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## Client engagement and duration of treatment

by [Dwayne Simpson](#), *IBR Director*

*The duration of drug abuse treatment has been a consistent predictor of follow-up outcomes.*

As a nation we are concluding the third decade of large-scale public funding for community-based drug treatment. Over the years, basic and applied research in this arena has been carried out and reported at an unprecedented rate, based in part on the requirements of federal agencies to evaluate the effectiveness of our national drug abuse treatment system. Beginning in the early 1970s with the NIDA-funded Drug Abuse Reporting Program ([DARP](#)) and continuing through today with the Drug Abuse Treatment Outcomes ([DATOS](#)) project, national evaluation efforts have examined over 75,000 admissions to treatment using multimodality and multisite sampling plans that allow the study of treatment 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.

The duration of drug abuse treatment for opioid addiction has been one of the most consistent predictors of follow-up outcomes, with the general relationship between treatment retention and outcomes being replicated in all three national

evaluation studies funded by NIDA. Length of stay represents a focal indicator of treatment effectiveness and can be regarded as a convenient index of several client, therapeutic, and environmental factors. Indeed, treatment retention effects are most logically attributed to interactions among the client's individual needs, motivation factors, social influences, and aspects of the treatment program itself such as policy and practices, counselor assignment, accessibility, and level of services offered.

At issue is a widely shared interest in improving the overall effectiveness and efficiency of drug treatment in this country. Studies of treatment process and its therapeutic components, including how clients become engaged in treatment, are fundamental to reaching these goals. In order to disaggregate the ingredients underlying treatment retention effects, better assessment and process models are required. By conceptualizing treatment in discrete phases (e.g., induction, early treatment, late treatment, aftercare), evaluation objectives and measurement strategies come into sharper focus. Figure 1 (see next page) shows a model of the interactions among client and therapeutic factors in outpatient metha-

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done treatment, suggesting a schema for the so-called “black box of treatment.”

Client sociodemographic and other pretreatment characteristics typically have not been prominent predictors of outcomes. However, improved assessments of client functioning and analytic techniques in recent years are modifying this view. Psychiatric symptoms, social dysfunction, criminal history, addiction history, gender, alcohol use, cocaine use, and HIV-risk behaviors at treatment intake influence engagement and retention. Of particular importance are the client’s readiness to change and motivation for treatment.

The intensity or “dose” of treatment appears related to effectiveness, and program participation as measured by counseling session attendance is associated with better therapeutic relationships, behavioral changes, and psychosocial functioning. Multivariate analytic models have helped to establish more clearly directional relationships between client motivation, treatment process variables, retention, and follow-up outcomes (see Figure 1).

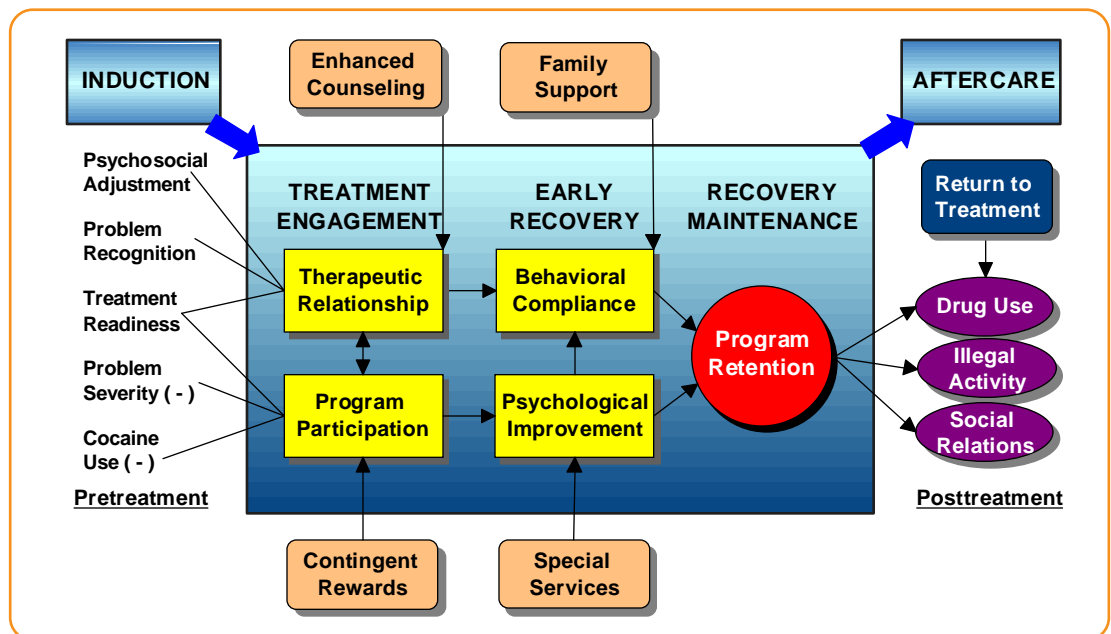
Several interventions have been applied successfully to impact treatment engagement and early recovery indicators for clients. For example, contingency management protocols involving social recognition, small gifts, or treatment

privileges (e.g., take-home medication) have been shown to increase counseling attendance and the rate of drug-free urine screens, thereby strengthening positive behaviors early in treatment. Counseling based on a cognitive visual representation technique (called node-link mapping) improves client engagement, progress during treatment, and follow-up outcomes. Specialized group education materials—such as HIV/AIDS prevention, sexual health and communication skills training for women and men, and transition to aftercare training—have been shown to have an impact on knowledge and psychosocial functioning. Likewise, positive changes in the family and social support networks of clients accompany early recovery.

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 client’s cognitive and behavioral responses to services therefore should be used to assess progress through successive stages of engagement and recovery. Efficient assessment systems that include routine monitoring of clients, service delivery, and therapeutic interactions in clinical settings are needed, as this will facilitate efforts to match client needs with appropriate services and overall management of care.

*This article is based in part on an upcoming presentation to the NIDA/NIH Consensus Development Conference on Effective Medical Treatment for Heroin Addiction in Bethesda, MD. Data collection forms used in TCU/IBR treatment evaluation research are available from our Web site [Forms section](#). ■*



**Figure 1.** TCU Treatment Engagement and Outcome Model

# Gender studies at IBR

The recent SAMSHA National Conference on Women held in September in Phoenix provided an opportunity for several teams of IBR researchers to share findings on substance abuse-related gender differences in treatment programs and in workplace settings.

## Antecedents and consequences of substance use among employed women

*Wayne Lehman, Joel Bennett, & Shawn Reynolds*

Patterns of substance abuse differ between employed men and women and impact substance abuse service needs. Using surveys from three municipal workforces in the southwestern United States, gender differences were found in self-reported alcohol and other drug use, exposure and reaction to substance use among coworkers, and attitudes toward workplace policies and EAP utilization (N=1,529 males and 933 females).

Women reported substantially less alcohol use and heavy drinking and less marijuana use, but higher levels of over-the-counter and prescription drug use. Women also were less likely to report exposure to coworker substance use at work and were less likely to have strong opinions about substance abuse policy. However, a prediction model for problem drinkers was remarkably similar for men and women. Even though women reported lower overall deviance and drug use, comparisons of male and female problem drinkers indicated that many of the existing gender differences were reduced or eliminated. Among problem drinkers,

women were as likely as men to also report illicit drug use in the past year and were more likely than men to report a lifetime history of illicit drug use.

## Gender and treatment services in methadone maintained clients: Is what you need what you get?

*Grace Rowan-Szal, Lois Chatham, George Joe, & Dwayne Simpson*

Clients entering outpatient methadone treatment (OMT) programs present special challenges involving cocaine use, HIV/AIDS risks, and dual diagnoses. Women bring their own special needs to treatment including those associated with child care, housing, low self-esteem, and physical and sexual health. Greater improvement in posttreatment outcomes has been shown in programs that tailor frequency and type of service to unique client needs.

This study examined gender differences and services provided during the first three months of treatment

## Women received more counseling dealing with psychological problems, family problems, and crisis resolution.

for clients admitted to three community-based OMT programs in Texas (N=436 males and 199 females).

Women entered treatment with more family issues, psychological symptoms, and HIV/AIDS-risky behav-

iors, while men reported more alcohol use and criminality. These differences in problem areas were accurately detected by clinic staff, and counselors differentially addressed problem areas during individual counseling sessions. In general, women received more counseling dealing with psychological problems, family problems, and crisis resolution and men received more counseling about alcohol use and legal problems. More women were referred for medical, psychological, and welfare services, and after three months of treatment counselors reported that they spent more time on problem-solving and communication issues with women and felt they had developed better rapport with female clients compared to males. However, counselors did not focus on risk reduction or other HIV/AIDS issues with women to a greater extent than with men even though women reported higher risk behaviors.

## Gender differences at admission and follow-up among methadone maintained clients

*Lois Chatham, Matthew Hiller, Grace Rowan-Szal, George Joe, & Dwayne Simpson*

Nationally, women make up about 35% of all clients in outpatient methadone treatment (OMT). However, relatively few studies have compared males and females on admission characteristics and post-treatment outcomes. In this study, gender differences were examined using data from clients who received treatment and completed both intake

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## Gender studies, continued from page 3.

and 1-year follow-up interviews at one of three public OMT programs in Texas (N=299 males and 126 females). Women reported more dysfunction in their families of origin, more HIV/AIDS-risky sex and drug use behaviors, and greater psychological problems; men had more alcohol and criminal justice-related problems.

Both men and women improved significantly following treatment, as evidenced by reduced illicit drug and alcohol use, less criminal involve-

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***Women responded as well as did men to outpatient methadone treatment and women were more likely to seek further help for drug abuse and psychological problems.***

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ment, and reduced frequency of drug injection. However, both at admission and follow-up, women were more likely to use injection equipment that had not been cleaned. Overall findings showed that women responded as well as did men to OMT. Women were more likely to seek further help for drug abuse and psychological problems subsequent to discharge, suggesting that OMT may be an entry for women into the mental health delivery system.



Further details on this study also are available as a Web poster at [www.ibr.tcu.edu/posters](http://www.ibr.tcu.edu/posters)

## Correlates of retention in a women and children's drug treatment program

*Danica Knight, Sarah Logan, Lois Chatham, & Paula Hood*

Studies of women in co-ed treatment facilities suggest that many have histories of depression, low self-esteem, anxiety, and poor social support. These problems often are compounded by a history of abuse and a cycle of poverty that not only impact the client but her children as well. One of the primary barriers to treatment for women with dependent children centers around adequate child care while the women are undergoing treatment. Programs that address drug dependence, connect women with social services, and also provide children's services are being developed in the United States, and the number of residential facilities that allow women to bring their children with them is increasing. However, few of these programs have been evaluated systematically and little is known about the needs of women and children in these settings and how their needs relate to treatment retention.

This study is part of an ongoing, longitudinal evaluation of a 12-

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***Women who stayed in treatment for 90 days or longer were more likely not to have used alcohol on a daily basis before treatment.***

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month residential treatment program for women and their dependent chil-

dren operated by the Salvation Army in Texas (N=38 adult women). Measures associated with retention point to specific problems that clients bring with them when they enter the program that may not be addressed adequately in the early weeks of treatment (e.g., alcohol use, parenting stress). Women who stayed in treatment for 90 days or longer were more likely not to use alcohol on a daily basis, not to have had treatment in the last year, and not to have a history of child welfare investigation. In addition, those who stayed longer reported not attending religious services in the 6 months before admission and not being under medical pressure to enter treatment. Other correlates suggest a complex interaction between client characteristics, their social networks, and specific attributes of the treatment program. As the sample size increases, client, child, and program attributes will be explored further with special emphasis on issues related to child rearing, alcohol use, and clients' social support networks.



Further details on this study also are available as a Web poster at [www.ibr.tcu.edu/posters](http://www.ibr.tcu.edu/posters)

## Gender differences in a criminal justice substance abuse treatment program

*Sandra Dees, Donald Dansereau, & Dianna Newbern*

Gender differences add an additional layer of complexity to substance abuse treatment in the criminal justice system. Admission data from the Cognitive Enhancements for the Treatment of Probationers (CETOP) project indicates that more women come into criminal justice-based

## Research Highlights

### Conference presentations

Several IBR research presentations are scheduled at the American College of Criminology annual meeting in San Diego in November. [Dr. Danica Knight](#) will discuss “Female offenders: Challenges for substance abuse treatment” and [Drs. Matthew Hiller, Kirk Broome, Kevin Knight, Dwayne Simpson,](#) and [George Joe](#) will collaborate on two presentations “Is having a legal status at admission to treatment related to posttreatment incarceration? Findings from an evaluation in Texas,” and “Is legal pressure related to longer treatment retention? Findings from residential programs in DATOS.” Additionally, Drs. Knight and Simpson will discuss “Prison-based therapeutic community treatment: The Texas model,” and Dr. Knight also will present “A community-based treatment model for substance abusing probationers.”

[Dr. Dianna Newbern](#) presented “No, I don’t understand. Could you draw me a map?” a node-link mapping

workshop for counselors at the Sabine Valley Substance Abuse Services Center in October in Longview, TX.

### TCU/AIDS Risk Assessment (ARA) Form

IBR Director [Dwayne Simpson](#) gave an invited presentation on the TCU/ARA at the NIDA Workshop on Measurement of HIV Risk Behaviors for Treatment Research Studies in Bethesda, MD in September. He recommended that selections of particular HIV assessment strategies and measures be guided by study objectives and sample characteristics, with the recognition that key components of some HIV risk profiles may not contribute to internally consistent composite scales with high split-half reliabilities. Questions should have good flow, easy branching transition, and simple response demands.

The TCU/ARA Form is a brief (3-page) instrument that contains both

injection drug use and sex risk items—based on the past 6 months and past 30 days—as well as a section on attitudes and concerns about HIV/AIDS. Individual items and composite measures from this form have been used in several publications to address changes in risk behaviors over time as well as comparative risk levels across groups and interventions.

This instrument was originally developed in 1989 as a short assessment to accompany the long and complex questionnaires in the National AIDS Development Research (NADR) project. In 1992 the ARA was revised and incorporated as a section of the TCU/DATAR Forms developed for a NIDA-funded treatment demonstration evaluation study. The TCU/ARA and other data collection forms can be downloaded for unrestricted use and without charge from the IBR Web site [Forms section](#). ■



*Further details on this presentation also are available on the Web site as a Web poster at [www.ibr.tcu.edu/posters](http://www.ibr.tcu.edu/posters).*

### Gender studies, continued from previous page.

treatment reporting weekly or more frequent use of cocaine (including crack) than do men. In addition, these women are more likely to have a history of drug overdose, are more likely to report HIV/AIDS-risky behaviors, and are less likely to have a high school diploma. The CETOP project is studying the impact of enhancing court-mandated substance abuse treatment using cognitive tools such as node-link mapping, a visual strategy for better communication and problem solving.

This study examined the effects of mapping-enhanced counseling on male and female clients’ responses to critical elements of the treatment program (e.g., counselors, group meetings, sense of community, security staff) and their perceptions of the personal impact of treatment (e.g., making progress, working the program, feeling better). In the first phase of the CETOP project (N=270 males and 100 females), residents in mapping-enhanced counseling gave higher ratings than those in standard

counseling to both critical elements and personal impact factors. Males and females rated the personal impact of the program similarly, and females in both mapping and standard conditions gave higher ratings to the critical elements of the program. These rating became more positive over time in the four-month program. Overall, females responded more favorably than males, and females in the mapping condition generally responded most positively of all. ■

# WEB POSTERS ONLINE

Web posters, featuring greater detail and graphical displays from selected IBR research studies, are now online at our Web site.



[www.ibr.tcu.edu/posters](http://www.ibr.tcu.edu/posters)

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