency settings to be closer to prospective clientele. Examples of such moves include the methadone by bus project (Buning et al. 1990), in which methadone doses are delivered to clients on the streets (eliminating the need for clinic attendance), or the provision of vouchers redeemable for free and immediate treatment (Levine 1991). The use of such vouchers appears to be particularly effective in attracting into treatment those intravenous (IV) drug users who have had no previous treatment exposure (Sorensen et al. 1993).

Another example of outreach is the development of needle-exchange programs for IV drug users. Needle exchanges have developed within the framework of so-called harm reduction or minimization models (Brettle 1991), which are based on two fundamental principles (Springer 1991). First, preventing the spread of HIV and AIDS has greater priority than the prevention of drug use or abuse. Second, abstinence from drugs is not the only goal of treatment agencies. The purpose of such programs is to provide clean needles or instructions on how to clean injection equipment to reduce needle sharing among IV drug users, thus reducing the likelihood of the spread of HIV among this high-risk group. No explicit focus is placed on stopping drug use. Despite the potential public health benefits (Clark and Corbett 1993; Des Jarlais 1995), many have objected to needle exchange and other harm-reduction approaches as going against the more traditional goals of getting drug users to abstain. There has also been concern that such programs condone and thus may promote drug use (DuPont and Voth 1995). However, needle-exchange programs do not appear to be associated with increased drug use or needle sharing among drug users, or increased initiation of non-IV drug users into injecting (Guydish et al. 1993). Rather, consistent with the intended program goals, attendees at needle-exchange programs typically demonstrate a reduction in drug use, needle sharing, and unsafe sexual practices (Frischer and Elliot 1993).

Although not explicitly intended to move drug users toward treatment, needle-exchange programs bring services to otherwise unreached groups (Grund et al. 1992) and may serve as a precursor to treatment entry (Carvell and Hart 1990; Clark and Corbett 1993). In addition to reducing barriers to treatment entry, such programs provide counseling and preventive health and drug education that may facilitate drug users' consideration of treatment as an option (Brettle 1991). Carvell and Hart (1990), for example, found that more than one-third (38 percent) of clients in a needle-exchange program accepted referrals to drug treatment or medical/health-related agencies. Those accepting referrals had begun initial opiate use, injecting, and daily injecting at an earlier age, and also were more likely to indicate that they were seeking help compared to those not receiving an onward referral. Carvell and Hart (1990) suggest that low-threshold outreach programs that have open-access policies, attempt to attract clients not in contact with traditional treatment agencies, and promote a harm-reduction focus can serve as gateways to other services.

Reduced Waiting Time

Health and social service research suggests that treatment program characteristics may affect treatment entry in a number of ways. Miller (1985) suggested that relatively straightforward environmental interventions

that reduce program barriers can improve individual motivation for treatment. Of the different program variables potentially affecting drug treatment entry, only waiting time has received much study. Free treatment that is available on demand has been advocated by harm-reduction proponents as a means of facilitating treatment entry (Carvell and Hart 1990; Hartnoll 1992; Springer 1991). However, because limited treatment slots and few alternative treatment approaches are available in many public agencies due to restricted funding, decreased treatment availability often translates into increased waiting times (Anonymous 1990).

Efforts to decrease waiting time have been questioned by some (Addenbrooke and Rathod 1990) on the grounds that making it easier for people to get into treatment may reduce treatment retention. On the other side, advocates of reducing waiting time note that many people who apply for treatment are often ambivalent about stopping drug use, have unstable lives, and may interpret waiting time to mean that the treatment program is not prepared to help them and thus may decide to address their problems elsewhere or to continue their drug use (Brown et al. 1989; Stark et al. 1990). Shorter waiting times between a drug abuser's receipt of a referral or an initial phone contact with a clinic and the initial intake appointment appear to be associated with an increased likelihood of appearing for the initial appointment and a trend toward slightly longer treatment participation (Addenbrooke and Rathod 1990). Longer waits appear to be associated with a decreased interest in entering treatment and with significant increases in legal involvement, incarceration, family separation, and rates of death (Brown et al. 1989; Patch et al. 1973).

For example, in one study (Stark et al. 1990), drug users who requested entry into an outpatient community treatment agency were randomly assigned to receive either an appointment in the next 2 weeks or to come as soon as possible to begin the intake process. Those who were asked to come the same day they called appeared at the clinic at a significantly higher rate (60 percent) than those who were given a delayed appointment (38 percent). Similarly, Festinger and associates (1995) found that the number of days between the initial phone contact and scheduled intake appointment was the only variable among a number of client and clinic characteristics to predict whether cocaine abusers attended their initial appointment. The greatest decrease in initial attendance occurred in the first 24 hours following the phone inquiry. Such findings suggest that changes in program barriers such as waiting time may be easier to implement and have more impact on facilitating treatment entry than attempting to change client characteristics (Festinger et al. 1995; Miller 1985).

If treatment entry cannot be expedited, providing support while clients wait may be an important interim step. Brown and colleagues (1989) found that 65 percent of drug abusers who were waiting for a bed in a residential drug treatment program indicated interest in attending a once- weekly group counseling program until they could be admitted. Such pretreatment groups can provide support, a cost-effective orientation to treatment, and therapeutically focused time structure while clients await more formal or intensive therapy (Brekke 1989). Such programs also may increase treatment entry, treatment compliance and completion, and/or involvement in aftercare (Conti and Verinis 1989; Olkin and Lemle 1984; Ravndal and Vaglum 1992), although such positive effects have not been reported consistently (Alterman et al. 1994).

ROLE INDUCTION

Several studies evaluated the effectiveness of using role-induction techniques to increase retention of drug-abusing clients early in treatment, and Ravndal and Vaglum (1992) suggested that the pretreatment intake groups discussed above should be developed as role-induction strategies in which clients learn coping skills to help them adjust to treatment. These approaches have evolved out of the general psychotherapy literature, where client misperceptions and lack of agreement between client and therapist about important features of therapy (e.g., length of treatment, client-therapist roles) have contributed to premature dropout (Zweben and Li 1981). These interventions attempt to promote treatment engagement by reducing confusion, clarifying expectations and roles, and providing the client with a better understanding of the treatment process. Such efforts appear particularly appropriate for drug abusers because many who seek treatment have no previous treatment experience and often express numerous fears (e.g., their knowledge is limited about the treatment process generally, or about the specific agency or treatment to which they had been assigned; they worry about not getting treatment that matches their needs or expectations; they are concerned about not having their problems understood, or they fear failing in treatment) (Cunningham et al. 1993; Oppenheimer et al. 1988; Sheehan et al. 1986).

Support for the use of role induction with substance abusers is mixed. Stark and colleagues (1990) evaluated a brief role-induction intervention presented when drug abusers contacted a clinic. Clients who received the intervention were asked about potential barriers to attendance, and an attempt was made to help resolve them. At the end of 1 month, however, only 11.1 percent of the sample were active clients, indicating that a brief discussion about barriers to treatment was insufficient to overcome the barriers or to increase

clients' commitment to treatment. Zweben and Li (1981) evaluated a single group session of role induction prior to treatment in an outpatient substance abuse clinic. Clients who participated in one of three different role-induction conditions were somewhat (although not significantly) more likely (54.4 percent) to remain for the initial four sessions of treatment than were those in the control group (34.6 percent). An interaction between the type of induction procedure and the match between clients' and staff's beliefs about treatment suggested that role induction may be particularly effective in reinforcing the expectations of clients who are already relatively knowledgeable about treatment, more so than in reducing discrepancies among clients who hold less accurate expectations. This process might be facilitated further by use of ex-clients who share first-hand experiences about the treatment process and serve as role models of individuals for whom treatment was effective.

Treatment-specific role induction appears to be more effective than interventions focusing on either more general psychotherapeutic issues or on general drug information (Stark and Kane 1985). Of clients assigned to the drug treatment-specific role-induction condition, 91 percent returned at least once after an initial intake compared to 72 percent, 61 percent, and 5 percent of those who received general psychotherapy information, drug information, or no information, respectively. However, the percentage of clients who remained active in treatment 3 months later did not differ across conditions. Finally, Siegal and colleagues (1993) developed a weekend-long treatment-induction process. Although the program's efficacy has not been evaluated, such an intensive introduction to treatment may increase compliance and be more useful for reducing discrepancies among less informed clients than Zweben and Li (1981) were able to induce in a single-session intervention.

Case Management

Role-induction approaches, while showing some promise in increasing treatment entry, appear to be insufficient to maintain a high rate of continued involvement. Those entering treatment have more concerns about and perceive a greater need for help with problems in a wide range of life areas (Power et al. 1992*a*). Furthermore, data on beliefs about treatment suggest that many clients expect treatment programs to provide access to other health and social support services (Brooke et al. 1992; Thom 1986), which is the goal of case management approaches. Although case management is more commonly employed as part of active treatment or aftercare, these services also have been used in assessment and referral centers to try to facilitate treatment entry (Graham and Timney 1990; Ogborne and Rush 1990; Timney and Graham 1989). They may also be used

to solidify the gains made in treatment readiness brought about through role-induction approaches (Siegal et al. 1993). Case management functions ordinarily include assessment of service needs, planning, linking, and monitoring service delivery. They can also include client advocacy, delivery of therapeutic services, and community activism (Graham and Timney 1990). The development of linkages to community services can help remove barriers to treatment that homelessness, physical or mental illness, or other problems can create (Cook 1992; Willenbring et al. 1991).

Case management has not only involved linking clients with ancillary services, but with treatment as well. In a study by Bokos and associates (1992), drug injectors who sought publicly funded treatment were assigned to a case manager (who conducted an assessment, facilitated treatment entry, and addressed other immediate needs) and were compared with controls (who were given the names, addresses, and phone numbers of three treatment clinics). Ninety percent of the case- managed group entered treatment compared to only 35 percent in the control group. Average time to admission for case-managed clients was 6.2 days compared to 31.7 days for controls. Similarly, transitional case management for street-based drug injectors not in treatment, involving referrals for services based on an individualized needs assessment and services, resulted in the receipt of more concrete help and greater entry into alcohol and drug abuse treatment services than did standard referral procedures (Lidz et al. 1992).
Further research is needed to evaluate the efficacy of case management approaches in aiding treatment entry and compliance. Case management used to enhance treatment entry has been limited in scope and duration, which appears appropriate as it may not be cost effective to provide overly intensive services to clients who have not fully committed to treatment (Stark et al. 1990). However, modifications may be required in the case management methods to maximize their use at the point of treatment entry (Bachrach 1993).

Motivational Interventions

Miller (1985) identified a number of motivational interventions to increase the probability of substance abusers' entering and continuing in treatment and otherwise complying with an active change strategy. Specific components identified across successful motivational interventions (Miller 1989; Miller and Rollnick 1991) include: (1) providing feedback from assessments concerning the impact of substance use on physical, social, and psychological functioning; (2) providing direct advice about the need for change and how it may be accomplished; (3) attempting to remove significant barriers to change; (4) suggesting or

providing alternative approaches from which the individual can choose to achieve change; (5) decreasing the attractiveness of substance use through increasing awareness of the negative consequences and risks associated with it; (6) utilizing external contingencies or pressures to enhance commitment; and (7) developing a clear set of personal goals for change and maintaining periodic contact. In using each of these components, the desired outcome is to increase the individual's commitment to and motivation for change (DiClemente 1991).

Interventions based on these motivational principles have been shown to facilitate referral for and continuation in alcohol treatment (Bien et al. 1993; Zweben et al. 1988); they have also been applied to drug users (Saunders et al. 1991; van Bilsen 1991, 1994), although motivational interventions used to encourage drug treatment entry have varied in approach and outcome. Saunders and colleagues (1991), for example, described a two-session motivational intervention used with heroin addicts who were beginning methadone maintenance that appeared to incorporate the general principles described by Miller (1989; Miller and Rollnick 1991) as well as specific interventions derived from identified components in the self-change process among drug users. As an example, clients were assisted in reviewing the benefits and negative consequences associated with using heroin and other drugs, evaluating their level of satisfaction with their current lifestyle, elaborating their current concerns (especially those identified as causing the most emotional distress), engaging in a decisional balance of weighing the costs and benefits of continuing drug use or changing this behavior, and establishing some future-oriented goals for changing drug use. Allsop and Saunders (1991) employed a similar approach in dealing with severely dependent alcoholics to develop what they described as robust resolutions.

Conclusions

Treatment entry is only one of many steps in the behavior change process. More research is needed to extend the application and evaluate the utility of each of the interventions reviewed above. Stark and associates (1990) suggested that regardless of demographic status, personality traits, and drug of choice, the majority of substance abusers who seek treatment will have difficulty continuing or completing it (see Stark 1992 for a more thorough review of variables influencing dropping out of treatment). While holding promise, interventions to date have had limited effectiveness in facilitating treatment involvement much beyond the entry point. Combinations of the different intervention strategies, such as role induction and case management (Siegal et al. 1993), may prove to have a greater impact than any used in isolation. In addition,

Stark and Campbell (1988) suggested the development of more specialized attrition-prevention strategies based on the general principles of Marlatt's relapse prevention model (Marlatt and Gordon 1985). In such an approach, circumstances that are associated with dropping out of treatment would be identified and clients would be assisted in developing skills to recognize their occurrence and to cope with them more effectively.

RECOMMENDATIONS TO FACILITATE HELP-SEEKING AND RETENTION

What do these findings suggest about facilitating appropriate help-seeking? First, current treatments that are tied to the health care delivery system are stigmatizing, and treatment innovations that are delivered through this system probably will not substantially increase utilization. Nevertheless, better integration into the health care system of the more intensive treatments needed by a minority of substance abusers will likely reduce the stigma somewhat. Furthermore, covering substance-related treatments in comprehensive medical insurance plans produces well known cost-offset benefits (Holder and Blose 1992) and probably helps reduce the misutilization of health services by substance abusers.

Second, less intensive interventions aimed at the majority of substance abusers who do not meet clinical criteria for dependence probably will serve more affected persons if they do not have to enter the health care system as a patient with a substance-related diagnosis. Community-based, low-threshold interventions would seem to be especially attractive alternatives. However, AA, Narcotics Anonymous (NA), Cocaine Anonymous (CA), and related groups that share a 12-step philosophy currently are the only widely available community-based interventions. Because their appeal is not universal, additional community-based interventions are needed (e.g., Rational Recovery, Women for Sobriety, Secular Organization for Sobriety, Moderation Management).

Third, health care professionals in primary care settings could be more effective referral agents if they had a broader range of assessment and intervention alternatives to offer patients with a possible substance disorder. For example, being able to offer an evaluation opportunity that is not an inevitable precursor to extended treatment (such as the Drinker's Check-Up, Miller and Sovereign 1989) would be preferable to referring patients to treatment and/or self-help groups regardless of problem severity.

If one were to consider designing an ideal program based on the foregoing review of issues related to help-seeking and treatment entry for substance abuse problems, what can be recommended? Overall, the goals of such a program would include reducing the stigma of the problem, providing low-threshold access to treatment options, integrating prevention and treatment services for both substance abuse and mental health problems, matching programs to individuals based on both professional advice and consumer choice, and providing ongoing case management and followup services (including relapse management).

With a primary focus on prevention and health promotion, the stigma of substance abuse treatment could be substantially reduced. Community-based programs could be established in schools, worksite settings, community centers, and primary health care facilities (cf., Institute of Medicine 1990). The core theme and public image for such programs would be lifestyle management and habit change. A variety of positive health habits and high-risk behaviors could be covered, including diet and exercise; drinking, smoking, and other drug use; and high-risk sexual behaviors. Programs run by peer-based counselors trained in the principles of health promotion probably would be more appealing to the public than professionally led treatment programs for substance abuse.

Combining Behavioral, Harm-Reduction, and Public Health Principles: The McHabit Center Example

One might consider calling the ideal program the McHabit Center—a one-stop center that provides low-threshold access to various health promotion options. Rather than embracing a disease model of addiction, the center would be guided by a more comprehensive biopsychosocial model (Marlatt 1992). Personal responsibility for adopting healthy lifestyle habits would be emphasized within a psychoeducational approach that emphasizes learning adaptive coping skills. The atmosphere would resemble a community college more than a clinic.

Upon arrival at the McHabit Center, students would first be assigned an advisor who meets with them individually to guide them through the program offerings. Initial assessment of lifestyle habits could be accomplished by having students complete a computerized lifestyle assessment battery (Skinner 1993). After completion of the computerized assessment and other diagnostic evaluation, the student meets with the advisor for a session providing feedback, motivational enhancement, and selection of program goals for lifestyle change. All students would be assigned to a core course on the principles of habit change and health promotion. Other courses would deal with specific

health habits and would be assigned on the basis of the initial assessment. Course offerings might include smoking cessation, nutrition and diet, exercise and relaxation, alcohol and other drug use, changing high-risk sexual behavior, as well as anger management and assertiveness training. Most classes would be taught in a group format with many opportunities for discussion, role-playing, and practicing new behaviors as the main homework assignment. Instead of receiving grades, students would be given frequent feedback on their progress based on monthly followup computerized assessments. Advisors would continue to meet individually with students periodically to monitor progress and setbacks and to offer support and guidance. Advisors would also offer referral to primary health care providers so that there would be access to medications and other medical services when appropriate.

Although the advisor may recommend specific goals to match the needs of a particular individual, students/clients will also be asked for their opinions and preferences for various goals and program options (Krantz et al. 1980). To increase awareness of different programs, clients would be encouraged to visit or sit in on various classes to see how they work in actual practice. Another possibility would be to provide students with a menu of program alternatives presented in the form of videotaped segments that portray samples of each program in action. This procedure combines elements of role induction, treatment matching (in which advisors recommend specific programs), and consumer choice or client preference. After the advisor and student agree on a particular choice, additional role-induction training could be used to further prep the student prior to the beginning of the program. When professional matching recommendations are in conflict with the client's own preferences, a negotiation process would be necessary to select priorities and alternatives (e.g., if the client selects a program that later proves to be unsuccessful, a second "backup" program can be introduced). Here the primary aim is to keep the client engaged throughout the intervention process and to prevent treatment dropout (attrition prevention).

With prevention and risk reduction as the central themes for working with substance use behaviors, the center would provide primary, secondary, and tertiary prevention programs depending on the needs of the clientele. For those who are assessed to be relatively free of current drug problems, the emphasis would be on primary prevention and on helping those who have experimented with initial substance use to prevent future abuse and dependency problems. For others who have already had experience with alcohol, smoking, or other drug use, goals would include both secondary prevention (e.g., to reduce excessive alcohol consumption) and tertiary prevention (e.g., to prevent relapse in smoking

cessation). Prevention programs in general would be guided by a threefold approach that combines individual self-management training with enhancing social support and facilitating environmental reinforcement for behavioral alternatives to substance use.

In this approach, no formal distinction is made between prevention and treatment programs. Problems including substance abuse are viewed along a continuum of severity or harm, with no clear demarcation point to indicate which clients need treatment. In a sense, all programs offered would represent preventive interventions and would differ only in terms of the prevention goal. Target behavior change would include both moderation (secondary prevention) and abstinence (tertiary prevention). Special relapse prevention classes or groups would be offered to clients who experience setbacks or lapses in an attempt to keep these individuals engaged in the intervention process.

The McHabit Center, ideally situated in easily accessible environments (e.g., shopping malls), would also provide community outreach services to provide information and assessment opportunities to at-risk groups who otherwise might be overlooked. For example, outreach programs could target individuals who are deemed to be at risk based on such factors as age (e.g., adolescents or the elderly), gender, ethnic status, family history, living environment, and comorbidity of substance use and psychological problems. For prospective clients who are interested in knowing more about prevention and treatment program options, short informational programs would be offered to teach people about the range of programs and services available. The center would also accommodate individuals who are court mandated to receive services. To reduce problems of noncompliance associated with coerced treatment, such clients would be mixed in with the voluntary clients rather than treated as a separate group. Centers could be run on a for-profit basis (similar to commercial weight-loss or fitness centers) and/or could be supported financially by existing health maintenance organizations (HMOs) and associated insurance programs.

The primary assumption guiding both prevention and treatment programs based on this model is that the person is to be viewed as a unique individual who is deserving of an integrated approach to his or her life problems. A client's substance use problems are assessed in the context of other life problems within a holistic perspective. By using a functional analysis to assess behaviors targeted for change, the emphasis shifts from a diagnostic focus (substance abuse or mental illness per se) to assessing the consequences of maladaptive coping patterns. Clients who use substances to cope with psychological problems (e.g., drinking in an

attempt to cope with depression) are distinguished from those whose life problems are a consequence of substance abuse. Unlike many contemporary programs that treat substance abuse separately from other mental health problems (or vice versa), the McHabit Center would provide an integrative model that examines the interaction and complexity of each client's unique lifestyle and problems in living. Such a center would probably have particular appeal to adolescents and young adults who are more likely to be motivated by a program that emphasizes general lifestyle coping and health promotion as compared to traditional programs that focus exclusively on substance abuse and addictive disease.

How would decisions be made about the intensity and duration of intervention programs in a center that integrates prevention and treatment services? Many traditional addiction treatment agencies offer comprehensive fixed-length programs (e.g., 28-day residential programs). In these programs, clients are assigned to treatments of fixed duration based on a one-size-fits-all assumption. Adolescents who show early signs of substance abuse problems are often treated the same way as older, chronic users, because they are all assumed to have the same disease that differs only in terms of whether it is early or late stage. This uniform disease model implies the same treatment goal for all: total and lifelong abstinence.

One promising alternative to the one-size-fits-all approach is a stepped-care model (Abrams et al. 1991; Sobell and Sobell 1993). Derived from a public health perspective, the stepped-care model provides a series of intervention options that vary in intensity and degree of professional involvement. Interventions begin with a minimal step or brief intervention that might prove effective for many clients. Additional steps of increased intensity are offered only if former (less intensive) interventions prove ineffective. The stepped-care approach is used with certain primary health care problems such as the treatment of borderline hypertension. Here the physician might begin the intervention process by recommending that the client take the initial step of reducing salt intake and changing diet to lose weight. Blood pressure is continuously monitored to evaluate the impact of these changes. If changing dietary patterns is not sufficient, the client may then be advised to begin a regular exercise program before blood pressures are again assessed. Additional steps may then be recommended until the desired blood pressure reduction is achieved, including prescription of medications. Medication levels are titrated upwards (from lower doses to higher ones) or other medications are prescribed until the treatment goal is achieved and the hypertension is under control.

A similar stepped-care model can be applied to working with substance abuse problems. Here the initial steps could include various self-help options, such as manuals, books, and computer software programs for habit change, or membership in a self-help support group. If these steps are unsuccessful, the client could be stepped up to receive more extended professional services in the form of classes or groups (as described in the McHabit Center curriculum). If additional services are required, individual outpatient counseling could be introduced. Residential treatment would also be available, but only as a final step if less intensive interventions continue to be ineffective. Of course, clients could be moved to higher levels of intensity depending on the severity of the case.

The stepped-care model has recently been successfully applied in a program designed to reduce alcohol abuse (e.g., binge drinking) in adolescents and young adults in the college setting (Marlatt et al. 1995). In this study, high-risk drinkers were randomly assigned to receive either a stepped-care intervention program or to a no-treatment control group. Participants who received the stepped-care program first were given a brief intervention (less than 1 hour) in which each student met individually with a member of the authors' staff in the context of a motivational interview (Miller and Rollnick 1991). The purpose of this interview was to provide support and motivational enhancement for reducing harmful drinking levels. Each participant was provided feedback about his or her drinking levels and associated health risks. Interviewers adopted an empathic style, supporting any attempts the student reported having made to reduce risky drinking behavior. Tips for making additional changes were offered in a nonconfrontational manner. During followup assessment periods, high-risk participants who received this brief intervention along with annual feedback reports on their drinking reported a significant decrease in both drinking rates and associated harmful consequences over a 3-year period, compared to the no-treatment control group (Marlatt et al. 1995).

Although the majority of participants reported significant reductions in drinking problems after receiving this single session of feedback and advice, some did not respond and others actually increased drinking rates. For them, additional program options of greater intensity were offered, in accordance with the stepped-care model, including group support meetings, individual counseling, and even a seminar they could take for credit on the topic of guided habit change. Subjects who showed signs of severe alcohol problems or dependence were seen individually and recommended for abstinence-based treatment.

The alcohol risk-reduction program described above, along with the McHabit Center concept, are congruent with a harm-reduction approach to addictive behavior change (Engelsman 1989; Heather et al. 1993; Marks 1992; O'Hare et al. 1992). Harm reduction refers to policies and programs designed to reduce or minimize the harmful consequences of ongoing addictive behaviors. Needle exchange, discussed in an earlier section, is a harm-reduction policy designed to reduce the risk of HIV infection by eliminating the need for addicts to share injection equipment. Harm reduction embraces a wide variety of previously unrelated programs and techniques, including methadone maintenance, nicotine replacement therapy, and safer-sex programs designed to reduce the risk of sexually transmitted disease (Marlatt and Tapert 1993). Controlled drinking or moderation training fits well with a harm-reduction framework (Marlatt et al. 1993).

Harm-reduction programs are designed to be low threshold, removing barriers to treatment access. One such potential barrier to initial help-seeking may be the requirement of abstinence as a condition of entry into treatment. Although abstinence is embraced as the distal goal for substance abuse treatment, harm reduction encourages incremental risk reduction with an emphasis on attainable proximal goals (e.g., reduced consumption, safer methods of drug administration).

Programs based on harm-reduction principles are often developed in collaboration with the target population. As an example, the impetus for the original development of needle-exchange programs in The Netherlands came from organized groups of addicts (Engelsman 1989). Future harm-reduction programs also will benefit from input and consultation with those who are directly affected. Professionals in the addictive behaviors field can work cooperatively with people who are experiencing these problems to facilitate help-seeking and treatment access. Rather than dictating program requirements and procedures by administrative directives issued from the top down, harm-reduction procedures can be developed in partnership with the population most affected. Through mutual discussion and respect (e.g., in focus groups or other combined meetings), barriers to help-seeking may be reduced or eliminated. By having people with addictive behaviors play a greater role in designing alternative programs and treatment options, the empowerment they experience as a result will go a long way toward removing the stigma associated with this problem.

Harm-reduction programs place greater emphasis on input from the clients seeking services than do most traditional addiction treatment programs. This perspective puts more onus on the consumer of such

programs to become active and responsible in the behavior change process. One approach that speaks directly to the question of consumer choice and environmental options is the topic of behavioral economics. In the concluding section that follows, some preliminary ideas are presented about how substance abuse treatment might be interpreted within a framework of behavioral economics.

Behavioral-Economic Theory and its Implications for Help-Seeking

Traditionally, psychological views of addictive behavior have focused on internal mediational constructs (e.g., anxiety, tension, self-efficacy) thought to motivate alcohol and drug consumption. The general practical implication of this focus has been that if these mediational variables could be changed, usually as a result of therapy, it would lead to addictive behavior change. It is now known, however, that contextual environmental forces outside the psychotherapy situation have powerful effects on addictive behavior (Moos et al. 1990; Tucker et al. 1995; Vuchinich and Tucker 1988), and it is difficult to characterize these contextual variables adequately by incorporating them into internal mediational constructs (Vuchinich, in press-*a*; Vuchinich and Tucker, in press). This presents a need for a fresh perspective with new concepts and methods, and it is suggested that behavioral economics provides a potentially useful conceptual framework for understanding the effects of extratherapeutic variables on addictive behaviors.

Basic behavioral economics originated with a merger of methods from the experimental analysis of behavior and of concepts from consumer demand theory in economics (e.g., Rachlin et al. 1981). Instead of focusing on internal mediational constructs, it relates temporally extended behavior patterns to molar features of environmental contexts, which is the level of analysis needed in a broadened psychological perspective on addictive behavior change. The general goal of behavioral economics is to understand how scarce resources are allocated to gain access to a set of valued activities under variable constraints, and it has been quite successful in improving understanding of environmental variables that control demand for a variety of commodities (Kagel et al. 1995).

Given that behavioral economics is directly concerned with demand for commodities, it is readily applicable to the study of addictive behavior where the fundamental problem is excessive demand and consumption. Behavioral economics has been successfully applied to studying several aspects of alcohol and drug abuse (DeGrandpre and Bickel, in press; Green and Kagel, in press; Vuchinich, in press-*b*; Vuchinich and Tucker 1988).

This work has shown that alcohol and drug consumption is a joint function of constraints on access to the addictive substance and other valuable activities that are available and constraints on access to them. In general, alcohol and drug consumption varies inversely with constraints on access to alcohol or drugs, and varies directly with constraints on access to valuable alternative activities. This is consistent with the basic tenet of behavioral economics: Demand for any commodity is a function of the economic context (e.g., the price of the commodity of interest, other available commodities and their price, income) in which it is available.

Several findings from the help-seeking literature reviewed earlier can be interpreted from a behavioral-economic perspective. A striking feature of the data on help-seeking for substance abuse is that only a small minority of abusers seek treatment, even though it appears to be readily available at an affordable cost. The behavioral-economic literature on discounting of delayed and probablistic outcomes (Rachlin et al. 1991) may be relevant to this issue. It is well known that the value of delayed and probablistic outcomes, both positive and negative, is discounted to various degrees, although the shape of the discount function is a matter of some dispute (Rachlin et al. 1991). Such discounting may be relevant to help-seeking in that treatment entry places the substance abuser in a position of foregoing a certain, immediately available, and highly valued commodity (the abused substance) in order to obtain a probablistic and delayed outcome (benefits of treatment). Given the value of the abused substance and the probablistic and/or delay discounting of treatment benefits, it is perhaps understandable why most substance abusers do not seek treatment.

The role of discounting delayed and probablistic outcomes may be especially important with substance abusing populations who may discount such outcomes at a higher rate than do nonabusers: It is possible that alcohol and drug abusers engage in excessive consumption partly as a result of heavily discounting delayed and probablistic outcomes. If so, then such populations present a doubly difficult problem: They are substance abusers because they heavily discount the future, and because they heavily discount the future, they are unlikely to enter treatment.

At least three implications for potentially increasing help-seeking and treatment retention follow from these speculations. First, these behaviors might increase if the current demand for immediate and continuous abstinence during treatment were relaxed to allow some level of continued consumption of the abused substance. Although this suggestion is anathema to traditional views, it is consistent with the so-

called harm-reduction perspective described earlier and with behavioral-economic concepts. For whatever reason, consumption of the abused substance is a highly (if not the most) valued activity of substance abusers. Demanding immediate and continuous abstinence is therefore taking away something of high value without replacing it with anything of equal value. Permitting some continued consumption, at least temporarily, may increase help-seeking in that the substance abuser would not face the certain loss of the highly valued abused substance when entering treatment, and it may provide a buffer period during which alternative valuable activities could be developed.

Second, help-seeking and treatment retention might be increased if treatments were more effective, and refined and specialized as discussed in the previous section. Improved treatment is a valued goal from any perspective, but it appears to be the case that treatment effectiveness is rarely if ever cited in the current literature as an important determinant of help-seeking or staying in treatment. Behavioral economics provides a sound theoretical reason for a possible relation between treatment effectiveness and help-seeking and treatment retention: Benefits from current treatments are far from certain, but if they were better defined, more probable, and occurred sooner, their value would be discounted less and treatment would be engaged in more.

Third, and somewhat related to the first two points, treatments should more quickly and more directly address improving clients' access to valued activities other than the abused substance. In behavioral economic terms, facilitating clients' engagement in such valued alternative activities would provide effective substitutes for substance consumption. As mentioned above, demand for any commodity, including alcohol or drugs, is a function of the economic context of its availability. It is well documented that the ready availability of alternative activities is a critical aspect of this context in that it has a powerful effect on reducing alcohol and drug consumption (Carroll, in press; Vuchinich and Tucker 1988). This issue seems particularly relevant to help-seeking; the literature shows that individuals seek treatment more because of the life problems caused by their addictive consumption than because of the addictive consumption itself. Thus, if treatments focused on these life problems as much or more than they focus on consumption of the abused substance (Allsop and Saunders 1991; Cox et al. 1991; Saunders et al. 1991), then treatment-seeking and retention might be increased. Moreover, recent work (discussed in Carroll, in press) indicates that the ready availability of a valued alternative reinforcer can block the development of drug self-administration in animals. This relation may have important prevention implications given that most substance abusers begin using the abused

substance during a relatively brief period in adolescence (Kandel and Logan 1984). Thus, from a behavioral economic perspective, enriching the environment with valuable nondrug activities provides a potentially powerful vehicle to prevent the development of substance abuse, promote treatment entry, and design more effective interventions.

CONCLUSIONS

The themes presented in this chapter about help-seeking, treatment retention, and recommended changes in the U.S. substance abuse treatment delivery system emerged coherently out of highly disparate and previously unrelated literatures. Whereas in the past the major thrust of scientific, clinical, and some policy initiatives has been to advance increasingly more effective treatments for substance disorders, these recent literatures point in a different direction. It is the authors' view that currently dominant treatments for substance disorders have probably reached an asymptote with respect to their effectiveness and range of applicability. Continued efforts to improve them without attending to the broader systems and contexts within which they are available are not likely to prove fruitful or to reach the chronically underserved majority of substance abusers. Emphasis should thus be shifted towards understanding the broader contexts in which substance disorders emerge and are maintained and within which help-seeking experiences of many different forms are encouraged or discouraged. Expanding community involvement in the management of substance-related problems is a clear priority (Institute of Medicine 1990).

Understanding and modifying the health care delivery system as it pertains to substance disorders will be an important piece of this focus (and there will be many opportunities for modification as health care reform and managed care initiatives evolve). In the authors' view, however, interventions tied exclusively to the health care system have been and will likely continue to be insufficient, even if the particulars of treatment programs are revised and more treatment slots become available. This is true because treatments made available through this system are stigmatizing (Cunningham et al. 1993; Tucker 1995), and, as concluded by Weisner and colleagues (1995) in a review of trends in the U.S. alcohol treatment delivery system during the past decade, "[I]t is clear that simply achieving increased treatment capacity does not necessarily result in changes in utilization patterns" (p. 59). Changing utilization patterns in a positive way will depend on improved understanding of contextual influences on help-seeking patterns and on

increased availability of alternative, low-threshold interventions in the community.

This shift in perspective and resource allocation has been occurring during the past 10 to 15 years in several European countries with some initial success, but it has been slow to develop in the United States (Hartnoll 1995). One can only speculate why this is the case, but several reasons come to mind. First, relative to the insurance-based health care system in the United States, for some time European systems have been organized in a more socialized fashion around primary care physicians who serve as system gatekeepers; this has probably contributed to differing sensitivities to the role of the health care system in promoting or deterring health care delivery, which is more widely acknowledged and researched in Europe. Second, in the United States, the for-profit substance abuse treatment delivery system typically is based on a medical staffing arrangement (including a responsible physician along with nurses and other subdoctoral staff including certified substance abuse counselors) that is economical and efficient, but it has retarded the involvement of other professionals and minimized the influence of alternative views of behavior change that lie outside the purview of medicine. Third, in the United States, many more Federal dollars have been allocated to reducing drug availability through interdiction, while demand-side approaches that emphasize prevention and treatment have been relatively neglected. Behavioral-economic theory points to the potential utility of demand-side interventions that enrich the environments of substance abusers by providing nondrug alternative activities that compete with drug use.

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Tailoring Interventions to Clients: Effects on Engagement and Retention

Larry E. Beutler, Heidi Zetzer, and Elizabeth Yost

Drug abuse represents a major social and behavioral health problem. National Institute of Drug Abuse (NIDA) statistics suggest that 37 percent of the U.S. population has used illicit drugs (Smith 1992) and as many as 23 percent of the work force regularly do so in the workplace (Barabander 1993). Drug use in the workplace is not limited to benign, recreational drugs. The NIDA estimates indicate that 3 percent of the work force abuse heroin (Browne 1986) and over twice that figure abuse cocaine (Abelson and Miller 1985). Chemical abuse affects family functioning, work performance, and the health of newborn children (Levy and Rutter 1992). Of contemporary concern, opiate and cocaine abuse probably represent the most significant problem because of their severe addictive properties, the high likelihood of polydrug abuse among their users, and the decline of social functioning that accompanies their abuse (Almog et al. 1993). Three tasks face those who attempt to develop treatment programs for drug abuse disorders: (1) developing procedures that facilitate patient engagement in treatment, (2) developing procedures that increase the likelihood of retention of individuals in treatment, and (3) establishing the conditions under which even effective treatments work best and least well. While this chapter will focus on the status of research on the first two of these tasks, the last one cannot be ignored in this process. This is true both because of the necessity of continually testing the relationship between treatment engagement and dropout on one hand and treatment efficacy on the other, and because there are promising developments in the area of treatment efficacy that may improve awareness of the significance of engagement and retention.

There is considerable contemporary interest in tailoring aspects of the intervention to fit individual patient needs. Individualized treatments offer the hope that sensitivity and specificity of interventions will increase treatment retention and engagement rates as well as improve the likelihood of clinical efficacy. Unfortunately, literature is sparse on the application of tailored interventions to chemical abuse problems. Thus, efforts to tailor handling of patients who suffer from these problems must borrow and extract from research on other problems.

Two basic methods of matching treatments and patients have shown enough promise in psychotherapy research to suggest that they may be

transportable to research on chemical abuse treatment. The first of these methods focuses on matching personal qualities (e.g., personalities, backgrounds, beliefs, and other characteristics) of patients and therapists to increase the likelihood that they will develop a working relationship that will enhance therapeutic progress. The second seeks to match specific treatment procedures or strategies to particular characteristics and needs of patients. A brief review of the status of these matching procedures may help in the assessment of their applicability to substance abuse treatment research.

PATIENT-THERAPIST MATCHING AND THERAPEUTIC OUTCOMES

One way to tailor interventions to clients of different types is to match them to therapists who represent the most appropriate fit. Such patient-therapist matching has a long tradition in psychotherapy, covering the gamut of matching variables from sociodemographic characteristics to value and belief systems. Indices of treatment engagement have included patient preferences and satisfaction levels. One line of research, for example, has suggested that some ethnic minority clients prefer to work with counselors who are of the same race, but this finding tends to vary according to the client's ethnicity and his or her level of ethnic identity development and acculturation (Parham and Helms 1981; Sanchez and Atkinson 1983). Summaries of this research usually conclude that while African-American clients prefer African-American therapists over white therapists (Atkinson 1983; Harrison 1975; Sattler 1977), a preference for an ethnically similar therapist is not as evident among other ethnic minority groups (Atkinson 1983). Atkinson (1983) observed that inattention to within-group differences and constricted ranges of acculturation might have prevented the emergence of preferences as a distinguishing effect of ethnic matching among nonblack minority groups. Sanchez and Atkinson (1983) remedied some of these problems by including level of acculturation as an independent variable in their investigation of racial similarity and therapist preference. They found that Mexican-American college students with strong commitments to the Chicano culture preferred racially similar counselors, while those who did not have strong cultural identities did not. Interestingly, however, Vietnamese refugees (presumably not acculturated) showed no preference for a racially similar counselor (Atkinson et al. 1984). Somewhat stronger evidence has accumulated to suggest that patient-therapist ethnic similarity is associated with lower dropout rates during therapy (Krebs 1971; Terrell and Terrell 1984; Yamamoto et al. 1967).

Finally, therapist-patient socioeconomic status (SES) similarity has been related to more positive perceptions of the therapist, but the relationship between SES and either therapy process or outcome has not been investigated adequately.

Despite evidence that therapeutic engagement (e.g., therapist preference and treatment retention) is enhanced by the assignment of a racially similar therapist to minority patients, the extent to which this similarity or dissimilarity affects engagement in the therapy process is far from clear (Atkinson and Schein 1986). About half the studies examined by Atkinson and Schein (1986) support the hypothesis that patient-therapist ethnic similarity can enhance certain qualities of the therapy process, including the working relationship, and at times even lead to improved therapy outcomes. The other half of the research studies in those authors' review found no relationship among these factors.

It may be, however, that ethnic similarity is not the important variable in studying the cultural fit of patients and therapists. Perhaps a broader dimension of shared cultural values would provide a better test of the role of ethnicity and background in psychotherapy change among certain disenfranchised groups. In the most systematic effort to address this latter issue, Smith and colleagues (1980) assigned an index of cultural similarity to each of the 475 studies in their meta-analysis of psychotherapy outcome, based upon the degree to which client and therapist samples shared a common educational, economic, and upwardly mobile history. An effect size of only 0.10 was obtained using this variable, suggesting that little variance in outcomes could be attributed to similarity of culturally derived attitudes.

There is also little evidence in contemporary literature to indicate that gender similarity, age similarity, or physical ability similarity have an effect on psychotherapeutic engagement, relationship enhancement, or treatment outcome (Atkinson and Schein 1986), though patients, regardless of their status on these dimensions, tend to prefer female (Stricker and Shafran 1983), middle-aged (Simon 1977), and physically disabled therapists (Brabham and Thoreson 1973; Mitchell and Frederickson 1975).

Collectively, these findings suggest both that different ethnic groups respond differently to demographically similar therapists and that sharing certain attitudes, rather than simply demographic background, may be more important in facilitating patient engagement and commitment. This con-clusion may be seen as supportive to the position, often taken in chemical abuse treatment programs, that therapists who share the

patient's history of substance abuse may be better able to provide help than therapists who do not have a history of chemical abuse. The results of research on this topic have shown some support for this view, at least for enhancing the therapeutic alliance (Argeriou and Manohar 1978; Lawson 1982). For example, Lawson (1982) found that counselors who were in alcohol recovery were judged by their alcoholic patients to show higher regard and greater unconditionality than counselors without alcohol problems. Results regarding attrition and outcome in these treatment programs are not available. Nonetheless, this work raises the importance of considering patient and therapist fit along dimensions of personality and attitude.

Viewing literature on broad personality dimensions reveals evidence of some relationship between the degree of patient-therapist similarity and the strength of the therapeutic relationship (Atkinson and Schein 1986). Though not replicated extensively in contemporary research, similar personality styles, as measured by the Myers-Briggs Type Indicator, have been associated with improved treatment retention rates (Mendelsohn and Geller 1963, 1965). However, treatment duration does not necessarily indicate treatment benefit. For example, Swenson (1967) found that dissimilarities on the specific dimensions of dominance and submission were directly related to treatment gains. Likewise, several reviews conclude that dissimilar, rather than similar, personality traits are associated with better outcomes and greater patient satisfaction levels (Atkinson and Schein 1986; Beutler 1981).

Therapist conceptual level is another personality trait that has been the focus of both theoretical and empirical work over several years. Unlike findings related to dominant and submissive traits, however, this research generally supports the value of patient-therapist similarity. Similarity in conceptual level has been particularly related to retention in treatment (Holloway and Wampold 1986; Lamb 1977; McLachlan 1972; Stein and Stone 1978). For example, Hunt and colleagues (1985) explored the effects of cognitive style match among consecutive admissions to the University of Washington Psychiatric Outpatient Clinic. They found that 60 percent of the premature terminations occurred in mismatched or dissimilar dyads while only 24 percent occurred in dyads with similar cognitive styles. Among clients who continued therapy, similar dyads were associated with more symptomatic changes at the end of 12 weeks of treatment than dissimilar dyads, an effect that disappeared quickly when mismatched groups caught up to the similar group. These findings suggest that similarity of cognitive style facilitates retention in therapy and may even speed improvement in the early sessions of therapy.

As the contradictory findings from these studies on conceptual level and dominance-submissiveness would suggest, it is difficult to generalize from any one variable within the domains of personality and belief systems to others, even within similar domains. No single conclusion is warranted that applies to a broad range of beliefs or personality characteristics regarding whether similarity or difference is more facilitative of retention, engagement, or outcome in psychotherapy. However, a relatively consistent theme does emerge to suggest that increasing patient-therapist similarity on a wide variety of these variables over the course of therapy is associated both with indicators of engagement and improvement. For example, Foon (1985, 1986) reported that among a diagnostically heterogeneous group of 78 adult outpatients and their 21 therapists, end-of-therapy similarity of locus of perceived control, but not pretreatment similarity, was positively associated with improvement, indicating that convergence of client-therapist perceptions is a factor in achieving benefit. Patient-therapist convergence has been a particularly consistent observation in research on patient belief and value systems, a conclusion that partially reflects and has been supported by a relatively large series of studies from the authors' laboratory (Beutler et al. 1991*a*).

Six critical qualitative reviews of this research have all concluded that clients tend to adopt the personal values of their therapists during the course of successful psychotherapy, independently of the type of problem presented (Atkinson and Schein 1986; Beutler 1981; Beutler and Bergan 1991; Beutler et al. 1991*b*; Kelly 1990; Tjelveit 1986). According to these reviewers, patients who become converted to the therapist's beliefs or values have good outcomes. A review of the six most methodologically sound studies on this topic (Kelly 1990) suggests that value conversion may be related most closely to therapist ratings of improvement, but the effect, nevertheless, does extend to the outcomes assigned by external raters and the patients themselves.

A second generalizable, but somewhat weaker, conclusion also emerges from this literature. Three of the six reviews (Beutler 1981; Kelly 1990; Tjelveit 1986) inspected the relationship between initial therapist-client similarity and subsequent improvement, noting that initial dissimilarity of client and therapist values was associated with the subsequent adoption of the therapists' values and beliefs.

None of the six qualitative reviews reached a clear determination as to whether initial global value similarity or dissimilarity is more conducive to client improvement. Likewise, Foon (1985, 1986) found that initial patient-therapist similarity on the dimension of perceived locus of control was not predictive of treatment outcome. It appears that while

global value and personality convergence are associated with positive outcomes, and while initial dissimilarity on these global dimensions is associated with convergence, neither global value/belief similarity nor dissimilarity are consistent predictors of treatment response (Beutler 1981; Tjelveit 1986).

Some effort has been devoted to looking at and comparing specific value and personality characteristics within the patient-therapist dyad that will identify a pattern of initial similarities and dissimilarities that will relate to positive treatment outcomes. Such a pattern, if identified, could serve as a template for assigning patients to therapists with whom they would work well. Some relatively weak but promising conclusions seem to be emerging from this literature. The findings indicate that psychotherapy improvement may be enhanced by a complex pattern of similarity and dissimilarity between client and therapist belief and value systems (e.g., Beutler et al. 1974; Cheloha 1986). In the authors' laboratory, a series of studies has suggested that treatment success is enhanced when clients and therapists are similar in the relative value placed upon such qualities as wisdom, honesty, intellectual pursuits, and knowledge (e.g., Arizmendi et al. 1985; Beutler et al. 1974). At the same time, client-therapist discrepancies in the value placed on personal safety (Beutler et al. 1978), interpersonal values, social status and friendships (Arizmendi et al. 1985; Beutler et al. 1974, 1983) have been found to facilitate improvement. At least some of these findings have been supported by independent research programs (Charone 1981; Cheloa 1986).

In sum, while demographic similarity and conceptual level appear to be related to dropout, value conversion and a complex pattern of individual belief and value similarities and dissimilarities appear to be related to improvement. To date, however, none of these lines of research has inspected retention and improvement rates within drug-abusing populations. Typically, patient samples have been diverse outpatient groups with very heterogeneous problem types. The research to date is promising, especially in its implications to retention rates. It provides a fertile field in which treatment retention rates among chemical abuse patients might be explored. Clearly, more research on the types of similarity dimensions that are positively, nonsignificantly, and negatively associated with different types of retention and improvement will be necessary to apply these promising relationships to problems of chemical abuse.

MATCHING PROCEDURES TO PATIENT NEEDS

Efforts to define various psychotherapy methods that are effective either for those with a common diagnosis, such as drug abuse, or with a specific symptom, such as depression, have largely concluded that all psychotherapy approaches produce similar mean effects (e.g., Beutler et al. 1986; Lambert et al. 1986; Smith et al. 1980). The studies that support these conclusions are largely based on a randomized clinical trials methodology that has been borrowed from psychopharmacological research. The methodology of this research paradigm is to study a single, diagnostically homogeneous sample of patients and to compare the efficacies of one or more packaged, reliably applied, and brand-named treatments. In this paradigm, nondiagnostic patient characteristics are usually studied as a secondary, post hoc variable when, as is usually the case, no significant differences are observed between two packaged treatments.

Depression and its various subtypes have been the target of most studies of psychotherapy. Fortunately, there are reasons to believe that there are links between depression and substance abuse that will allow this body of research to transfer to chemical-abusing populations. For example, depres- sion is a frequent coexisting condition both in drug abuse and during drug withdrawal (Weiss et al. 1992). Whether cause or consequence, the coexistence of drug abuse and depressive symptoms suggests that psycho- behavioral interventions that are effective in treating depression also may be effective treatments for chemical abuse.

Because of the demands of randomized clinical trials research, a number of well-established treatments of depression also have evolved, many of which are potentially transportable to the area of chemical abuse. For example, mounting evidence suggests that even in the case of endogenous depression, the condition most often thought to be weighted toward the role of biological precipitators, manualized forms of cognitive therapy are effective in both relieving depression and preventing its recurrence (Corbishley et al. 1990; Jarrett et al. 1990; Simons and Thase 1992). Moreover, cognitive therapy, though initially formulated and manualized as a treatment for depression (Beck et al. 1979), in recent years has successfully been adapted as a treatment both for drug abuse (Wright et al. 1993) and alcoholism (Wakefield et al., in press).

Similarly, treatment manuals based upon relationship-oriented therapies (both psychodynamic and interpersonal models) have been successfully extrapolated from research on the treatment of depression and anxiety disorders for application in the treatment of opiate abuse (McLellan et al. 1983; Rounsaville et al. 1987). The use of manuals within the context of the usual clinical trials research model is well adapted to revealing which

systematic therapies are effective in treating specific diagnostic groups, but is of limited value for assessing questions of matching treatments to patients. Nonetheless, the translations of established manuals to chemical- abusing populations have provided a foundation for explorations of the conditions under which different psychotherapies and psychotherapy procedures are maximally effective.

The effort to fit treatments—variously called "eclectic," "integrative," and "prescriptive" psychotherapies—to patients has evolved largely in the last decade. Two approaches to matching patients to treatments have been employed in these prescriptive models. One has been to develop different manualized therapies for patients with different diagnostic conditions. In this approach, an effort is made to construct a theory-consistent therapy that can be applied in a somewhat different form to several different and diagnostically distinct patient groups. The foundation studies for this method usually concentrate on demonstrating the clinical efficacy of each within the patient samples for which it was designed rather than on comparing the efficacy of the different manuals.

A second approach to matching patients to treatments has been to define characteristics of treatment procedure and strategy that distinguish different theoretical approaches to psychotherapy, and then to identify the patient characteristics on which these procedures are differentially effective. The foundation studies for this approach to prescriptive matching have been those in which two or more manualized therapies are applied to two or more patient groups. Rather than being selected solely on diagnostic grounds, the patient groups for this approach usually are stratified on the basis of a variable that is thought on empirical or theoretical grounds to be differentially responsive to the therapies studied. Differentiating aspects of each treatment are related to differential efficacy on the diverse samples of patients, yielding conclusions about those treatment characteristics that best fit the patient characteristics. In these studies, the patient characteristics of interest are often extra-diagnostic in nature.

While the first approach works within a single theoretical system to develop variations that fit different diagnostic groups, a major aim of the latter approach is to develop guidelines for mixing and combining procedures from across theoretical models to maximally tailor interventions to specific patient characteristics that are not captured well in diagnosis. Both types of studies provide leads to indicate the patient and treatment dimensions that will make the most effective matches.

STATUS OF INTEGRATIVE TREATMENTS

To compare the relative value of the two prescriptive treatment methodologies described above, Beutler and Crago (1987) compared studies that used a variety of methodologies to calculate the percentages of explained, within-subject variance accounted for by each approach— different treatment models applied to patients with different diagnoses versus contrasting treatment models applied to nondiagnostic patient variables. The value of the two approaches was assessed against a base rate expectation of 10 percent, the amount of variance attributable to different treatment types when patient variables are not considered. The base rate figure of 10 percent was derived from a variety of research reviews of comparisons of different psychotherapy models (Lambert 1989; Lambert and DeJulio 1978; Smith et al. 1980).

The comparisons indicated that the interaction effects attributable to combinations of psychotherapy types by patient diagnoses increased the amount of outcome variance accounted for from 10 to 15 percent, a very modest increase over the base rate of 10 percent. This finding confirmed the suggestion (Howard 1989) that even in manualized treatments of diagnostically homogeneous patient groups, the variability of outcomes among treatments is very broad. In any defined and uniformly applied treatment, there appears to be a relatively large number of patients who get better and a smaller but substantial number who do not. Apparently, diagnostic variables are insufficient to reduce the wide variance in outcomes that are secured by all treatments.

When Beutler and Crago considered studies that matched patients and treatments in ways other than through patient diagnosis or brand-named therapies, they had more success in establishing the presence of differential effects among treatments. Matching treatments to select nondiagnostic variables increased the amount of attributable variance to an average of 30 percent, and some variables accounted for as much as 60 percent of the variance in patient responses.

Some patient variables that have been found to interact most successfully with treatment procedures are coping styles (Beutler 1979; Beutler and Mitchell 1981; Sloane et al. 1975), levels of resistance (Beutler et al. 1991*c*, 1991*d*; Shoham-Salomon and Hannah 1991), cognitive organization (McLachlan 1972), and aspects of problem severity and distress (Imber et al. 1990; Luborsky et al. 1985).

Promising Matching Dimensions

Drawing from studies representing each of the foregoing approaches, an inspection of the most promising findings suggests that:

- Experiential therapies often are more effective than cognitive and dynamic therapies either when used early in treatment or when applied to those who are insufficiently distressed about their problems to support emotional growth (Beutler and Mitchell 1981; Greenberg and Safran 1987; Mohr et al. 1990; Orlinsky and Howard 1986);

- Nondirective and paradoxical interventions are more effective than therapist-directed ones among patients with high levels of pretherapy resistance (i.e., resistance potential or reactance) (Beutler et al. 1991*c*, 1991*d*; Forsyth and Forsyth 1982; Shoham-Salomon and Hannah 1991); and

- Therapies that target cognitive and behavior changes are more effective among impulsive, externalizing patients than those that attempt to facilitate insight. The latter effect has often proven to be reversed among patients with internalizing coping styles (Beutler et al. 1991*c*, 1991*d*; Calvert et al. 1988; Sloane et al. 1975).

All of these relationships have been found to be sufficiently robust to be revealed in a variety of diagnostic disorders. Thus, they carry implications for the prescription of psychotherapeutic strategies and procedures that are extracted and combined across theoretical models (see Beutler and Consoli 1992; Beutler and Hodgson 1993; Gaw and Beutler 1995). The robust effect of many of these parameters suggests that combined treatments, based upon these relationships, may be applicable to chemical abuse dependencies as well as to a variety of mental health disorders.

On a more negative note, even the best among the available research studies on this topic have oversimplified the complexity of matching patients and treatments. With few exceptions, the long-term effects of these variables on relapse and efficacy have not been investigated. Neither has research, to date, investigated the interdependence and joint effects of two or more patient and treatment dimensions operating at once. The best studies include only one or two manualized variations of therapy procedure as applied to a group of patients who are selected to vary along a single dimension. No study to date has had the resources to address the implications of assigning a treatment package composed of several interventions to patients who vary on several indicators/ contraindicators at once.

The importance of considering multiple patient and treatment parameters at once cannot be overstated. Even manualized treatments, if they are not sensitive to the complexities of individual proclivities and the treatments with which they fit (and this includes most contemporary manuals), may unintentionally include treatment components for a given patient that are offsetting when applied to a patient who embodies a constellation of characteristics that do not fit. For example, the positive effects of cognitive therapy applied to an externalizing patient may be offset by the limited effective-ness of this same therapy with patients who have high levels of resistance to therapist leadership or control. Thus, comparisons of two or more treatments may fail to reveal important differences within diagnostically homogeneous groups because these groups include patients who have counterbalancing but unassessed differences in indicating characteristics.

Extracting from research on the patient-treatment dimensions previously identified, it is conceivable that treatment outcomes could be maximized among substance abusers by fitting specific procedures from several different treatment models to the unique combination of extradiagnostic characteristics that is presented by the individual patients (e.g., combining the symptom focus of cognitive therapy with the arousal-induction procedures of relationship-oriented therapies for use with an externalizing, nondistressed patient). This is an area where research is needed.

Selecting the most promising combinations of procedures from among those valued by the several hundred available theories (Corsini 1981) requires that several patient and treatment dimensions be varied at once. The complexity of patient and treatment variables (e.g., Lazarus 1981; Orlinsky and Howard 1986; Parloff et al. 1978) makes it unlikely that studies in which one brand of psychotherapy is pitted against another, without regard for the patient characteristics that fit and fail to fit with these treatments, will yield much information about treatment efficacy.

ILLUSTRATIVE RESEARCH

For descriptive purposes, findings that have been obtained and the implications of some patient-therapy matching components will be illustrated. For example, in a prospective test of the independent effects of two matching dimensions among depressed outpatients, Beutler and colleagues (1991*c*) selected manualized therapies that contrasted in defined ways to provide greater and lesser fits to patients varying in coping style and resistance potential.

Following 20 sessions of treatment, therapies that were directive and therapist-guided were found to have opposite effects from a therapy that was designed to be self-directed and nondirective when contrasting patient groups were studied. Resistance-prone patients did poorly in the directive therapies but well in the nondirective/self-directed therapy, while patients who were not prone to high levels of resistance did comparatively better with the directive therapies than the nondirective one. This finding was independently crossvalidated on a sample of anxious and depressed patients at the University of Bern utilizing a variety of alternative measures of defensive anxiety (Beutler et al. 1991*d*).

Corollary work (Horvath 1989; Seltzer 1986; Shoham-Salomon et al. 1989; Shoham-Salomon and Rosenthal 1987) has confirmed the conclusion that trait-like indicators of resistance may be a specific indicator for the use of nondirective, paradoxical, and self-help procedures. Shoham-Salomon and colleagues (1989) have demonstrated that college students who were predicted to be highly resistant by voice tone measures became worse when they were directly told to change habits of procrastination. However, paradoxical assignments (i.e., "observe but don't change your habits") resulted in a decrease in symptoms. Confirmations in different populations (Shoham-Salomon and Jancourt 1985) suggest that either low directive or paradoxical (don't change) instructions are indicated for patients judged to have high propensities for resistance, while directive assignments are contraindicated (Forsyth and Forsyth 1982).

Studying a second dimension, Beutler and colleagues (1991*c*) found that a therapy that was designed to directly induce a change in symptoms of depression worked more effectively among patients who had adopted impulsive and other externalizing coping styles, but it was relatively ineffective among those who were prone to internalize conflict and to be excessively self-reflective. In contrast, therapies that were designed to provoke self-awareness and insight worked best among internalizing individuals but relatively less well among those who externalized their conflicts and acted out.

Outcomes. Outcome analyses revealed that two of three outcome measures were affected differently across treatments as a function of patient coping style. The symptom-focused procedures of cognitive therapy exerted their strongest effects among depressed patients who exhibited externalizing coping styles. Less impulsive, depressed patients did best with the insight-oriented procedures of a client-centered therapy. This finding was subsequently independently crossvalidated on a sample of

depressed and anxious subjects at the University of Bern, utilizing a variety of alternative measures of externalization (Beutler et al. 1991*c*).

Relapse. Another finding emerged from these studies that is important to the development of matching dimensions. Beutler and colleagues (1993) tabulated followup data from the completed study of depression. They found that while relapse rates for depressed patients in all treatments were very low (averaging 12 percent) over a 1-year period, return of clinically significant depressive symptom levels was a function of interactional matches between type of treatment and patient characteristic. Externalizing patients in cognitive therapy had lower relapse rates than either externalizing patients in the other treatment conditions or than nonexternalizing patients in cognitive therapy. In contrast, nonexternalizing patients in two insight-oriented psychotherapies had lower relapse rates than nonexternalizing patients in cognitive therapy. Likewise, high-resistance patients in directive, cognitive, and experiential therapies relapsed at a higher rate than resistant patients in a nondirective therapy. Low-resistance patients in directive therapies also relapsed at a relatively low rate.

APPLICATIONS TO SUBSTANCE ABUSE

With the exception of Project MATCH (alcohol abuse), randomized clinical trials of psychotherapy for either depression or substance abuse have not mirrored the integrative effort that characterizes clinical practice. Kazdin (1983, 1986) has suggested that comparative studies of packaged psychotherapies must be accompanied by dismantling and combining strategies to refine the potency of interventions. The authors believe that a variety of psychotherapies have now adequately demonstrated their clinical efficacy and that more specific combined strategies are now needed to define the dimensions of differential treatment selection. However, without prospective, hypothesis-driven research designs, the accumulation of empirical knowledge is likely to be slow (Goldfried and Padawer 1982).

There have been several interesting studies of substance abuse that have used aspects of treatment matching to look at ways of enhancing treatment efficacy. Most notable among these, from the authors' perspective, have been those of Kadden and colleagues. Kadden and colleagues (1990) evaluated the relative effects of interactional (insight/interpersonal therapy) and skills training (symptomatic/behavioral) aftercare groups among 96 inpatient alcoholic patients who were differentiated by their propensities toward sociopathic behaviors (an externalizing quality). Interactional therapy proved to be most

efficacious among those with low sociopathic qualities—more internalizing—while behavioral skills training was most efficacious among those with high sociopathic qualities. After 2 years, results were obtained that paralleled the findings of Beutler and colleagues (1991*d*) on patients with major depression. Cooney and coworkers (1991) found that long-term relapse rates were also associated with matches of therapy and patient types. Correctly matched groups produced less relapse and better long-term gains than did poorly matched patients.

Though consistent with the research on depression, these latter findings have not received universal support among substance abusers. For example, Woody and colleagues (1985) found that sociopathy did not differentiate between those patients in a methadone maintenance program who responded to cognitive therapy and those who responded to an insight-oriented therapy. In this study, however, the measure of socio-pathy was categorical and diagnosis specific rather than being continuous and symptomatic. Moreover, it was obtained by clinician ratings rather than self-report. Thus, it is likely that the elements of coping style reflected in this measure were different and more diagnosis specific than measures used in studies of coping style.

Woody and colleagues (1983) did find some results that bear on the effort to discover indicators and contraindicators for types of intervention. They investigated the role of problem severity and level of impairment as a con-tributor to differential outcomes of psychotherapies versus drug counseling. They found that methadone-maintained, opiate-abusing patients with severe problems did better in professionally run psychotherapy programs. In contrast, those with less severe problems of opiate abuse were able to benefit from less intensive drug counseling. Alterman and colleagues (1991) have incorporated these findings and others into a systematic set of suggestions for the differential treatment of substance abusers.

The authors' research group (Beutler et al. 1993) is currently implementing a research program that was designed to demonstrate the advantages of matching patient characteristics with psychotherapeutic techniques. The program compares the differential effectiveness of family systems couples therapy (Rohrbaugh et al. 1995) and cognitive-behavioral couples therapy (Wakefield et al., in press) in treating men or women with a primary "Diagnostic and Statistical Manual of Mental Disorders," 3d ed. revised (DSM-III-R) (American Psychiatric Association 1987) diagnosis of alcohol abuse or dependence. The participants are engaged in 20 sessions of treatment with their partners over a period of 6 months. In addition to evaluating the efficacy of the two treatments in

reducing or eliminating alcohol intake, improving the quality of the couple's relationship, and alleviating psychological symptomatology, the authors are also examining the differential effects of treatment for men with two different drinking styles (episodic versus steady), two different coping styles (internalizing versus externalizing), and varied levels of interpersonal reactance. It is hoped that the importance of some of these variables in both the selection of systems- versus symptom-focused treatments and the application of other intervention strategies that distinguish the treatments will be confirmed.

This study reflects the authors' belief that the field is ripe for developing methods of combining treatment procedures across theoretical models. By combining aspects of different treatments into a single treatment package based upon the patient indicators revealed in these studies, it may be possible to improve treatment efficacy far over that obtained using manualized, single-theory models. In support of this conclusion, several recent theoretical and methodological articles have appeared in the literature advocating a search for treatment by patient interaction dimensions. A special series in the April 1991 "Journal of Consulting and Clinical Psychology" was devoted to aptitude by treatment interaction (ATI) in psychotherapy and posed some methodological suggestions as well as advocating for an integrative, conceptual position. Likewise, several textbooks of eclectic and integrative models of psychotherapy have been published in recent years and are well received (Norcross 1986, 1987; Norcross and Goldfried 1992; Striker and Gold 1993). This level of activity indicates that this is both an exciting and fruitful area of investigation, and one with many potential applications, including applications to drug and alcohol abuse.

Recommendations

In this chapter, treatment research studies on a variety of patient and diagnostic conditions have been reviewed in an effort to find some dimensions that may be extrapolated to the treatment of substance abuse disorders. The focus of the review has been on efforts to match patients either to specific therapists or to types of psychosocial treatments to reduce dropout rates and increase treatment-related gains. It is impressive that there is a growing body of research demonstrating meaningful, but largely extradiagnostic, differences in the types of patients for whom different treatment strategies and methods are effective.

Moreover, the advent of treatment manuals from randomized clinical trials research, and the demonstration that some treatment strategies and procedures from these manuals are more effective than others when

applied to distinguishable patient groups, have laid the foundation for combining some of the procedures used in a variety of treatments in order to tailor therapies to the needs of different chemical abusers.

Collectively, the review of literature suggests several promising directions for future research.

1. Patient-therapist similarity on various aspects of background and demographic variables appears to slow the rate and frequency of premature termination. Some of these variables, most notably gender and ethnic similarity, may also contribute to reductions in focal symptoms. In the case of drug abuse, this literature suggests that retention in treatment and declining use of drugs may be enhanced by selecting and assigning therapists whose backgrounds are similar to those of patients. The mechanism of this action is uncertain, but at least conceptually it is associated with the patient's ability to identify with the therapist and to find the therapist to be a credible and believable individual.

2. Aspects of patient and therapist dissimilarity may also be important, especially for facilitating symptomatic change. For example, the patient's ability to accept and adopt the therapist's general view of life appears to be associated with improved functioning, especially as rated by the therapist. Concomitantly, the presence of contrasting attitudes and values between therapist and patient seems most conducive to the emergence of this conversion process.

3. Certain patterns of initial patient-therapist similarity and dissimilarity of viewpoint and personality also are conducive to facilitating improvement, irrespective of the process of attitude convergence. Similarity of cognitive conceptual level, social values, and intellectual values, combined with dissimilarity of interpersonal needs for closeness or ascendence, appear to be an optimal pattern.

4. Defining a fit between patient characteristics and therapy procedures also appears to be possible. Among the best studied patient-therapy dimensions are the effects of matching patient coping style to the symptom or insight orientation of the therapy. Impulsive, charactero-logical patients seem to do best in behavioral and cognitive therapies, while overcontrolled, internalizing patients do best with insight-oriented therapies.

5. Similarly, it appears that patients who have strong tendencies to resist external control through oppositional behaviors do best when treated

with nondirective and paradoxical therapies. Conversely, patients who exhibit more cooperative and less resistant reactions to external demands are likely to benefit from therapies led and directed by the therapist.

6. Therapies that combine a number of procedures from several different models in order to accommodate both the patient's coping style and level of interpersonal resistance may be maximally effective. This cross-theory eclecticism may entail a number of other dimensions, as well, with the expectation that it may have increasing effects on symptom reduction. Combining patient-therapist assignment and patient-therapy treatment selection may create an opportunity to both decrease dropout rates and to increase treatment efficacy.

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Factors Associated With Treatment Continuation: Implications for the Treatment of Drug Dependence

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INTRODUCTION

It is well known and problematic that a significant number of people who suffer from a diagnosable disorder do not seek out and receive the mental health services they need (e.g., Vessey and Howard 1993). Even among those who do seek treatment, many do not accept the recommended regimen. For example, the majority of people who initiate psychotherapy terminate relatively early in the process (Craig and Huffine 1976; Garfield 1994; Sue et al. 1976). In Garfield's (1994) review, the median duration of treatment was between five and eight sessions in studies where patients had received at least one session of psychotherapy.

For some time, premature termination has been considered a major problem (Straker 1968), one that occurs with all forms of treatment. Considerable time and resources are spent in the attempt to engage patients in the psychotherapeutic venture (Garfield 1986; Howard et al. 1986) and potential benefits are not realized (Schafer 1973).

Researchers have responded to this ubiquitous problem by examining such patient factors as demographic characteristics, pretherapy training, psychological test scores, and expectancies concerning therapy in efforts to find correlates of continuation in treatment (see Garfield 1994 for a review). Time parameters for therapy have also been examined. For example, in one study, time-limited therapy was found to be associated with fewer dropouts than either time-unlimited or brief treatment models (Sledge et al. 1990). From numerous efforts to date, only small percen-tages of variance have been accounted for in premature termination or continuation in psychotherapy.

In summarizing the literature on patient characteristics, Garfield (1994) has concluded that variables pertaining to social class (low social class was related to premature termination) were most consistently, but not invariably, implicated by empirical evidence. Education showed some relationship to therapy duration, while age, sex, and diagnosis seem to have no relationship

to treatment compliance. Pretherapy training for patients was inconsistently associated with premature termination. Psychological test variables were also not successfully predictive of continuation; however, three studies have documented that compliance with a research protocol (e.g., completion of pretherapy questionnaires) predicted continuation. Finally, the degree of congruence between patient's and therapist's expectations about therapy duration has shown some evidence of playing a role in patient retention, but this evidence is not substantial.

Investigators and clinicians alike have been interested in ascertaining which patient, therapist, or dyadic interaction variables influence contin-uation in psychotherapy. Many studies have attempted to address this issue and the findings (summarized above) have been documented in several reviews (e.g., Baekeland and Lundwall 1975; Garfield 1994; Reder and Tyson 1980; Wierzbicki and Pekarik 1993). Few consistently replicable results have emerged that point to any specific characteristic that would facilitate differentiation between those who stay in psycho-therapy and dropouts to any significant degree. Wierzbicki and Pekarik (1993, p. 194) offered the following summary of this situation: "...[T]he types of simple variables typically investigated in dropout research are not strongly associated with dropout; hence, future research should use more complex psychological variables." This clearly highlights the importance of the systematic identification and subsequent examination of complex psychosocial input and process variables via methods that extend beyond the analysis of single, simple patient characteristics as they relate to therapy engagement and retention.

A MODEL OF RELEVANT PSYCHOSOCIAL VARIABLES

Based on extensive literature reviews (Howard and Orlinsky 1972; Orlinsky and Howard 1978, 1986*a*), a conceptual framework was developed that describes patient characteristics that might influence use of individual psychotherapy. This model posits four categories of psychosocial variables:

- psychopathology (presenting symptoms or syndromes) refers to manifest psychiatric symptomatology; it is concerned with the types and intensity of distressing experiences and behaviors as well as functional impairment;

- pathology proneness (psychological vulnerabilities or predis-positions) entails the concept of psychological vulnerability or predisposition to the development of psychopathology; it may stem from biological, personal, or situational factors. People who are

pathology prone have relatively pervasive handicaps or deficits that make it difficult for them to cope with the challenges and stresses of a wide variety of life situations;

- environmental stress involves the presence and frequency of negative or problematic life experiences; and

- feasibility and attitudes toward treatment (patient motivation, psychological resources, and related characteristics) refers to practical barriers (e.g., schedule, fees), psychological resources (e.g., ability to delay gratification), and attitudes (e.g., confidence that treatment will help) that characterize a patient's approach to the therapy enterprise.

Psychopathology tends to arise in people as a function of the influence of environmental stress on pathology proneness. Pathology proneness is a proximal contributor to psychopathology, while environmental stress is a more distal contributor. It is important, therefore, to consider these factors when examining patient characteristics predictive of psychotherapy continuation. Feasibility and attitudes toward treatment are also important as they are relatively proximal contributors to treatment utilization.

THERAPEUTIC PROCESS: THE GENERIC MODEL OF PSYCHOTHERAPY

Theory and research involving psychotherapy process has suffered generally from the lack of more universal conceptualizations of therapy to guide the formulation of ideas and studies. This is certainly one factor contributing to the meager amount of empirical research that examines process in relation to continuation in psychotherapy. The generic model of psychotherapy (Orlinsky et al. 1994; Orlinsky and Howard 1986*a*, 1987) provides a transtheoretical conceptual framework that describes the relationships among contexts, processes, and outcomes common to all treatments.

Five therapeutic processes are identified in the generic model— therapeutic contract (e.g., keeping appointments, paying fees, cooperative participation), therapeutic operations (intervention techniques and procedures), therapeutic bond (empathy, affirmation, collaborative alliance), therapeutic openness (psychological availability and lack of defensive-ness), and therapeutic realizations (e.g., in-session impacts such as unburdening, encouragement, and insight). Subsequent empirical work has highlighted the importance of these processes as well as having documented the model's validity (Ambühl 1991, 1993; Ambühl and Grawe 1988; Grawe 1989; Kolden 1991, 1993; Kolden and Howard 1992; Saunders et al. 1989).
Psychotherapy process variables constitute another important category of

variables to examine in the pursuit of characteristics predictive of psychotherapy continuation.

ENGAGEMENT, RETENTION, AND DOSAGE

Most research related to continuation in psychosocial interventions has focused on dropout or attrition. The current analyses focused on the process of engagement and retention in psychotherapy. Patient engage-ment in treatment was defined as a sum of the patient's responses to six multiple choice questions, some filled out by patients before treatment, others after the first session. Thus, this concept captures the personal perceptions of patients who attended at least one session of psycho-therapy. (See appendix A for a list of these questions.) Retention in psychotherapy was operationally defined as remaining in treatment for at least three sessions.

A third focus of this study involved the examination of process variables in relation to continuation in therapy. Continuation was conceptualized according to the likelihood of having been exposed to a dose of therapy (dosage is a construct involving a unit of analysis operationalized according to the probability of bringing about an impact from a particular intervention (e.g., pesticide, drug, session of psychotherapy)). Howard and associates (1986) estimated that six to eight sessions were required for a psychotherapy patient to have a 50 percent chance of improving. Thus, dosage was conceptualized dichotomously as remaining in treatment for one to five sessions versus six or more sessions; a patient continuing in therapy for six or more sessions has a reasonable probability of having been exposed to a dose sufficient to bring about clinical improvement.

METHODS AND PROCEDURES

A large, systematic, naturalistic study of psychotherapy utilization provided the database for this study.

Patients

Psychotherapy outpatients (N = 450) who sought individual psycho-therapy at Northwestern University's Institute of Psychiatry participated in this study. Participation was voluntary, informed consent was obtained, and confidentiality of responses was ensured.

The number of sessions attended by individual patients ranged from zero to more than 300; the median number of sessions was about 15. The typical

patient was single, white, female, between the ages of 22 and 35, and had completed at least some college. In general, patients were self-referred for a variety of mild to moderate disorders. In terms of demographic characteristics, this patient sample is reasonably representative of the psychotherapy outpatient population (cf., Taube et al. 1984; Vessey and Howard 1993).

Therapists

Seventy-seven therapists participated in collecting data on which the current analyses were based. The majority were in some stage of training—psychology practicum students, psychology interns, psychiatry residents—although most had had considerable additional experience. Forty-seven percent of the therapists were psychiatrists, 28 percent were social workers, and 25 percent were psychologists. Eighty-six percent were between 20 and 39 years of age, 51 percent were female, and 45 percent were married.

The dominant theoretical orientation of these therapists was psychodynamic; supervisors typically espoused this approach, case presentations followed this model, and case conceptualizations were usually made from this perspective. Thus, the type of psychotherapy represented in this study can be generally described as dynamic. No treatment manuals were followed explicitly.

Instruments

Independent variables included sociodemographic characteristics and a battery of patient-reported and therapist-reported scales measuring various aspects of psychopathology, pathology proneness, environmental stress, and feasibility and attitudes toward treatment. Patient and therapist ratings of psychotherapy process variables were also examined.

Psychopathology. The extent of psychopathology was measured using patient self-report measures including the Symptom Checklist (40-item version adapted from Derogatis 1977; internal consistency = 0.94), Current Life Functioning (23-item measure; Howard et al. 1992; internal consistency = 0.93), Subjective Well-Being (4-item measure; Howard et al. 1992; internal consistency = 0.79), and a brief version of the Inventory of Interpersonal Problems (IIP; 27-item version adapted from Horowitz et al. 1988; internal consistency = 0.88). The IIP has six subscales: hard to be assertive (internal consistency = 0.80), hard to be sociable (internal consistency = 0.70), hard to be submissive (internal consistency = 0.47), hard to be intimate (internal consistency = 0.63), too responsible (inter- nal consistency = 0.62), and too controlling (internal consistency = 0.68).

Therapist-reported measures included the Global Assessment Scale (Endicott et al. 1976; test-retest = 0.68 in current sample; test-retest ranges from 0.66 to 0.92 according to Dworkin et al. 1990), Level of Functioning (Carter and Newman 1980; test-retest = 0.60), and the Life Functioning Scales (Howard et. al. 1992; internal consistency = 0.86). The Life Functioning Scales consist of six subscales: family functioning (test-retest = 0.60), health and grooming (test-retest = 0.70), intimate relationships (test-retest = 0.64), self-management (test-retest = 0.58), social relationships (test-retest = 0.68), and work, school, household functioning (test-retest = 0.70).

Pathology Proneness. Patient-reported measures of pathology prone- ness included a brief version the Dysfunctional Attitudes Scale (10-item version adapted from Weissman 1979; internal consistency = 0.81), Interpersonal Attitudes Scale (10-item measure; Bankoff and Howard 1988; internal consistency = 0.70), Self-Esteem (Rosenberg 1979; inter- nal consistency = 0.89), and the Coping Strategies Inventory (CPI; 40-item measure of coping resources developed by Tobin et al. 1989; internal consistency = 0.91). The CPI has four subscales: emotion-focused disengagement (internal consistency = 0.86), emotion-focused engage-ment (internal consistency = 0.90), problem-focused disengagement (internal consistency = 0.79), and problem-focused engagement (internal consistency = 0.85).

Therapist-reported measures included scales from the Personality Assess-ment Form (PAF; Pilkonis and Frank 1988). Perry and associates (1991) developed and psychometrically evaluated three subscales based on a factor analysis of the PAF: aggressive (internal consistency = 0.77), anxious (internal consistency = 0.73), and eccentric (internal consistency = 0.62).

Environmental Stress. Patient-reported measures related to life stress included an adaptation of the Life Stress Inventory (61-item measure developed by Holmes and Rahe 1967) and Bankoff's Social Support Scales (Bankoff 1985). The Social Support Scales contain six subscales: nurturance support (internal consistency = 0.85), patient role support (internal consistency = 0.82), strength of network ties (internal consistency = 0.82), pressure (from others) to seek treatment (internal consistency = 0.57), density of friendship network (internal consistency = 0.27), and density of overall network (internal consistency = 0.79).

The "Diagnostic and Statistical Manual of Mental Disorders," 3d ed. revised Axis IV rating, Severity of Psychosocial Stressors (American Psychiatric Association 1987), provided a therapist rating of life stress.

Feasibility and Attitudes Toward Treatment. Patient-reported measures of feasibility and attitudes toward treatment included several selected items and ratings from Saunder's Process of Seeking Therapy Questionnaire (Saunders 1988).

Therapist-reported measures included five scales from the Therapeutic Assets Questionnaire (Daskovsky 1988): Delay of gratification (internal consistency = 0.76), willingness to enter treatment (internal consistency = 0.77), degree of distress (internal consistency = 0.61), psychological mindedness (internal consistency = 0.86), and level of object relations (internal consistency = 0.81).

Psychotherapy Process. The patient version of the Therapy Session Report (TSR) (see Orlinsky and Howard 1986*b* for a review of the development and utilization of this instrument) provided the measures for three of the process variables used in this study—therapeutic bond, therapeutic openness, and therapeutic realizations. The TSR is a 145-item structured-response instrument that assesses experiences patients have during a session of individual psychotherapy. It is typically administered following a session and usually requires 10 to 15 minutes to complete. This study utilized TSRs obtained from patients after the first session of psychotherapy. The generic model of psychotherapy provided the guiding theoretical framework for the development of the process scales. Internal consis-tency for these scales has been established: 0.62 for therapeutic bond (Saunders et al. 1989), 0.69 for therapeutic openness, and 0.86 for therapeutic realizations (Kolden 1991). In addition, acceptable test-retest reliability has also been demonstrated: 0.81 for therapeutic bond, 0.58 for therapeutic openness, and 0.71 for therapeutic realizations. All scales have been shown to have predictive validity in relationship to termination outcome (Kolden 1988; 1991; Kolden and Howard 1992; Saunders et al. 1989), early change in mental health status (Kolden 1993), and treatment duration (Kolden and Howard 1987).

The Therapeutic Procedures Inventory-Revised (TPI-R) (Orlinsky et al. 1987) is a therapist-rated questionnaire that assesses interventions used in therapy sessions. McNeilly and Howard (1991) examined the internal structure and psychometric properties of the section of the TPI-R address-ing therapeutic operations. Factor analysis suggested three scales: directive/behavioral, psychodynamic/past-focused, and experiential. McNeilly and Howard (1991) reported the internal consistency for these scales: 0.82 for prescriptive, 0.74 for exploratory/past-focused, and 0.63 for exploratory/experiential. They also provided evidence for the external and discriminative validity of these scales.

The TPI-R also contains items addressing aspects of the therapeutic contract (e.g., keeping appointments, paying fees, cooperative partici-pation). The measure of therapeutic contract used in this study assesses this construct over a 1-month period. Internal consistency for this variable has been demonstrated to be only 0.26, a matter to be carefully considered when interpreting findings involving this variable.

Dependent variables included three ways of conceptualizing psycho-therapy continuation—engagement, retention, and dosage. Retention and dosage were derived from therapy-episode duration, as described previously.

Engagement. The engagement scale was conceptually derived and composed of six items. All responses were Likert scaled, with choices ranging from 1 to 5 for all items (except for one item, which had a 4-point range). Based on a sample of 287 patients, Cronbach's alpha for the overall scale was 0.70. Principal components factor analysis showed that 41 percent of item variance was accounted for by a single factor, with loadings ranging from 0.46 to 0.71.

ANALYSES AND RESULTS

Tables 1 to 6 list the percent of variance in engagement and retention explained by individual as well as by each set of patient-rated and therapist-rated psychosocial variables. The indices of retention and engagement appeared to be orthogonal ($r = 0.07$). Since about 50 con-trasts were examined for engagement and retention, respectively, the criterion for statistical significance was set at the 0.001 level. Only two variables met this significance criterion with respect to engagement, while four met this criterion with respect to retention. Moreover, the observed effect sizes for nonsignificant results tended to be small (0 percent to 4 percent of variance explained).

With respect to engagement, patients reporting positive feelings about therapy tended to score higher on the engagement scale, $t(186) = 4.93$, $p < 0.001$. In addition, patients reporting relatively high confidence in a successful outcome were more likely to experience higher levels of engagement, $t(187) = 3.53$, $p < 0.001$.

Multiple regressions were computed for each of the sets of variables shown in tables 1 to 6. For each set, the regression equation was used to calculate a predicted engagement score for each patient. Then the six estimated scores were entered into a multiple regression. The full set accounted for 33.4 percent of the variance in engagement ($p < 0.0001$).

TABLE 1. *Percent of variance in retention and engagement accounted for by demographic variables*.

	Retention (%)	Engagement (%)
Education	0.9	0.0
Employment	1.2	1.4
Marital status	0.6	0.3
Living alone	0.1	0.4
Age	0.0	0.1
Gender	0.1	0.0
R^2	2.7%	2.0%

TABLE 2. *Percent of variance in retention and engagement accounted for by psychopathology.*

	Retention	Engagement
Patient-reported measures		
Symptom checklist	0.1	0.2
Current life functioning	0.2	0.0
Subjective well-being	0.1	0.6
Interpersonal symptoms	0.4	1.5
Hard to be assertive	0.1	2.0
Hard to be sociable	1.2	0.0
Hard to be submissive	0.1	0.0
Hard to be intimate	0.1	3.9
Too responsible	0.5	2.5
Too controlling	0.1	0.0
Therapist-reported measures		
Level of functioning	0.0	0.2
Global assessment scale	0.4	0.1
Life functioning scale	1.0	0.0
Family functioning	0.3	0.4
Health and grooming	0.1	0.0
Intimate relationships	0.0	1.4
Self-management	0.6	3.1
Social relationships	0.8	0.6
Work, school, household	2.6	0.1
R^2	1.2%	4.0%

With respect to treatment retention, patients who continued for three or more sessions of therapy tended to receive higher therapist ratings on delay of gratification ($t(354) = 3.90$, $p < 0.001$) and willingness to enter treatment ($t(360) = 3.31$, $p < 0.001$). They received lower ratings on

TABLE 3. *Percent of variance in retention and engagement accounted for by pathology proneness.*

	Retention	Engagement
Patient-reported measures		
Dysfunctional attitudes scale	0.3	2.0
Interpersonal attitudes scale	0.8	0.2
Self-esteem	0.0	1.4
Coping strategies inventory		
Emotion-focused disengagement	0.0	0.5
Emotion-focused engagement	0.1	3.2
Problem-focused disengagement	0.8	0.1
Problem-focused engagement	3.1	0.4
Therapist-reported measures		
Personality assessment form	0.0	0.2
Aggressive	3.3	4.0
Anxious	0.2	0.0
Eccentric	0.0	0.8
R^2	6.6%	11.9%

TABLE 4. *Percent of variance in retention and engagement accounted for by environmental stress.*

	Retention	Engagement
Patient-reported measures		
Life stress inventory	0.5	1.8
Social support scale		
Nurturance support	0.0	1.3
Patient role support	0.5	1.0
Strength of network ties	0.1	2.7
Pressure to seek treatment	0.8	2.1
Density of friendship network	0.0	0.0
Density of overall network	0.8	0.5
Therapist-reported measures		
Severity of psychosocial stressors	1.0	0.0
R^2	5.1%	10.6%

aggressiveness ($t(335) = -3.38$, $p < 0.001$) and work, school, household functioning ($t(334) = -3.34$, $p < 0.001$).

Again, multiple regressions were computed for each of the sets of variables shown in tables 1 to 6. For each set, the multiple-regression equation was used to calculate a predicted retention score for each patient. Then the six estimated scores were entered into a multiple regression. The full set accounted for 18.7 percent of the variance in retention ($p < 0.0001$).

TABLE 5. *Percent of variance in retention and engagement accounted for by feasibility and attitudes toward treatment.*

	Retention	Engagement
Patient-report measues		
Effort required to begin therapy	1.1	0.1
Prior psychotherapy	0.0	0.1
Confidence in successful outcome	0.0	11.6
Expected treatment duration	0.8	0.9
Feelings about eginning therapy		
Positive		0.1 6.3
Negative	0.4	4.0
Therapist-reported measures		
Therpy assets questionnaire		
Delay of gratification	4.1	0.6
Willingness to enter treatment	3.0	0.0
Degree of distress	0.4	0.1
Psychological mindedness	0.2	0.1
Level of objet relations	0.8	0.1
R^2	9.6%	21.4%

TABLE 6. *Percent of variance in retention and engagement accounted for by the process of seeking therapy.*

	Retention	Engagement
Duration of presenting problem?	0.0	0.0
Have you talked to anyone about it?	0.5	1.0
# of other attempts to solve problem?	0.2	0.2
(1) Realizing the problem existed		
Time until (1)?	0.1	0.3
Others help you identify (1)?	0.0	0.0
Difficulty acknowledging (1)?	0.4	0.0
(2) Thinking that therapy might help		
Time between (1) and (2)?	0.1	0.3
Others help you decide (2)?	0.0	0.0
Difficulty acknowledging (2)?	0.0	2.2
(3) Deciding to seek psychotherapy		
Time between (2) and (3)?	0.1	0.1
Others help you decide (3)?	0.8	0.0
Difficulty with (3)?	0.7	3.4
(4) Calling for an appointment		
Time between (3) and (4)?	0.0	0.1
Self- versus other-referred?	0.4	0.1
Difficulty with (4)?	0.7	3.0
R^2	3.5%	9.9%

Table 7 summarizes the findings of correlational analyses examining the relationship of psychotherapy process to dosage. These results

TABLE 7. *Percent of variance in dosage criterion accounted for by first-session process variables.*

	Dosage criterion
Patient-reported measures	
Therapeutic contract	0.8
Therapeutic bond	0.8
Therapeutic openness	0.0
Therapeutic realizations	0.8
Therapist-reported measures	
Therapeutic interventions	
Prescriptive	1.7
Past-focused	4.8
Experiential	4.8
R^2	13.1%

demonstrated that the likelihood of remaining in therapy six sessions or more was not associated with session one psychotherapy processes to any consequential degree. Frequency of therapist intervention activity in session one appears to be the only significant association with dosage. Frequency of session one exploratory/past-focused and exploratory/expe-riential operations were positively associated with dosage. The full set of process variables accounted for 13.1 percent of the variance in dosage ($p = 0.07$).

DISCUSSION

As in previous work, identifying predictors of treatment compliance has once again proved elusive. A wide range of clinically relevant variables was examined in this study, with a mere few emerging as statistically significant as well as clinically interesting.

It was comforting, but not too surprising, to discover that optimistic feelings about beginning therapy and confidence that therapy would be helpful were positively associated with the process of engagement and participation in the treatment enterprise. Similarly, the capacity to delay gratification, an absence of aggressive personality characteristics, better occupational/vocational functioning, and willingness to be in therapy emerged as correlates of therapy participation beyond two sessions (i.e., retention).

It was hypothesized that the nature of the psychotherapy process would be positively associated with continuation in treatment: reaching the dosage exposure criterion of six sessions. Frequency of session one therapist intervention activity was the only substantial finding to emerge.

The use of exploratory/past-focused and exploratory/experiential techniques was each positively associated with reaching the dosage criterion for continuation. Patients experiencing higher frequencies of these interventions may stay in therapy because of the early active establishment of an exploratory intervention focus. Closer examination of reasons for early therapy discontinuation might further clarify this finding.

These conclusions must be considered in light of limitations inherent in the current work. This was a naturalistic study of dynamic psychotherapy delivered in a training clinic to a relatively diverse group of psychiatric outpatients. The therapy was not manualized. While naturalistic designs maximize generalizability and external validity, limits to generalizability were introduced in this work by the use of a nonmanualized, dynamic therapy in a training clinic. Furthermore, the extent to which these findings generalize to outpatient psychosocial drug treatment is a crucial question in the context of the other chapters in this volume.

Predicting whether a patient will continue in an offered treatment regimen, be it for depression or drug addiction, may be something like predicting the final stopping place of a rock that begins rolling down a mountainside. A huge number (finite in the sense that the number of grains of sand on a beach are finite) of factors influence continuation in treatment. The number of factors is not infinite in principle, but is certainly too large for practical analysis. One solution that appears workable is to take an individualized (i.e., idiographic) case-management approach in which the focus is on doing what is necessary to increase the probability of keeping a particular individual in the treatment enterprise. This may require more active interventive efforts and expansion of traditional psychotherapist role behaviors. These efforts might include pretherapy psychoeducational sessions in which steps toward recovery are outlined and patients are taught about their role in treatment, more extensive use of phone contacts between sessions or when sessions are missed, and explicit discussions of the importance of mutual agreement with regard to therapy goals and interventions as well as

collaboration in the therapy relationship. Home visits, assuming an advocacy role with employers, and family psychoeducation and involvement might be other adjunctive modifications promoting a comprehensive approach to treat-ment. All of these suggestions speak to offering anything to ensure that a specific individual has the opportunity to benefit from the treatment for the condition from which he or she is suffering.

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APPENDIX A

Patient Self-Report Items Comprising the Engagement Scale

1. How important is it for you to be in psychotherapy at the present time?
2. How much have you thought about therapy since your last session?
3. During your last session, how much did you talk about what you were feeling?
4. To what extent are you looking forward to your next session?
5. At the present time, taking everything into consideration, how close do you feel to your therapist?
6. To what extent is your therapist someone you can talk to about your private feelings and concerns?

Stages of Change: Interactions With Treatment Compliance and Involvement

Carlo C. DiClemente and Carl W. Scott

INTRODUCTION

Some powerful and effective treatment strategies currently are available to assist substance abusers in modifying and stopping their problematic behavior (Anglin and Hser 1992; Carroll and Rounsaville 1990; Miller 1993). As treatment technologies become more sophisticated and effective, the challenge becomes one of exposing clients to and engaging them in their treatments. The problem is illustrated in what can be called the smoking-cessation funnel effect. Often it is easier to get a picture of a total population of individuals who are nicotine dependent than of those who are using illegal drugs. In this illustration of a worksite (figure 1) where 30 percent of the employees are smokers, it quickly becomes apparent that many smokers express some interest in quitting in a general survey. However, when an opportunity for treatment arises, few will volunteer for treatment and sign up. The best estimates with extensive recruiting are that only 4 to 10 percent will sign up, and that only 80 to 90 percent of these show up for treatment (Beiner and Abrams 1991). Attrition, at its very least, would claim another 10 to 20 percent of participating smokers. Finally, once the treatment is completed and subjects are followed up at 6 and 12 months, approximately 60 to 70 percent of the treatment successes will relapse. Even with very liberal and hopeful estimates at each point in the process, the picture of recruitment, retention, participation, and successful change for any one treatment offering will be modest. Noncompliance and lack of long-term success are two of the critical issues in substance abuse treatment that need to be addressed.

A number of strategies have been proposed to increase engagement and participation in treatment, including incentives and rewards, providing information about treatment, easing treatment regimens, enlisting social support of spouses and/or family members, self-selection of treatment goals, court-mandated treatment, offering treatment in such restricted settings as prisons, and treatment matching based on client, intervention,

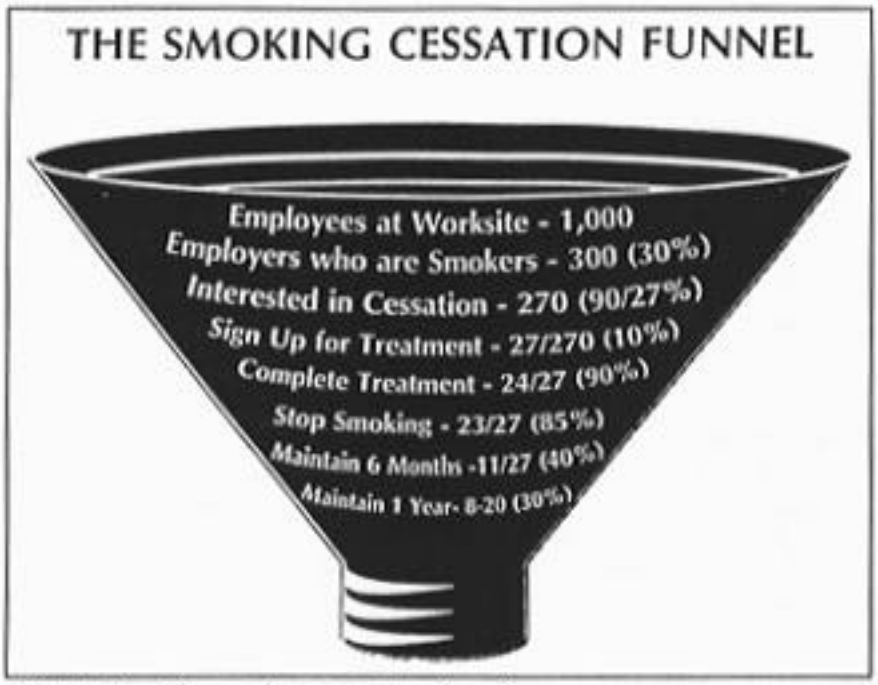

FIGURE 1. *The smoking cessation funnel.*

or therapist characteristics (Becker and Maiman 1980; Beutler 1991; Higgins and Budney 1993; Miller 1993; Project MATCH 1993; Smith and Secrest 1991; Snow 1991; Sobell et al. 1992). It is certainly neces-sary to know whether these strategies work. However, the determination of how well they work is complex and depends on an understanding of how and with whom each strategy might be successful. In this chapter, the authors offer some ideas on the critical dimensions not only for under- standing retention, engagement, and change, but also for evaluating the effectiveness of strategies purporting to modify or improve rates of recruitment, retention, and participation.

Although there has been a great deal of discussion of the critical dimen- sions related to retention and compliance, most of it has focused on variables related to patient characteristics, disease or disorder variables, or treatment or therapeutic relationship variables (Baekeland and Lundwall 1975; Stark 1992). It seems timely to offer some reflections about a dimension that often gets too little attention: the process of behavior change that occurs both within and without treatment. The goal of this chapter is to explain how this process interacts with treatment(s) as well as how it can offer new

insights and a valuable additional perspective to the discussion of retention and participation in treatments. A conceptual perspective will be followed by some research evidence and then by an outline of key implications or recommendations based on this process-of-change perspective.

IMPORTANT DISTINCTIONS FOR UNDERSTANDING COMPLIANCE AND CHANGE

Treatment and the Process of Change

Following a more medical view of substance abuse problems, treatment providers have often assumed that treatment is absolutely necessary for change. It is thought that without treatment, individuals who are depen-dent on alcohol or drugs are condemned to live their lives enslaved by the particular substance of abuse. Change without treatment, in this view, can possibly happen in individuals who abuse substances but not among those who are dependent on a particular substance. In fact, stopping sub-stance use without treatment is most often seen as confirming evidence that the individual was not dependent on a substance. This is a rather circular form of reasoning. The argument is: If a substance abuser can stop using the substance on his or her own, then there must not have been a significant problem because treatment is necessary for successful sobriety or a drug-free existence for dependent substance abusers. This reasoning has become so pervasive that it now permeates the definition of dependence in the "Diagnostic and Statistical Manual of Mental Disorders," 3d ed. revised (DSM-III-R) (American Psychiatric Association (APA) 1987). One criterion for dependence is a "persistent desire or one or more unsuccessful efforts to cut down or control substance use" (APA 1987, p. 168). Problem definition, treatment need, and the process of change have become confused and confounded. This is not to say that treatment is not important for change, but to indicate that treatment and change are not coextensive.

It is important and necessary to disentangle these constructs in order to develop a solid understanding of treatment retention and participation. The following statements represent the proposed theses that are the foundation of this chapter and that can alleviate the confusion.

1. Substance abuse and dependence represent problems that are very difficult to modify. However, there is ample evidence that some individuals can change these behaviors on their own without treatment (DiClemente and Prochaska 1985; Klingemann 1991; Sobell et al. 1993; Tuchfeld 1981). Changes that occur in control groups in clinical trials also support the contention that change occurs with minimal amounts of what are considered the active ingredients of treatment (Lambert et al. 1986).

2. Treatment represents a single and rather specific means of changing substance abuse problems. Most individuals are not successful with a single treatment and often undergo several different—at times, radically different—treatments before they are able to modify their behavior (Brownell et al. 1986; Marlatt and Gordon 1985; Schachter 1982; Skog and Duchert 1993; Wilson 1992). Outcomes from treat-ments are complex and not well represented by a simple success-versus-failure dimension (Marlatt et al. 1988; Mermelstein et al. 1991).

3. Individuals who present for treatment can best be considered self-change failures who differ in their previous change histories and who are at different points in the cycle of change described by DiClemente and Prochaska (1982, 1985; Prochaska and DiClemente 1992) as the stages of change. Current behavior and attitudes toward changing a particular behavior as well as prior attempts to change it that are represented in these stages are critical dimensions for understanding the current status of any substance-abusing client applying for treatment (DiClemente 1993*a,* 1993*b*).

4. The therapist is a broker attempting to bring treatment and client dimensions together in the service of the process of change. The metaphor of a coach or midwife may best characterize the therapist's role in the recruitment, retention, and participation of substance abusers in treatment (DiClemente 1991). Figure 2 illustrates the complex, interactive nature of the relationships among therapist, client, treatment, and change process.

5. Successful long-term change of substance abuse problems represents the ultimate goal of treatment and interventions of all kinds. However, this goal is the culmination of a process that is best understood as a cyclical and spiral movement through the stages of change (Prochaska et al. 1992).

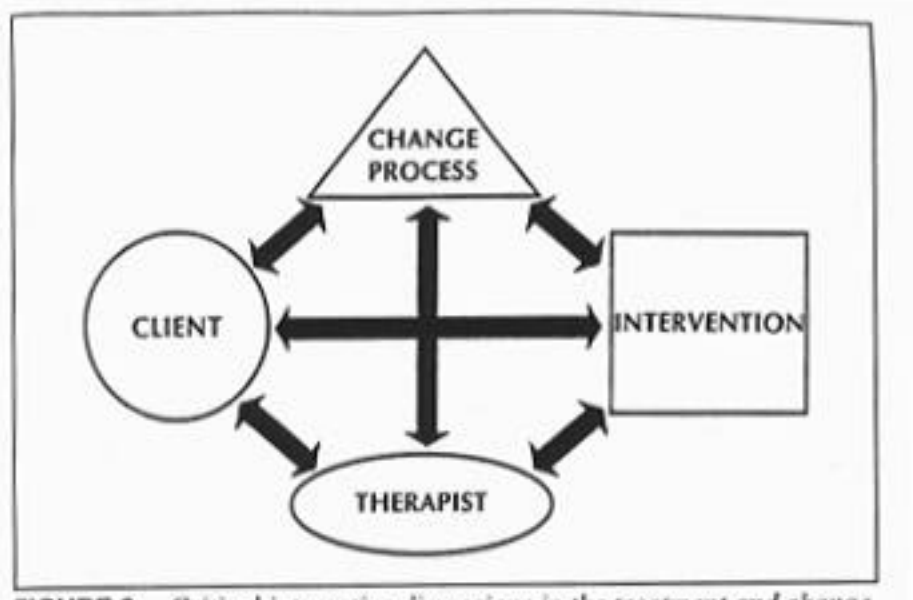

FIGURE 2. *Critical interactive dimensions in the treatment and change process.*

Treatment Compliance or Adherence

Treatment compliance is best defined as the client following the instruc- tions and requirements of the treatment. In this sense it is a rather restricted series of events. The client is asked to attend a certain number of ses-sions, come in regularly to pick up methadone, get regular urine screens, take disulfiram on a regular basis, stop using drugs and/or alcohol, go to 90 Alcoholics Anonymous (AA), Narcotics Anonymous (NA), or Cocaine Anonymous (CA) meetings in 90 days, and so forth. All of these are measurable events and observable means of determining whether the client was exposed to a dose of treatment or the active treatment ingredients thought to be responsible for the change.

Dose of treatment is closely associated with compliance. Did the individual take the medication as prescribed, attend the sessions required? There is clear evidence that dose is related to positive outcomes from treatment. Stark (1992) reviewed compliance issues and concluded that treatment completers in alcohol and drug treatment have more positive outcomes and changes than dropouts. Similarly, Anglin and Hser (1992) have shown that increased retention yields better outcomes both in terms of drug use and decreased criminal behavior for different types of treatments.

Simpson (1984) found that length of time in treatment was an important predictor of outcome for the more than 6,000 clients in the Drug Abuse Reporting Program (DARP) followup research. Hubbard and colleagues (1989) found that time in treatment was one of the most important predictors of successful drug abuse treatment in their Treatment Outcome Prospective Study (TOPS) of more than 6,500 clients. Moos and associates (1990) found that amount of treatment predicted outcome for alcoholics. Emrick and fellow researchers (1993) found that frequency of AA attendance and other measures of participation in AA activities were correlated positively with drinking behavior outcomes. Compliance and dose of treatment do seem related to success in modi-fication of substance abuse behaviors. However, relapse rates posttreat-ment for treatment completers are still very high and treatment comple-tion does not ensure success (Brownell et al. 1986; Hubbard et al. 1989; Simpson 1984).

It is easiest to equate compliance with change only when the active ingredients are either pharmacological or biochemical and do not involve intentional behavior change on the part of the client. If a particular medi-cation or drug substitute like methadone is taken as directed, then the desired effects are expected to follow directly and consistently. However, even in these cases, the correlation between the execution of the prescribed behavior and subsequent change is not always large. Individuals who take disulfiram have reported learning to drink over the disulfiram; Moos and colleagues (1990) found that the number of days disulfiram was taken correlated only -0.23 with alcohol consumption and 0.17 with abstinence. Drug abusers who submit to regular drug screens have become very sophisticated in figuring the odds of detection for certain types of consumption. Individuals have gone to hundreds of AA meetings to fulfill court requirements without ever stopping drinking. Emrick and associates (1993), in their synthesis of 13 research studies, found that frequency of AA attendance correlated on average 0.19 with drinking behavior. In fact, a cab driver whom one of the authors met at a conference on AA reported that he had been court ordered to attend AA for 1 year. Not only did he comply with this order, but he attended for another entire year without ever stopping drinking. The bottom line is that compliance is often easy to measure but is not always a marker of behavior change with regard to the target problem behavior.

Treatment Involvement

Treatment involvement is more difficult to assess, but it is often a better prognostic indicator of engagement in the process of change (Orlinsky and Howard 1986). It is axiomatic that individuals who report using treatment strategies, reading treatment materials, doing homework assign-ments, and being active and engaged in group or individual sessions have better treatment outcomes than those who do not (Simpson et al., in press). Treatment involvement is more than treatment compliance. The indi-vidual who is involved is engaged in the treatment process, often has bought into the treatment rationale, and has formulated goals consistent with the treatment philosophy and the therapist's perspective (Sanchez-Craig 1990; Sobell and Sobell 1986-1987). One would expect that indi-viduals who are involved may be developing better working relationships with the therapist (Horvath and Luborsky 1993). Treatment satisfaction has also been related to participation and retention in treatment (DeLeon 1984; Hubbard et al. 1989). Thus involvement is a valuable intermediate measure of treatment outcome because it is associated with a host of positive indicators predictive of treatment success. It is important, how-ever, to understand what links involvement to successful outcome.

Treatment involvement will not be a complete predictor of outcome success unless nonspecific factors of treatment are totally responsible for the outcome of treatment, as has been proposed by several researchers (Frank 1973; Luborsky et al. 1975; Sloane et al. 1975) to explain how different treatments often yield the same or similar outcomes when com-pared in clinical trials. If all that is needed for treatment success is a client engaged and participating in a nonspecific process called therapy, then participation should be highly correlated with success. This is not the case. Even with an intensive examination of the treatment alliance seen as a critical common variable, the relationship between measures of the therapeutic alliance and outcome is in the 0.30 to 0.35 range (Horvath and Luborsky 1993).

There are several complicating factors in linking involvement with success. First, many researchers believe that it is the active ingredients of the treatments, not simply the nonspecific factors, that influence success in treatment. As has been seen in other chapters, most researchers are rather committed to a particular treatment perspective and are not satis-fied with a common factors solution. Evidence also exists that indi-viduals who receive placebo treatments

do not always fare as well as the active treatments (Lambert et al. 1986). Thus, common factors may not be the complete answer to common outcomes. Second, involvement can be a marker of the client's desire to please but not necessarily to change. All therapists have experienced the very compliant client who seems to be doing everything asked except changing the problem behavior.

Finally, involvement in treatment assumes that the suggested critical activities of the treatment are actually the needed ingredients for the client to successfully change or cease the substance-abusing behavior. This is a rather large assumption. The treatment would have to provide most of what is needed by this client at this particular time to make successful change, which would seem to represent and require a rather sophisticated and individualized treatment matching. One must either believe that treatments operate uniformly, a suggestion refuted by Kiesler (1966) and Paul (1967), or there must be a substantial effort at individualizing treat-ment. However, most treatments are not highly individualized and tend to offer the same general program for all who enter that treatment. If there is any sophisticated matching, it tends to be done by the client in choosing or refusing the treatment offered.

THE PROCESS OF CHANGE: STAGES, PROCESSES, AND LEVELS

Over the past 15 years, a group of investigators has been examining the process of change and outlining a transtheoretical model of behavior change particularly as applied to the modification of addictive behaviors. Although the model began as an attempt to provide an integrative, eclectic framework for the excessive proliferation of psychotherapies (Prochaska and DiClemente 1984), the vast majority of the preliminary research using the model focused on tobacco addiction, alcohol depen-dence, and a host of cancer prevention-related behaviors (DiClemente 1993*a*; Prochaska and DiClemente 1992; Prochaska et al. 1992). Only recently has the model been used with illegal drugs of abuse (Abellanas and McLellan 1993; Shaffer 1992; Washton 1989). However, the authors' group of researchers believes that this model contains some critical dimensions of the process of change needed to understand how individuals successfully change various behaviors (Prochaska and DiClemente 1992). This model will be used to describe important aspects of the process of change.

The Stages of Change

The stages of change represent the temporal, motivational, and developmental aspects of the process of change. In terms of recovery from drug or alcohol dependence, the process would begin with the pre-contemplation stage in which individuals are too unwilling, unable, or unknowing to acknowledge drug or alcohol consumption as a problem or to seriously consider changing their behavior. Once individuals begin to consider their addictive behavior to be problematic and to realize that change may be needed, they enter the contemplation stage. Here they consider the pros and cons of the behavior and may decide that there is no problem; that there is a problem but they cannot or will not take action; or that there is a problem and they need to do something.

The decision to take action and a proximal intention to implement that decision moves an individual into the preparation stage. Here the focus is on increasing commitment and making a plan to modify the drug or drinking behavior. Sometimes that plan is made with the realization that cessation or abstinence is the goal. At other times the individual will simply plan to moderate the behavior. In either case, the implementation of the plan initiates the action stage of the process of change.

As everyone who has been involved with addictive behavior treatment knows, entering action does not guarantee long-term success. In fact, the transtheoretical model describes the action stage as continuing for 3 to 6 months. This amount of time is needed to begin to establish either sobriety and abstinence from drugs and alcohol or successfully moderated behavior if the latter is possible. However, real recovery can only be measured by long-term success that lasts for years rather than months and represents the maintenance stage of change.

The path of recovery requires movement from precontemplation through contemplation and preparation in order for an individual to take effective action and arrive at maintained abstinence from alcohol and drugs or maintained nonproblematic drinking. For most individuals the path is not straight and narrow but circular in nature. Relapse and recycling through the stages constitute the rule rather than the exception (Brownell et al. 1986; Prochaska and DiClemente 1992). Relapse experiences contribute information and feedback that can facilitate or hinder subsequent progres-sion through the stages of change. Individuals may learn that certain goals are unrealistic, certain strategies are ineffective, or certain environ-ments are not

conducive to successful change. Most individuals will require several revolutions through the stages of change to achieve successful recovery from any type of addictive behavior.

The stages can be related to the constructs of readiness or resistance to change that are often used in treatment. The concept of denial is ubiqui-tous in the literature. It is often assumed that once alcohol dependence (physiological) is established, denial of the problem and resistance to change are automatic. However, the stages offer a sequential path that begins with the lack of acknowledgment that the behavior is problematic or that change is needed (precontemplation) but moves through several stages before expecting significant action. Denial thus becomes part of the process of change.

The stages of change model also provides a perspective on what has been called spontaneous recovery in the treatment literature (Tuchfeld 1981). The process of recovery is a cyclical one in which individuals often make several attempts on their own to modify or cease their alcohol consump-tion or other problem behavior before requesting any formal treatment. Thus, clients who present for treatment can best be considered self-change failures. If there are failures, it should not be surprising that there are also successes (i.e., individuals who recover from abuse or dependence with minimal or no formal assistance). Therefore, it is important to understand not only the current stage of change for an individual but also to under-stand how often this individual has been through the cycle, either alone or with earlier treatment, to more accurately address his or her needs.

Processes of Change

The importance of the stages of change from a treatment perspective lies in the fact that strategies and activities to promote change differ signifi-cantly across the stages. Individuals in different stages utilize different, specific processes of change (DiClemente et al. 1991; Prochaska and DiClemente 1985), and process activities vary systematically with stage status. Certain types of activities peak in frequency at different points in the cycle of change (Prochaska et al. 1991).

Most theories of therapy or recovery identify one or two critical processes. For example, acknowledging powerlessness, social support, skills development, behavioral self-control, contingency management, and motivational strategies have all been mentioned as the critical components of successful recovery from alcohol

dependence. The transtheoretical model, because of its eclectic perspective, has identified 10 or more specific processes that can be utilized at one or more stages in a change process (see table 1). These processes represent cognitive, affective, behavioral, and environmental activities that appear to account for the principles of change proposed by the major systems of therapy, and that seem to cluster into two larger second-order factors. One repre-sents a cognitive-experiential component and the other a behavioral-environmental component, and the processes have been identified in studies examining smoking cessation, exercise adoption, weight loss, alcohol abstinence, and general psychotherapeutic problems (Prochaska and DiClemente 1992).

The interaction of the stages and processes is one of the most intriguing aspects of the transtheoretical model (DiClemente et al. 1991; Prochaska and DiClemente 1984). Different processes peak in frequency of use at different points in the cycle of change. Cognitive-experiential processes are generally most used in the early stages of contemplation and prepara-tion, while behavioral processes are most employed in the action and maintenance stages (Prochaska et al. 1991). However, the cycle is not as simple as it may sound at first. Higher use of certain processes at some stages actually predicts relapse (DiClemente and Prochaska 1985).

Processes can be used to control or modify smoking behavior rather than to stop smoking behavior (Rossi et al. 1988). One recently completed study demonstrated that shifts in process activity representing use of the right processes at the right time actually predicted smoking abstinence (Perz et al. 1992). Thus, differential process activity needs to be carefully orchestrated across the stages to produce successful and lasting change.

Levels of Change

Whenever one speaks of recovery from alcohol or drug dependence, the focus is on a single target behavior—alcohol or drug consumption. In a laboratory or an ideal world, the best strategy would be to isolate this one problem and focus on getting the individual to utilize the processes necessary to successfully negotiate the stages of change and reach stable maintained change or recovery. In the real world of drinking and drugs it is quite impossible to hold constant all the problems that can cooccur. Because isolation is impossible, it is important to identify problems in various areas of the individual's functioning in order to develop a realistic change or treatment plan (DiClemente and Gordon 1983). In the

TABLE 1. *Processes of change: Definitions and representative interventions identified in the transtheoretical model.*

Process	Definitions	Interventions
Consciousness raising	Increasing information about the problem	Observations, confrontation interpretations, bibliotherapy
Self-reevaluation	Assessing how one feels and thinks about oneself with respect to problem behaviors	Value clarification, imagery, corrective emotional experiences, challenging beliefs and expectations
Self-liberation	Choosing and committing to act or believing in ability to change	Decisionmaking therapy, New Year's resolutions, logotherapy techniques, commitment-enhancing techniques
Counter conditioning	Substituting alternatives for anxiety related to addictive behaviors	Relaxation, desensitization, assertion, positive self-statements
Stimulus control	Avoiding or countering stimuli that elicit problem behaviors	Restructuring one's environment (e.g., removing alcohol or fattening foods), avoiding high-risk cues, fading techniques
Reinforcement management	Rewarding oneself or being rewarded by others for making changes	Contingency contracts, overt and covert reinforcement, self-reward
Helping relationships	Being open and trusting about problems with people who care	Therapeutic alliance, social support, self-help groups
Emotional arousal and dramatic relief	Experiencing and expressing feelings about one's problems and solutions	Psychodrama, grieving losses, role playing
Environmental reevaluation	Assessing how one's problems affect the personal and physical environment	Empathy training, documentaries
Social liberation	Increasing alternatives for nonproblem behaviors available in society	Advocating for rights of the repressed, empowering, policy interventions

transtheoretical framework, this issue is addressed by the identification of five levels of change (Prochaska and DiClemente 1984).

Levels of change represent areas of functioning in which an individual may be experiencing significant problems or conflicts (Prochaska and DiClemente 1984), and the levels help to identify how many and how serious the associated problems are for this individual. The levels and some examples of associated conflicts or problems appear in table 2. The symptomatic/situational level is the most obvious one. Here, alcohol or drug consumption is usually viewed as a behavioral problem as well as a symptom of the alcohol or drug dependence syndrome. But anxiety, depression, psychotic delusions, and delirium tremens are all symptoms that can appear at this level, as can homelessness and other situational problems. There can be multiple problems at each level as well as multiple problems at multiple levels.

TABLE 2. *Levels of change involved in initiation and cessation of addictive behaviors.*

Level of change	Areas of functioning
I. Symptomatic/situational	Substance use pattern
	Micro- and macroenviromnemtal factors
II. Maladaptive	Expectancies
	Beliefs
	Self-evaluation
III. Interpersonal conflicts	Dyadic interaction
	Hostility
	Assertiveness
IV. Family and systems conflicts	Family of orgin
	Legal
	Social network
	Employment
V. Interpe	Self-esteem

rsonal conflicts	
	Self-concept
	Antisocial personality

Maladaptive cognitions represent problems in beliefs or self-statements that may interfere with recovery. Interpersonal conflicts are another level that may or may not be related to the targeted drug or alcohol problem. For many alcohol- or drug-dependent individuals, relationships with spouse or significant other is quite problematic and can contribute to recovery or to continued drinking or drugging.

Families, employment, and social systems are yet other areas in which conflicts can and often do occur. The family and systems level offers a framework for identifying such problems. Finally, the intrapersonal conflicts level offers a view of deep-seated, characterological areas such as narcissism or self-hatred that may be related to recovery.

The levels of change offer a framework for identifying significant problem areas. However, this is not an exercise in discovering pathology or etiology. In terms of the process of change, problems are to be identified that can interfere with an individual's being able to move through the stages of change and achieve the maintenance stage of recovery. Thus, while it may be an interesting exercise to see how many problems can be generated for one individual, the only relevant ones are those that will interfere with change and successful recovery.

IMPORTANT INTERACTIONS BETWEEN THE STAGES OF CHANGE AND THE COMPLIANCE AND INVOLVEMENT OF CLIENTS IN TREATMENT

This section offers several clear implications of viewing the process of change as distinct and interactive with retention, compliance, and participation. Figure 3 illustrates the possible interactions between treatment participation (compliance and involvement) with readiness and movement through the stages of change. Individuals in the far upper right-hand quadrant represent treatment successes. Those in the lower right-hand corner are successful changers who did not participate in or comply with treatment. High compliers with treatment who do not change the problem behavior fit in in the upper left-hand quadrant of the figure. The figure offers a template with which to view these implica-tions. At the end of each implication, strategies to address these concerns in the service of increasing retention, compliance, and participation are described.

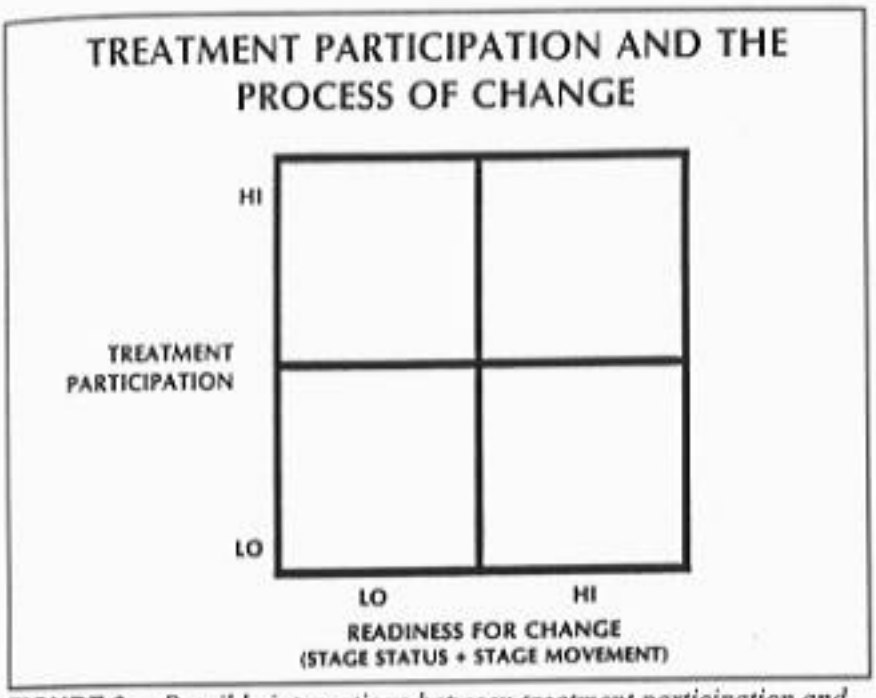

FIGURE 3. *Possible interactions between treatment participation and the process of change.*

Lack of Readiness for Change

Individuals coming to substance abuse treatment are often in early preaction stages of change. Concepts such as denial and hitting bottom, as well as the dramatic dropout rates in most substance abuse treatment programs (particularly outpatient ones) support this contention (Agosti et al. 1991; DeLeon 1984; Emrick et al. 1993; Rees 1985; Simpson and Joe 1993; Wickizer et al. 1994). Lack of engagement and very early dropout from treatment are most probably related to the early-stage status of the clients in the process of change (Miller 1985). As a consequence, strategies and approaches must address the lack of motivation for change, ambivalence about change, lack of a clear problem focus, and the decisionmaking tasks and cognitive experiential processes that characterize the tasks and challenges of these early stages (DiClemente and Prochaska 1985; Miller and Rollnick 1991; Prochaska and DiClemente 1984; Prochaska et al. 1994*a,* 1994*b*).

Suggested Strategies

1. Responding quickly to requests for treatment can maximize whatever motivation is present at the initial request.

2. It is important to focus on client's immediate concerns, not those of the program. Such immediate concerns of the drug-abusing client are the entree to whatever possibilities there are for change.

3. Decisional considerations about the problem and about the prospective change must be assessed. Clients must begin to see change as in their best interest before they can move from early stages toward action.

4. An objective, caring, and respectful approach is essential: Clients can pick up disrespect even if they are intoxicated, and confrontation often results in denial (Miller and Sovereign 1989; Patterson and Forgatch 1985).

5. Objective feedback about the problem and the process of change can help clients, many of whom can become uneasy when the therapist is more invested in their change than they are. Lack of objective and accurate feedback makes the treatment provider unbelievable and not worthy of trust (Miller et al. 1992).

6. Motivational strategies that focus on the individual and his or her immediate environment can be effective (Miller and Rollnick 1991).

Matching Treatment and Stage

Stage-based matching of interventions offers a dynamic, process-oriented approach for developing appropriate treatment expectations and shared mutual goals on the part of therapist and client. Choosing interventions based on stage of change with regard to a specific problem can create a focused working relationship and promote the use of strategies that reflect the client's most immediate tasks in moving toward successful change. Treatment matching that is typically viewed as the connection of stable characteristics of the client with those of the intervention must be replaced with a dynamic matching perspective. Because the client is involved in an ongoing process of change, the intervention should mirror the process.

Suggested Strategies

1. The therapist should identify the stage of change of the client and gather other related information (processes of change, decisional balance, and self-efficacy considerations). Such information can help in developing an indepth understanding of the client that will be helpful in changing the substance-abuse problem or problems.

2. There must be stage-specific feedback systems to guide the client and/or therapist. Feedback systems can simply reflect current level of problems and solutions or provide more intensive normative and ipsative comparisons during the course of treatment (Velicer et al. 1993).

3. The therapist should develop or use approaches and information specific to each stage (DiClemente 1991).

Relapse and Recycling

Individuals move through the stages of change in a cyclical pattern over a long period of time. Relapse and recycling are an integral part of the process of change. Although any single treatment may not create maintained, successful abstinence or modification of the problem, the goal of each treatment should be to promote and accelerate movement through the stages and contribute to the overall process of change in a positive and constructive manner.

Suggested Strategies

1. The client's recent and past course of movement through the stages of change should be evaluated.

2. The therapist should adjust approaches for different earlier patterns of stage movement and change experiences (DiClemente et al. 1992).

3. To the extent possible, treatment should be individualized.

4. Treatment goals should be realistic: A three-session evaluation program for precontemplators may be very realistic; a 3-month program may be more appropriate for someone in preparation or action. The ideal is sequencing and shifting treatment goals as the client progresses through the process of change.

5. The therapist should keep in mind that much of the movement through the stages occurs outside the context of the treatment sessions. Often treatment only provides assistance through certain stages of change.

6. It is important to be aware of stage heterogeneity in the group treatment process. Individuals in different stages can often either facilitate or hinder each others' progress through positive and negative modeling as well as by focusing on appropriate or inappropriate issues (Prochaska et al. 1994*a*).

Different Stages for Diverse Problems

Individuals can be at different stages of change with different substances and problem areas. Programs that assume that the client's motivation parallels the specific stated goals of the treatment program are unrealistic. Different stages of dealing with multiple problems pose a significant and serious obstacle for treatment. Treatment personnel can get stuck arguing about problem areas where the client is less motivated and lose track of the ones where the client is most committed and ready for change (DiClemente et al. 1992).

Suggested Strategies

1. The therapist should be aware of varying levels of motivation in different problem areas.

2. Treatment goals should be chosen carefully and take advantage of current motivations for change and the leverage for achieving it provided by the different problems.

3. For clients with multiple problems, multiple diverse strategies are needed to address varying levels of motivation (Prochaska and DiClemente 1984).

4. The challenge should be to help individuals do the right thing at the right time in dealing with each of the problems or problem areas.

Shifting Strategies for Stage Progression

A good, generic therapy relationship can help or hinder the process of change. The treatment relationship as well as the treatment strategies should shift as clients progress through the stages. A warm, caring, totally accepting relationship can be interpreted by the client as supporting

problematic behavior. A confrontational relationship can create denial and resistance.

Suggested Strategies

1. The focus should be on the client's responsibility for change (Miller et al. 1992).

2. Realistic self-assessment should be supported.

3. Relational strategies can be shifted as clients move through the stages of change (Norcross 1993).

These suggested strategies are simply possible approaches that could improve retention and participation in treatment. Some offer common sense strategies that are intuitively obvious, some are supported by previous research on factors related to attrition and dropout, and others have solid research findings supporting a particular suggestion. All of the suggestions, however, are based on the interaction of the stages of change with the process of engaging and keeping a client in treatment and fostering participation based on the process of change.

SUMMARY AND CONCLUSIONS

Current perspectives on compliance and involvement in treatment often overlook the fact that treatment occurs in the context of a process of change and not vice versa. Each individual moves at a unique pace through a series of stages of change and in a cyclical fashion over a substantial period of time. Treatment personnel and programs should recognize the diversity of stage status in their clients and address each one in a manner compatible with the client’s current stage of change, the tasks needed to move forward in the process of change, and an under-standing of the course of change. Such considerations should assist the therapist in developing strategies to increase the engagement of a wide variety of clients, to improve retention of these clients in a realistic course of treatment, and to foster participation in stage-appropriate tasks that promote successful movement through the stages to sustained, long-term change.

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The Role of Family and Significant Others in the Engagement and Retention of Drug-Dependent Individuals

M. Duncan Stanton

Family factors have been part of the drug abuse lore at least since Fort's early (1954) paper commenting on the parents of heroin addicts. Subse-quently, the literature on family variables in the process and treatment of drug problems has shown steady and increasing accumulation; there were nearly 400 such publications between 1954 and 1978 (Stanton 1978), and that total would appear to have at least doubled by now (Heath and Atkinson 1988; Kaufman 1985; Mackenson and Cottone 1992; Sorenson 1989; Stanton 1988).

While there have been publications and some solid research both on the marital relationships and on the children of drug abusers, the literature has preponderantly dealt with drug abusers in regard to their families of origin (e.g., their parents, siblings, and grandparents). This is partly because drug abusers have tended to be younger than alcoholics, for instance, and only a minority are married (Cervantes et al. 1988).

INVOLVEMENT WITH FAMILY OF ORIGIN

Living Arrangements and Frequency of Family Contact

Early views of drug-dependent individuals tended to characterize them as loners—people who were cut off from primary relationships and living a kind of "alley cat" existence. It was not until researchers began inquiring about addicts' living arrangements and familial contacts that the picture began to shift. For instance, Vaillant (1966), in a followup of New York narcotic addicts returning from the Federal narcotics rehabilitation hospital in Kentucky, found that 90 percent of the 22-year-olds whose mothers were still alive went to live with them, while 59 percent of the 30-year-olds with living mothers either resided with them or with another female blood relative such as a grandmother or a sister. A study in Detroit by Ross (1973) found that addicts (43 percent of whom were female) tended to operate out of two addresses, one of which was drug related and the

other family related, and were as likely to provide one as the other, or both, on admission to a treatment program. Perzel and Lamon (1979) found that among a group of New Jersey heroin addicts and polydrug abusers (age range 18 to 53, mean 30 years; 48 percent female), 45 percent of the former and 42 percent of the latter lived with a parent—figures that were substantially higher than the 7 percent reported by a normal comparison group.

Whether or not drug abusers actually live with their parents, the evidence that has accumulated indicates that most are closely tied to their families. For instance, in tracking addicts for long-term followup, Bale and colleagues (1977) noted that these clients usually have a longstanding contact person such as a parent or relative, and Goldstein and associates (1977) reported that addicts "tend to utilize a given household (usually their parents') as a constant reference point in their lives" (p. 25). The authors give examples of how even the street addict either regularly or periodically gets in touch with his or her permanent address, renews relationships with family, and the like. Further, Coleman (personal communication, March 1979), in a review of 30 male addicts' charts, noted that the person they requested to be contacted in case of emergency was invariably the mother, and was almost never the person with whom they lived (i.e., wife or girlfriend) for clients who did not live with their mothers. Finally, a Philadelphia study of 696 opioid addicts, ages 20 to 35, found that over a 30-month intake period 86 percent of the addicts reported seeing one or both of their parents face-to-face at least weekly (Stanton 1982).

A deficiency in most of the above-mentioned studies is that they asked only about face-to-face contacts, neglecting to inquire about telephone calls, letters, discussions with siblings that got conveyed to parents, and such. Addicts are frequently tied to the family system at many points, so that communication between them and other members is often routed through siblings, relatives, and spouses. Asking only about face-to-face contact provides inadequate information about the (not common) addict who talks to his or her mother on the phone every day or two for an hour or more. In fact, Perzel and Lamon (1979) found that 64 percent of heroin addicts and 51 percent of polydrug abusers were in daily telephone contact with a parent, compared to 9 percent of normals.

Most of these studies dealt with either opioid addicts or polydrug abusers. The question arises whether the same pattern holds for individuals who are cocaine dependent. Three studies examined that

population. Douglas (1987) compared matched groups of male opiate addicts, cocaine-dependent individuals, and nondrug abusers, aged 20 to 40 (N = 90), and found opiate abusers were in face-to-face or telephone contact with their parents twice as often, and cocaine abusers three times as often (i.e., aver- aging four times per week), as the nondrug-using controls. In a study of fifty 30- to 42-year-old male opiate/cocaine abusers, Bekir and colleagues (1993) found 82 percent to be "in constant contact with their family of origin by phone or visiting. Eight visited daily" and 32 (64 per-cent) visited at least once weekly (p. 628). Further, 5 of the 12 married patients and their spouses each lived with their own families of origin and only visited each other. Finally, preliminary data have recently been gathered from 27 cocaine-dependent males and females (mean age 33.5, range 23 to 51; 61 percent noncaucasian) by the author and colleagues at the University of Rochester Medical Center. Of those with at least one living parent or parent surrogate (i.e., someone who raised them), 78.3 per-cent reported being in at least biweekly parental contact, and 56 percent in at least weekly contact at the time of treatment intake.

In a review of the studies on this topic, Stanton (1982) noted that the pattern is not restricted to North America. Reports from other countries have arrived at the following percentages of drug addicts who live with their parents: England—62 percent; Italy—80 percent; Puerto Rico—67 percent; Thailand—80 percent.

To be sure, most of the reports on this phenomenon derive from clinical populations rather than untreated drug abusers. However, Rounsaville and Kleber (1985) found no difference between untreated (community) addicts and those seeking treatment in terms of family-social problems. They did, on the other hand, obtain ratings indicating better functioning of community addicts in regard to relationships with the extended family. Whether this translates into more regular or less regular contact is unclear, because the investigators did not inquire about family contact.

Combining subsequent investigations of family contact with those included in Stanton's (1982) aforementioned review leads to a clear conclusion: 26 of 28 reports attest to the regularity with which most drug-dependent people entering treatment are in contact with one or more of their parents or parent surrogates. The two dissenting reports issued from Vancouver, British Columbia and San Francisco. The former study was later recanted by its author, while the second—in which 28 detoxi-fying addicts were interviewed—was directly

challenged 12 years later by Cervantes and colleagues (1988) on a sample more representative of the San Francisco addict population. Of the 26 confirming reports, all indicate that a clear majority of such patients are in at least weekly con-tact, while (depending on geographical location and other variables) from 35 percent to 80 percent either live with or see one or more parents daily.

Relevant Family Dynamics

Of course, living with or regularly contacting parents is not in and of itself pathognomonic. In fact, such practices are the rule in some ethnic groups. The development and maintenance of addiction in a family member stems from other family variables as well as nonfamily influences.

To this point, there is a body of research that independently corroborates the family contact studies and additionally examines the intrafamily processes relevant to drug dependence (Kaufman 1985; Mackensen and Cottone 1992; Stanton 1979). Some examples from this literature should help to clarify.

Madanes and associates (1980) administrated the Family Hierarchy Test (in which stick figures representing family members are moved about on a board) to families with an addict, a schizophrenic patient, or a high-achieving normal. The families of addicts were four times as likely as those with a schizophrenic disorder, and five times as likely as the normals, to place figures on the board so that they actually touched or overlapped. Over half of these instances for addict families were cross-generational (i.e., between a parent and child) as opposed to being close connections between those in the same generation (i.e., spouses and siblings). The implication is of alliances between an offspring and one parent against the other parental figure—a finding that also emerged in a study of families of alcoholics by Preli and Protinsky (1988). Madanes and colleagues conclude that their data add to the accumulating evidence that addicts "are enmeshed in dependent relationships with their families of origin or parental surrogates" (p. 889).

In an Australian study, Schweitzer and Lawton (1989) asked male and female opiate- and polydrug-dependent patients to complete a Parental Bonding Instrument. The subjects rated their parents, especially fathers, as being more cold and indifferent than did comparison groups, as well as grading them as intrusive and preventing independence. These results conflict somewhat with a

study by Ben-Yehuda and Schindell (1981), in which 70.2 percent of male and female methadone patients in Chicago rated their family as warm, 61.7 percent said they had a good childhood, and 70.2 percent felt they had a satisfactory relationship with their parents. Whether the differences between these two studies are due to culture, type of treatment program, the nature of the questionnaire, or other factors is not clear.

ENGAGEMENT IN TREATMENT

The Problem

It has become generally recognized that a very small proportion of people with problems in drug dependency or abuse are actually engaged in treatment or self-help groups. Nathan (1990) estimated the figure to be 5 percent, while Frances and associates (1989) set it at 10 percent. An epidemiological study by Kessler and associates (1994) indicated that only 8 percent seek help within a given year.

Given the magnitude of the untreated population and the increasing contribution of drug abuse (through intravenous use and prostitution) to the spread of acquired immunodeficiency syndrome (AIDS), the means for engaging such people in treatment begins to assume signal impor-tance. Indeed, Frances and Miller (1991) have stated that the addiction field's "*major challenge* is helping substance abusers to *accept* and *continue* treatment" (p. 3; italics added).

Clearly, there is a need for procedures that both reach drug abusers and facilitate their induction into treatment or self-help groups. One approach that has received fairly wide use is the launching of an outreach effort. For instance, newspaper articles and announcements, television/radio public service announcements, personal appearances by staff, and other techniques have been used by treatment programs, churches, and com-munity organizations to induce substance abusers to get help (e.g., Orford 1987; Shapiro 1985; Stockwell 1991). Such efforts do tend to facilitate the direct engagement of a certain number of substance abusers, if for no other reason than that the abusers are made more aware of what is available and that there is hope for recovery.

Approaches to Engagement Through Family Members and Significant Others

Next to legal coercion (Collins and Allison 1983), one of the most potent avenues for engagement is through meaningful or significant others, such as spouses, parents, siblings, children, friends, clergy, and employers. As Resnick and Resnick (1984) put it, "...[T]he family can often be the key to forcing the patient to stop denial and avoidance and begin dealing with the cocaine problem" (p. 723). This author is aware of seven research teams or clinical groups that have taken a systematic approach to engaging sub-stance abusers, and these are described below. It should be noted that the thrust here is toward engaging the abusers themselves, not necessarily their family members: The induction of families has been reviewed elsewhere (e.g., Stanton and Todd 1981; Stanton et al. 1982; Szapocznik et al. 1988; Wermuth and Scheidt 1986).

Intervention. Originally developed in the 1960s by Johnson (1973, 1986) at the Johnson Institute in Minneapolis, intervention is a method for mobilizing and rehearsing family members, friends, and associates to confront the alcoholic with their concerns, strongly urge him/her to enter treatment, and lay out the consequences (such as divorce, loss of job) if he or she refuses. Interveners usually prepare in secret, using the element of surprise. Although the approach has mostly been applied with drinking problems, it has also been adapted for other chemical dependencies (Liepman et al. 1982).

Despite its widespread use, very little research has been undertaken on intervention. A search of "Psychological Abstracts" and "Dissertation Abstracts International," scanning the years since 1980, located only two studies, both of a preliminary nature (Liepman 1993); these are described below.

Using a quasi-experimental design, Liepman and colleagues (1989) reported on 24 cases in which an average of 4 people per case took part in preintervention counseling and/or confrontation of the alcoholic. Six of the seven alcoholics who were actually confronted entered (outpatient) treatment. However, 17 cases never reached the point of confrontation; they never engaged in treatment. In other words, the approach was successful in 25 percent of the total number of cases.

Logan (1983) combined intervention methods with the social network therapy approach of Speck and Attneave (1973) and

Garrison (Callan et al. 1975; Garrison et al. 1977). Each intervention network involved the 8 to 12 individuals deemed most important to the alcoholic. Of the 60 interventions attempted over a 1-year period, 54 (90 percent) resulted in the alcoholic entering treatment.

Community Reinforcement Training (CRT). This method spun off the original community reinforcement approach (CRA) to alcoholism treatment developed by Azrin and colleagues (Azrin 1976; Azrin et al. 1982; Hunt and Azrin 1973; Meyers and Smith 1995) and has been applied to cocaine dependence by Higgins and associates (Higgins and Budney 1993; Higgins et al. 1993, 1994). CRT involves seeing the distressed family member (usually the spouse) the day that he or she telephones in to get help for a drinker. It also requires being available during nonworking hours and off days in case the family member reaches a crisis point when the drinker requests help. The program includes a number of sessions with the spouse in which checklists are completed and the spouse is taught how to avoid physical abuse, encourage sobriety, encourage the seeking of treatment, and assist in treatment. The approach is generally nonconfrontational and attempts to take advantage of a moment when the drinker is motivated to get treatment by immediately calling a meeting at the clinic with the counselor, even if it is in the middle of the night (Sisson and Azrin 1993). Sisson and Azrin (1986) examined effectiveness of this approach with 12 cases—7 in which a family member received CRT and 5 in which the person received traditional (Al-Anon) type counseling. In six of the seven CRT cases, the alcoholic entered treatment, while none of the traditional cases did.

Berenson's Approach. Berenson developed a method for working with the most motivated family member or members to get the alcoholic into treatment and Alcoholics Anonymous (AA) (Berenson 1976; see also Stanton 1981 for more detail). This approach strategizes with the spouse and works toward helping him or her detach from the drinker. While this approach has several fairly clear-cut stages and a number of specific techniques that could be codified in a manual, no research has yet been undertaken with it.

Unilateral Family Therapy. This approach, developed by Thomas and associates (Thomas and Ager 1993; Thomas and Yoshioka 1989; Thomas et al. 1987), has been applied with spouses (usually wives) of uncoop-erative alcoholics. The therapist meets with the spouse over some months, with a focus on spousal coping, reducing the abuser's drinking, and inducing the abuser to enter treatment. The method was influenced by intervention and CRA, although the intervention used is

normally by one person (the spouse) and termed a "programmed confrontation." By the fifth month, some open attempt (or a series of attempts) is made to get the drinker into treatment. At 6 months from first spouse contact, 39 percent of the drinkers in the group in which the spouse was treated immediately (versus a delayed condition) had entered a program, compared with 11 percent for the delayed group. When other cases were added in which the drinkers had not entered treatment but had achieved and maintained "clinically meaningful" reductions in their drinking levels, the percentages were 57 percent and 37 percent, respectively (Thomas and Ager 1993; Thomas et al. 1990).

Co-Operative Counseling. Yates (1988) described an experimental program in England using "affected others" to enlist alcoholics in treatment. The effort began with an active outreach component to get people to call the program. Over the 6-month period studied, calls were received from family members and others regarding 30 cases, three-quarters of whom had never been in treatment for their drinking. In 11 cases, the caller (and, of course, the drinker) never came in, while in 4 more the caller came for one visit but the drinker was not engaged. Five more did not want the drinker to know they had contacted the agency. Of the remaining 10, 4 actually entered treatment. However, five others reduced their drinking markedly, even without being formally inducted. In sum, 13 percent of the original 30 got into treatment. Of the 19 cases when the caller actually came in, 21 percent entered treatment and 26 percent reduced their drinking, meaning that 47 percent either showed up or showed improvement once the affected other appeared in person.

Strategic Structural Systems Engagement. A method for engaging adolescent substance abusers (and their families) has been developed by Szapocznik and colleagues (1988). They defined six levels of engagement effort by a therapist receiving a call about a prospective client. The levels ranged from minimal joining with, and inquiry of, the caller, to higher level "ecological" interventions—involving not only the family, but other relevant systems, such as the school and health center—and out-of-office visits to family members. The choice of level depended on the sort of resistance encountered; the authors identified four types. In 90 percent of the call-ins the caller was the mother of an adolescent drug abuser, so the telephone conversation usually concerned how she could get the adoles-cent and other family members in for treatment. Using this method, Szapocznik and colleagues were able to get 93 percent of the targeted adolescents to come to the clinic with their families for an intake

meeting, compared to 42 percent for an engagement-as-usual condition.

The Albany-Rochester Interventional Sequence for Engagement (ARISE). Devised by Garrett of the Al-Care program (a sizable outpatient facility for substance abusers in Albany, NY), ARISE entails several stages in the mobilization of family and significant others toward patient entry (Garrett et al., submitted). It combines formal intervention (Johnson 1973, 1986), social network therapy (Speck and Attneave 1973), and the (integrative) Rochester approach to family and network therapy (Landau-Stanton 1990; Landau-Stanton and Clements 1993; Seaburn et al. 1995; Stanton 1984; Stanton and Landau-Stanton 1990). In essence, the method is an attempt to draw upon what are considered to be the strongest features of each of these approaches as well as some techniques from a few other therapeutic schools.

Developed with both alcoholics and drug abusers, the method evolved in response to three particular limitations of the more standard, formal intervention. First, an intervention requires considerable expenditure of time and effort, since it involves a good deal of instruction, the writing and public reading of letters to the substance abuser, rehearsal, and other activities, and it was felt that a sizable proportion of callers might not require something so ambitious and expensive.

A second reason for expanding engagement options was that confrontation can be very frightening to family members, possibly assuming the flavor of an ultimatum (Lewis 1991). Often the problem drinker is controlling things in the home—sometimes tantamount to a reign of terror—and the family is not ready to oppose him or her. In fact, if pushed too hard by professionals, the family may simply abandon the effort. Thus, a slower, nonescalating, less distressing induction is called for, at least initially. It can attract some families who are not prepared to risk a full-blown intervention.

Third, data by Loneck and colleagues (in press) coupled with clinical experience indicate that, although patients who undergo a formal intervention are as likely to complete treatment as those who do not experience intervention, they are twice as likely to relapse during the process. It is not clear to what this interesting conundrum should be attributed—it may be a rebellion against being coerced—and the subject is currently under investigation.

The ARISE model consists of three general stages. Each stage involves an increased commitment of therapeutic and familial/network resources compared to the stage that precedes it. The procedure is as follows.

Stage 1: Informal Intervention Without a Therapist Present. A concerned person calls the clinic, perhaps in response to an outreach effort or a friend's recommendation. He or she is worried about a family member or an acquaintance who has a drinking problem and either has not sought help or refuses to do so. The caller wants the person to enter treatment, and may even request a formal intervention. (For purposes of this discussion, the drug-dependent person is called the "DDP.") Upon hearing the caller's request, the receptionist contacts the intervention specialist on call, who either takes the call or gets back to the caller later that day.

As the 15- to 30-minute conversation unfolds, the specialist tries to determine who is in the family, who is in the natural support system, and what other people might be key. Related to this, the specialist also begins to clarify to the caller why it might be helpful and preferable to include all these other people in the induction effort.

Sometimes this stage takes more than one telephone conversation, but rarely more than two. By the end of the talk(s), the specialist wants to have: (a) identified the important players and secured a commitment for them all to be invited to come to the clinic together; (b) set a time for the meeting; (c) made it clear that the DDP is also to be invited; (d) estab-lished that even if the DDP agrees to come, and then backs out at the last minute, everyone else should come—that it would then be a kind of evaluation appointment involving coaching and strategizing as to how to persuade the DDP to come in.

Stage 2: Informal Intervention With a Therapist Present. It is Al-Care's experience that, following a telephone conversation such as that described above, about 90 to 95 percent of the time at least one person (but usually several, or many more) shows up for the first meeting. At that point, a chart is opened on the case. Normally the therapist who attends this meeting is the same person (the intervention specialist) who conducted the telephone interview.

The major agenda at this stage is, of course, to plan and strategize in detail as to how to get the DDP to enter treatment. Family and friends often hesitate to have a full-fledged confrontation, and the therapist guides discussion by statements such as, "We want to do

something that's really caring, and shows that you're worried." However, the therapist wants to keep the process moving, and will usually make a pitch to call the DDP directly right then, from the meeting.

This stage unfolds over a sequence of one to three sessions. Each session is viewed as an opportunity to bring in the DDP. If, after three (or, occasionally, four or five) such meetings, the DDP is not engaged in treatment, the therapist moves to the third stage—a formal intervention.

Stage 3: Formal Intervention. This format is based on the Johnson Institute model briefly described earlier. However, it is a kinder, gentler, less negative approach—a direction also taken in later years by the Hazelden Foundation and even by the Johnson Institute itself. In addition, the approach incorporates a number of elements from the Rochester therapy model, including attention to the intergenerational patterns of the alcohol problems. That it has been utilized to get patients into both outpatient and inpatient treatment (including detox) has made it generalizable to a great many treatment contexts and made it particularly appealing to managed health care systems.

ARISE Engagement Data. Loneck and associates (in press) performed a retrospective analysis of engagement and retention in 332 Al-Care cases from the past 6 years. The full complement of cases was scanned for that period and all cases were categorized in one of five entry categories: The three ARISE stages (N = 195), plus those who were coerced to enroll (through probation, employee assistance programs, attorney, or other sources; N = 68), and those who enrolled on their own, without coercion or some level of intervention (N = 69). From this pool, approximately equal numbers of cases were randomly selected from within each category to allow comparisons. To be eligible for this study, all cases came in for at least one evaluative (get acquainted) meeting. For the cases dealt with through ARISE, this meant that one or more significant others attended the first meeting.

Most of the cases (258) were alcohol problems. For purposes of this chapter, attention will be given to the remaining 74 cases, who were drug (primarily cocaine) abusers. The percentages of cases in which the DDP entered treatment for each of the three ARISE stages were, respectively: stage 1 = 45 percent; stage 2 = 59 percent; stage 3 = 92 percent. Fifty-five percent were in some phase of the ARISE process. Although lower than the 70 percent level attained for alcoholics, this

rate compares favorably with the percentages of DDP treatment inductees attained through coercion (50 percent) or self-referral (also 50 percent). Given that the coercion and self-referred cases were, almost by definition, more motivated to enter treatment, the fact that ARISE achieved nearly equal results with resistant, highly ambivalent drug users (i.e., people who wanted nothing to do with treatment) is a testament to its utility. This point is perhaps further strengthened when one realizes this was not research therapy, with all the added benefits that might accrue to such (Weisz et al. 1992), but was conducted in a community clinic with no obvious expectation that, years later, engagement efforts would be scrutinized.

Conclusions. It is difficult to make definitive statements, given the scant number of studies, with generally small numbers, that have addressed this issue. The range in success rate is also wide: for intervention, it stretched from 25 percent to 92 percent. Two variables do give tentative indica-tions of importance, however. First, it would appear that the greater the availability of the counselor—for instance, after hours and on weekends— the more likely the DDP is to be caught at the right moment and induced to enroll.

The second dimension has to do with the size of the group of significant others collected for the intervention. Logan (1983) had twice as large a group assembled than did Liepman and colleagues (1989) (i.e., eight people versus four), and attained at least three times the success rate (90 percent versus 25 percent). The perhaps obvious (but still tentative) conclusion is: The more people gathered, the more potent the effect.

RETENTION IN TREATMENT

Recently, the author has been engaged in reviewing the controlled studies of family treatment for drug abuse (Stanton and Shadish, submitted). To date, 15 such studies have been conducted that used at least two comparison/control conditions and random assignment. An issue that has arisen from this effort pertains to whether the analysis of outcome for a given study incorporates all subjects assigned to treatment conditions, or only those who received some minimal amount of a treatment regimen. These different approaches derive from two different questions (Howard et al. 1990). The first is, "What are the expected outcomes for a group of clients assigned to a given treatment, whether or not they fully engage in or complete that

treatment?" The second question is more limited in scope: "What outcomes can be expected among those who receive (or partially complete) a given treatment?" In their influential and by now classic review of methodological problems in research on treatment of the addictions, Nathan and Lansky (1978) have taken a strong position on this question, stating that to exclude such dropouts is, whether intended or not, a deception, and that such cases "should be considered treatment failures regardless of the rationalizations some [investigators] may have given for the decision to terminate" (p. 717).

Differential Attrition Rates

A major area of concern emerges from this research: differential dropout rates for different treatment conditions. In those studies comparing family/marital therapies to nonfamily approaches, almost without exception the nonfamily conditions had higher dropout rates. Put another way, significantly more family therapy cases stayed in treatment compared to nonfamily cases. For instance:

- 33 percent of Friedman's (1989) parenting group cases never engaged in treatment (versus 7 percent of the family therapy cases);

- Joanning and associates (1992) had dropout rates of 53 percent, 33 percent and 13 percent, respectively, for peer group therapy, family psychoeducation, and family therapy; and

- Liddle and colleagues'(1993) respective dropout rates for peer group therapy, multifamily therapy, and (conjoint) family therapy were 49 percent, 35 percent and 30 percent.

Therefore, this pattern warrants attention because, as Howard and colleagues (1986) note, it can serve to undermine the effects of randomi-zation.

Stark (1992) reviewed the literature on substance abuse treatment dropouts and concluded that "the fact that clients who use more drugs have higher attrition rates is true almost by definition and is overwhelm-ingly confirmed by the evidence" (p. 102). Stated differently, heavier drug-taking, poorer-prognosis patients (i.e., those at the less treatable end of the spectrum) are more likely to drop out early. Consequently, a therapy (call it treatment A) that incurs fewer dropouts is likely to be retaining a higher proportion of these less

tractable, possibly harder core (less motivated?) clients. Treatment A is thus left with the task of bringing about changes in an overall tougher group than, say, treatment B, because more of the "toughies" will have already defected from B. Consequently, if the outcome results of A and B are, for example, equal, A would have done it in the face of more difficult odds—like two people starting and finishing a foot race at the same time in which one of them additionally carries a 60-pound pack.

A specific example might illustrate. In a study by Stanton and associates (1984), 164 incoming methadone maintenance patients were deemed eligible for the research, signed agreements to participate, and were randomly assigned to one of two conditions (84 to family treatment and 80 to nonfamily), both of which at least initially involved methadone. However, because those members of the research team who administered methadone treatment felt that less than 2 weeks on methadone would be an unfair test of the efficacy of that modality, it was decided that only subjects would be retained in the study who remained on methadone for 14 days or more. As it happened, 55 patients defected before 14 days had elapsed, leaving 109 in the study. The problem was that a disproportionate number of them (35) came from the nonfamily condition, compared to 20 from the family condition, resulting in disparate dropout rates of 44 percent versus 24 percent. Whether or how this might have altered outcomes for the two groups cannot be determined, but it seems likely that if any effect came into play it would more likely be an adverse one for the family condition. In any case, such a problem cannot necessarily be overcome statistically, such as by introducing pretreatment covariates into an ANACOVA design, because it is difficult to know the key variables that are operating.

There is a certain irony when a treatment approach that effects better retention is penalized by being compared with modalities with lower retention rates. The problems in the aforementioned example could have been prevented by following Nathan and Lansky's dictum of including everybody in the analysis, that is, all 164 initial subjects. But of course that would have incited protest from other quarters (which might also have jeopardized support from the funding agency). Nonetheless, it appears that in a number of the studies reviewed by Stanton and Shadish (submitted), true differences between treatment conditions may have been obscured because the conditions differed in their attrition rates, and dropouts (and deaths) were not included as failures in the analyses. (In fact, a subsequent analysis by Stanton and

Shadish of the Stanton and associates' 1984 data, but with dropouts and deaths included, found that the family therapy condition did indeed yield significantly better results at the 0.01 probability level.) In the future, more researchers will need to take steps to account for or eliminate differential dropout rates among treatment conditions to avoid unnecessary confounding and ambiguous results.

Difficulties With Adult Clients

Getting adult opioid addicts to engage and remain in any kind of psychotherapy study has been notoriously difficult. Among controlled individual psychotherapy studies with this population, the rates tend to be low for eligibles who are contacted, agree to participate, and remain for a minimal period of, say, 3 weeks, ranging from 5 percent (Rounsaville et al. 1983) to 36 percent (Woody et al. 1983). In contrast, the rates for successful retention of adult patients in family therapy, as shown by the four studies that provided such data (out of five total), are: McLellan and colleagues 1993—73 percent; Stanton and associates 1982—71 percent and 1984—76 percent; Ziegler-Driscoll 1977—53 percent. The mean retention rate across the four studies, weighted by sample size, is 66.6 per- cent, which is almost twice the rate for the most successful individual study and 13 times larger than the least successful.

Some Explanatory Factors and Processes

Why the difference in retention between family and other types of treatment? At least part of the explanation may lie in the way that treaters handle real world events in a client's life (i.e., those occurring outside the treatment center). Such events assume special significance for people who are closely tied to their families of origin, as was earlier noted to be the case with the majority of drug abusers. Three areas, in particular, merit consideration.

The Family Life Cycle. A study of U.S. Army personnel who go absent without leave (AWOL) brings a different light to the issue. Hartnagel (1974) found that over half of AWOLs do not leave because they hate the Army. Rather, they are family problem solvers who go AWOL to correct family problems or to alleviate family-related financial difficulties. They go home to help. If they had a choice, they would rather be granted leave to go home, take care of business, and then return to their military duties.

It is the contention here that family problems (which, incidentally, are usually associated with family life-cycle events) can also provide motivation for drug abusers either to relapse or to abort treatment. For instance, there is evidence that onset of drug abuse and overdoses can be precipitated by family disruptions, stresses, and losses (Duncan 1978; Krueger 1981; Noone 1980). Further, the disruptions may not obviously involve the client directly, but may be of a more indirect nature (such as when his or her mother loses a boyfriend, or father loses a job). However, like the AWOL soldier, the drug abuser responds to the larger family crisis. Such a pattern is, of course, most likely to manifest itself with clients who are in residential programs and therefore physically less available to their family members.

The Family Addiction Cycle. Stanton and colleagues (1982) and others have noted a cyclical pattern in families of addicts in which, when the addict improves in some way, the parents begin to fight and to separate from each other. When the addict fails by taking drugs or losing a job, the parents come together around him or her; they involve themselves and each other with the addict's problems, thus becoming, in a sense, unified. In this way the addict's behavior serves a purpose of at least temporarily keeping the family together. Further, from this viewpoint, the drug-taking is simply one event within an interpersonal sequence of behavior; it is not an independent phenomenon occurring in a vacuum, but a response to a series of others' behaviors that precede (and succeed) it. That is the reason for the term "family addiction cycle."

Treatments that are not attuned to such sequences in a client's life put themselves at a disadvantage. They run the risk of being constantly mystified by onset and cessation of drug-taking. By not appreciating the plight of both the addict and his or her family members, they also risk losing their client's trust.

Triangulation. Some years ago Schwartzman and Bokos (1979) published a paper on a competitive process they observed taking place among drug treatment programs in a large city. Patients would appear at, say, program D requesting admission and complaining about treatment they had received at program C. The staff person at the new program would then commiserate with the client, disparage program C, and give assurance that no such problems would crop up at program D, where "we treat our clients right." Thus an interpersonal triangle would be established, with two of its parties (the client and program D) joined in opposition to the third (program C). This process has been termed "triangulation." It is common, to at least

some degree, in most interpersonal systems. (Schwartzman and Bokos also noted, incidentally, that in many cases the client would eventually become disenchanted with program D and would defect either back to program C or to a new program, thus setting up a new triangle and repeating the process.)

Likewise, staff in drug programs have been known to fall into the trap of triangulation vis-a-vis a client's parents or family members. This is a particular risk for individual-oriented approaches to therapy. Campbell (1992) performed a content analysis of therapists' writings regarding their patient's family members and found that 90 percent of the time family members were referred to in negative terms. In a description of an effort to expand their drug treatment program to be more inclusive of parents and families, Balaban and Melchionda (1979) reported that staff often got into awkward and destructive triangles in which they would compete with a client's family over the client—at times reaching the point of open disparagement of the parents or even fostering defection from the family.

When binds of this sort occur, they can put tremendous pressure on clients. Torn between their loyalties to parents or family members versus treatment staff, clients may choose an option that relieves the pressure: aborting treatment. For this reason, and with apologies to Hippocrates and grammarians, it may then be wise, when attempting to engage and retain drug abusers in treatment, to subscribe to the oath "First of all, do no triangulation."

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Establishing and Maintaining a Therapeutic Alliance With Substance Abuse Patients: A Cognitive Therapy Approach

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INTRODUCTION

A positive, collaborative therapeutic relationship is an essential component of the cognitive therapy of substance abuse (Beck et al. 1993). To engage substance abuse patients in treatment, therapists will need not only to connect with the patients but also gain their trust. Otherwise, the patients will be less likely to benefit from treatment, and their rates of no-show and dropout are apt to increase. Therefore, therapists must work diligently to form a working alliance by demon-strating general good will and a respectful desire to help. Further, they must carefully attend to any signs that the patients are losing interest or having adverse emotional reactions, and intervene promptly.

COMMON OBSTACLES TO FORMING A THERAPEUTIC ALLIANCE

Substance-abusing patients are an especially difficult population with whom to establish a commitment to change. A glance at the troubled family life of a substance abuser is instructive. At the height of his or her use of drugs, a patient often obtains far more gratification from the drugs than from the love and companionship of significant others, friends, and relatives. Therefore, the positive social reinforcement from a supportive therapist may pale in comparison to the high that the patient gets from a line of cocaine or a hit of crack. Thus, the therapist's capacity to act as an agent of change is more limited and fragile than with many other patient populations for whom the therapist’s approval and guidance have greater relative significance.

As a result, the therapist will need to build the relationship when the patient is in a period of diminished drug use or abstinence. During this time, the benefits of having meaningful interpersonal relationships should be underscored at the same time as the drawbacks of drug use are being highlighted. The intention of this strategy is to enhance the

patient's perceived reasons for remaining drug free, to motivate the patient to strive for relationship preservation, and to communicate the kind of therapeutic support that the patient will value.

Additionally, substance abusers often enter treatment with ambivalence about relinquishing their habits (Carroll et al. 1991*a*, 1991*b*; Havassy et al. 1991). Within the framework of Prochaska and colleagues' (1993) stages of change model, one sees that many substance abusers do not enter treatment at the stages of action or maintenance. Instead, they commence therapy with a notion that it might be beneficial to give up the use of drugs, or with a wavering desire to cut back on their use (i.e., the contem-plative stage). In extreme cases, such as when patients are remanded by the courts to attend drug abuse rehabilitation sessions, the patients may not acknowledge that they have a problem with drugs or even that they use them at all (the precontemplative stage).

From the very start, therapists will need to ascertain their patients' respective levels of commitment to change in order to have the best chance of communicating an empathic understanding and to minimize the risk of pushing an unwanted agenda onto patients whose resistance then will likely increase. It is generally not a good idea to accuse patients of "not really wanting to change," or of "wanting to suffer," or of "being in denial" (Newman 1994*a*). It is one thing to confront patients in this manner when they are in the protective confines of an inpatient (perhaps group therapy) setting. It is quite another to do this in an individual outpatient setting where the patient can easily leave treatment and never return if he or she takes offense at the therapist's methods. It is far more preferable to acknowledge that the patient has mixed emotions, and then to assess and get to know the part of the patient that likes to use drugs and the other part that would rather be free of them. In this manner, the therapist demonstrates that he or she is not so naive as to believe that the patient's goal is unequivocal and immediate abstinence, but instead to recognize the complexities and difficulties involved in trying to stop using drugs. Further, the therapist avoids the potentially damaging pitfall of communicating in a judgmental, unempathic tone.

ESTABLISHING RAPPORT AT THE OUTSET OF TREATMENT

The initial interactions between the patient and therapist are extremely important, as substance abuse patients often will be silently sizing up their therapists to determine whether they can be trusted and know what they are doing (Perez 1992). The lack of a positive start to treatment may lead a patient to choose not to return for further sessions, or may foster negative expectancies in the patient that often exacerbate passive resistance or contentious behavior in session. On the other hand, a positive start to treatment may instill hope in the patient, thus encouraging him or her to stay in treatment and to consider the prospects of therapeutic change more seriously.

The following are some common methods by which therapists can connect with their substance-abusing patients as treatment begins:

1. Speak directly, simply, and honestly.
2. Ask about the patient's thoughts and feelings about being in therapy.
3. Focus on the patient's distress.
4. Acknowledge the patient's ambivalence.
5. Explore the purpose and goals of treatment.
6. Discuss the issue of confidentiality.
7. Avoid judgmental comments.
8. Appeal to the patient's areas of positive self-esteem.
9. Acknowledge that therapy is difficult.
10. Ask open-ended questions, then be a good listener.

Speak Directly, Simply, and Honestly

The development of rapport is hindered when patients cannot understand their therapists due to the therapist’s unbridled use of psychological jargon. Similarly, patients often do not appreciate it when they perceive that their therapists are talking down to them, or

are speaking to them in the manner of a teacher addressing a grade school class.

The remedy is to endeavor to speak adult to adult, rather than authority to subordinate. For example, the cognitive therapist would be ill-advised to speak in the following manner: "I'll be assessing your thought processes so as to spot the kinds of cognitive distortions that lead you to engage in dysfunctional and antisocial activities."

Instead, the therapist might say: "If it's okay with you, I'd like to understand your point of view about things. I don't want to assume that I already understand what it's like to live your life. I'm interested in listening to your thoughts so I get the real story."

Although the therapist in the second example does not really start teaching the patient about cognitive therapy, he or she establishes some of the groundwork. More important at this early stage, the therapist comes across as being a real person who is understandable. As the patient progresses through succeeding sessions, the therapist will be able to elaborate gradually on the specifics of cognitive therapy, and to teach some of the basic nomenclature.

Additionally, it is important for therapists to share their own thoughts and opinions openly (and diplomatically) when patients ask for them, rather than remaining mysterious figures. Substance abusers, either by virtue of their own developmental/personality issues or their experiences with dishonest drug-abusing associates, often have major problems in trusting others. A therapist who makes an earnest effort to respond to questions can provide the patient with evidence that the therapist does not have a hidden agenda. As a qualifier to the above, it is important to note that the therapist should feel free to ask the patient many questions as well, lest the patient put the responsibility for the work of therapy entirely (and inappropriately) on the therapist.

Ask About the Patient's Thoughts and Feelings About Being in Therapy

The therapist should assume neither that the patient is highly motivated for treatment nor that he or she is resistant and hostile. The best way to obtain valid data and at the same time demonstrate that the therapist cares to understand how the patient feels is to ask the patient directly about his or her experience of coming to the therapist's office.

Such questions can involve asking about the patient's doubts and concerns, as well as expectations, goals, and hopes for therapy. If the patient expresses misgivings about being in treatment, these negative reactions can be addressed on the spot, thus reducing the risk of early dropout. At the same time, the therapist can utilize this interaction to begin to teach the patient the cognitive therapy model. For example, a patient who expects to be disrespected by the therapist may harbor feelings of anger. By contrast, if the patient expects to be helped, he or she may feel a sense of relief and have a high degree of motivation. This example begins to demonstrate one of the central tenets of cognitive therapy, namely, that the patient's thoughts will influence his or her feelings, intentions, and actions.

Focus on the Patient's Distress

In light of the high rates of dual diagnoses in substance abusers who present for treatment (Castaneda et al. 1989; Evans and Sullivan 1990; Nace et al. 1991; Rounsaville et al. 1991), it is likely that these patients will be suffering from affective disorders, anxiety disorders, or other psychological maladies when they enter treatment. If therapists show an interest in sympathizing with and addressing these emotional problems, in contrast to focusing exclusively on the substance abuse per se, they can demonstrate that they are interested in the entirety of the patient's well-being. In this manner, therapists show that they are interested in getting to know the patient as a person, and not simply as an addict.

Such an approach is especially indicated for substance-abusing patients who also meet diagnostic criteria for antisocial personality disorder (ASPD). These patients typically are unmotivated to change unless they are in emotional distress, in which case there is a desire to participate in therapy to gain relief (Alterman and Cacciola 1991; Woody et al. 1990). By helping these ASPD/depressed drug abusers to improve their mood, therapists may be able to form an interpersonal alliance with patients who otherwise might not bond with a helper.

Even when patients do not technically meet criteria for dual diagnoses, they may often experience emotional suffering related to having reached points of crisis in their lives (Kosten et al. 1986; Newman and Wright 1994; Sobell et al. 1988). Therefore, it is quite appropriate for therapists to put such topics as current areas of stress and family problems on the thera-peutic agenda. In addition to providing the patients with understanding and empathy, this approach also calls patients' attention to the fact that substance abuse is an

important cause of their general malaise in life. This may further motivate patients to consider the cessation of substance abuse as a major goal of treatment.

Acknowledge the Patient's Ambivalence

Anecdotally, some drug-abusing patients report that they doubt (at least early on) that therapists who have not had drug problems themselves can truly understand their patients' plights. However, upon further questioning, it typically becomes apparent that this misconception arises when the patients perceive that their therapists take the view that, "Of course you want to quit using drugs. You have everything to gain and nothing to lose by becoming clean and sober." Patients then conclude that their therapists don't understand the power and allure of drugs such as cocaine.

Therefore, it is advisable for therapists to admit that cocaine is a difficult drug to relinquish, and that it would be reasonable and understandable for the patients to have a sense of grief about having to give up the drug (Jennings 1991). By acknowledging and asking about the patients' ambiv-alence, therapists communicate more accurate empathy, and open up a vital area of discussion that patients otherwise might believe it best to conceal.

In fact, one of the standard techniques in the repertoire of the cognitive therapist depends on the therapist's awareness of the patient's mixed emotions and attitudes—the advantages/disadvantages analysis (Beck et al. 1993). Here, therapist and patient explore the pros and cons of both using and not using drugs. Many patients express pleasant surprise that their therapists really are willing to discuss the pros of continuing to abuse drugs. Although the ultimate goal obviously is to strengthen the patients' resolve, know-how, and commitment to be drug free, an exploration of the seductive aspects of drug use can help the formation of a trusting, collaborative therapeutic relationship.

Explore the Purpose and Goals of Treatment

Cognitive therapy contains a significant psychoeducational component (Beck et al. 1979). A long-term goal of treatment is to empower the patient—to increase a sense of self-efficacy and to teach the patient to becomes his or her own therapist. One way to achieve this goal is to make the patient a full partner in charting the course of therapy. This entails discussing the purpose of meeting with

the therapist, the goals of treatment, and the types of methods that will be used to achieve these goals.
By exploring the purpose and goals of treatment, therapists take some of the mystery out of the process of change, and minimize the chances that mistrustful patients will view their therapists as playing mind games or being on power trips. If the therapist and patient determine that their respective goals are at odds, at least the problem will be on the table, and not a conflict of hidden agendas. They can then agree to find some common ground, and work toward shared goals until the thornier issues can be discussed and explored at greater length. Therapists can stress that the process of change requires teamwork, and that the therapist and patient are not adversaries.

Discuss the Issue of Confidentiality

Because illicit drug use is by definition illegal behavior, patients have learned to be very cautious in what they will divulge about their activities. Thus they often are highly motivated to be dishonest in reporting their substance abuse. Although the vast majority of therapeutic interactions represent privileged communications, drug-abusing patients may not understand or trust the extent to which their admissions of drug use will be kept confidential.

To facilitate more open communication and mutual trust, therapists should spell out the nature and limits of confidentiality from the very start. Patients may not be pleased to hear about the limits, but they will appreciate the explanation and the warning. Therapists will need to emphasize that their primary role is to help patients confront their drug use and improve the quality of their lives; therapists do not serve as society's watchdog, or punish, or oppress.

Avoid Judgmental Comments

A longstanding and well-known fact is that it is important for the therapist to communicate a sense of positive regard and respect for the patient (e.g., Bergin and Solomon 1970; Egan 1975; Truax 1963; Truax and Carkhuff 1967; Truax and Mitchell 1971). Nevertheless, it is all too easy for the therapist to fall into the trap of sounding accusatory and judgmental toward a patient who is abusing drugs. If this happens, the formation of a healthy therapeutic relationship is seriously hindered. Further, the patient may become less inclined to view the therapist as an effective professional when the therapist's comments resemble those heard from exasperated relatives.

Instead, therapists need to explain that they wish to ally with their patients in a mutual struggle against the patients' drug use and concomi-tant life problems. Patients need to be helped to understand that they are not viewed as bad people, but rather as people with a highly troublesome habit with which to deal.

Similarly, therapists need to take care not to spew forth judgmental or hostile comments about anybody else. For example, when a therapist treats a substance-abusing patient who is involved in a romantic relation-ship with another substance abuser, there is a great temptation for the therapist to criticize the significant other, especially when the significant other sabotages the patient's progress toward abstinence. However, by doing this the therapist runs the risk of triangulating the patient between the loved one and the therapist (in essence, putting the patient in the position of having to take sides). When this happens, patients frequently choose to be loyal to the significant other, which may precipitate a flight from treatment.

Even if the therapist makes judgmental comments about impersonal third parties, the patient may wonder whether this is also how the therapist truly feels about the patient when he or she is not around. This will impede the formation and maintenance of a positive therapeutic alliance. It is much more prudent to evaluate the relative merits and drawbacks of the behaviors and attitudes of people, rather than make pat statements about their characters.

Appeal to the Patient's Areas of Positive Self-Esteem

Although substance-abusing patients typically present with a host of problems, including chaotic lifestyles and skills deficits, it is important for therapists to assess their patients' areas of strength and competence. By doing so, therapists show that they have respect for their patients' individual talents and assets. Further, they can appeal to areas in which the patients feel a sense of pride, thereby eliciting greater cooperation in other therapy tasks.

For example, Walter (all names have been changed) was a patient who was very mistrustful of authority figures, and his collaboration in the process of therapy at the start of treatment was tenuous at best. Although he seemed to be quite hostile and resistant, he did prove himself to be rather intelligent (in spite of his limited education). When Walter would engage in high-risk behaviors (e.g., drive while intoxicated), the therapist would appeal to the patient's intelligence to get him to reconsider this maladaptive behavior. For example, the

therapist would say: "Walt, you and I have discussed how you have survived to this point, mainly due to your smarts. You seem to be someone who thinks fast under pressure. That's why I'm so perplexed that you would risk your safety and freedom by driving drunk. It just doesn't seem to fit. What's your opinion about all of this? I'm interested to hear your views."

Aside from noting the patients' intelligence, therapists can encourage patients to collaborate in the work of therapy by focusing on other attributes such as their survival skills, the love of their friends and family, their spirituality, their integrity, their potential abilities to be positive role models for others, their advanced vocational skills (when sober), and other legitimate personal attributes.

Acknowledge That Therapy Is Difficult

Therapists can help to build rapport with their patients by noting that it takes courage and hard work to participate fully in therapy. This stance can help to counteract patients' beliefs that it is a sign of weakness and incompetence to be in treatment. In essence, the therapist tries to help the patient to take the shame out of being a patient. Additionally, by establishing the baseline notion that therapy will be difficult, the therapist reduces the chance that a patient will bail out of treatment at the first sign of discomfort.

The therapist can liken the pain of going through therapy to the pain of receiving medical treatment for a wound or a broken bone. Although the procedures hurt, they enable the patient to heal and to be strong. The adage, "If it hurts, you know the medicine is working," is appropriate in this regard. By contrast, if the patient comes to learn that he or she actually enjoys and looks forward to therapy sessions, it will seem like a bonus benefit.

Ask Open-Ended Questions, Then Be a Good Listener

One of the defining features of cognitive therapy is the spirit of collaboration that the therapist attempts to foster in working with the patient (Beck et al. 1979). A central method for enhancing an atmo-sphere of collaboration is to encourage the patient to actively talk and think aloud in the session, and for the therapist to listen carefully and reflect accurately. Additionally, it is important to add structure to this process by asking clinically relevant questions that allow the patient to expound his or her feelings and thoughts. Open-ended questions serve this purpose well.

A common trap to avoid is lecturing the patients and/or bombarding them with yes/no questions that are reminiscent of interrogation. It is much more collaborative to employ a Socratic style (Overholser 1987, 1988, 1993) in which the therapist gently guides the direction of the session material by punctuating the patients' comments with thoughtful, open-ended questions. The following short dialog serves as an example.

Therapist: I see on your responses to the questionnaires that you haven't used any drugs or alcohol since our last session. What do you think has helped you to do this?

Patient: I don't go past that house no more.

Therapist: The crack house?

Patient: Yeah.

Therapist: What do you say to yourself—how do you manage to keep yourself from going to that house?

Patient: I just remind myself that my life falls apart whenever I start to go there. I just remind myself that I'm kidding myself if I think I can just stop in and say "hi" and shoot the breeze and then just go home. It don't work that way. I just have to stay away.

Therapist: So you remember the problems that you had when you used to go there, and how your life changes for the worse when you use drugs.

Patient: That about sums it up. (Frowns)

Therapist: You looked a little sad just then. What went through your mind?

Patient: Ahhh. I don't know. (Pause) It's a lonely feeling. I got friends who hang out at the house, and I can't see them no more.

Note that in the example above, the therapist gets a lot of useful information from the patient by asking open-ended questions and by carefully listening to the patient's responses. A good rapport seems

to be present in the interaction, with the patient implicitly acknowledging that the therapist understands.

MAINTAINING A POSITIVE ALLIANCE OVER THE COURSE OF TREATMENT

It is often difficult to establish rapport and a collaborative working set with substance-abusing patients; moreover, it is very easy to lose that rapport once it is there. Therefore, even when things seem to be going smoothly in the therapeutic relationship, the therapist must be vigilant in consistently doing what is necessary to maintain the positive feelings between therapist and patient.

The following are some general principles that therapists can employ throughout treatment to preserve a productive and healthy therapeutic alliance.

1. Ask patients for feedback about every session.

2. Be attentive. Remember details about the patients from session to session.

3. Use imagery and metaphors that the patients will find personally relevant.

4. Be consistent, dependable, and available.

5. Be trustworthy, even when the patient is not.

6. Remain calm and cool in session, even if the patient is not.

7. Be confident, but be humble.

8. Set limits in a respectful manner.

Ask Patients for Feedback About Every Session

The best cure for a damaged therapeutic relationship is prevention. One of the easiest and most reliable methods for avoiding misunderstandings between the therapist and patient is for the therapist to check on what the patient perceives and feels about the session. This can be done during the course of the session (e.g., "What do you think about what I've been saying so far today?") and/or at the completion of the session (e.g., "How do you feel about today's session? Is there anything I said that rubbed you the wrong way?") If the patient states that he or she is disgruntled, or demonstrates nonverbal reactions that seem to indicate discomfort (e.g., sighing, reticence), the therapist can address this immediately, providing a heavy dose of nondefensive empathy along the way.

For example, one patient misconstrued the therapist's discussion of high-risk situations as an attempt to plant the idea into the patient's head that he was going to succumb to his urges. Once the therapist asked for feedback and ascertained that the patient thought the therapist was trying to sabotage the patient's sobriety, the therapist was able to explain his actual intentions, which were to educate and help the patient. For good measure, the therapist apologized for not being more clear.

It is important for the therapist not to assume that everything is okay in the therapeutic relationship just because the patient hasn't openly complained. Patients who have mistrust issues and/or live in dangerous neighborhoods often conceal their negative feelings extremely well. They adopt a "street smile" that hides both their vulnerability and their desire to strike back without warning. Therefore, the therapist should make an effort to ask for feedback on a regular basis, as both a preventive and a reparative measure.

Be Attentive. Remember Details About the Patients From Session to Session

Although this point may be common sense in theory, it is not always easy to enact in practice. For example, some drug-abusing patients may use slang terms the therapist doesn’t know. If the therapist doesn't ask for clarification, he or she may miss important information. This may further lead the patient to think that the therapist didn't care to understand, rather than that the therapist wasn't able to understand, and the therapeutic rapport may be harmed.

To accurately conceptualize the patient's life situation, the therapist must be able to mentally accumulate information about the patient from week to week. In this way, understanding increases. A simple, tried-and-true method to enhance this process is to take thorough, prompt therapy notes about every contact with the patient, and to review these notes religiously before each new session.

Use Imagery and Metaphors That the Patients Will Find Personally Relevant

Once the therapist facilitates the establishment of rapport by speaking "directly, simply, and honestly" (see first item, previous section), he or she can facilitate more sophisticated understanding by using images and metaphors to communicate important but complex points.

For example, a therapist wanted to discuss the patient's tendency to isolate himself from others, including those who purported to love him and to want to help him. The therapist conceptualized the patient's problem in terms of the patient's fear that he would inevitably hurt anyone who got close to him. Further, the patient saw himself as being very attractive and powerful, thus making his efforts to isolate himself from would-be admirers all the more difficult.

The therapist used the following metaphor in order to explain this formulation, while also appealing to the patient's narcissism: "Joe, you're like a shiny new Porsche with no brakes. You're coming down the road looking as cool and swift as you can be, and everyone wants to come up close to you to get a better look. Meanwhile, you know that you have no brakes. Therefore, you're afraid if that people get too close, you're going to run them down, and you're not sure you can live with yourself if that happens, so you drive away from everybody. Joe, I think we need to get you some brakes. What do you think?"

Then the therapist elicited feedback from the patient, who said he felt both understood and complimented. This facilitated the continued discussion of the important issue above.

Be Consistent, Dependable, and Available

Therapists typically do not earn their drug-abusing patients' trust through sudden, dramatic gestures. Rather, trust is gained through the therapist's consistent professionalism, honesty, and well-meaning actions over a long period of time.

Although drug-abusing patients often may arrive late for sessions, fail to show up at all, and otherwise demonstrate the lack of a serious involve-ment in the process of treatment, therapists (by contrast) need to demon-strate a steady commitment to helping these patients. Therefore, it is very important for therapists to arrive on time for their appointments, even in cases when the patients habitually come late. In like manner, it is impor-tant for therapists to be available for therapy sessions on as regular a basis as possible (and to make sensible alternative arrangements if necessary), to return their patients' phone calls promptly, and to be reachable in cases of emergency.

Another more powerful way that therapists can establish that they are well grounded and dependable centering points in their patients' lives is to unfailingly pursue patients who do not show up for their sessions. If the therapist establishes a pattern whereby he or she will almost always telephone a patient within hours of their missing a session, the therapist communicates a concern that goes beyond words. Along these same lines, it is advisable for therapists to be willing to continue to treat a drug-abusing patient when he or she returns after a drug lapse or other prob-lematic hiatus from therapy. This strategy provides the most realistic means by which to treat a disorder whose course is often recurrent. Further, it provides a sense of hope for patients who otherwise might believe that they have burned their bridges with all benevolent and helpful others. Therefore, they may be more apt to return to treatment voluntarily and more quickly following future lapses.

Be Trustworthy, Even When the Patient Is Not

As explained above, therapists must demand a higher standard of behavior from themselves than they can expect from their substance-abusing patients. Patients who act and think in combative, passive-aggressive, and/or mistrustful ways in their everyday life often expect that others will treat them in like fashion. Therefore, it is a corrective experience for patients when they realize that their therapists will continue to demonstrate honesty and concern, even when the patients themselves have been less than friendly or truthful in return.

As difficult as it is to gain the trust of the substance-abusing patient, it can be impaired or lost quickly and with relatively little provocation. There- fore, the therapeutic relationship must be managed in a delicate, pains-taking fashion. In the process of accomplishing this

goal, therapists must recognize their own anger when patients lie to them, and must strive to keep such feelings in check. Instead, therapists need to find a diplomatic way to address the "apparent inconsistencies" in what the patients say and do, and to remain nonjudgmental (Beck et al. 1993).

Remain Calm and Cool in Session, Even If the Patient Is Not

When a patient becomes hostile, loud, intransigent, and/or verbally abusive, it does little good for the therapist to respond in kind (Beck et al. 1993). To deescalate a potentially dangerous situation, the therapist must stay calm, nondefensive, and matter-of-fact. It is important at such times for the therapist to express a genuine concern for the patient's well-being and best interests.

When the therapist and patient are at odds, it is extremely helpful for the therapist to call attention to their areas of agreement and collaboration. This helps to remind that patient that a single conflict with the therapist does not mean that the entire therapeutic endeavor is adversarial. Although a certain degree of confrontation between the therapist and the drug-abusing patient is almost inevitable during the course of treatment (Frances and Miller 1991), the therapist can minimize damage to the therapeutic relationship by calmly communicating a tone of respect and concern (Newman 1988).

Be Confident, But Be Humble

One of the most fundamental ways to help patients gain confidence and hope about the process of therapy is for therapists to show confidence in themselves. This involves such behavioral components as clarity of voice, relaxed posture, nondefensiveness, and an energetic optimism.

However, the therapist does not need to go to extremes to demonstrate confidence. In fact, it is actually ill-advised for therapists to portray themselves as omnipotent and/or omniscient. A certain degree of humility is necessary to create and sustain an atmosphere of collaboration and mutual respect.

For example, therapists must be willing to admit that they do not know (or were wrong about) something, if appropriate, rather than try to fake their way through. For example, one patient repeatedly referred to a "Reverend Percy" in his first therapy session. At one point, he asked his therapist, "You're aware of Reverend Percy's work

in the community, aren't you?" The therapist, not wanting to seem like he was ignorant about important civic leaders, was tempted to tell a white lie and answer "yes." Fortunately, the therapist humbly admitted that he hadn't heard of Reverend Percy, but that he was interested in learning more about him. The patient laughed, and stated that it was a good thing that the therapist didn't know Reverend Percy, because "I just made him up!" By showing a willingness to admit that he didn't know something, the therapist passed the patient's rather clever but devious test. Therefore, the therapist preserved his credibility.

Another way therapists can demonstrate humble confidence is to apologize at times. Therapists can do this in response to misunderstandings or minor errors, such as a miscommunication about the exact date and time of a scheduled session, or a harsh sounding comment (e.g., "I'm sorry if my last statement sounded rather hard on you. Really, I'm on your side, but perhaps I got a little carried away just then because I was very concerned about you."). The therapist communicates confidence by showing that he or she is not afraid to admit to a mistake, and that he or she is still optimistic about the course of therapy.

Set Limits in a Respectful Manner

While it is important that therapists work collaboratively with their substance-abusing patients, they must take care not to become so permissive that patients will know that they can take advantage of their therapists' good will. Limits must be set (Ellis 1985; Ellis et al. 1988; Moorey 1989)—for example, that a therapy session will not be held if the patient is intoxicated.

Therapists should establish ground rules during the first session so there will be no confusion or ambiguity later on. Therapists can set limits without sabotaging the therapeutic relationship if they adopt a respectful tone and emphasize their commitment to help patients with their problems (Newman 1988, 1990).

For example, Beck and colleagues (1993) describe the case of a patient who arrived intoxicated for a therapy session. The therapist asked the patient if he had been drinking, and the patient acknowledged that he had. The therapist thanked the patient for his honesty and then suggested that the session be postponed. When the patient protested, the therapist calmly stated, "We made an agreement that we would meet only when you were sober and able to

fully absorb the benefits of the session, and I think we should stick to our agreements." The therapist went further to point out the advantages of the patient's remaining in the waiting room for a couple of hours until it was safe for him to drive home. The patient was a bit disgruntled, but was mollified when the therapist gave him a newspaper to read to keep him occupied.

The lesson to be learned from the above vignette is to set limits, but be neither critical nor controlling. Emphasize that the patient's welfare is the primary concern, and that the therapeutic alliance is still active and strong in spite of the disagreement. Then, follow through.

THE THERAPEUTIC RELATIONSHIP AND THE CASE FORMULATION

Therapists who are most adept at accurately understanding their patients have the best chance of establishing and preserving positive alliances with their patients. In this sense, a good case formulation goes a long way toward helping the therapist and patient maximize their collaborative effort.

When conflicts arise between a therapist and a patient, and/or when unexpressed but problematic ill feelings exist in the therapeutic relation-ship, the therapist can explore aspects of the case conceptualization to make sense of the interpersonal tensions in session. Oftentimes, this strategy will not only shed light on the reasons for the problems in the therapeutic relationship, but will advance an overall understanding of the patient's life issues. As a result, important material is revealed, the patient feels better understood, and the therapeutic alliance is strengthened.

The following are some general guides for using the case conceptulation in the service of improving the therapeutic relationship.

1. Strive to understand the pain and fear behind the patient's hostility and resistance.

2. Explore the meaning and function of the patient's seemingly oppositional or self-defeating actions.

3. Assess the patient's beliefs about therapy.

4. Assess your own beliefs about the patient.
5. Collaboratively utilize unpleasant feelings in the therapeutic relationship as grist for the mill.

Strive To Understand the Pain and Fear Behind the Patient's Hostility and Resistance

Although the therapist may believe that change is a good thing, clients may have misgivings. Many patients, especially those with serious, longstand-ing disorders, cling tenaciously to the status quo in their lives, because to some extent it is familiar and safe (Beck et al. 1990; Layden et al. 1993; Newman 1994*a*; Young 1990). For many patients, it is frightening and disorienting to change patterns of cognition, affect, and behavior that they have long associated with their very identity. Additionally, many patients believe that significant change is untenable, due to further difficulties that they expect would arise.

For example, Ed and his therapist agreed that prostitutes were a high-risk stimulus for him. Whenever he would encounter a prostitute who liked to get high, he was vulnerable to seeking out drugs with which to pay the woman. Then, they would have sex and smoke crack cocaine together. In spite of this understanding, Ed still frequented prostitutes and used drugs. At first, this exasperated the therapist, who thought that Ed was deliberately sabotaging therapy because of an opposition to change. However, when the therapist probed for Ed's fears about giving up this maladaptive pattern, Ed was able to articulate that he felt he had nothing to offer a straight woman. He believed that because he was unemployed and not very handsome, his only means of finding female companionship would be in the context of drug use with a prostitute. In other words, underlying Ed's apparent resistance was a fear of being alone. This understanding helped the therapist to express empathy, and to encourage Ed to actively challenge the belief that he would be alone if he gave up drugs.

When patients become overtly angry in session, therapists can cope with this situation best by trying to provide empathy, and by reminding them-selves that no matter how aversive this situation is for therapists, the patients almost always feel worse. This stance helps therapists to decatas-trophize the situation, and to keep the therapists' attention squarely on the patients' needs.

For example, one therapist defused a patient's hostile outburst by asking, "Do you feel I've let you down in some way?" Another

therapist achieved the same end by saying, "I'm sorry if what I've said or done has upset you. That wasn't my intention. How did what I said hurt your feelings?" Yet another example is the therapist who "normalized" his patient's angry refusal to answer the therapist's questions by stating, "I can see that you're only trying to protect yourself. That's okay. Everybody has the right to do that."

Explore the Meaning and Function of the Patient's Seemingly Oppositional or Self-Defeating Actions

When substance-abusing patients do not appear optimally connected with the therapist or engaged in the process of therapy, it is useful to explore the factors that seem to make it in the patient's best interest to oppose the therapist.

Therapists can address this issue head on by noting that there are both advantages and disadvantages to changing one's behavior, and that it might be interesting to look at the pros and cons of attending therapy, as well as the pros and cons of using or abstaining from drugs. Therapeutic collaboration is facilitated when therapists show that they are willing to look at the cons of change (Grilo 1993). Patients then become more apt to cooperate in the exercise of reviewing the long-term costs involved in not changing. Thus, patient receptivity to change is enhanced.

Rita's behavior at the start of therapy was quite contentious. She contra- dicted or made sarcastic remarks about much of what the therapist would say. After experiencing much frustration and consternation, the therapist finally said: "Rita, given that you frequently disagree with me, my first guess would be that you don't like to meet with me—and yet, you always come to your sessions. What are you getting out of these sessions? How is therapy meeting your needs, given that we seem to be at odds so often?"

Rita didn't know what to make of this at first. Upon further reflection, however, she admitted that she gained a sense of power out of being able to intellectually spar with the therapist. In her view, it would take the fun out of therapy if she agreed with her therapist. This admission led to a fruitful discussion of power, control, and counter-control in relationships.

Assess the Patient's Beliefs About Therapy

An assessment of how patients idiosyncratically interpret various situa-tions is part and parcel of the process of case conceptualization in cogni-tive therapy (Persons 1989). One such situation is therapy itself. Some patients expect that therapy will be an adversarial process, especially when they perceive their therapists to be from a more privileged socio-economic background. Here, they may perceive their therapists to be agents of the system who will continue to oppress them. Naturally, this viewpoint is laden with mistrust, and will need to be addressed in order for treatment to proceed in a collaborative and amicable fashion.

Another problematic belief about therapy to which some drug-abusing patients subscribe is that the process should always feel good. This belief ignores the fact that taking part in treatment is hard work, and often involves the discussion of emotionally painful issues. If this belief is unassessed and unaddressed, a patient may bolt from therapy at the first sign of discomfort, perhaps before a positive therapeutic alliance can even be established.

Yet another maladaptive cognitive stance that some patients adopt is that therapists cannot be of any help unless they have gone through the problem of substance abuse in their lives too. Therefore, instead of looking at their therapists as positive role models who have the personal and technical skills to help the patients with their problems, patients may discount the thera-pists' comments and reject their help because "they just don't understand."

Therapists need to be aware of some of these (and other) dysfunctional presuppositions that drug-abusing patients sometimes have about therapy and therapists. Towards that end, it is extremely useful in the first session for therapists to ask two series of questions, one during the early stages of the session and the other at the end of the session.

The first question is: "What are your thoughts about coming in to meet with me today? I'm not sure whether you feel good or bad about seeing me, and I'm not sure what your expectations or hopes about treatment are. But I'd like to know, if you're willing to share your thoughts with me."

The second question is: "What are your impressions about how things went in today's session? Was there anything that I said that you didn't like or didn't agree with? Was there anything about today's session that was particularly helpful? What should we make sure we

continue to talk about in our next session in order to get the most out of being here?"

Assess Your Own Beliefs About the Patient

Therapists are human beings, and therefore are subject to their own dysfunctional beliefs at times. This is most problematic when the therapist's maladaptive beliefs center on their patients, and the therapist fails to take stock of these beliefs. Some of the more commonly encountered therapist beliefs (cf. Beck et al. 1993) include:

- "This patient is a loser."
- "This patient is beyond help."
- "This patient will never listen to me."
- "Why can't I reach this patient? What am I doing wrong? I'm going to have to give up on working with this patient."
- "You can't be collaborative with this type of patient. If you give them an inch, they'll take a mile. Therefore, I will not budge from my position one iota."
- "This case is more trouble and responsibility than I can bear."

When therapists find themselves having such thoughts, it presents them with an excellent opportunity to use cognitive therapy techniques on themselves (Newman 1994*b*). This strategy can help therapists moderate their own hopelessness and frustration enough to still be able to provide good will and an earnest effort. The end result is that the therapeutic relationship will continue to have a positive effect on the process of treatment, rather than being a hindrance. Additionally, the therapist will have gained a deeper understanding of the nature of the patient's typical interpersonal difficulties in everyday life.

The following is a sampling of rational response flashcards that therapists can personally develop to help them modify counterproductive beliefs about drug-abusing patients (cf. Beck et al. 1993):

- "There have been a number of sessions in which the patient and I have worked very well together. Those were rewarding experiences that I must not forget."

- "Let me try to understand my patient's resistant thoughts and behaviors, rather than simply label her a troublemaker."

- "This power struggle is a great opportunity to get at some really hot interpersonal cognitions!"

- "If I keep my cool, present my point of view calmly, and also show that I'm willing to be flexible within reason, I'll probably get a lot more therapeutic mileage out of this conflict than I will if I become strident or stubborn."

Collaboratively Utilize Unpleasant Feelings in the Therapeutic Relationship as Grist for the Mill

Tension and conflict between a patient and therapist need not be gratuitously disruptive to the process of therapy. In fact, if handled skillfully, such episodes can shed light on the patient's negative beliefs and actions regarding interpersonal relationships (cf. Layden et al. 1993). This information, in turn, can be used to help the patient make important discoveries, and can inspire him or her to experiment with new adaptive behaviors.

For example, a therapist noticed that the patient was looking glum, not making eye contact, and sounding a little sarcastic. To explore the meaning of this behavior, the therapist forthrightly said, "Things seem a little tense between you and me today. Did you notice that?" This led to the patient's becoming uncharacteristically silent; therefore the therapist knew that she had hit home. She added, "Can we talk about it? If something is wrong I'd like to try to work it out, if that's okay with you."

Upon further discussion, the patient stated that the group therapy leader (in another setting, though still part of the patient's treatment package) had said something that "he could only have known if he spoke to you." In other words, the patient thought that his individual therapist was saying things about him behind his back to the group therapy counselor. This, in fact, was not the case at all.

The therapist and patient discussed all the possible alternatives to his mistrustful point of view, including the possibility that the group counselor and individual therapist were independently reaching similar clinical judgments about the patient. The therapist added that she would certainly talk to the patient directly about the prospect of sharing information with the group counselor if the need arose. Then she demonstrated empathy for the patient, stating, "It must have

been difficult for you, thinking that I betrayed your trust. I can imagine how disillusioned you must have felt. I'm glad we can set the record straight, because I have enjoyed working with you, and things seemed to be going well until this misunderstanding."

Furthermore, this episode became grist for the mill in that it highlighted one of the patient's characteristic patterns—namely, to jump to con-clusions about the ill motives of another person, and then to keep these suspicions to himself. This would then prevent the possibility of talking things out and resolving or clarifying the matter with the other person, and the relationship would deteriorate. It was little wonder that the patient felt he had so few friends, and believed that he could never depend on anyone. Because the therapist succeeded in uncovering the nature of the rupture in the therapeutic relationship, the patient-therapist alliance was preserved, and an important aspect of the patient's dysfunction became a clinical topic for the session.

CONCLUSION

The treatment of substance-abusing patients poses a great set of challenges to therapists. One of the most fundamental and vital of these is the estab-lishment and maintenance of a positive therapeutic relationship. If thera-pists succeed in communicating a spirit of acceptance, collaboration, respect, good will, and optimism to their drug-abusing patients, the process of treatment will be enhanced. If, by contrast, these goals are not achieved, the likelihood of the patients' demonstrating spotty attendance, poor punctuality, and premature termination will increase, thus diminishing the prospects that therapy will have an appreciable effect.

Therapists can facilitate the formation and maintenance of a positive therapeutic alliance with drug-abusing patients by consistently adhering to principles that are part and parcel of a cognitive therapy approach. Such principles include working with the patient as a team, giving clinical rationales in a clear fashion, eliciting feedback from the patient, exploring the belief systems of the patient, being aware of one's own belief systems and how they may impinge on the therapeutic process, and utilizing the case conceptualization and other strategies that require a thoughtful, empathic, and pragmatic approach.

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Back to Basics: Fundamental Cognitive Therapy Skills for Keeping Drug-Dependent Individuals in Treatment

Bruce S. Liese and Aaron T. Beck

INTRODUCTION

Dr. A is conducting his third cognitive therapy session with Mary, a depressed, cocaine-dependent 34-year-old woman. As she describes a recent relapse, Mary begins to cry. Dr. A says he has no tissues and he makes no effort to find any. Instead he urges her to think carefully: "Now Mary, what goes through your mind right before you use cocaine?" Mary's crying escalates and in the absence of tissues she blows her nose and wipes her tears with the wrapping paper from the sandwich she ate for lunch. Dr. A persists in asking about Mary's drug-related thoughts. She responds to his queries, but does not show up for their next two scheduled sessions. Eventually she drops out of therapy.

Dr. B is meeting with Bob for their second session. Bob, diagnosed with cocaine dependence and narcissistic personality disorder, describes himself as "extraordinarily successful and gifted." As evidence of his brilliance, Bob offers a long list of accomplishments. Bob doubts whether anyone, including Dr. B, can really understand or help him. In this session, Bob graphically describes a sexual encounter. Dr. B interrupts with the question, "What cocaine-related beliefs were you having at this moment?" Bob responds incredulously, "What the hell are you talking about?" Dr. B insists that cognitive therapy will help Bob eliminate the thoughts and beliefs that led to his drug use. Bob responds, "Good luck!" He never returns to see Dr. B.

Dr. C is conducting his first psychotherapy session with Gina, an unmarried 18-year-old woman dependent on alcohol, marijuana, nicotine, and cocaine. Gina explains that she dropped out of school at age 16 to take care of her newborn baby. She admits to using drugs when she is overwhelmed. In this first session, Dr. C spends 35 minutes of a 50-minute session describing cognitive therapy. He gives detailed technical descriptions of schemas, conditional beliefs, cognitive distortions, facilitative beliefs, and instrumental strategies.

Dr. C completes his lecture by asking, "Does this make sense?" Gina replies, "I guess so." Satisfied with this answer, Dr. C finishes his lecture and schedules Gina for their next session. Gina shows up for the following session, but attends only a few more sessions before she eventually drops out of treatment.

For several years, cognitive therapists have been trained to provide treatment to drug-dependent patients. These case examples reflect actual incidents observed during this training process. The authors have witnessed scenarios such as these and realized the extraordinary challenge and importance of retaining drug-dependent patients in treatment. This chapter reviews the literature on premature termination (i.e., dropout). The cognitive model of substance abuse is presented, along with the authors' conceptualization of missed sessions and dropout. And finally, strategies are proposed for retaining drug-dependent individuals in treatment.

THE LITERATURE ON THERAPY DROPOUTS: A BRIEF REVIEW

A substantial literature addresses the problem of dropout from psycho-therapy (Wierzbicki and Pekarik 1993). Dropout has been found to relate to several factors, including quality of the therapeutic alliance (e.g., Mohl et al. 1991; Grimes and Murdock 1989; Strupp et al. 1992; Tryon and Kane 1990) and severity of psychopathology (e.g., Avasthi et al. 1994; Kazdin 1990; Kazdin et al. 1993; MacNair and Corazzini 1994; McCallum et al. 1992; Ravndal and Vaglum 1994; Sterling et al. 1994). Generally, research has revealed inconsistent relationships between demographic variables and dropout (e.g., Beckham 1992; Gilbert et al. 1994; Mosher-Ashley 1994; Sledge et al. 1990). Nonetheless, in a recent meta-analysis of 125 studies, Wierzbicki and Pekarik (1993) found significant relationships between three demographic variables (race, education, income) and dropout.

A number of studies have demonstrated positive relationships between substance abuse and dropout from psychotherapy. In a study of 142 outpatients with various psychiatric diagnoses, Swett and Noones (1989) found that patients with drug or alcohol problems were more likely than other patients to drop out of individual psychotherapy. In a study of 65 depressed adolescents, Gilbert and colleagues (1994) found that those with alcohol and drug histories were more likely to drop out of a 12-week psychotherapy group than those who did not report alcohol or drug use. MacNair and Corazzini (1994) studied 155

university students enrolled in interpersonal therapy groups and found that those with alcohol and drug problems were more likely to drop out than those without such problems.

Recently, investigators (Simpson and Joe 1993; Smith et al. 1995) have begun to examine the relationships between the processes and stages of change (Prochaska et al. 1992) and dropout. Studies have tested the hypothesis that individuals' stages of change relate to their retention in treatment; thus far, only modest support has been found for this hypothesis.

Estimates of dropout from psychotherapy have ranged from approximately 30 percent to 60 percent (Wierzbicki and Pekarik 1993). In their meta-analysis, Wierzbicki and Pekarik found the mean dropout rate of 125 studies to be approximately 47 percent. Dropout from drug and alcohol treatment is common and retention rates are extremely variable. Carroll and associates (1994) reported that only 49/121 (40 percent) of subjects in their study completed treatment for cocaine dependence. In a study of inpatient alcoholics, Carver and Dunham (1991) reported that only 71/141 (50 percent) of subjects completed treatment. Simpson and Joe (1993) studied dropout patterns in methadone maintenance clinics participating in the Drug Abuse Treatment for AIDS-Risks Reduction (DATAR) project funded by the National Institute on Drug Abuse (NIDA). These authors found that 12 percent of methadone maintenance patients terminated within 30 days, 24 percent within 60 days, and 35 percent within 90 days (N = 311). Sterling and colleagues (1994) found that only 43/194 (22 percent) of individuals successfully completed treatment for crack cocaine dependence.

No single variable has uniformly been associated with dropout from drug or alcohol treatment. For example, in one study (McCallum et al. 1992), severity of psychiatric symptoms predicted dropout, while in two other studies (Ravndal and Vaglum 1994; Sterling et al. 1994), no such relationship was found. Similarly, in one study (Carver and Dunham 1991) renewed drinking was predictive of dropout, while in another study (Ravndal and Vaglum 1994), renewed substance use was not predictive of dropout. Two studies (Carroll et al. 1994; Simpson and Joe 1993) reported that being married was positively correlated with completing treatment. No such relationship was reported in the other studies reviewed above.

An interesting finding, relevant to cognitive therapy, was reported in two of the above-mentioned studies. Carver and Dunham (1991) and

Simpson and Joe (1993) found that patients' expectations for success were related to reduced drug use and completion of treatment. Expectations of success involve thoughts and beliefs about the potential effectiveness of treatment. This finding is consistent with the cognitive conceptualizations of substance abuse and dropout described in the following sections.

THE COGNITIVE THERAPY OF SUBSTANCE ABUSE: A BRIEF REVIEW

The authors' basic model of substance abuse (Beck et al. 1993; Liese 1993, 1994*a*, 1994*b*; Liese and Chiauzzi 1995; Liese and Franz, in press; Wright et al. 1992) is presented in figure 1. The model assumes that certain activating stimuli (e.g., anxiety, interpersonal conflicts) trigger basic drug-related beliefs and automatic thoughts about substance use (e.g., "Drinking/smoking relaxes me!"). These beliefs and thoughts, in turn, heighten individuals' urges and cravings to use drugs. But not all urges and cravings lead individuals to drug use. Instead, individuals who have facilitative beliefs about drugs (e.g., "Just one won't hurt me") are likely to use drugs. In the presence of urges, cravings, and facilitative beliefs, many individuals focus on actions that prepare them for continued use and relapse, though some rare individuals are able, at this critical point, to "just say no."

COGNITIVE CONCEPTUALIZATION OF MISSED SESSIONS AND DROPOUT

The model for conceptualizing missed sessions and dropout is presented in figure 2. This model is based on extensive discussions with cognitive therapists and their drug-dependent patients. First, therapists were asked to speculate about their patients' reasons for missing sessions and dropping out. After formulating a tentative model based on therapist responses, patients were asked: "What circumstances and thoughts would

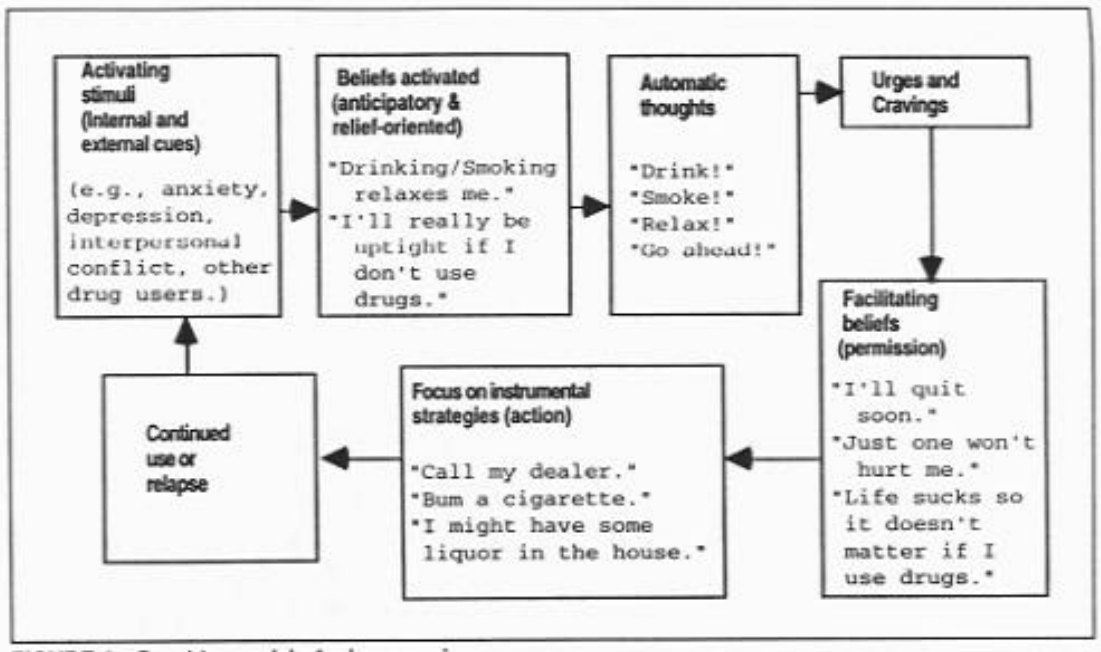

FIGURE 1. *Cognitive model of substance abuse.*

SOURCE: Reprinted from Liese and Frantz (in press) with permission.

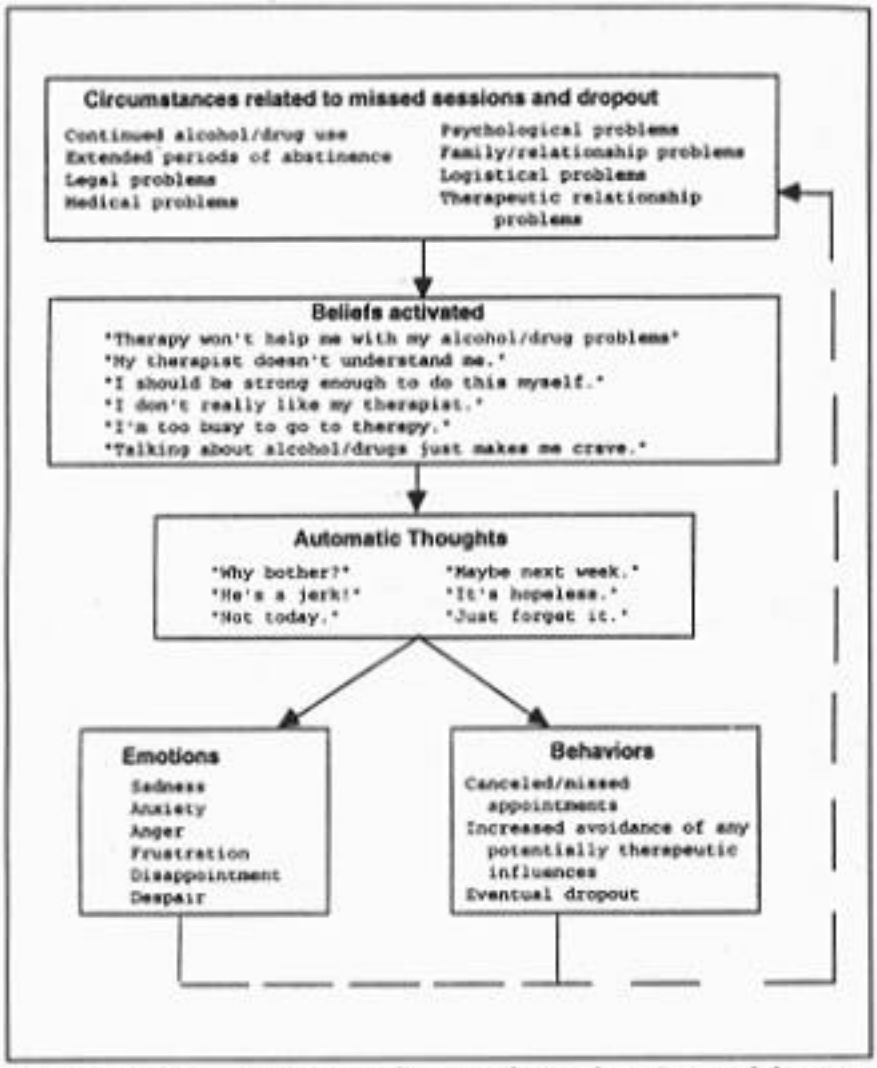

FIGURE 2. *Cognitive conceptualization of missed sessions and dropout.*

lead you to miss sessions or drop out of therapy?" Initially, many patients denied any risk of dropout, exclaiming: "This is my last chance for recovery. I won't drop out!" These individuals would then be ask to respond hypothetically: "Let's assume that you won't miss sessions or drop out. But if it were to happen, what circumstances or thoughts would be involved?" Patients also were asked to reflect on the circumstances and thoughts associated with past missed sessions and dropout. The model presented in figure 2 is based on answers to these queries.

According to the authors' conceptualization of missed sessions and dropout, certain circumstances (e.g., continued alcohol or drug use) place people at high risk for missed therapy sessions and dropout. These circumstances activate certain beliefs about therapy or the therapist (e.g., "Therapy won't help me," or "My therapist doesn't understand me.") that are manifested as automatic thoughts (e.g., "Why bother?" or "What a jerk!"). These beliefs and thoughts lead to emotions and behaviors associated with dropout.

The thoughts, feelings, and behaviors associated with missed sessions and dropout tend to be self-reinforcing (i.e., they function in a cyclic fashion; see figure 2). Certain emotions (e.g., despair, anger, anxiety, guilt) and behaviors (e.g., drug use, missed sessions) function as circumstances that increase the likelihood of future missed appointments and dropout. Beckham (1992), for example, found that missed sessions early in therapy were highly predictive of later dropout. In the typical course of outpatient treatment for drug dependence, individuals may become skeptical, believing that "treatment isn't working" (especially in response to strong urges, craving, or lapses). This belief may lead to missed sessions. Missed sessions may lead to increased emotions of apathy, discouragement, or guilt. These emotions may lead to additional missed sessions until eventually this vicious cycle ends in dropout. In the following paragraphs the authors' conceptualization of missed sessions and dropout is described in more detail, including the associated circumstances, beliefs, automatic thoughts, emotions, and behaviors associated with missing sessions and dropping out.

Circumstances Related to Missed Sessions and Dropout

Many circumstances potentially relate to missed sessions and dropout. These circumstances include (but are not limited to) continued alcohol or drug use, extended periods of abstinence, legal problems, medical problems, psychological problems, family/relationship problems, logistical problems, and therapeutic relationship problems. It is

important to note that these circumstances do not necessarily result in missed sessions or dropout. Instead, they may activate beliefs or thoughts that in turn result in missed sessions and dropout. Some individuals drop out of therapy when they have lapses or relapse, while others continue to attend therapy sessions when they are using drugs or alcohol. Some individuals drop out of treatment when they have legal, psychological, medical, or relationship problems, while others drop out of treatment when they resolve these problems (especially if they have entered treatment to avoid the negative consequences of using, such as loss of children).

Continued Alcohol or Drug Use. Unfortunately, relapse is prevalent among individuals attempting to abstain from alcohol and drugs (Hunt et al. 1971; Marlatt and Gordon 1985, 1989). Lapses and relapses may trigger distress, discouragement, helplessness, and hopelessness in patients that, in turn, may lead to dropout. In addition to distress, continued drug use may result in other problems in patients' lives, which may further contribute to missed sessions and dropout. For example, drug use can cause legal problems, medical problems, psychological problems, family problems, logistical problems, and problems in the therapeutic alliance. These circumstances (listed in figure 2) are all discussed in this section.

Extended Periods of Abstinence. Just as there are individuals who have slips, lapses, and relapses, there are others who succeed at being abstinent from drugs and alcohol. These individuals, despite their abstinence, are likely to have residual skill deficits. For example, they may lack effective communication skills or mood-management strategies that facilitate abstinence. If these individuals do not perceive therapy as offering relevant skill development, or if they perceive themselves as not needing to develop skills, they are likely to miss sessions and drop out of treatment.

Abstinent individuals with substantial family or personal responsibilities are at even higher risk for dropout. For example, consider Gina, the young mother described above. At present Gina is struggling to manage multiple life demands. She is likely to view time, rather than therapy, as being her most precious resource. While abstaining from drugs and alcohol, she is likely to view addiction treatment as taking time away from her baby rather than being beneficial to her continued abstinence.

Legal Problems. Drug-dependent individuals are at heightened risk for legal problems. Many psychoactive drugs (e.g., cocaine, heroin,

hallucinogens) are illegal; the purchase, sale, and possession of these drugs constitutes a punishable crime. Likewise, the use of legal drugs, like alcohol, may also be associated with illegal behaviors (such as driving under the influence). Psychoactive drugs are also expensive and some individuals resort to illegal activities (e.g., robbery, theft, prostitution) to acquire them. Even nicotine dependence can lead to shoplifting if the smoker does not have the financial means to purchase cigarettes. Chronic drug use may also lead to significant impairment in judgment, resulting in uncharacteristic illegal behaviors.

While many drug-dependent individuals do not engage in illegal activities themselves, they may associate with others who do. Mary (described above), for example, has never engaged in significant illegal behaviors. However, when she is actively using cocaine she is drawn to one particularly violent, aggressive, antisocial, drug dependent man who deals drugs.

As drug-dependent individuals become increasingly involved in illegal activities, they are at heightened risk for dropout for several reasons. First, they may be ashamed of their behaviors. Second, they may be afraid of the potential legal consequences of discussing their behaviors with others (e.g., therapists). And third, they may be incarcerated for their illegal behaviors, making treatment inaccessible. It is important to acknowledge that some individuals are mandated to enter treatment as a result of their legal problems. These individuals are particularly prone to drop out when their legal problems are resolved (for example, when criminal charges against them are dismissed).

Medical Problems. It is well known that psychoactive drugs are associated with numerous medical problems. For example, cigarettes are associated with almost half a million deaths per year (from heart disease, pulmonary disease, a variety of cancers, and numerous other medical problems). Alcohol is associated with almost 100,000 deaths per year (from liver disease, gastrointestinal disorders, vascular diseases, malnutrition, and trauma). Cocaine has been linked to heart attacks, strokes, hypertension, and trauma. Marijuana smoking is associated with pulmonary disease, depression, and amotivational syndrome. Medical problems resulting from drug abuse often result in the initiation of drug treatment. However, when individuals become seriously ill or hospitalized they are less likely to continue treatment and more likely to drop out.

Psychological Problems. Just as psychoactive substances lead to medical problems, they may also lead to psychological problems. Many psychoactive drugs act as central nervous system stimulants and

depressants and their chronic abuse may lead to serious psychological problems which may, in turn, lead to missed sessions and dropout.

For example, Mary suffers from recurrent depressive episodes, exacerbated by her cocaine use. One of the most salient symptoms of Mary's depression is hopelessness. Any indications that Mary is "failing" in therapy might activate hopeless thoughts (e.g., "It's useless to attend therapy; I'll never improve."). Hopelessness may eventually lead to complete withdrawal from treatment.

Family/Relationship Problems. It is well known that chronic substance use has a negative impact on families and interpersonal relationships. These problems may lead to missed sessions or dropout. Gina, for example, currently has almost no social or family support. At one time Gina's mother would help her with money and child care so Gina could work and attend therapy. However, Gina's mother decided to stop providing assistance to Gina after discovering that Gina was using her money and free time to use drugs. At the urging of her Al-Anon group, Gina's mother elected to take a tough love stance with Gina by withdrawing all support from her. The inadvertent effect was the escalation of missed sessions and eventual dropout.

Similar to legal and medical problems, family and relationship problems may also result in the initiation of treatment. Many individuals enter treatment to avoid the negative consequences of their drug use (e.g., loss of a marriage or children). These individuals are particularly vulnerable to dropout when they believe that their family problems are resolved.

Logistical Problems. Many drug-dependent individuals are vulnerable to logistical problems, including difficulties with finances, transportation, and child care. It is common for addicted individuals to lose their drivers' licenses, jobs, and even homes as a result of their drug use. At one time, Bob was a financially successful attorney. However, as a result of his drug use he lost his wife, job, savings, car, and home. Like Mary and Gina, Bob did not have enough money to pay the taxi fare to attend treatment. Given his narcissistic personality, he attributed these problems to events outside of himself (e.g., getting "ripped off" by others who were envious of him). He dropped out after concluding that he had "more important things to do than go to therapy."

Therapeutic Relationship Problems. Given the numerous problems encountered by drug-dependent patients, the development and

maintenance of collaborative therapeutic relationships may be difficult. Patients are likely to feel ashamed, depressed, or angry at themselves for their problems. They may fear that therapists will judge them or be upset with them. Therapists may, indeed, have strong negative feelings towards their drug-dependent patients and convey these to patients. When this occurs, therapy becomes aversive and patients are likely to drop out.

Most treatment models strongly encourage, require, or demand that patients be fully abstinent from drugs and alcohol during and after treatment. These models may convey the messages: "If you use drugs or alcohol we can't help you," or "If you use drugs or alcohol you have failed and disappointed us." Such messages may intimidate, discourage, frustrate, and anger drug-dependent individuals, who may drop out of treatment following any drug use. In each of the three case examples described above, therapists viewed drug or alcohol use as catastrophic and intolerable. While they did not overtly express anger or frustration, they conveyed disappointment and disapproval in subtle ways.

Unfortunately, inexperienced cognitive therapists are likely to underestimate the difficulty and importance of developing collaborative relationships with their drug-dependent patients. In response to certain patient behaviors (e.g., missed appointments, relapse, dropout), therapists are likely to experience emotional distress, including feelings of frustration, irritation, anger, boredom, and despair. Therapists' distress, of course, can be attributed to their negative beliefs. Among the therapist beliefs that lead to distress are the following (Liese and Franz, in press):

- This patient is a typical drug addict!
- After detox this patient will just relapse again!
- This patient thinks I'm stupid!
- This feels like a waste of my time!
- All addicts are the same!
- Lapses and relapses are catastrophic!
- Missed sessions are awful/terrible/intolerable!
- This patient doesn't want to change!
- I'm working harder than this patient!

Hence, a vicious cycle may emerge wherein both therapist and patient reinforce each other’s worst fears. When patients sense their therapists' distress they, of course, become vulnerable to dropout.

To illustrate the cyclic nature of missed sessions and dropout, consider the example of Mary, presented earlier. At the beginning of her third session with Dr. A, Mary felt discouraged about her recent drug use. During the session she became visibly distressed. Instead of attending to her despair and responding empathetically, Dr. A focused exclusively on Mary's recent drug use. By the end of the session Mary felt ashamed, confused, and angry at herself for "being so weak." As Mary's fourth session approached she thought, "I never succeed at anything I do, so why bother with therapy? Besides I don't like my therapist." She canceled her fourth and fifth sessions, which heightened her belief that therapy would not help her. Eventually she made another therapy appointment, but in this session Dr. A was very confrontive about Mary's missed sessions and her commitment to therapy. Mary again felt extreme despair. Her corresponding thoughts were, "It's hopeless. I can't quit using drugs. Talking about my problems only makes me feel worse. If I return to therapy I'll only disappoint Dr. A." When it was time to return for her next scheduled appointment, Mary reflected on the last visit and decided, once and for all, "I'm just not getting anything out of therapy." She never again returned for therapy and her drug abuse worsened.

Beliefs Activated

As the model was being developed, the authors began to search for the idiosyncratic beliefs leading to dropout, for example: "Therapy isn't likely to help me," "My therapist doesn't understand me," "I don't want to quit using drugs yet," and "It's uncomfortable to talk about my problems." It was assumed that knowledge of these beliefs would facilitate increased empathy for drug-dependent patients and lead to specific techniques for retaining patients in treatment. With the help of therapists and patients, the search generated hundreds of beliefs associated with missed sessions and dropout. From these, a list of 50 beliefs was distilled (see appendix). In the following paragraphs, the three case examples are used to illustrate these beliefs.

Mary, discussed earlier, began crying in her third therapy session. When the therapist did not offer tissues or act in a conciliatory manner, she probably began to think: "I can't quit using drugs" (item 7); "I'm helpless, so what's the point of trying to quit?" (item 12), and; "I never succeed at anything I set out to do" (item 22). Of course these beliefs, consistent with her depression, put her at high risk for missing future sessions and dropout. Unfortunately, these beliefs also put her at high risk for continued drug use. As Mary continued to use drugs while in therapy, she developed such additional

beliefs as: "I really, really can't quit using drugs" (item 7); "I don't deserve help since I'm still using drugs" (item 25), and; "I'll just get upset if I go to a therapy session" (item 38).

Bob, who was narcissistic, was likely to hold the following beliefs: "My therapist doesn't understand me" (item 11), "I don't really like my therapist" (item 23), and "I have more important things to do than go to therapy" (item 39). As a result of these beliefs, he would feel annoyed at his therapist and see little value in attending sessions.

Gina, an educationally and economically disadvantaged young mother, was likely to react to her therapist's lecture with such beliefs as "I'm not smart enough to benefit from this therapy" (item 8), "I don't like this type of therapy" (item 24), and "I can't make the necessary arrangements so I won't go to therapy" (item 41). Naturally, these beliefs led her to avoid therapy until she eventually dropped out.

Automatic Thoughts

As previously mentioned, automatic thoughts are brief, abbreviated versions of basic beliefs. Automatic thoughts exert powerful effects on emotions and behaviors, yet they often manifest themselves in ways that are undetectable to the person experiencing them. Examples of automatic thoughts leading to missed sessions and dropout include, "Not today," "It's hopeless," and "He's a jerk!" (referring to the therapist).

Emotions and Behaviors Related to Missed Sessions and Dropout

As drug-dependent individuals encounter the above-mentioned circumstances, beliefs, and thoughts, they are likely to experience significant negative emotions (e.g., sadness, anxiety, anger, frustration, disappointment, and despair). Furthermore, they are likely to miss and cancel appointments.

As mentioned previously, these feelings and behaviors are likely to function in a cyclic fashion. That is, they are likely to become the circumstances that further perpetuate beliefs leading to dropout. To illustrate, again consider Gina. When Gina received her 35-minute lecture from Dr. C, she thought "I don't really like my therapist." This thought contributed to several missed sessions. When she missed a session, Dr. C would demonstrate his frustration by lecturing Gina about the importance of attending sessions. Thus, Gina's negative beliefs about her therapist were confirmed and the pattern of missed

sessions escalated. These missed sessions, in turn, led to therapeutic relationship problems, which finally resulted in dropout.

SKILLS FOR KEEPING DRUG-DEPENDENT INDIVIDUALS IN TREATMENT

The final sections of this chapter present fundamental skills for keeping drug-dependent individuals in treatment. These skills correspond with the five components of cognitive therapy described by Liese (1994*b*; Liese and Franz, in press): (1) collaboration, (2) case conceptualization, (3) structure, (4) socialization, and (5) cognitive-behavioral techniques.

Establish and Maintain Collaborative Therapeutic Relationships With Drug-Dependent Patients

Certainly the most important strategy for reducing dropout is to develop and maintain genuine, warm, caring, empathetic relationships with drug- dependent patients. While most experienced therapists possess basic collaboration skills, many seem to forget these skills when working with drug-dependent patients. It is assumed that therapists' distress is a result of their negative beliefs about their effectiveness with drug-dependent individuals (e.g., "It's hopeless; they'll never change" and "My patients' success is a function of my competence"). Many therapists are unaware of their own negative reactions to drug-dependent patients; the process of collaboration can begin only when they acknowledge their negative feelings towards such patients.

It is essential for therapists to recognize that their negative emotions magnify patients' problems and increase their likelihood of dropout. Patients often recognize their therapists' distress and respond by withdrawing from therapists (i.e., by dropping out). Patient dropout further exacerbates therapists' distress. In fact, Magnavita (1994) described dropouts as potentially demoralizing to therapists. Therapists are strongly encouraged to carefully monitor their own thoughts and feelings throughout the treatment process.

The authors of this chapter believe that abstinence is the most appropriate goal for drug- and alcohol-dependent individuals. Nonetheless, cognitive therapists are encouraged to "meet patients where they're at" in their readiness to change. This can be accomplished by helping patients learn important lessons from each

episode of drug use. This attitude is consistent with harm-reduction philosophies advocated by Marlatt and colleagues (Marlatt and Tapert 1993; Marlatt et al. 1993). Simply stated, therapists are encouraged to accept the fact that their addicted patients may occasionally (or even frequently) use drugs. Therapists who attempt to persuade and cajole patients to be abstinent are likely to be ineffective. Drs. A, B, and C all felt an urgency to stop their patients from using drugs. Their patients, recognizing this urgency, felt uncomfortable with these therapists and eventually withdrew from treatment. One might assume that any of these patients would have continued treatment if relationships with their therapists had been better.

Develop an Accurate Case Conceptualization for Each Drug-Dependent Patient, Paying Careful Attention to Factors Associated With Dropout

Cognitive therapists learning to treat drug-dependent patients often underestimate the importance of the case conceptualization. As a result, they fail to anticipate and adequately address dropout. The models of substance abuse and dropout (figures 1 and 2) were reviewed earlier in this chapter because the authors believe they will be helpful in conceptualizing dropout.

For example, with an accurate case conceptualization, Dr. A would have realized that Mary's drug use was linked to her depressed feelings and underlying helpless and hopeless beliefs about herself. Rather than focusing on her most recent binge, which resulted in her heightened despair, Dr. A would have recognized and addressed her despair.

With an accurate case conceptualization, Dr. B would have recognized that Bob's drug use was linked to his frantic (narcissistic) efforts to view himself as powerful and superior to others. Rather than focusing on Bob's maladaptive thoughts about cocaine, Dr. B would have focused on Bob's belief that others do not understand him.

Without an accurate case conceptualization, Dr. C overestimated Gina's interest in, and ability to comprehend, the cognitive model of substance abuse. Rather than lecturing Gina, Dr. C should have explored how overwhelmed she generally feels and how she would manage to attend therapy given the many demands already on her.

The list of beliefs leading to missed sessions and dropout in the appendix is particularly helpful for conceptualizing patients' beliefs

about dropout. Therapists are encouraged to memorize these beliefs and use open-ended questions to elicit beliefs that potentially lead to dropout. For example, therapists are encouraged to ask: "When you don't feel like coming to therapy, what thoughts go through your mind?" and "How do you respond to inevitable thoughts of not continuing therapy?"

Use the Structure of Cognitive Therapy To Anticipate and Address Potential Dropout

Therapists are encouraged to utilize the structure of cognitive therapy to detect and address potential dropout. The structure of a typical session includes: (1) agenda setting, (2) mood check, (3) bridge from the last session, (4) discussion of current agenda items, (5) feedback, and (6) homework. Each step may be used in unique and important ways to reduce the likelihood of dropout, as discussed in the following paragraphs.

Cognitive therapy sessions begin with agenda setting wherein therapists ask, "What would you like to work on today?" In response to this question, patients often respond, "I don't know," or "Whatever you want to work on." Another common response is, "Everything's going great! I can't think of anything to work on." Such responses might reflect problems with motivation or commitment to therapy. Thus, it is important for therapists to seriously address such responses when they occur. The best initial response to the absence of an agenda item is, "That's okay. Just take some time and think about what you'd like to work on." When patients persist in having no agenda items, it might be appropriate to say, "It's interesting that you can't think of anything to work on. What are your current thoughts about being in therapy?" As the patient responds to this question, it is particularly important to be attentive to beliefs potentially associated with dropout.

The mood check is the next step in a typical cognitive therapy session. Since mood disturbances reflect negative feelings and beliefs, the mood check provides an opportunity to elicit beliefs and feelings related to dropout. Thus, it may be an excellent time to detect skepticism, pessimism, or hopelessness about therapy. In addition to asking, "How is your mood today?" therapists are encouraged to specifically ask, "How do you feel about being here today?"

The bridge provides another excellent opportunity to evaluate potential for dropout. During the bridge the therapist asks the

patient, "What do you remember from our last session?" or "What did we work on in our last session?" It is during the bridge that therapists also ask patients about any drug use, urges, or cravings since the last visit, as well as upcoming situations potentially leading to drug use. Patients' responses to these questions might reveal circumstances potentially leading to dropout. For example, patients who cannot recall any significant benefits from previous visits might not view therapy as beneficial. Patients who have been using drugs since the last visit, of course, might be vulnerable to dropout. Minimization or denial of urges and cravings might reflect patients' fears of being honest with their therapists.

Before discussing agenda items, therapists are encouraged to prioritize these items with patients. While it might seem appropriate to focus exclusively on drug use, neglecting other matters important to the patient might convey the message, "I don't care about you; I only care about stopping you from using drugs." Such messages increase the likelihood of dropout. During the discussion of agenda items, it is essential for therapists to remain focused. Focusing involves listening carefully and remaining attentive to current agenda items until some resolution or closure is achieved. In contrast, some therapists enable patients to drift from topic to topic, leaving both parties feeling unfulfilled. When this occurs, the patient is vulnerable to thinking, "Therapy is not likely to help me," which, of course, may lead to dropout.

Another structural aspect of cognitive therapy is feedback, wherein therapists ask patients to discuss their reactions to therapy. Typical questions for eliciting feedback are, "What are your thoughts and beliefs about therapy?" and "What are you getting out of therapy?" By regularly asking for feedback, therapists may directly assess patients' potential for dropout. The list of beliefs in the appendix is likely to be helpful in this process. Each item can be reworded as a question, for example:

"How do you think therapy will help you with your alcohol/drug problems?" (item 1)
"How do you feel about my monitoring your drug use?" (item 3)

"Since you still have strong urges and cravings, how do you think therapy is helping you?" (item 9)

"Since you've been abstinent for 6 months, what's motivating you to continue therapy?" (item 21)

After asking these questions, it is important for therapists to listen carefully to patients' responses. Specifically, if patients' answers are vague or negative, it is essential to ask for elaboration. In the case of Gina, Dr. C asked whether she understood his lecture. When she answered "I guess so," he failed to recognize the tentativeness of her response. If he had responded to her skepticism, he might have anticipated and addressed the beliefs leading to her eventual dropout.

The final component of cognitive therapy sessions is homework. Homework, in many ways, is a direct measure of individuals' readiness to make changes in their lives. Both the assigning and reviewing of homework may facilitate retention in treatment. For example, by assigning appropriate homework consistent with patients' readiness to change, patients are likely to remain engaged in the treatment process and be less likely to drop out. In contrast, if homework assigned is inappropriate (e.g., too difficult or irrelevant to the patient's main problems), the patient will begin to develop beliefs leading to dropout. In reviewing homework, the therapist can infer, to some degree, patients' commitment to the treatment process. For example, patients who do not do homework might be conveying (indirectly) thoughts of helplessness or hopelessness. It is important to address these matters.

Socialize Patients in a Timely, Effective Manner

Socialization is an important and popular feature of cognitive therapy. Socialization is synonymous with the term "education," and it involves teaching patients to better understand themselves and their drug use. Socializing may occur in several different content domains. For example, therapists may teach patients about the cognitive model of substance abuse, about cognitive distortions, or about the medical consequences of drug abuse. Two ingredients of socialization appear to render it more or less effective: appropriateness and timing of the information presented.

Appropriateness is defined as the degree to which the information presented is relevant to the patient's interests and needs. Timing is defined as the delivery of the information at the appropriate moment. Appropriateness and timing require that the therapist listen carefully and empathetically to the patient. The effective delivery of information requires an accurate case conceptualization, including an understanding of the patient's readiness to acknowledge problems and make changes.

Two examples of inappropriate, poorly timed socialization attempts are apparent in the examples of Drs. B and C with Bob and Gina. Neither patient was particularly interested in their therapists' lectures, and neither seemed ready to integrate the information provided by their therapists. At times therapists believe that their patients need or want information. However, to test this assumption, therapists are encouraged to first ask questions to evaluate their patients' interests and knowledge levels. For example, rather than telling Bob how therapy works (i.e., by "eliminating thoughts and beliefs that lead to drug use"), Dr. B might have asked him, "Have you ever wondered how you could give up cocaine when you enjoy it so much?"

Use Cognitive and Behavioral Techniques Appropriately and Sparingly, and Base the Selection of Techniques on Accurate Case Conceptualizations

When cognitive therapy was originally introduced as a treatment for the acute psychiatric problems of depression and anxiety, emphasis was on structure, socialization, and techniques. This emphasis was appropriate for patients with these acute disorders. However, the simplicity and effectiveness of cognitive and behavioral techniques with these disorders led to their overemphasis and overuse. In response, Beck (1991) stated: "One of the misconceptions of cognitive therapy is the notion that it can be defined simply in terms of a set of cognitive techniques" (p. 195).

There are many potential techniques in the cognitive therapy of substance abuse. For example, the advantages-disadvantages analysis is useful for evaluating the negative and positive consequences of patients' drug use. The daily thought record is useful for helping patients examine and evaluate their beliefs leading to drug use. And cue cards provide reminders of reasons for abstaining from drugs and alcohol. (For detailed discussions of these and other techniques, see Beck et al. 1993.)

For cognitive-behavioral interventions to be effective, they must be timed well and they must be delivered appropriately. When either of these criteria is unmet, the likelihood of dropout is increased. Poor timing is characterized by delivery of a technique at the wrong time, while poor delivery is defined as the ineffective execution of a technique.

Similar to the process of socialization discussed earlier, there are appropriate and inappropriate times to deliver techniques. In the examples above, Drs. A, B, and C all delivered interventions at inappropriate times. Mary, Bob, and Gina were all ill-prepared for their therapists to tell them how to fix their problems. Instead, each patient probably would have responded best to empathy, support, validation, and encouragement. Regarding the delivery of cognitive-behavioral techniques, some styles are more collaborative than others. Debating and lecturing, for example, tend to be less effective than guided discovery (i.e., therapist-guided exploration of problems and solutions).

SUMMARY

Cognitive therapists who treat drug-dependent patients are likely to lose at least 50 percent of their patients to dropout. This chapter has presented a cognitive model for conceptualizing missed sessions and dropout, along with strategies for reducing the likelihood of missed sessions and dropout. The following should serve to highlight these strategies.

1. Therapists are encouraged to offer warm, empathetic, collaborative relationships in which drug-dependent patients can feel accepted, understood, and validated.

2. Therapists are encouraged to develop comprehensive, accurate case conceptualizations, with attention paid to the potential for missed sessions and dropout. Case conceptualizations should ultimately guide cognitive and behavioral techniques.

3. Therapists are encouraged to structure sessions and elicit feedback regarding their patient's thoughts and beliefs about therapy and the therapist. This feedback is facilitated by such questions as, "What do you like most about therapy?" "What do you like least?" "What has changed in your life as a result of therapy?" "How do you view our relationship?"

4. Therapists are encouraged to socialize patients in a timely, appropriate manner.

5. Similar to the process of socialization, therapists are encouraged to use cognitive and behavioral techniques in a timely, appropriate manner.

It is unrealistic to think that the problems of missed sessions and dropout from drug treatment will ever be fully resolved. Nonetheless, the authors believe that the conceptual models and fundamental strategies presented in this chapter represent a significant step in addressing these problems.

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APPENDIX: Beliefs leading to missed sessions and dropout.

1. "Therapy won't help me with my alcohol/drug problems."
2. "My therapist can't help me because he or she has never been addicted."
3. "I don't want some therapist breathing down my neck."
4. "Talking about alcohol/drugs just makes me want to use more."
5. "I'm better off just trying to forget my alcohol/drug problem."
6. "If I continue therapy I'll just disappoint the therapist."
7. "I can't quit using alcohol/drugs."
8. "I'm not smart enough to benefit from this therapy."
9. "I keep getting urges and cravings so therapy isn't helping me."
10. "Alcohol/drugs are a big part of my life. I'm not ready to give them up."
11. "My therapist doesn't understand me."
12. "I'm helpless, so what's the point in trying to quit?"
13. "A psychotherapist can't help me."
14. "Psychotherapists are for crazy people."
15. "No one can tell me what to do."
16. "I don't see how talking about my problem can help me."
17. "Alcohol/drugs are my only source of enjoyment and relaxation."
18. "My problem is physical, not mental, so I don't need a psychotherapist."
19. "The therapist is never there when I really need him or her."
20. "I should be strong enough to do this myself."
21. "I haven't used in some time so I don't have a problem anymore."
22. "I never succeed at anything I set out to do."
23. "I don't really like my therapist."
24. "I don't like this type of therapy."
25. "I don't deserve help since I'm still using alcohol/drugs."
26. "Talking about my problems only makes me feel bad about them."
27. "I'm too busy to go to therapy."
28. "I'll just relapse anyway so it's stupid to go to therapy."
29. "I'm not getting anything out of therapy."
30. "I'll never stop using alcohol/drugs."
31. "I'm not going to therapy because I used recently."
32. "I know more about addictions than my therapist."
33. "I can't stand it when my therapist confronts me."
34. "I just don't feel like talking."
35. "It won't hurt to miss a session here or there."
36. "I don't know what to talk about so I won't go to therapy."
37. "I can't go to my therapy session because I haven't done the homework."

38. "I'll just get upset if I go to a psychotherapy session."
39. "I have more important things to do than go to therapy."
40. "I'm too upset to talk right now."
41. "I can't make the necessary arrangements so I won't go to therapy."
42. "I need to be in the right mood to go for therapy."
43. "Only people who are screwed up go to therapy."
44. "My therapist never believes what I say."
45. "I don't like it when my therapist says my head is messed up."
46. "I have a right to do what I want with my body."
47. "No other treatment has helped so this won't."
48. "I don't want to have to explain myself to anyone."
49. "If I tell my therapist what's really going on, he or she will abandon me/criticize me."
50. "I just want to forget my problems."

Establishing a Therapeutic Alliance With Substance Abusers

Lester Luborsky, Jacques P. Barber, Lynne Siqueland, A. Thomas McLellan, and George Woody

To understand a research problem, it helps to first look back at its origins. For each of the three topics in this chapter, the authors first look back, then look ahead to see how to use what is known about (1) the concept of the alliance, (2) its translation into measures for substance abuse research, and (3) its use in improving psychotherapy outcomes in drug abuse treatment.

THE CONCEPT OF THE THERAPEUTIC ALLIANCE

Where else should the alliance concept have started but with Freud (1912)? Freud took for granted the need to first establish rapport as part of developing an alliance with the patient, an essential ingredient of effective treatment. Much later, Bordin (1976, 1980) elaborated a theoretical framework that also set the stage for the later development of measures of the alliance.

The influences of both Freud's and Bordin's concepts on the development of measures of the alliance are apparent. Bordin described three components in the alliance: goals, tasks, and bonds. In a well-functioning treatment relationship, the patient and therapist come to an agreement about the goals the patient wishes to achieve in the treatment. They also come to accept certain therapeutic tasks as potentially helpful for achieving those goals. The bonds that form between patient and therapist in the course of working on the tasks include the positive personal attachments that stimulate trust and confidence.

MEASURES OF THE ALLIANCE AND THEIR RESULTS IN SUBSTANCE ABUSE RESEARCH

In 1974, Bordin arranged a program on concepts of the alliance for the 1975 Society for Psychotherapy Research annual meeting and asked Luborsky to participate. To get ready for that meeting, Luborsky looked back over Bordin's concepts, examined transcripts of psychotherapy sessions, took note of the inferences about the

alliance, and started to develop operational alliance measures, including two transcript-of-sessions methods: the Helping Alliance Counting Signs method (HAcs) (Luborsky 1976) and a session-based rating method, the Helping Alliance Rating Method (HAr) (Morgan et al. 1982). About 1977, Woody, McLellan, and Luborsky began a study of opiate-dependent patients (Woody et al. 1983) involving the use of another alliance measure, the Helping Alliance questionnaire (HAq) (Luborsky 1984; Luborsky et al. 1985; see also a review of research with that questionnaire in Luborsky et al., unpublished). It is therefore fitting that the conference on the therapeutic alliance was sponsored by the National Institute on Drug Abuse (NIDA), because Woody and colleagues'(1983) NIDA-supported study was the first use of a questionnaire called an alliance measure as a predictor of the outcome of psychotherapy.

This review is restricted to measures that are called alliance measures. There were earlier studies, based on a variety of more general measures of relationship patterns (mostly called relationship measures), especially Barrett-Lennard's Relationship Inventory (Gurman 1977). The authors' shift in label to "alliance," however, may have been a substantive one reflecting more than just a change in the name, but also a greater focus on a specific active ingredient of the relationship, the alliance.

The remainder of this section describes the main substance abuse studies that have used alliance measures, Woody and colleagues (1983) and Luborsky and colleagues (1985). Their aim was to determine whether psychotherapy added significantly to treatment as usual (drug counseling) for opiate-dependent patients. Psychotherapy was found to add to the patients' benefits from treatment. For the combined sample of four types of treatment—cognitive-behavioral (CB), dynamic, supportive-expressive (SE), and drug counseling (DC)—the alliance, as measured by the HAq, significantly predicted outcomes of the psychotherapies ($r = 0.65$, $p < 0.01$). The Woody and associates study (1983) played a big part in the drug abuse field by stimulating what has become the popular use of alliance measures in psychosocial treatment studies with many types of psychiatric patients.

Several subscales on the Addiction Severity Index (ASI) (McLellan et al. 1980) (higher severity is associated with lower adherence) correlated highly with the HAq, such as drug use (0.72, $p < 0.01$) and psychological functioning (0.58, $p < 0.01$). These ASI scores were taken at the 7-month outcome point, 1 month after the 6 months

allotted treatment time. The therapist form of the HAq gave similar results.

Gerstley and colleagues (1989) offered a new analysis of the alliance data collected by Woody and associates (1983), specifically examining psychotherapy outcomes on patients with the diagnosis of antisocial personality disorder. Gerstley and associates (1989) built up the work of Woody and colleagues (1985), who compared four diagnostic subgroups: opiate dependence alone (N = 16), opiate dependence plus depression (N = 16), opiate dependence plus depression plus antisocial personality disorder (N = 17), and opiate dependence plus antisocial personality disorder (N = 13). Patients with opiate dependence plus antisocial personality disorder improved the least, showing change only on ratings of drug use. Patients with opiate dependence alone or with opiate dependence plus depression improved significantly and in many areas. Therefore, the general finding was that antisocial personality disorder alone is a negative predictor of psychotherapy outcome, but that co-occurring depression appears to improve the patient's amenability to psychotherapy.

It is noteworthy that in Woody and associates' (1983) study, 76 percent of the sample met research diagnostic criteria (RDC) for at least one psychiatric disorder in addition to drug dependence. Nineteen percent of the patients met RDC standards for antisocial personality disorder, but 45 percent of the patients met the antisocial personality disorder criteria when "Diagnostic and Statistical Manual of Mental Disorders," 3rd ed. (DSM-III) criteria were used.

Gerstley and associates (1989), using the same data as Woody and associates but with the HAq, examined patients' capacity to form an alliance with the therapist when the diagnosis met DSM-III antisocial personality disorder criteria. Their new findings were that some patients diagnosed with antisocial personality disorder were able to form a positive relationship with their therapist, as measured by their scores on the HAq-I, and that these scores correlated with improvement in psychotherapy. The HAq therefore helped in identifying which antisocial personality disorder patients would benefit from psychotherapy.

In a study by Luborsky and associates (in press), two alliance measures were compared with each other in the pilot phase of a large-scale NIDA multisite collaborative psychotherapy outcome study for cocaine disorder patients; the measures were the Penn Helping Alliance questionnaire-II (HAq-II) (Luborsky et al., in press) and the

California Psychotherapy Alliance Scale (CALPAS) (Marmar et al. 1989). The patient sample was drawn from the four sites of the NIDA collaborative study at hospitals in Nashua (NH), Philadelphia, Pittsburgh, and Boston. The two alliance scales were filled out by approximately 250 patients early and late in the course of 6 months of psychosocial treatment for cocaine dependence.

Two findings emerged (Luborsky et al., in press) from the analysis of the data: Internal consistency was high for the items of the HAq-II as well as for those of the CALPAS scale, and was also evident in both the patient and therapist forms for each measure. The HAq-II and the CALPAS were moderately correlated with each other, with correlations between the patient version of the two forms at sessions 2, 5, and 24 of 0.59, 0.64, and 0.75, respectively, and with similar correlations of 0.78, 0.79, and 0.94 for the therapist version of the two measures. (The predictions of outcome will be reported in a future publication.)

APPLICATIONS OF PROCEDURES FOR IMPROVING THE ALLIANCE AND THE OUTCOMES IN PSYCHOTHERAPY

The field is at an early stage in terms of studies of how to use the knowledge of the alliance to improve the alliance for both addicted patients and other patients. Although the field already has some applied quantitative studies, it is worth relying also on what has been learned clinically. These clinical studies are sampled below.

Clinical Procedures

Freud (1912) offered two specific recommendations to improve the rapport between patient and therapist: do nothing to interfere with the natural development of rapport, and listen with sympathetic under-standing. Similarly, Rogers (1957) recommends showing empathy and positive regard.

An extended set of recommendations was assembled for improving the alliance (Luborsky 1984, 1993).

1. Convey support for the patient's wish to achieve the patient's goals. This can be done by reviewing the patient's goals from time to time to clarify them and to relate what is being done in the therapy to meet these goals.
2. Offer understanding and acceptance of the patient.

3. Develop a liking for the patient or for important aspects of the patient.

4. Help the patient who needs support to hold on to vital defenses and activities that maintain the patient's level of functioning.

5. Convey a realistically hopeful attitude that the treatment goals are likely to be achieved and that the therapist is trying to help the patient achieve them.

6. Recognize on appropriate occasions that the patient has made some progress toward the goals.

7. Find ways to encourage some patients to express themselves on some occasions.

Clinical-Quantitative Procedures

The positive correlations of early alliance measures with treatment outcome imply that strengthening the alliance should improve the outcome of treatment. In fact, the current authors found a correlation in the Penn psychotherapy sample of 43 patients between the early sessions scores on the HAcs method (Luborsky et al. 1983) and outcome measures: 0.31 ($p < 0.05$) with rated benefit and 0.36 ($p < 0.05$) with residual gain. A meta-analysis of 24 studies by Horvath and Symonds (1991) found an average effect size of 0.26 of alliance scores with therapy outcome, although the mean correlation was diminished by counting all nonsignificant correlations as zero. It has also been reported that the state of the alliance is related to the choice of a therapist (Alexander et al. 1993).

But many of those in the field are part of the here-and-now generation of researchers who ask for clinical-quantitative verification of the value of any clinical methods for improving the alliance. Fortunately, the field has a few studies that deal with improving the level of the alliance. Although none of these studies involves patients with drug abuse problems, effects are likely to be similar across different types of patients (Luborsky et al. 1991). A sample of the recommendations from the applied studies follows.

Picking Successful Therapists. There is evidence that therapists who have a good level of success with patients have patients who

develop a good alliance with them (Luborsky et al. 1985). This is a promising finding and bears replication and analysis of the methods used by these therapists in establishing an alliance.

Repairing Ruptures in the Alliance. Foreman and Marmar (1985), followed by Gaston and colleagues (1989), were the first to assemble examples of impairments in the alliance and suggest a method for repairing them. Safran and associates (1990, 1994) have also set up methods for showing that ruptures in the alliance can be identified and that there are ways of healing them. The main way to improve the alliance, as suggested by Foreman and Marmar (1985) and Safran and associates, is to focus on the problems within the patient-therapist relationship, rather than on problems in outside-of-treatment relationships. The benefits of this kind of focus on the improvement of the patient-therapist relationship have been shown by others as well (Coady 1991).

Increasing Therapists' Alliance-Facilitating Behaviors. A likely area to search for evidence about factors influencing the development of the alliance is within therapists' behaviors that facilitate the alliance. One scale that may be useful to help focus this exploration is called the Therapist Facilitating Behaviors Scale (Luborsky et al. 1988). Scores on this scale have been found to correlate with the alliance scores. For 20 patients in the Penn psychotherapy sample, there was considerable association between the two types of measures; for example, early helping alliance ratings correlated 0.85 ($p < 0.001$) with early therapist's facilitating behaviors rating. It is natural with such a high correlation to suspect that one of the factors influencing formation of the helping alliance is the therapist's ability to facilitate alliances.

Dealing With the Relationship Problems. Several studies that are not specific to the therapeutic alliance may give suggestions about factors related to developing and maintaining such an alliance. Kivligahn and Schmidz (1992) showed that therapists who were more inclined to deal with the therapeutic relationship were more likely to improve the alliance than therapists who were less focused on the relationship. As noted earlier, Foreman and Marmar (1985) suggested that therapists may be able to improve the alliance by dealing with the therapy relationship directly.

Other studies have implied that therapists who relate effectively to patients influence the rate of patients' dropout (McLellan et al. 1988) and the level of patients' motivation (Miller and Rollnick 1991).

Interpreting Accurately. The accuracy of the therapist's interpretations appears to be associated with development of the therapeutic alliance (Crits-Christoph et al. 1993). The measure of accuracy of interpretation is based on the congruence of the therapist's interpretations with the patient's core conflictual relationship theme (CCRT), particularly accuracy on the CCRT dimensions of wish plus response from others; this congruence measure predicted changes in the therapeutic alliance. In an earlier study (Crits-Christoph et al. 1988), this congruence was associated with the patients' benefits from psychotherapy.

ADVANCING THE BENEFICIAL POWER OF THE TREATMENT ORGANIZATION

The qualities of the organization within which drug and alcohol treatment are given can strongly influence the alliance of patients who enter it. Among the earliest contributions in this area was the work of Ball and Ross (1991). McLellan and associates (McLellan and Durell 1995; McLellan et al., in press) have assembled a sample of about 200 such treatment organizations and are systematically relating the qualities of the organization, such as its supportiveness, to outcomes of treatment and to patient characteristics. A large collection of data on such organizations is also being assembled by Hser and associates (1992). This kind of information is probably more critically important for substance abuse patients whose treatment often takes place in a clinic setting.

THE ROLE OF REWARDS

Two other treatment procedures are very likely to foster the alliance. One is giving money as a reward when the patient successfully achieves goals such as abstinence. Stanton and Todd (1981) showed that giving money to the family for attendance and successful abstinence by the patient was effective. Higgins and Budney (1993) demonstrated that giving vouchers to patients was related to attendance, and attendance was related to continued cocaine abstinence and attendance at sessions. The effect of the vouchers may be to encourage patients to come more often, thus improving benefits. A more complex explanation is that as a result of coming more often, the patient may develop an alliance and then benefit

more. The presence of the intervening variable of developing an alliance is a probable inference that merits investigation.

Giving food, such as sandwiches and coffee, is another treatment aid that appears to have similar benefits; the same explanatory reasoning applies. The giver of the food is presumed to become associated with food, a powerful unconditioned reinforcer, which may help the alliance. Food also seems to help with attendance, which generally leads to increased benefits from treatment, but controlled studies on this have not yet been done.

All of these clinical and clinical-quantitative procedures appear to stimulate the alliance and so will have positive effects on the patient's improvement. These procedures may have a not-so-secret underlying common source of their benefits in stimulating the alliance. It becomes easier to recognize the commonality among the measures after slowly re-reading the list of alliance-stimulating procedures: The more the patient sees the therapist and the treatment organization as providing what the patient needs, the more the procedure qualifies as an alliance stimulant; the more that is given by the organization, the more the patient experiences caring and support in achieving the mutually agreed-upon goals.

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