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Research Summary

Focus on Treatment Process and Outcomes

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Understanding clinical processes to improve treatment

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Three NIDA-funded national evaluations in the U.S. have examined over 65,000 admissions to treatment in natural settings.

Learn more about the latest DATOS findings from its Internet Web site at www.datos.org.

Beginning in the early 1970s with the Drug Abuse Reporting Program (DARP), followed by the Treatment Outcome Prospective Study (TOPS) a decade later, and continuing through the 1990s with the Drug Abuse Treatment Outcome Studies (DATOS), national evaluations have examined over 65,000 admissions to 272 treatment programs using multimodality and multisite sampling plans that allow the study of treatment effectiveness in natural settings. These national projects comprise only part of the large body of evidence accumulated over the past 30 years that supports the general effectiveness of drug treatment as indicated by posttreatment reductions of drug use and crime measures by one-half or more.[1-5]

There are key questions therefore about how, when, and why treatment works. The length of stay in drug abuse treatment has been one of the most consistent predictors of follow-up outcomes, with the general relationship between treatment retention and outcomes being replicated across all major modalities in all three national evaluation studies—DARP, TOPS, and DATOS—funded by the National Institute on Drug Abuse (NIDA). Retention represents a convenient index of several client, therapeutic, and environmental factors that contribute to treatment effectiveness. Factors that influence a person to remain in treatment include interactions among individual needs, motivation factors, social pressures, and aspects of the treatment program itself such as policy and practices, counselor assignment, accessibility, level of services offered, therapeutic relations, and client satisfaction. In general, these represent aspects of the "black box" of treatment.

The "Black Box" of Treatment

There are several key ingredients in the so-called "black box" of treatment.

Improving the effectiveness of treatment and quality assurance applications calls for a systematic framework for representing how treatment works. In order to disaggregate the ingredients underlying treatment retention effects, better assessment and dynamic process models are required. By conceptualizing treatment in discrete phases—e.g., outreach, induction, engagement, treatment, and aftercare—intervention and evaluation strategies come into sharper focus.[6]

Our general model of treatment process and outcomes is presented in **Figure 1**, showing several key ingredients in the so-called "black box" of treatment. In general, there are sequential therapeutic elements that link together over time to help sustain treatment retention and thereby improve outcomes after discharge.[7-8] More specifically, higher program participation as measured by counseling session attendance is associated with better therapeutic relationships (including rapport), and these factors promote positive psychosocial functioning and behavioral changes later in treatment. Favorable indicators of progress on these measures, in turn, are related to longer retention. Understanding the sequence of change and dynamics of how it occurs is particularly important because clients who stay in treatment beyond minimum "thresholds"—usually about 3 months for drug-free outpatient as well as residential treatments and a year for methadone programs—are 3 to 5 times more likely to have favorable follow-up outcomes on drug use and criminality measures.[9-11] Multivariate analytic models tested in a variety of community and correctional settings have helped to establish more clearly the directional relationships between client motivation, treatment process variables (i.e., therapeutic rapport, program participation, behavioral compliance, and psychosocial improvements), retention, and follow-up outcomes shown in **Figure 1**.[12-15]

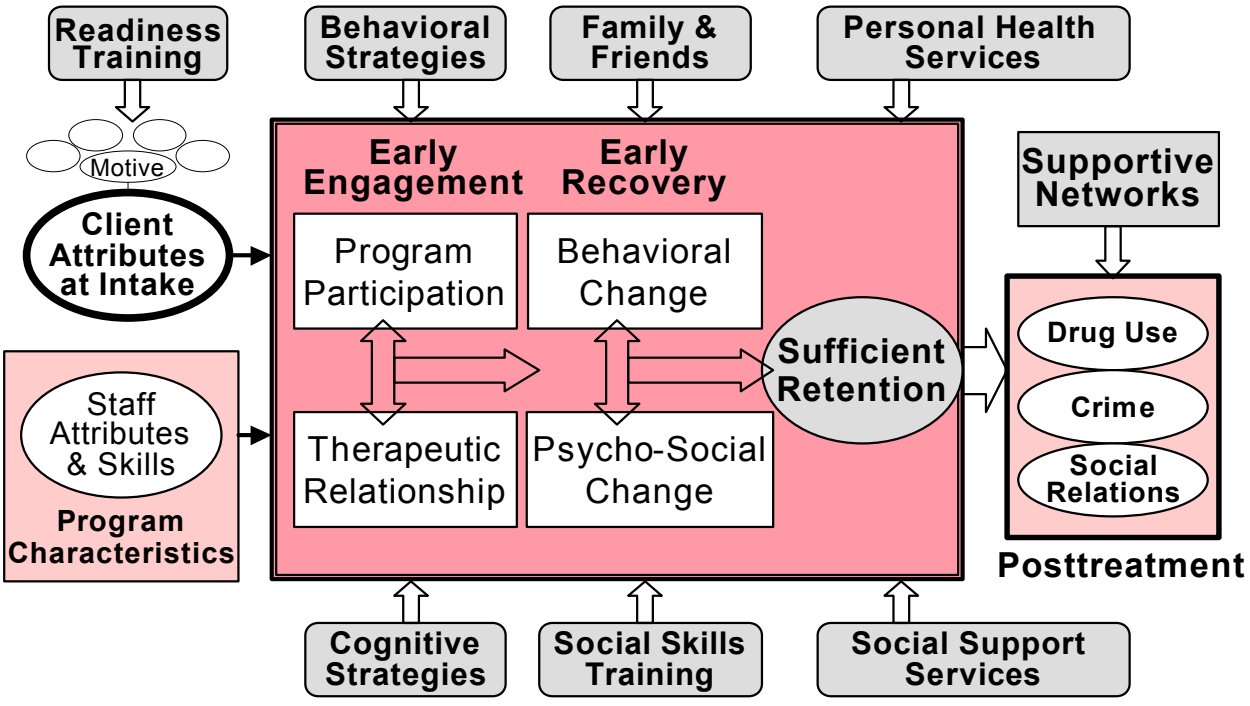

Figure 1. TCU Model for treatment process and outcomes (Simpson, *Addiction*, 2001).

Interventions that promote "Treatment Process"

Not everyone enters treatment with the same levels of motivation and problem severity, so it is not surprising that some clients can benefit from special "induction" efforts to clarify the needs and purpose of treatment.[16-17] Cognitive-based treatment readiness training is particularly beneficial in settings (such as correctional programs) where low motivation is a common problem.[18]

Several interventions also have been applied successfully to impact treatment engagement and early recovery indicators for clients. For example, "contingency management" protocols that offer social recognition, small gifts, or treatment supportive items (e.g., bus tokens or car fare) can increase counseling attendance and the rate of drug-free urine screens, thereby strengthening positive behaviors early in treatment.[19] Counseling based on a cognitive visual representation technique (called node-link mapping) improves client engagement, progress during treatment, and follow-up outcomes.[20-22] Specialized group education materials—such as sexual health and communication skills training for women and men, transition to aftercare training, and parenting skills—can improve knowledge and psychosocial functioning.[23-25]

Each of these modules for special needs have counselor manuals that provide detailed guidelines on group discussions and procedures. Likewise, we have found that positive change in the family and social support networks of clients accompanies therapeutic engagement and early recovery.[26]

Counseling manuals and assessment instruments are available through our Web site at www.ibr.tcu.edu in the Manuals and Forms sections.

Disseminating and Applying Research Findings

Improving drug abuse treatment effectiveness requires an understanding of the dynamic components of therapeutic process, including client strengths and deficits, program participation, therapeutic relationships, psychosocial functioning, and behavioral compliance. Our research has identified several measurable domains with direct connections to better treatment retention and outcomes. The findings suggest that **client-level reports** on needs and progress throughout treatment as well as **program-level reports** based on aggregated client records could improve clinical care and program management (see ***Research Summaries*** that focus on *Treatment Assessment* and *Organizational Change*). More specifically, each client's cognitive and behavioral responses to services can be used to evaluate progress through successive stages of engagement and recovery. At the agency level, efficient assessment systems that include routine monitoring of client retention (or drop-out) rates, services delivered, and therapeutic interactions are feasible for better accountability of program functioning. In the long run, this can facilitate efforts to match client needs with appropriate services and manage clinical care.[27]

Comprehensive instruments for assessing clients throughout treatment, counselor and client interactions, delivery of services, and outcomes are available free-of-charge at our Web site (www.ibr.tcu.edu). Also included are comprehensive lists of publications and instructions on how to obtain several counseling manuals developed and being disseminated to the field.

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