

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, counter-transference, 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.

Key words. Substance abuse; Therapist; Counselor; Psychotherapy; Outcome; Retention; Drop out

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INTRODUCTION

The vast majority of substance use disorder treatment programs (97–99%) 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 treatment (e.g., cognitive behavioral therapy [CBT] versus 12-step) and patient characteristics (Garfield, 1997; Imhof et al., 1983; Miller, 1985; Najavits and Weiss, 1994a; Onken and Blaine, 1990).

In this paper, our goal is to explore the impact of clinicians who deliver substance use disorder treatments. Though 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 diagnosed 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 et al., 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 treatment drop-out (Craig, 1985; Crits-Christoph and Siqueland, 1996; McCaul and Svikis, 1991) can also intensify treatment difficulties (Weiss and Najavits, 1998).

Moreover substance use disorder treatment is characterized by a variety of unique professional practice issues. It is the only diagnostic disorder:

- whose treatment during this century has been primarily outside of mainstream mental health, via Alcoholics Anonymous and other nonprofessional self-help groups (Najavits and Weiss, 1994b; Strug, Priyadarsini and Hyman, 1986);
- 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);

- in which treatment is provided primarily by either counselors of 12-step groups, rather than the advanced-degree specialists typical of mental health (social work, psychology, psychiatry);
- in which clinicians' having experienced the disorder themselves (recovery status) is openly acknowledged and promoted as a positive attribute;
- that is unique in being both a serious psychiatric disorder (substance dependence) yet is also a socially valued and accepted activity when the substance is 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 of 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 (Miller and 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 et al., 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 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 and Weiss, 1994a; 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" (Milmoie et al., 1967) and "serendipitous" (Miller et al., 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 whereas 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,

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 and Patch (1971)	8 Psychiatric residents	Inpatient psychiatric treatment (no manuals) ^b	Various but including patients with substance use disorder	AMA/AWOL ^a 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) ^b	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 drop-out was therapist assignment. For example, the best therapist retained 81% of patients for 4+ sessions; the worst retained only 14%
Craig (1985) ^b	Staff on substance use disorder treatment unit during a 6-year period	Inpatient, general substance use disorder treatment (no manuals) ^b	Substance use disorders	AMA rates	The AMA rate was reduced from 70% to 20% over 6 years by implementing staff presence, group incentive, and cash bonuses

Gottheil et al. (1994)	8 Intake clinicians	Outpatient substance use disorder intake (no manual) ^c	Cocaine-dependent patients	Return rate after intake visit	No difference in patient return rate based on intake clinician assignment, clinician academic training gender, or race
McCaul and Svikas (1991)	7 Clinicians	Outpatient substance use disorder (no manual)	Substance use disorders ^d	Successful discharge rates and treatment retention	Rates for successful discharges ranged from 17-54% per clinician; rates for early dropout ranged 14-61%

^a AMA: against medical advice; AWOL: absent without leave.

^b Although this study does not provide comparison of clinicians to each other, it is included because it addresses retention in substance user treatment.

^c Assumed because no mention of manual.

^d 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 Paraprofessional therapists	Three types of short-term behavioral treatment (using manuals)	Alcoholics	Patients' drinking at 7 months	The least effective therapist had a 23% 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 dependency 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 dependency counseling (no manuals) ^a	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 enhancement 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 dependency 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 dependency counseling (using manuals)	Veterans Administration 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 ^b psychiatric subscale, while another had -1%)

^a Although this study does not provide comparison of clinicians to each other, it is included because it addresses retention in substance use disorder treatment.

^b Addiction Severity Index (McLellan et al., 1992).

however, clinicians typically account for *more* variance in patient outcomes than do differences between active treatments or patients 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 and Weiss, 1994a; 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 and 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 et al., 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., nonrandom assignment of patients to clinicians, retrospective design, small clinician samples, uncontrolled numbers of patients assigned to clinicians (Crits-Christoph and Mintz, 1991; Najavits and Weiss, 1994a).

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 substance use 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 and Weiss, 1994a; 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 and Jacobson, 1994; Najavits and Weiss, 1994) (for a thorough review of the literature on professional versus paraprofessional clinicians see Christensen and 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). Although a counterargument can be made that improved methodology might lead to a stronger association between the therapist professional background characteristics and outcomes (Snyder, 1997), thus far results have been highly consistent, even though they fly 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 to be 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). Although matching studies typically follow the predominant model of matching patients to *treatments* rather than clinicians (Gastfriend and 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 which found no relationship for these variables to outcomes for a sample of 634 cocaine-dependent patients (Gottheil et al., 1997). Overall, studies reviewed in Sterling et al. (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 more than 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 clinicians in recovery are better able to help patients.

ADHERENCE AND COMPETENCE

The advent of *manualized treatments*—the goal of which 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 and 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 and DeRubeis, 1984). Of course, process–outcome relationships may be more complex than the linear cause–effect associations. More complex associations, where the therapist behaviors are influenced by patient states, need to be taken into account in relating these variables to outcome (Stiles et al., 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 user counseling, supportive–expressive therapy, motivational enhancement therapy, family therapy, and dynamic cognitive therapy (Barber et al., 1997; 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 vari-

ation 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' ratings on 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 et al., 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 et al., 1983; Miller, 1985; Vannicelli, 1989; Washton and Stone-Washton, 1990; Woody et al., 1990; Zweben, 1989).

Two studies illustrate empirical work in this area. One study (Milmoie 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 6 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

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 posttraumatic stress disorder (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 after-care (Westreich et al., 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 3-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. Oejanhagan (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 6 months for the behavioral therapy condition. Barber et al. (1999), studying 252 cocaine-dependent patients treated with psychotherapy or drug dependency counseling, found that patients' report of the alliance predicted outcome on drug-related measures at the 1-month assessment, but not at the 6-month assessment. Alliance also predicted improvement in depressive symptoms at 6 months. In short, although 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. Although a few results have been found, it is difficult to draw any consistent conclusions because there are few studies and they vary greatly in the personality variables evaluated.

Better treatment retention has been found to be associated with clinicians' introversion on the Eysenck Personality Inventory (Rosenberg et al., 1975); with field dependence (Dahl, 1981); and with 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, 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 Colter (1974) studied 25 recovering counselors on the staff of an urban drug user counseling center in relation to patients' outcomes, including 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, who were all recovering paraprofessionals, at five addiction treatment centers. 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 psychiatric diagnoses, what interventions are helpful or harmful for recovery, and what causes addictions problems (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 et al. 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., percent 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 (Ajzen and 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 because 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 to be 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, whereas 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 cognitive behavioral therapy (CBT) and motivational enhancement therapy (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 a unique aspect of substance use disorder treatment and they adhere to several quite different assumptions that those of traditional psychotherapy (e.g., overt spirituality, addiction as a lifelong disease, and emphasis on peer-led 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 and Srebalus, 1997; Humphreys, 1997; Osborn, 1997; Roche et al., 1995; Wheeler and Turner, 1997).

There is little research focused on beliefs about interventions other than 12-step or disease model (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, and 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 and Weiss, 1994b). A more recent study of 94 counselors (Wheeler and Turner 1997) found that generic counselors tended not to feel competent working with clients with alcohol-dependency-related 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 is another area largely undeveloped thus far in substance use disorder treatment. One example of an interesting study in this area is that of 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 pretreatment variables as predictors. This result disappeared, however, when in-treatment drinking data were included in the model. They concluded that clinicians' judgment may be useful in situations when in-treatment drinking data are 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 and 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 dependency treatment programs in less desirable areas, the often poor physical work environment of drug dependency treatment

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 5 years. They were least satisfied with their opportunities for advancement and most satisfied with the opportunity to be of help to others (Evans and 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 it difficult for clinicians to coordinate dual-diagnosis care (Weiss and 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. 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 substance use disorder populations are being treated. 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 is that of a sexual relationship with a client (Lasalandra 1995; St. Germaine, 1997). Yet it appears that ethical training is minimal (St. Germaine, 1997).

CLINICIAN-TARGETED INTERVENTIONS

One of the most creative 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 4 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 development allows 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, [unpublished information]). 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 ongoing 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. However, there are very few studies that empirically evaluate these issues in the substance use disorder field, in part because such studies can be difficult 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 dependency counseling. Therapists for the supportive-expressive and cognitive therapy conditions were primarily doctoral-level clinicians, whereas the drug dependency 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 were 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 dependency 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 clinicians 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 the patient as unit of analysis (e.g., randomized clinical trials of treatment approaches). Although surveys of clinicians' attitudes (e.g., Hsieh and Srebalus, 1997) have often used a 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 indicated by the studies reviewed in this article, 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 et al., 1990; Crits-Christoph and 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 interpreting 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 determining 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 nonsignificant (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 minimize 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 such effects in the context of findings.

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). On the basis of 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.

- *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 levels of training, experience, or other simple therapist variables could account for such differences does not hold. 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 et al., 1990; Kiesler, 1966; Leukefeld et al., 1991; Luborsky et al., 1986; Najavits and Weiss, 1994a; Project MATCH Research Group, under review; Valle, 1981).

- *Provide more support to clinicians.* 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 towards clinicians on the front lines is key, while simultaneously (as per the previous item) monitoring and "weeding out" poor performers.
- *Improve dissemination of empirically based knowledge.* The need to move our empirical knowledge based into actual clinical practice ("technology transfer") remains a serious challenge (Polcin, 1997; Shanley et al., 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. Consider, for example, that despite consistent evidence to the contrary over several decades, many clinicians believe that (1) being in "recovery" makes one a better clinician; (2) that higher credentials result in better treatment; (3) that 12-step groups are the only treatment that works for substance use disorder; or (4) that all psychopharmacology for substance use disorders represents another form of "addiction."
- *Assess clinician variables more broadly.* 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 recordkeeping, 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.

- *View clinicians as a key to improved treatment.* Historically, a great deal of emphasis has been placed on patient and treatment factors that impact the quality of care, but much more rarely has attention been paid to the clinicians who deliver those treatments to patients (and interactions among 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 (Critis-Christoph et al., 1990), describing clinicians in as much detail as possible (Najavits and Weiss, 1994a), having them complete 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.
- *Establish how good is “good enough.”* Although 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 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 a clinician due to poor quality of 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 closely related to later performance.
- *Educate 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 a substance use disorder (see the review by Polcin, 1997). Historically, the mental health field has also 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 disorders 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.
- *Educate 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).

- *Target 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 and 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 or 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, like all human relationships, can be "for better or worse" (Valle, 1981). Clinicians *do* 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 an absence of adequate 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 clinical and research topics in years ahead.

GLOSSARY

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

Treatment retention: Patients' attendance at treatment sessions.

Project MATCH: A major study of the 1990s 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).

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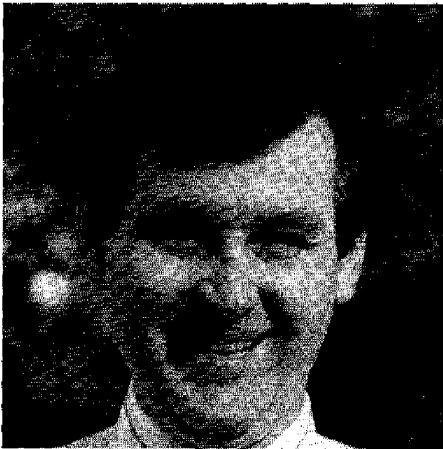
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NOTE

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

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