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Clinicians' impact on the quality of substance use disorder treatment

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Abstract

Clinicians' impact on substance use disorder treatment has been much less studied than therapy and patient variables. Yet, in this selective review of literature, a growing body of empirical work on clinicians' impact highlights several key issues that have relevance both to clinical practice and future research. These issues include clinicians' effect on treatment retention and outcome, professional characteristics, recovery status, adherence to protocols, countertransference, alliance, personality, beliefs about treatment, and professional practice issues. Specific recommendations are offered to help improve the quality of care clinicians provide. In particular, it is suggested that greater accountability for clinicians' performance be balanced with increased support for their very difficult role. Methodological issues in studying clinicians' are also addressed.

The vast majority of substance use disorder treatment programs (97% to 99%) provide some form of psychotherapy or counseling (London 1990; Onken 1991). Yet the clinicians who deliver this care have been little studied in research, in contrast to a prevailing emphasis on types of treatments (e.g., CBT versus 12-step) and patient characteristics (Garfield 1997; Imhof, Hirsch & Terenzi 1983; Miller 1985; Najavits & Weiss 1994; Onken & Blaine 1990).

In this paper, our goal is to explore the impact of clinicians who deliver substance use disorder treatments. Through a selective review of empirical studies, we will highlight some major findings and discuss methodological issues for future research.[1] We review two broad categories of studies that involve clinicians, all of which were conducted within the substance use disorder field: those which evaluate clinicians' performance relative to each other and those which study clinician variables that may be relevant to the quality of their work (e.g., job satisfaction, beliefs about substance use disorder issues, therapeutic alliance, adherence).

Substance use disorder treatment may present particular challenges for clinicians beyond those inherent in mental health treatments in general. Patients with substance use disorder are believed to be more difficult to treat and more likely to evoke difficult countertransference than many other types of patients (Imhof 1991; Imhof, Hirsch & Terenzi 1983; Najavits et al. 1995). Their case management needs may be enormous, with legal problems, homelessness, medical complications, financial issues, family problems, and HIV risk, many of which directly result from chronic substance use. High rates of dual diagnoses (Regier et al. 1990) and dropout (Craig 1985; Crits-Christoph & Siqueland 1996; McCaul & Svikis 1991) can also intensify treatment difficulties (Weiss & Najavits 1998).

Moreover, substance use disorder treatment is characterized by a variety of unique professional practice issues. It is the only disorder whose treatment during this century has been primarily outside of mainstream mental health, via Alcoholics Anonymous and other non-professional self-help groups (Najavits & Weiss 1994; Strug, Priyadarsini & Hyman,1986). It is the only disorder in which a major psychosocial intervention aside from psychotherapy (12-step groups) remains the dominant treatment model, and the only one whose system of care remains largely separate (in training, funding, certification, and even separate branches within the National Institutes of Health). It is the only disorder in which treatment is provided primarily by either counselors or 12-step groups, rather than the advanced-degree specialists typical of mental health (social work, psychology, psychiatry). It is also the only disorder in which clinicians' having experienced the disorder themselves (recovery status) is openly acknowledged and promoted as a positive attribute. Finally, it is unique in being both a serious psychiatric disorder (substance dependence) yet also a socially valued and accepted activity when used in small amounts without obvious problems (Keller, 1986). As a result of such cultural and historical characteristics, philosophical and practical differences tend to emerge on various topics. For example, is psychopharmacology an appropriate treatment for substance use disorder? Is harm reduction an acceptable goal when 12-step groups adhere to an abstinence model? Is substance use disorder a lifelong disease? The tendency of clinicians to rely on ideology rather than research data appears to be a notable issue at this point (Miller & Hester 1995; Roche et al. 1995).

As will be seen in the review of studies below, clinicians vary greatly. Clinicians are not the monolithic "constant" previously assumed in most treatment research (Crits-Christoph, Beebe & Connolly 1990; Kiesler 1966). Improved understanding of the power they hold and their professional experiences, can, we believe, lead to increased support for their role and ultimately

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[1] Our search was limited to English-language studies of adult psychosocial treatments, focusing on psychoactive substance use disorders.

increase their capacity to help the patients under their care.

CLINICIANS' IMPACT ON SUBSTANCE USE DISORDER TREATMENT RETENTION AND OUTCOME

One of the most important findings from several decades of research on substance use disorder treatment is that *clinicians are a key factor influencing treatment outcome and retention*. This finding has emerged repeatedly in a variety of studies (Najavits & Weiss 1994; Project MATCH Research Group under review), although, paradoxically, this result was rarely the intent of the studies. It is a finding that has been called "surprising" (Milmoe et al. 1967) and "serendipitous" (Miller, Taylor & West 1980 pg.600). Yet to most front-line clinicians, program administrators, and patients, this result would seem obvious; it is widely known that some practitioners are highly regarded while others are avoided. Research, however, is only beginning to catch up to this known clinical phenomenon. Part of the reason for this disparity is that most outcome studies are designed to evaluate treatments but not clinicians. They compare, for example, cognitive therapy with drug counseling, but do not evaluate each clinician conducting these treatments (i.e., how does clinician #1 compare to clinician #2?). Ironically, however, clinicians typically account for *more* variance in patient outcomes than do differences between active treatments or patient baseline characteristics, a result which holds both in the substance use disorder field and psychotherapy research in general (Crits-Christoph 1991; Luborsky et al. 1986; Luborsky et al. 1997; Najavits & Weiss 1994; Project MATCH Research Group, under review).

Tables 1 and 2 provide examples of key substance use disorder studies that have evaluated clinicians' differences in two measures of effectiveness: patient outcomes, i.e., symptomatic improvement from pre- to post-treatment (Table 1) and retention, i.e., how long patients stay in treatment (Table 2).

The studies mirror the general finding in the psychotherapy literature (Garfield 1997; Luborsky et al. 1997; Najavits & Strupp 1994) that clinicians vary greatly. Each of the studies (except the NIDA Collaborative Cocaine Treatment Study, Crits-Christoph et al., 1997, and the study by Gottheil, Sterling, Weinstein, & Kurtz, 1994) found significant clinician effects. Moreover, the studies span a wide diversity of patient populations (inpatient, outpatient), primary substances (alcohol, cocaine, opiates), research designs (e.g., naturalistic versus controlled trials), presence or absence of manualized treatments, and types of practitioners (e.g., counselors, therapists). When interpreting such studies, however, conclusions can only be tentative at this point, given how few studies actually test for clinician differences and the methodological limitations of most of the studies listed (e.g., non-random assignment of patients to clinicians, retrospective design, small clinician samples, uncontrolled numbers of patients assigned to clinicians (Crits-Christoph & Mintz 1991; Najavits & Weiss 1994).

Some of the studies evaluated whether clinician differences "disappear" when patient baseline characteristics are taken into account. A common belief is that clinician differences are largely attributable to patients' characteristics (such as severity, functioning level, etc.). Yet, in studies that evaluated this question, patient baseline differences did *not* account for the results found (Luborsky et al. 1997; Najavits & Weiss 1994, Project MATCH Research Group, under review). For example, in Project MATCH, clinician differences emerged even when controlling for patients' drinking severity and readiness for change at intake.

CLINICIANS' PROFESSIONAL BACKGROUND CHARACTERISTICS

Clinicians' professional background characteristics, such as years experience, training, etc., might be presumed to influence effectiveness. Yet every major review of the literature over the past several decades has concluded that, overall, such clinician professional characteristics do

not in fact predict their effectiveness, in substance use disorder research and psychotherapy research more generally (Christensen & Jacobson 1994; Najavits & Weiss 1994)(for a thorough review of the literature on professional versus paraprofessional clinicians see Christensen & Jacobson, 1994). In Project MATCH, this also held true except for one finding (i.e., 12-step clinicians' training and years' experience were negatively associated with patients' drinking outcomes) (Project MATCH Research Group under review). While a counterargument can be made that improved methodology might lead to a stronger association between therapist professional background characteristics and outcomes (Snyder 1997), thus far results have been highly consistent, despite flying in the face of "clinical wisdom".

Rather than examining clinicians' background characteristics, it is likely to be more productive to examine aspects of clinicians' actual performance on the job (Luborsky et al. 1997). In an interesting study by McLellan et al. (1988), for example, clinicians who appeared the most organized and thorough in their professional record keeping, enforcement of clinic rules and utilization of treatment resources had the best outcomes with opiate-dependent patients.

MATCHING PATIENTS TO CLINICIANS

Some studies have evaluated whether treatment quality can be improved by matching patients to clinicians based on a variety of characteristics (e.g., gender, race). While matching studies typically follow the predominant model of matching patients to *treatments* rather than clinicians (Gastfriend & McLellan 1997), some studies have addressed the latter (albeit mostly matching on easy-to-measure variables such as race, gender, training, etc.). As one example of such work, Sterling et al. (1998) studied 967 African-American cocaine-dependent outpatients, but found no relationship between any of five clinician variables (including race, gender, and training) and treatment retention, which echoed an earlier study by the same team finding no relationship for these variables to outcomes for a sample of 634 cocaine-dependent patients (Gottheil, Thornton & Weinstein 1997). Overall, studies reviewed in Sterling (1998) have largely found null or mixed results for clinician-patient matching.

CLINICIANS' RECOVERY STATUS

Of particular relevance to the substance use disorder field, clinicians in recovery (i.e., those who identify as having had a substance use disorder problem) versus those not in recovery also show no significant differences in effectiveness despite over 50 studies on this topic, according to McLellan et al. (1988). In Project MATCH, this also held true (Project MATCH Research Group under review). This lack of difference contrasts with clinical lore, which typically asserts that being in recovery translates into better ability to help patients.

ADHERENCE AND COMPETENCE

The advent of manualized treatments—whose goal is to improve the quality of treatment by standardizing it in written form—has led to the development of clinician adherence scales (Addis, 1997; Luborksy & DeRubeis, 1984). Such scales are designed to evaluate whether clinicians are conducting specific treatments within the parameters of the treatment manual and usually include ratings of both adherence (how closely the clinician followed the manual) and competence (the quality with which they conducted the work). Such scales also allow the testing of discriminability (whether a clinician's conduct of a treatment can be differentiated from another treatment) (Addis, 1997; Luborksy & DeRubeis, 1984). Of course, process-outcome relationships may be more complex than linear cause-effect associations. More complex associations, where the therapist behaviors are influenced by patient states, needs to be taken

into account in relating these variables to outcome (Stiles, Honos-Webb & Surko, 1998).

Several large-scale substance use disorder treatment trials (Project MATCH and the NIDA Collaborative Cocaine Treatment Study) as well as some smaller studies have produced adherence scales for a variety of substance use disorder treatments. Currently, psychometric data appear quite strong for adherence scales for cognitive therapy, drug counseling, supportive-expressive therapy, motivational enhancement therapy, family therapy, and dynamic cognitive therapy (Barber et al. 1997; Barber et al. 1996; Carroll et al. 1998; Hogue et al. 1998). Such scales can be used in clinical practice as well as research studies to improve treatment quality.

Perhaps the most relevant finding to date is that clinicians' effects on outcomes lessen when adherence to treatment increases, according to a major meta-analysis (which included but was not limited to substance use disorder outcome studies) (Crits-Christoph 1991). This may mean that if manualized treatments become the norm in clinical settings, the wide variation in clinicians' skills may be reduced. In the study by Luborsky et al. (1985) outcome was associated with clinicians' "purity" of techniques (i.e., the degree to which clinicians conformed to a treatment manual and only to that treatment manual). Purity was related to better outcomes across all clinicians in the study and within clinician caseloads, highlighting the important connection between the clinician and the treatment techniques used.

A study by Broome et al. (1996) addressed "counselor competence" (but not adherence per se) based on patients' rating of their clinicians on four items ("well-organized", "self-confident", "helpful", and "knowledgeable"). Competence showed both high internal consistency (.81) and a strong relationship to re-arrest rates of 279 patients with substance use disorder on probation, accounting for 42% of variance, one of the highest predictors in their model, even when patients' prior arrest record was taken into account.

CLINICIANS' EMOTIONAL RESPONSES (COUNTERTRANSFERENCE)

An area strongly emphasized in clinical writing is clinicians' emotional responses to patients (Imhof 1991; Imhof, Hirsch & Terenzi 1983; Najavits et al. 1995), with the presumption that patients with substance use disorder may effect heightened countertransference because they are typically perceived as more difficult than other patients. Moreover, the "ideal clinician" for patients with substance use disorder is often described in terms of particular emotions, such as a high degree of charisma, optimism, and enjoyment working with substance use disorder patients, and a low degree of cynicism, blame, boredom, hostility, and control (Flores 1988; Gustafson 1991; Imhof, Hirsch & Terenzi 1983; Miller 1985; Vannicelli 1989; Washton & Stone-Washton 1990; Woody et al. 1990; Zweben 1989).

Two studies illustrate empirical work in this area. One study (Milmoe et al. 1967) determined, based on audiotape ratings, that the more anger and anxiety in doctors' voices during an initial interview, the less likely patients were to follow through on alcoholism treatment. Another study, using data from the NIDA Collaborative Cocaine Treatment Study (Najavits et al. 1995), found that clinicians treating cocaine-dependent patients became more negative over the course of six months of treatment despite initially positive views of their patients. That study also found four factors in clinicians' emotional responses, in descending order: "therapist in conflict with self," "therapist focused on own needs," "positive connection," and "therapist in conflict with the patient". Finally, 12-step counselors had more positive views of their patients than did cognitive or supportive-expressive therapists. Relating such findings to treatment outcomes will be a logical next step for research.

CLINICIANS' INTERPERSONAL FUNCTIONING / THERAPEUTIC ALLIANCE

The clinician characteristic most associated with clinicians' effects in substance use disorder

treatment has been in-session interpersonal functioning (broadly, the ability to build a positive relationship with patients) (Najavits & Weiss 1994). In the alcoholism study by Miller et al. (1980) "accurate empathy" on the Truax Scale (rated by clinicians' colleagues) accounted for 67% of the clinicians' outcome results; clinicians' experience level was not related to either empathy or outcome. In one of the more rigorous studies on this topic, Valle (1981) found a strong positive association between the interpersonal functioning of eight alcohol counselors and their patients' abstinence from drinking 6 to 24 months after treatment. Interpersonal functioning referred to "empathy, genuineness, respect, and concreteness" based on counselors' written responses to stimulus statements (a method previously validated). Valle observed that the counselors ranged widely on interpersonal functioning, reinforcing the finding discussed previously that clinicians may vary considerably in performance. This study was notable for its large sample size (247 patients) and random assignment of patients to counselors.

A study by Miller, Benefield and Tonigan (1993) is particularly instructive for the substance use disorder field. They compared a supportive therapist style with a confrontational therapist style in the treatment of alcoholics. They found that the more clinicians confronted patients, the more patients drank (with a strong correlation of .65 for drinking outcomes at one year). The use of confrontation as a style particular to substance use disorder treatment thus deserves particular re-evaluation.

One of the most prolific areas of work in this domain has been the assessment of therapeutic alliance between patients and clinicians, mirroring the general psychotherapy literature which has found alliance to be one of the most robust predictors of treatment outcome (Bergin & Garfield 1994). It is included here because it is widely believed that clinicians contribute to the alliance (although it is not exclusively a clinician variable because, as a dyadic variable, it involves patients as well). Results within the substance use disorder field have been somewhat mixed. A few studies have found clear associations between clinicians' ratings of alliance and effectiveness (Bell, Montoya & Atkinson 1997; Connors et al. 1997; Najavits et al. 1998). For example, in Project MATCH, Connors et al. (1997) found that both clinician and patient ratings of the alliance were strong predictors of alcoholic outpatients' treatment participation and drinking behavior during treatment and 12-month follow-up, even after controlling for a variety of other sources of variance. Luborsky et al. (1985) found that the development of a "helping alliance" was correlated with outcome. In a dual diagnosis sample of women with PTSD, Najavits et al. (1998) found a positive association between therapists' ratings of alliance and patients' retention in treatment. A dual diagnosis study of schizophrenics, found the odd result that more positive alliance (as rated by patients) was associated with lower participation in aftercare (Westreich, Rosenthal & Muran 1996)

A number of studies have not found an association between alliance and outcomes, however. Belding et al. (1997), studying opiate-dependent patients in methadone treatment, initially noted that three-month alliance measures (especially counselors' ratings) predicted reductions in drug use as measured by weekly urinalysis results and 6-month self-report data. However, controlling for urinalysis results in the previous month rendered insignificant the correlations between 3-month alliance and subsequent drug use; moreover, the alliance was unrelated to treatment retention or improvement in psychiatric symptomatology. Oejanhgan (1997), studying alcoholics randomized to either multimodal behavioral therapy or psychodynamic therapy, found no relationship between alliance and drinking outcomes for either therapy, although alliance was associated with mood outcomes at six months for the behavioral therapy condition. Barber et al. (1999), studying 252 cocaine-dependent patients treated with psychotherapy or drug counseling, found that patients' report of the alliance did predicted outcome on drug related measures at the one month assessment, but not at the six

month assessment. Alliance also predicted improvement in depressive symptoms at six months. In short, while it is too early to draw firm conclusions, it appears that counselors' interpersonal functioning is an important predictor of quality substance use disorder treatment. When studying the association between clinician and patient alliance, results are sometimes strong but sometimes not. Given the mixed findings thus far, this is an area ripe for future research.

CLINICIAN PERSONALITY CHARACTERISTICS

Several studies have attempted to study clinicians' personality characteristics. While a few results have been found, it is difficult to draw any consistent conclusions as there are few studies and they vary greatly in the personality variables evaluated.

Better treatment retention has been found associated with clinicians' introversion on the Eysenck Personality Inventory (Rosenberg et al. 1976); field dependence (Dahl 1981), higher need for nurturance but less need for aggression, achievement, and abasement (Schorer 1965) (the latter two studies summarized in a paper by the Project MATCH Research Group; Project MATCH Research Group under review).

Treatment outcomes have been studied as well. In Project MATCH (Project MATCH Research Group under review), 29 personality scales were administered to the 54 therapists in three different theoretical orientations. Relating personality characteristics to patient outcome (percent days abstinent), there were a few findings, particularly for 12-step clinicians, although all correlations are relatively low (ranging from .21 to .37). Better outcome was associated with 12-step clinicians having higher need for aggression, and lower masculinity, femininity, lower needs for achievement, nurturance, deference, and lower conceptual level. For motivational enhancement therapy, better outcomes were associated with lower need for aggression, lower masculinity, and higher need for nurturance. For cognitive-behavioral clinicians, no personality characteristics predicted outcomes. Snowden and Cotler (1974) studied 25 recovering counselors on the staff of an urban drug counseling center in relation to patients' outcomes: missed medications, random urine screen results, and treatment attendance. They found, oddly, that the best counselors were more hypochondriacal, paranoid, manic, and were lower in ego strength. Thrower and Tyler (1986) studied the counseling staff at five addiction treatment centers, who were all recovering paraprofessionals. Peers and supervisors of the counselors provided effectiveness ratings. Therapists rated as more effective were, on the Edwards Personal Preference Schedule, more "dominant", more "heterosexual", less "deferential", and lower on "order".

CLINICIANS' BELIEFS ABOUT SUBSTANCE USE DISORDER TREATMENT

One of the most potentially promising areas of work is the study of clinicians' views on substance use disorder topics, such as the value of 12-step groups, acceptability of a harm reduction model, endorsement of a disease model of addiction, the relevance of DSM-IV diagnoses, what interventions are helpful or harmful for recovery, and what causes addictions problems to begin with (e.g., genetics, psychological problems, etc.) (Caetano 1988; Ogborne et al. 1998; Polcin 1997). There appear to be a number of studies surveying clinicians; however, these are rarely if ever related to "hard" empirical results (such as outcome, treatment retention, referral patterns, etc.). One study that attempted to do so was that of Kang and colleagues (Kang, Magura, Nwakeze & Demsky, 1997), who surveyed 112 counselors in methadone maintenance clinics on a variety of issues relevant to addictions treatment. They found that counselors differed in their attitudes on many issues; however, they did not find any association between attitudes and counseling process variables (e.g., per cent of patients testing positive for cocaine or heroin during the week; number of patients seen; or referrals to other services).

Thus, whether counselor beliefs actually influence behavior (Azjen & Fishbein 1980) remains a topic for future research. As Ogborne et al. (Ogborne et al. 1998) have concluded, this area of work is in its infancy.

Some findings in this area are worth mentioning as they highlight topics that are directly related to treatment quality. For example, Hshieh and Srebalus (1997) surveyed 119 psychologists and 110 addictions counselors about alcoholism and how it might be treated. They found the two professional groups very similar in referral use, accepting a disease analogy for alcoholism, positive views of a 12-step model of recovery, and strong spiritual and/or religious beliefs. However, psychologists were more willing to accept controlled drinking as an alternative goal to abstinence while addictions counselors reported more personal experience with problem drinking. A study by Ogborne et al. (1998) of front-line addictions staff found them in strong support of cognitive-behavioral treatments but viewing pharmacologic treatments as detrimental. In Project MATCH, 12-step clinicians endorsed a disease model of alcoholism significantly more and a psychosocial model significantly less than CBT and MET clinicians (Project MATCH Research Group under review). Such results may have important implications for developing staff training, educating staff about outcome research, and openly discussing philosophies of treatment.

A frequent survey topic has been clinicians' views on 12-step groups, likely because such groups are both a unique aspect of substance use disorder treatment and they adhere to several quite different assumptions than traditional psychotherapy (e.g., overt spirituality, addiction as a lifelong disease, and emphasis on peer- rather than professionally-led groups). Thus far, the literature appears to show less controversy than might be expected: most surveys we found indicated very positive views of 12-step groups, an absence of ideological conflict between mental health and 12-step philosophies, and a strong willingness to refer patients to self-help groups (Freimuth 1996; Hshieh & Srebalus 1997; Humphreys 1997; Osborn 1997; Roche et al. 1995; Wheeler & Turner 1997).

There is little research focused on beliefs about interventions other than 12-step or disease-model at this point (Ogborne et al. 1998), but this area is likely to grow with the recent burst of empirical research on psychosocial treatments other than 12-step (e.g., MET, CBT, psychodynamic) (Crits-Christoph et al. 1997; Project MATCH Research Group 1997).

Another branch of work is studying clinicians' views on their own competence in treating patients with substance use disorder, which may have direct implications on the selection, training, and supervision of staff. One of the earliest studies of this sort was Hayman in 1956 (cited in Galanter 1993), who found that 90% of psychiatrists reported that they were unable to successfully treat alcoholism (Najavits & Weiss 1994). A more recent study of 94 counselors (Wheeler & Turner 1997) found that generic counselors tended not to feel competent working with clients with alcohol problems; feelings of competence increased with greater experience working with alcoholics and, to a lesser extent, with more hours of specialist training.

Finally, another area is the study of clinical judgment, that is, how accurate clinicians are in their judgments about clinical topics. Arising from cognitive psychology, this too is an area largely undeveloped thus far in substance use disorder treatment. One example of an interesting study in this is that of Breslin et al (Breslin et al. 1997). They asked 8 clinicians treating 212 outpatient problem drinkers to predict "How confident are you that the participant will make positive changes in his/her drug or alcohol abuse problems?", scaled 0-100. They found that clinicians' prognostic ratings contributed significantly to the prediction of outcome (days abstinent and drinks per day at 6-month follow-up) over and above the predictive power of various patient pre-treatment variables as predictors. This result disappeared, however, when in-treatment drinking data was included in the model. They concluded that clinicians' judgment may be useful in situations when in-treatment drinking data is not available.

PROFESSIONAL PRACTICE ISSUES

Given the notable challenges inherent in substance use disorder treatment, there are a variety of professional practice issues that warrant attention when considering clinicians' quality of service delivery.

One often-noted phenomenon is a high rate of burn-out (Gustafson 1991; Elman & Dowd 1997). As Gustafson has said, the central message to clinicians is "Do more, and do it better". He reviews a variety of professional practice issues that make substance use disorder treatment difficult for clinicians and systems: "unacceptably low" salaries and fringe benefits, location of drug treatment programs in less desirable areas, the often poor physical work environment of drug programs, high staff turnover, and a shortage of job candidates with relevant qualifications. Indeed, a recent survey of job satisfaction among 231 addictions counselors found that 76% reported that they would leave their job within the next five years. They were least satisfied with their opportunities for advancement and most satisfied with the opportunity to be of help to others (Evans & Hohenshil 1997).

A major strain on clinicians' ability to provide adequate care are systems issues. For example, the lack of integration between mental health and substance use disorder treatment systems can make clinicians' jobs difficult when trying to coordinate dual diagnosis care (Weiss & Najavits 1998). Accessing substance use disorder care is also known to be a problem. For example, a recent survey of 54 primary therapists in a public managed care psychiatric setting (Uttaro et al. 1998) asked them to rate their difficulty providing or arranging adequate services in 19 areas. The area ranked second (after housing) was substance use disorder services and the most common problem cited was a lack of availability of services. When considering that many patients with substance use disorder seek treatment in systems that are not designed for them, such as primary care and many mental health settings, the need for greater attention to such issues is paramount.

The issue of "impaired professionals" (i.e., those who have a substance use disorder) is a serious concern no matter who the professional is treating, but becomes perhaps even more problematic when treating substance use disorder populations. Unfortunately, according to research on ethics complaints to professional boards, for both psychiatrists and addictions counselors, impairment due to substance use disorder is very high on the list of ethics complaints against them (Lasalandra 1995; St. Germaine 1997). Another common complaint for both groups is having a sexual relationship with a client (Lasalandra 1995; St. Germaine 1997). Yet, it is believed that ethical training is minimal (St. Germaine 1997).

CLINICIAN-TARGETED INTERVENTIONS

One of the mostcreative attempts to address clinicians' quality of services has been to target clinicians themselves with interventions to improve outcomes. As McCaul and Svikis (1991) note, clinicians are routinely rewarded in a noncontingent fashion through incentives such as salary, outside training, comp and flex time, and access to resources such as clerical services and funds to purchase educational materials. These authors list a variety of clinician-targeted interventions and preliminary pilot data on them. For example, they monitored clinicians' (n=6) success with patients for four months without intervention (using specific standards such as number of sessions), then implemented monthly written feedback on the performance of each client in their caseload. They found a significant increase in clinicians' performance post-intervention, noting that "the success of this program is striking given the minimal nature of the goal-setting and feedback intervention". Another recent innovation is the recent development of allowing consumers to access information on clinicians' professional background and any formal ethics complaints against them (e.g., in Massachusetts where this is now available for all

medical doctors, including psychiatrists, by the Massachusetts Medical Society). Presumably, such information may help increase clinicians' performance through a system of "market forces".

One notable study that relates to the issue of developing clinician-focused interventions is by Zanis et al. (1997). In the context of comparing three data collection methods for quantifying and categorizing treatment services provided in a methadone program (one of which was a Counselor Service Interview), they found that (1) counseling sessions rarely focused on specific problem domains; (2) counselors and patients disagreed about the quality of treatment services; and (3) counselors "rounded-up" time spent counseling. These findings might suggest that greater attention to providing counselors with appropriate guidelines in these domains, and monitoring them in some on-going way, could be helpful.

CLINICIAN SELECTION AND TRAINING

It is widely believed that one of the best ways to improve the quality of clinicians' service delivery is attention to clinician selection and training. Yet there are very few studies that empirically evaluate these issues in the substance use disorder field, in part because they can be difficult studies to conduct. In fact, only one study to date has examined the effects of manual-based psychotherapy/counseling training for the treatment of substance use disorders.

As part of the NIDA Cocaine Collaborative Study, Crits-Christoph et al. (1998) describe the effects of training on the skill levels of 65 therapists who delivered manual-guided therapies to 202 cocaine dependent patients. Three treatment modalities were studied: supportive-expressive therapy, cognitive therapy, and individual drug counseling. Therapists for the supportive-expressive and cognitive therapy conditions were primarily doctoral level clinicians, while the drug counseling approach was taught to bachelor's- and master's-level clinicians. Clinicians, each of whom treated four training cases, were evaluated in terms of their improvements in competence in learning one of these modalities. Effects of manual-guided training on the therapeutic alliance was also examined. Training effects were examined through a hierarchical linear modeling approach that assessed changes both within cases (over sessions) and across the four training cases. A large effect across cases was found for training in cognitive therapy. Supportive-expressive therapists and individual drug counselors demonstrated learning trends over sessions, but not over training cases. Training in supportive-expressive and cognitive therapy was not found to have a negative impact on the therapeutic alliance, although alliance scores for trainees in drug counseling initially decreased slightly but then rebounded to initial levels.

Despite the relatively large numbers of patients and clinicians involved in this study, several limitations of the research should be noted. In particular, clinicians in all three modalities were highly experienced when training began (approximately 10 years of post-degree clinical practice). Training may have more of an impact on relatively novice clinicians, with more experienced clinicians either already highly competent or resistant to changing their methods. It should also be noted that scales used to assess clinician competence are relatively crude and may be insensitive to change. Clearly, substantially more research is needed on the topic of training and dissemination of manual-based treatment methods to clinicians.

METHODOLOGICAL ISSUES IN STUDYING CLINICIANS

We wish to highlight two important methodological issues relevant to the impact of clinicians on the outcome of treatment for substance use disorders, although both issues apply to studies of other disorders as well. First , studies of clinician background, personality, or work skills need to employ the clinician as the unit of analysis. Most studies of clinician characteristics are post-hoc exploratory analyses from studies that were designed with patient as unit of analysis

(e.g., randomized clinical trials of treatment approaches). Although surveys of clinicians' attitudes (e.g., Hshieh & Srebalus 1997) have often used large number of clinicians, a relatively small number of clinicians are typically utilized in outcome studies, thereby drastically limiting statistical power for examination of the impact of the clinician. It is possible that the clinician has a substantially greater role in affecting retention and outcome than the studies reviewed in this article have indicated, but this remains to be detected through designs with adequate statistical power.

The second issue pertains to the impact of the clinician with regard to the design of studies examining treatment modalities. Despite repeated discussion of this issue (Crits-Christoph, Beebe, & Connolly, 1990, Crits-Christoph & Mintz, 1991, Martindale, 1978), investigators often fail to examine clinician differences in studies of treatment modalities, or fail to recognize the implication of clinician differences for understanding the generalizability of treatment effects.

Simply put, if clinician differences in outcome (or retention, or process variables) exist, such variability needs to be accounted for in understanding the extent to which potential treatment differences generalize to other similarly selected and trained clinicians. This can be accomplished by including the clinician as a random factor in statistical models examining treatment effects. Only if clinician differences are emphatically non-significant (as examined in preliminary analyses), should the clinician factor be ignored in the analysis of treatment effects.

Fortunately, evidence exists suggesting that attempts to standardize the delivery of treatment (e.g., through the use of treatment manuals) tends to minimized the size of clinician differences in outcome (Crits-Christoph et al., 1991). However, if clinician differences are found, as is often the case, the inclusion of the clinician as a factor in the analysis of treatment effects will generally limit statistical power considerably (since the number of clinicians becomes the degrees of freedom for assessing treatment effects), severely hindering an investigator's ability to understand the generalizability of treatment effects. At the least, we recommend that investigators routinely examine whether clinician differences exist, and discuss any effects in the context of findings regarding clinician differences.

Summary and Discussion

In this article, we have attempted to highlight empirical work focusing on clinicians' contribution to substance use disorder treatment quality (or lack thereof). Based on the studies reviewed, we believe that there is enormous potential to improve the quality of substance use disorder treatment by paying greater attention to clinician effects, both in treatment settings and research studies. Suggestions include the following.

The need to select and evaluate clinicians based on their "track record". Available evidence thus far suggests that clinicians' actual record of work with patients (e.g., retention and outcome within their caseload) varies greatly between clinicians. Moreover, past assumptions that particular levels of training, experience, or other simple therapist variables do not appear to account for such differences. Selecting and evaluating clinicians based on how they actually perform, using standardized measures, is rarely done but is an effort that could greatly improve the quality of care as well as future research. It is striking that for decades there has been a call for greater attention to clinician differences, yet neglect of this topic remains the norm (Crits-Christoph, Beebe & Connolly 1990; Kiesler 1966; Leukefeld, Pickens & Schuster 1991; Luborsky et al. 1986; Najavits & Weiss 1994; Project MATCH Research Group under review; Valle 1981).

Providing more support to clinicians can improve clinical care. Many systems issues prevent clinicians from doing their best. Problems of burn-out, job dissatisfaction, continued splits between mental health and substance use disorder treatment systems, low salaries and poor

work environments (particularly for substance use disorder counselors), and lack of on-going training once on the job make it very difficult for clinicians to do the work they are hired to do. Concrete efforts to provide more peer and supervisory support on the job, offer training for difficult areas of substance use disorder treatment (e.g., dual diagnosis, HIV risk behaviors), increase salaries, provide career advancement tracks within substance use disorder treatment, and other assistance can improve clinicians' work, and as a result, ultimately filter down to patients (Gustafson 1991; Schulman-Marcus 1986). Taking a respectful and validating stance toward clinicians on the front lines is key, while simultaneously (as per point 1) also monitoring and "weeding out" poor performers.

Improving dissemination of empirically-based knowledge. The need to move our empirical knowledge base into actual clinical practice ("technology transfer") remains a serious challenge (Polcin 1997; Shanley, Lodge & Mattick 1996). Helping clinicians learn and implement the diverse and growing number of empirically-based substance use disorder treatment protocols is one important effort. Deconstructing enduring "myths" that persist in the field is another example of such dissemination (e.g., despite consistent evidence to the contrary over several decades many clinicians believe that being in recovery makes one a better clinician; that higher credentials result in better treatment; that 12-step groups are the only treatment that works for substance use disorder; or that all psychopharmacology for substance use disorderrs represents another form of "addiction").

Broadening the assessment of clinician variables. The easiest clinician variables to measure are, unfortunately, some of the least relevant to quality of service delivery (e.g., gender, race, age, training, years experience). Variables with much more relevance to quality care include empathy, ability to establish an alliance, emotional reactions to patients, professional demeanor and record-keeping, ability to enforce clinic rules and make appropriate referrals to further care, beliefs about substance use disorder topics, etc. Greater attention to these variables in relation to outcomes could be potentially powerful.

Viewing clinicians as a key to improved treatment. Historically there has been a great deal of emphasis on patient and treatment factors that impact the quality of care, but much more rarely has there been attention to the clinicians who deliver those treatments to patients (and interactions between treatments, patients, and clinicians). This blindspot has begun to be addressed in some of the studies reviewed in this paper, yet remains quite pervasive in the field overall. (Indeed, if it came from a patient, this tendency, which flies in the face of substantial research and clinical evidence, would likely be interpreted as pathological "resistance"!). Testing for clinician effects in all outcome studies (Crits-Christoph, Beebe & Connolly 1990), describing clinicians in as much detail as possible (Najavits & Weiss 1994), having them fill out a battery of measures before beginning employment and/or participating in research, attempting to identify "outlier" clinicians (Project MATCH Research Group under review), and generally taking the stance that clinicians have the power to impact outcomes (Craig 1985) are all ways to help improve this deficit.

How good is good enough? While it is easy to create a list of saintly attributes that all clinicians should possess, empirical identification of minimum standards for quality care has not yet occurred. What expectable retention in treatment or outcomes can we expect of clinicians? Can certification standards for substance use disorder counselors (and other professionals) be linked to empirical standards (Schulman-Marcus 1986; Valle 1981)? What are reasonable criteria for firing someone due to poor quality work? In research studies, initial criteria for selecting therapists often still relate to therapists' professional background characteristics (Carroll et al. 1994) rather than objective measures of interpersonal functioning or other qualities that may be more related to later performance.

Education for clinicians outside of the substance use disorder field. It has repeatedly been noted that many clinicians fail to assess, recognize, or adapt treatment to patients with substance disorder (see the review by Polcin 1997). Historically, also, the mental health field has had low interest in substance use disorder treatment, and mental health and substance use disorder systems are still widely perceived as difficult to integrate. Many patients with substance use disorder receive inadequate care (Polcin 1997). Taking a broad view to provide education to clinicians in other settings (e.g., primary care, mental health) might markedly improve care and/or help route patients to treatments designed for them.

Education for consumers of care. Providing information to consumers of substance use disorder treatment (e.g., patients with substance use disorder and their families) can be another avenue to improve quality. For example, patients can be taught about topics such as how to evaluate the quality of care they receive, when to stay versus leave treatment if it feels as if it is not working, and what is inappropriate behavior (e.g., clinicians' sexual abuse of patients).

Targeting clinicians for interventions. There are a wide range of empirically-studied treatments for patients with substance use disorder, but very little implementation of interventions to improve clinicians' performance (e.g., pay based on performance, clear criteria for what constitutes good quality work, formalized supervisory feedback (McCaul & Svikis 1991), use of adherence ratings in clinical practice). Such efforts might have the danger of alienating clinicians, due to fears of being monitored, distrust of empirical measurement, or other concerns. However, they could also potentially provide a very direct way to improve the quality of care, if implemented carefully and with sensitivity.

As Carkhuff and Berenson concluded several decades ago, counseling, just like all human relationships, can be "for better or worse" (Valle 1981). Clinicians <u>do</u> impact substance use disorder treatment to a marked degree. Their work is enormously difficult and they often succeed in helping people despite systems problems, treatment challenges, and often inadequate support for their role. As this selective review illustrates, however, there are some excellent empirical attempts to address clinicians' impact on treatment, which hopefully will see expansion as a clinical and research topic in years ahead.

References

ADDIS, M.E. (1997). Evaluating the treatment manual as a means of disseminating empirically validated psychotherapies. *Clinical Psychology Science and Practice* 4: 1-11.

AZJEN, I., and FISHBEIN, M. (1980). *Understanding Attitudes and Predicting Social Behavior*. Englewood Cliffs, NJ: Prentice-Hall.

BARBER, J.P., KRAKAUER, I., CALVO, N., BADGIO, P.C., et al. (1997). Measuring adherence and competence of dynamic therapists in the treatment of cocaine dependence. *Journal of Psychotherapy Practice and Research* 6:12-24.

BARBER, J.P., LUBORSKY, L., CRITS-CHRISTOPH, P., THASE, M.E., WEISS, R.D., FRANK, A., ONKEN, L., and GALLOP, R. (1999). Therapeutic alliance as a predictor of outcome in treatment of cocaine dependence. *Psychotherapy Research* 9:54-73.

BARBER, J.P., MERCER, D., KRAKAUER, I., and CALVO, N. (1996). Development of an adherence/competence rating scale for individual drug counseling. *Drug and Alcohol Dependence* 43:125-132.

BELDING, M.A., IGUCHI, M.Y., MORRAL, A.R., and MCLELLAN, A.T. (1997). Assessing the helping alliance and its impact in the treatment of opiate dependence. *Drug and Alcohol Dependence* 48:51-59.

BELL, D.C., MONTOYA, I.D., and ATKINSON, J.S. (1997). Therapeutic connection and client progress in drug abuse treatment. *Journal of Clinical Psychology* 53:215-224.

BERGIN, A.E., and GARFIELD, S.L. (Eds.). (1994). *Handbook of Psychotherapy and Behavior Change* (4th ed.). New York: John Wiley.

BRESLIN, F.C., SOBELL, M.B., SOBELL, L.C., BUCHAN, G., and CUNNINGHAM, J.A. (1997). Toward a stepped care approach to treating problem drinkers: The predictive utility of within-treatment variables and therapist prognostic ratings. *Addiction* 92:1479-1489.

BROOME, K.M., KNIGHT, K., HILLER, M.L., and SIMPSON, D.D. (1996). Drug treatment process indicators for probationers and prediction of recidivism. *Journal of Substance Abuse Treatment* 13:487-491.

CAETANO, R. (1988). Concepts of alcohol dependence: The two worlds of research and treatment. *Alcohol and Alcoholism* 23:225-227.

CARROLL, K.M., CONNORS, G.J., COONEY, N.L., DICLEMENTE, C.C., DONOVAN, D.M., KADDEN, R.R., LONGABAUGH, R.L., ROUNSAVILLE, B.J., WIRTZ, P.W., and ZWEBEN, A. (1998). Internal validity of project MATCH treatments: Discriminability and integrity. *Journal of Consulting and Clinical Psychology* 66: 290-303.

CARROLL, K.M., KADDEN, R.M., DONOVAN, D.M., ZWEBEN, A., and ROUNSAVILLE, B.J. (1994). Implementing treatment and protecting the validity of the independent variable in treatment matching studies. *Journal of Studies on Alcohol* Supplement No. 12:149-155.

CHRISTENSEN, A., and JACOBSON, N.S. (1994). Who (or what) can do psychotherapy: The status and challenge of nonprofessional therapies. *Psychological Science* 5:8-14.

CONNORS, G.J., CARROLL, K.M., DICLEMENTE, C.C., LONGABAUGH, R., and DONOVAN, D.M. (1997). The therapeutic alliance and its relationship to alcoholism treatment participation and outcome. *Journal of Consulting and Clinical Psychology* 65: 588-598.

CRAIG, R.J. (1985). Reducing the treatment drop out rate in drug abuse programs.

Journal of Substance Abuse Treatment 2:209-219.

CRITS-CHRISTOPH, P. (1991). Meta-analysis of therapist effects in psychotherapy outcome studies. *Psychotherapy Research* 1(2):81-91.

CRITS-CHRISTOPH, P., BARANACKIE, K., KURCIAS, J., BECK, A.T., et al. (1991). Meta-analysis of therapist effects in psychotherapy outcome studies. *Psychotherapy Research* 1:81-91.

CRITS-CHRISTOPH, P., BEEBE, K., and CONNOLLY, M. (1990). Therapist effects in the treatment of drug dependence: Implications for conducting comparative treatment studies. *NIDA Research Monograph* 104:39-49.

CRITS-CHRISTOPH, P., and MINTZ, J. (1991). Implications of therapist effects for the design and analysis of comparative studies of psychotherapies. *Journal of Consulting and Clinical Psychology* 59:20-26.

CRITS-CHRISTOPH, P., and SIQUELAND, L. (1996). Psychosocial treatment for drug abuse: A selected review and recommendations for national health care. *Archives of General Psychiatry* 53:749-756.

CRITS-CHRISTOPH, P., SIQUELAND, L., BLAINE, J., FRANK, A., LUBORSKY, L., ONKEN, L.S., MUENZ, L., THASE, M.E., WEISS, R.D., GASTFRIEND, D.R., WOODY, G., BARBER, J.P., BUTLER, S.F., DALEY, D., BISHOP, S., NAJAVITS, L.M., LIS, J., MERCER, D., GRFFIN, M.L., BECK, A., and MORAS, K. (1997). The NIDA Cocaine Collaborative Treatment Study: Rationale and methods. *Archives of General Psychiatry* 54:721-726.

DAHL, M.E. (1981). Matching patients and therapists on field dependence-independence, A-B therapist style, and the Navran scale to cut down on dropouts from therapy among alcoholics. *Dissertation Abstracts International* 41:3884-B.

ELMAN, B.D., and DOWD, E.T. (1997). Correlates of burnout in inpatient substance abuse treatment therapists. *Journal of Addictions and Offender Counseling* 17: 56-65.

EVANS, W.N., and HOHENSHIL, T.H. (1997). Job satisfaction of substance abuse counselors. *Alcoholism Treatment Quarterly* 15:1-13.

FLORES, P. (1988). *Group Psychotherapy with Addicted Populations*. New York: Haworth.

FREIMUTH, M. (1996). Psychotherapists' beliefs about the benefits of 12-step groups. *Alcoholism Treatment Quarterly* 14:95-102.

GALANTER, M. (1993). *Network Therapy for Alcohol and Drug Abuse: A New Approach in Practice*. New York: Basic Books.

GARFIELD, S.L. (1997). The therapist as a neglected variable in psychotherapy research. *Clinical Psychology: Science and Practice* 4:40-89.

GASTFRIEND, D.R., and MCLELLAN, A.T. (1997). Treatment matching: Theoretic basis and practical implications. *Medical Clinics of North America* 81:1-22.

GOTTHEIL, E., STERLING, R.C., WEINSTEIN, S.P., and KURTZ, J.W. (1994). Therapist/patient matching and early treatment dropout. *Journal of Addictive Diseases* 13: 169-176.

GOTTHEIL, E., THORNTON, C.C., and WEINSTEIN, S.P. (1997). Treatment structure, client coping methods, and response to brief individual counseling: Preliminary findings in a substance dependent sample. *Journal of Addictive Diseases* 16:51-65.

GUSTAFSON, J. (1991). Do more...and do it better: Staff-related issues in the drug treatment field that affect the quality and effectiveness of services. *NIDA Research Monograph* 106:53-62.

HOGUE, A., LIDDLE, H.A., ROWE, C., TURNER, R.M., DAKOF, G.A., and LAPANN, K. (1998). Treatment adherence and differentiation in individual versus family therapy for adolescent substance abuse. *Journal of Counseling Psychology* 45:104-114.
HSHIEH, S.Y., and SREBALUS, D.J. (1997). Alcohol treatment issues: Professional differences. *Alcoholism Treatment Quarterly* 15:63-73.
HUMPHREYS, K. (1997). Clinicians' referral and matching of substance abuse patients to self-help groups after treatment. *Psychiatric Services* 48:1445-1449.
IMHOF, J. (1991). Countertransference issues in alcoholism and drug addiction. *Psychiatric Annals* 21:292-306.
IMHOF, J., HIRSCH, R., and TERENZI, R. (1983). Countertransferential and attitudinal considerations in the treatment of drug abuse and addiction. *International Journal of Addiction* 18:491-510.
KANG, S.Y., MAGURA, S., NWAKEZE, P., and DEMSKY, S. (1997). Counselor attitudes in methadone maintenance. *J. Maint Addict* 1:41-58.
KELLER, M. (1986). The old and the new in the treatment of alcoholism. In: D. L. STRUG, S. PRIYADARSINI & M.M. HYMAN (Eds.) *Alcohol interventions: Historical and sociocultural approaches*. New York: Haworth Press.
KIESLER, D. (1966). Some myths of psychotherapy research and the search for a paradigm. *Psychological Bulletin* 65:110-136.
KLEINMAN, P., WOODY, G., TODD, T., et al. (1990). Crack and cocaine abusers in outpatient psychotherapy. *National Institute on Drug Abuse Research Monograph* 104: 24-38.
LASALANDRA, M. (1995, June 5). Sexual trouble stalks Mass. Shrinks. *Boston Herald*, 1, 20-21.
LEUKEFELD, C.G., PICKENS, R.W., and SCHUSTER, C.R. (1991). Improving drug abuse treatment: Recommendations for research and practice. *NIDA Research Monograph*:394-406.
LONDON, P. (1990). Research priorities for psychotherapy and counseling in the treatment of drug abuse: The psychotherapy research perspective. *NIDA Research Monograph* 104:121-127.
LUBORSKY, L., CRITS-CHRISTOPH, P., MCLELLAN, A.T., WOODY, G., PIPER, W., LIBERMAN, B., IMBER, S., and PUKONIS, P. (1986). Do therapists vary much in their success? Findings from four outcome studies. *American Journal of Orthopsychiatry* 56:501-512.
LUBORSKY, L., MCLELLAN, A.T., DIGUER, L., WOODY, G., and SELIGMAN, D.A. (1997). The psychotherapist matters: Comparison of outcomes across twenty-two therapists and seven patient samples. *Clinical Psychology: Science and Practice* 4:53-65.
LUBORSKY, L., MCLELLAN, A.T., WOODY, G., and O'BRIEN, C. (1985). Therapist success and its determinants. *Archives of General Psychiatry* 42:602-611.
LUBORSKY, L., & DERUBEIS, R.J. (1984). The use of psychotherapy treatment manuals: A small revolution in psychotherapy research style. *Clinical Psychology Review* 4: 5-14.
MARTINDALE, C. (1978). The therapist-as-fixed-effect fallacy in psychotherapy research. *Journal of Consulting and Clinical Psychology* 46:1526-1530.
MCCAUL, M., and SVIKIS, D. (1991). Improving client compliance in outpatient treatment: Counselor-targeted interventions. *NIDA Research Monograph* 106: 204-217.
MCLELLAN, A.T., KUSHNER, H., METZGER, D., PETERS, R., SMITH, I., GRISSOM, G.,

PETTINATI, H., & ARGERIOU, M. (1992). The fifth edition of the Addiction Severity Index. *Journal of Substance Abuse Treatment* 9: 199-213.

MCLELLAN, A.T., WOODY, G.E., LUBORSKY, L., and GOEHL, L. (1988). Is the counselor an "active ingredient" in substance abuse rehabilitation? An examination of treatment success among four counselors. *Journal of Nervous and Mental Disease* 176:423-430.

MILLER, W. (1985). Motivation for treatment: A review with special emphasis on alcoholism. *Psychological Bulletin* 98:84-107.

MILLER, W., TAYLOR, C., and WEST, J. (1980). Focused versus broad-spectrum behavior therapy for problem drinkers. *Journal of Consulting and Clinical Psychology* 48:590-601.

MILLER, W.R., BENEFIELD, R.G., and TONIGAN, J.S. (1993). Enhancing motivation for change in problem drinking: A controlled comparison of two therapist styles. *Journal of Consulting and Clinical Psychology* 61:455-461.

MILLER, W.R., and HESTER, R.K. (1995). Treatment for alcohol problems: Toward an informed eclecticism. In: R.K. Hester & W.R. Miller (Eds.) *Handbook of Alcoholism Treatment Approaches: Effective Alternatives*. Boston: Allyn & Bacon.

MILMOE, S., ROSENTHAL, R., BLANE, H., et al. (1967). The doctor's voice: Postdictor of successful referral of alcoholic patients. *Journal of Abnormal Psychology* 72: 78-84.

NAJAVITS, L.M., GRIFFIN, M.L., LUBORSKY, L., FRANK, A., WEISS, R.D., LIESE, B.S., THOMPSON, H., NAKAYAMA, E., SIQUELAND, L., DALEY, D., and SIMON ONKEN, L. (1995). Therapists' emotional reactions to substance abusers: A new questionnaire and initial findings. *Psychotherapy* 32:669-677.

NAJAVITS, L.M., and STRUPP, H.H. (1994). Differences in the effectiveness of psychodynamic therapists: A process-outcome study. *Psychotherapy* 31:114-123.

NAJAVITS, L.M., and WEISS, R.D. (1994). Variations in therapist effectiveness in the treatment of patients with substance use disorders: An empirical review. *Addiction* 89:679-688.

NAJAVITS, L.M., and WEISS, R.D. (1994). The role of psychotherapy in the treatment of substance use disorders. *Harvard Review of Psychiatry* 2:84-96.

NAJAVITS, L.M., WEISS, R.D., SHAW, S.R., and MUENZ, L.R. (1998). "Seeking safety": Outcome of a new cognitive-behavioral psychotherapy for women with posttraumatic stress disorder and substance dependence. *Journal of Traumatic Stress* 11:437-456.

OEJEHAGEN, A., BERGLUND, M., and HANSSON, L. (1997). The relationship between helping alliance and outcome in outpatient treatment of alcoholics: A comparative study of psychiatric treatment and multimodal behavioural therapy. *Alcohol and Alcoholism* 32:241-249.

OGBORNE, A.C., WILD, T.C., BRAUN, K., and NEWTON-TAYLOR, B. (1998). Measuring treatment process beliefs among staff of specialized addiction treatment services. *Journal of Substance Abuse Treatment* 15:301-312.

ONKEN, L. (1991). Using psychotherapy effectively in drug abuse treatment. *NIDA Research Monograph* 106:267-278.

ONKEN, L.S., and BLAINE, J.D. (1990). Psychotherapy and counseling research in drug abuse treatment: Questions, problems, solutions. *NIDA Research Monograph* 104:1-8.

OSBORN, C.J. (1997). Does disease matter? Incorporating solution-focused brief

therapy in alcoholism treatment. *Journal of Alcohol and Drug Education* 43:18-30.
POLCIN, D.L. (1997). The etiology and diagnosis of alcohol dependence: Differences in the professional literature. *Psychotherapy* 34:297-306.
PROJECT MATCH RESEARCH GROUP (under review). Therapist effects in three treatments for alcohol problems.
PROJECT MATCH RESEARCH GROUP (1997). Matching alcoholism treatments to client heterogeneity: Project MATCH posttreatment drinking outcomes. *Journal of Studies on Alcohol* 58:7-29.
RAYNES, A.E., and PATCH, V.D. (1971). Distinguishing features of patients who discharge themselves from psychiatric wards. *Comprehensive Psychiatry* 12:473-479.
REGIER, D.A., FARMER, M.E., RAE, D.S., LOCKE, B.Z., KEITH, S.J., JUDD, L.L., and GOODWIN, F.K. (1990). Co-morbidity of mental disorders with alcohol and other drug abuse: Results from the Epidemiologic Catchment Area (ECA) study. *Journal of the American Medical Association* 264:2511-2518.
ROCHE, A.M., PARLE, M.D., STUBBS, J.M., HALL, W., et al. (1995). Management and treatment efficacy of drug and alcohol problems: What do doctors believe? *Addiction* 90:1357-1366.
ROSENBERG, C., GERREIN, J., MANOHAR, V., et al. (1976). Evaluation of training in alcoholism counselors. *Journal of Studies on Alcohol* 37:1236-1246.
SCHORER, C.G. (1965). Defiance and healing. *Comprehensive Psychiatry* 6:184-190.
SCHULMAN-MARCUS, F. (1986). *Counselor Credentialing - Exploration of the Issues*. New York: Narcotic and Drug Research, Inc.
SHANLEY, C., LODGE, M., and MATTICK, R.P. (1996). Dissemination of research findings to alcohol and other drug practitioners. *Drug and Alcohol Review* 15:89-94.
SNOWDEN, L., and COTLER, S. (1974). The effectiveness of paraprofessional ex-addict counselors in a methadone treatment program. *Psychotherapy: Theory, Research and Practice* 4:331-338.
SNYDER, D.K. (Ed.) (1997). Do therapists matter? *Clinician's Research Digest* 15:4.
ST. GERMAINE, J. (1997). Ethical practices of certified addiction counselors: A national survey of state certification boards. *Alcoholism Treatment Quarterly* 15:63-72.
STERLING, R.C., GOTTHEIL, E., WEINSTEIN, S.P., and SEROTA, R. (1998). Therapist/patient race and sex matching: Treatment retention and 9-month follow-up outcome. *Addiction* 93:1043-1050.
STILES, W.B., HONOS-WEBB, L., and SURKO, M. (1998). Responsiveness in psychotherapy. *Clinical Psychology: Science and Practice* 5: 439-458.
STRUG, D.L., PRIYADARSINI, S., and HYMAN, M.M. (1986). *Alcohol interventions: Historical and sociocultural approaches*. New York: Haworth Press.
THROWER, J., and TYLER, J. (1986). Edwards personal preference schedule correlates of addiction counselor effectiveness. *International Journal of Addiction* 21:191-193.
UTTARO, T., VALI, F., HORWITZ, A.V., and HENRI, W.F. (1998). Primary therapists' views of managed care. *Psychological Reports* 82:459-464.
VALLE, S. (1981). Interpersonal functioning of alcoholism counselors and treatment outcome. *Journal of Studies on Alcohol* 42:783-790.
VANNICELLI, M. (1989). *Group psychotherapy with adult children of alcoholics: Treatment techniques and countertransference considerations*. New York: Guilford.
WASHTON, A., and STONE-WASHTON, N. (1990). Abstinence and relapse in cocaine addicts. *Journal of Psychoactive Drugs* 22:135-147.

WEISS, R.D., and NAJAVITS, L.M. (1998). Overview of treatment modalities for dual diagnosis patients: Pharmacotherapy, psychotherapy, and 12-step programs. In: H.R. Kranzler & B.J. Rounsaville (Eds.) *Dual Diagnosis and Treatment: Substance Abuse and Comorbid Medical and Psychiatric Disorders*. New York: Marcel Dekker, Inc.

WESTREICH, L.M., ROSENTHAL, R.N., and MURAN, J.C. (1996). A preliminary study of therapeutic alliance and dually diagnosed inpatients. *American Journal on Addictions* 5:81-86.

WHEELER, S., and TURNER, L. (1997). Counselling problem drinkers: The realm of specialists, Alcoholics Anonymous or generic counsellors? *British Journal of Guidance and Counselling* 25:313-326.

WOODY, G.E., MCLELLAN, A.T., LUBORSKY, L., and O'BRIEN, C.P. (1990). Psychotherapy and counseling for methadone-maintained opiate addicts: Results of research studies. *NIDA Research Monograph* 104:9-23.

ZANIS, D.A., MCLELLAN, A.T., BELDING, M.A., and MOYER, G. (1997). A comparison of three methods of measuring the type and quantity of services provided during substance abuse treatment. *Drug and Alcohol Dependence* 49:25-32.

ZWEBEN, J.E. (1989). Recovery-oriented psychotherapy: Patient resistances and therapist dilemmas. *Journal of Substance Abuse Treatment* 6:123-132.

Table 1: Clinicians' impact on retention in substance use disorder treatment: Examples of key studies

Study	Therapist sample	Type of treatment	Patient sample	Measures	Key findings
Raynes & Patch (1971)	8 psychiatric residents	Inpatient psychiatric treatment (no manuals)[3]	Various, but including patients with substance use disorder	AMA / AWOL[2] rates from inpatient treatment over 1 year	Psychiatric residents' rates of AMA/AWOL patients ranged from 0% to 40%.
Rosenberg et al. (1976)	16 alcohol counselors	Alcohol counseling (no manuals)[3]	Alcoholics	Patients' attendance rate over 18 weeks of treatment	Counselors' average attendance rates of patients' ranged from 27% to 67%, and were significantly different as early as 9 weeks into treatment.
Kleinman et al. (1990)	7 therapists	Outpatient supportive-expressive, family therapy (using manuals), and group therapy (without manual)	Cocaine-dependent patients	Patients' attendance over 24 sessions	The strongest predictor of patient dropout was therapist assignment. For example, the best therapist retained 81% of patients for 4+ sessions; the worst retained only 14%.
Craig, (1985)[3]	Staff on a substance use disorder treatment unit over six years	Inpatient, general substance use disorder treatment (no manuals)[3]	Substance use disorders	AMA rates	The AMA rate was reduced from 70% to 20% over six years by implementing staff training, increasing staff presence, group incentive, and cash bonuses.
Gottheil et al. (1994)	8 intake clinicians	Outpatient substance use disorder	Cocaine-dependent patients	Return rate after intake visit	No difference in patient return rate based on intake clinician assignment, clinician

[2] AMA="against medical advice"; AWOL="absent without leave".
[3] While this study does not provide comparison of clinicians to each other, it is included because it addresses retention in substance abuse treatment.
[4] Assumed because no mention of manual.

		intake (no manual)[4]			academic training, gender, or race.
McCaul & Svikis (1991)	7 clinicians	Outpatient substance use disorder (no manual)	Substance use disorders[5]	Successful discharge rates and treatment retention	Rates for successful discharges ranged from 17%-54% per clinician; rates for early dropout ranged 14% to 61%.

[5] Assumed, but not specified in article.

Table 2: Clinicians' impact on outcomes in substance use disorder treatment: Examples of key studies

Study	Therapist sample	Type of treatment	Patient sample	Outcome	Key findings
Miller et al. (1980)	9 para-professional therapists	Three types of short-term behavioral treatment (using manuals)	Alcoholics	Patients' drinking at 7 months	The least effective therapist had a 25% rate of successful patient outcomes; the most effective had a 100% rate. Moreover, therapists' degree of empathy accounted for 67% of variance in patient outcomes.
Luborsky et al. (1985)	9 clinicians	Cognitive, supportive-expressive, or drug counseling (using manuals)	Opiate addicts receiving methadone	7 outcome measures	Significant differences between clinicians on each of the 7 outcome measures, with average effect size ranging from .13 (least effective) to .74 (most effective)
McLellan et al. (1988)	4 counselors	Drug counseling (no manuals)[3]	Opiate-dependent patients receiving methadone	5 outcome measures	"Marked and consistent differences among the counselors". Counselor differences shown on four of the five outcome measures.
Project MATCH (under review)	80 clinicians	12-step facilitation, cognitive-behavioral, motivational enhance-ment therapy (using manuals)	Alcoholics	Percent days abstinent and drinks per drinking day	Therapist effects were found for each condition, ranging from 8% to 12% of the outcome variance (with a pattern of findings that varied based on type of site, i.e., outpatient versus aftercare; and timing, i.e., during versus after treatment). No clinician differences in retention of patients.
Crits-Christoph et al., 1997)	40 clinicians	Cognitive, supportive-expressive, or drug counseling (using manuals)	Cocaine-dependent	Overall drug use; cocaine use	No significant therapist effects on either outcome measure

Luborsky et al. 1997	27 clinicians (combined across 3 studies)	Cognitive, supportive-expressive, or drug counseling (using manuals)	V.A. sample of opiate-dependent patients receiving methadone	5 outcome measures over 6 months of treatment	Therapists differed significantly (e.g., one clinician had a mean caseload change of 82% on the ASI[6] psychiatric subscale, while another had -1%).

[6] Addiction Severity Index (McLellan et al., 1992)

Glossary

Counselor in recovery. A counselor who had a problem with substance misuse but is committed to controlling or abstaining from substances.

Treatment retention. Patients' attendance at treatment sessions.

Project MATCH. A major study of the 1990's that attempted to determine the effective match between patient characteristics and alcoholism treatment.

Dual diagnosis. The co-occurrence of substance use disorder and another psychiatric disorder (e.g., depression, posttraumatic stress disorder).