

A few notes at decade's end

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

The end of any decade brings reflection, the present one perhaps more so because of the advent of a new millennium. In reflecting on our research efforts during the last 10 years, the significance of a multitude of factors related to treatment process and successful outcomes in both community and corrections-based drug abuse treatment settings is reinforced. These include the importance of ongoing assessments throughout the course of treatment, attention to service delivery, motivation and treatment engagement issues, length of stay in

treatment, and social support and aftercare. This edition of the IBR newsletter highlights abstracts from a series of studies in both community and correctional settings that have examined these factors along with others worthy of consideration as we enter a new decade.

This year's last issue of the journal *Drug and Alcohol Dependence* (December 1999) features a collection of new studies from the [Drug Abuse Outcome Treatment Studies \(DATOS\) project](#), a collaborative research effort

funded by the [National Institute on Drug Abuse \(NIDA\)](#) using data from 96 treatment programs in 11 U.S. cities. [IBR at TCU](#), [NDRI \(National Development and Research Institutes\)](#), and the [Drug Abuse Research Center at UCLA](#) joined with NIDA in this 5-year project, which continued in the spirit of earlier national multi-site studies such as DARP (Drug Abuse Reporting Program) and TOPS (Treatment Outcome Prospective Study). The issue also reports on recent findings

See **A few notes**, next page.

Abstracts from *Drug and Alcohol Dependence*, December 1999 Special Issue

Treatment Process and Outcome Studies from DATOS

Introduction to the Special Issue: Treatment Process in DATOS
Bennett W. Fletcher, & Robert J. Battjes

Several important findings from the Drug Abuse Treatment Outcome Studies (DATOS) are presented in this

issue of *Drug and Alcohol Dependence*. These studies focus on the drug abuse treatment process in areas of engagement in treatment and participation in program activities, the effect of the patient's age and treatment history in predicting treatment retention and

outcomes, and the impact of prior treatment experience on the level of treatment engagement and subsequent outcomes. A cost-benefit model for drug abuse treatment is developed. Significant contributions are made in the development of a comprehensive model of the treatment process, including the relationship of patient attributes, program factors, and outcomes. Recent findings from England's [National Treatment Outcome Research Study \(NTORS\)](#), similar in design to DATOS, also are presented.

See **DATOS abstracts**, next page.

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from a national treatment outcome study in England.

The utility of corrections-based treatment for substance abusing offenders has spurred both research and

debate this decade, and this year's two final issues of *The Prison Journal* (September 1999 and December 1999) contain reports on the nation's three largest prison-based treatment studies. These studies, being conducted in

California, Delaware, and Texas, offer further evidence that substance abuse treatment for appropriate correctional populations can work when adequate attention is given to engagement, motivation, and aftercare. ■

DATOS abstracts, continued from front page.

Treatment Retention and 1 Year Outcomes for Residential Programmes in England

Michael Gossop, John Marsden, Duncan Stewart, & Alexandra Rolfe

This paper reports changes in substance use behaviors at 1-year follow-up, and investigates the relationship between time in treatment and observed outcomes. A total of 408 clients were interviewed at intake to 23 residential treatment programs, and 286 (70%) of these were interviewed at 1 year. Substantial improvements were found in terms of abstinence from opiates, psychostimulants and benzodiazepines. At 1 year, half of the clients were abstinent from heroin. Reductions in injecting, sharing injecting equipment, heavy drinking and criminal behavior were found. Critical treatment thresholds were identified using multiple logistic regression analyses. Longer stays in treatment were predictive of better 1 year outcomes.

The Relationship of Counseling and Self-Help Participation to Patient Outcomes in DATOS

Rose M. Etheridge, S. Gail Craddock, Robert L. Hubbard, & Jennifer L. Rounds-Bryant

Using a sample of 927 cocaine patients enrolled in programs in three modalities included in the national Drug Abuse Treatment Outcome Studies (DATOS), this investigation examined the relationship of three dimensions of treatment process on after-treatment cocaine and heavy alcohol use and predatory illegal activity. Multiple logistic regression revealed significant reductions in all three outcomes and

strong effects of treatment duration and after-treatment self-help, conditional on the modality. Results did not support the hypothesized relationship between treatment outcomes and amounts of counseling and during-treatment self-help. Findings support the robustness of duration effects and after-treatment self-help and contribute to the measurement methodology for calibrating treatment intensity. The strong after-treatment self-help effect in the two residential modalities suggests these programs can improve treatment

Bar charts and further information on these studies available in "Highlights" section of the DATOS Website. (www.datos.org)

outcomes by making after-treatment self-help participation a standard component of treatment and installing mechanisms to increase the likelihood of attendance at least twice weekly during the year after treatment.

Retention and Patient Engagement Models for Different Treatment Modalities in DATOS

George W. Joe, D. Dwayne Simpson, & Kirk M. Broome

A model to explain treatment retention in terms of process components – therapeutic involvement and session attributes for the 1st month – and patient background factors were tested in long-term residential (LTR), outpa-

tient drug free (ODF), and outpatient methadone (OMT) treatments. The data were collected in the national Drug Abuse Treatment Outcome Studies (DATOS), and included 1362 patients in LTR, 866 in ODF, and 981 in OMT programs. Structural equation models showed there were positive reciprocal effects between therapeutic involvement and session attributes in all three modalities, and these variables had direct positive effects on treatment retention. Motivation at intake was a strong determinant of therapeutic involvement. Other patient background factors were significantly related to retention, including pretreatment depression, alcohol dependence, legal pressure, and frequency of cocaine use.

Patient and Program Attributes Related to Treatment Process Indicators in DATOS

Kirk M. Broome, D. Dwayne Simpson, & George W. Joe

Patient ratings of their personal confidence in treatment and commitment to recovery were examined in a national sample of long-term residential, outpatient drug-free, and outpatient methadone programs. It was found that patients expressing greater confidence and commitment after 3 months of treatment generally began with higher motivation at intake, had formed better rapport with counselors, and attended counseling sessions more frequently. In addition, overall levels of patient involvement (as indicated by confidence and commitment) varied across programs; those programs with higher average involvement by patients used

more social and public health services, maintained more consistent attendance at counseling sessions, and served patients who collectively had more similar kinds of needs. Thus, patient and program attributes both play a role in determining therapeutic engagement of persons who enter drug treatment.

Prior Treatment Experience Related to Process and Outcomes in DATOS

Yih-Ing Hser, Christine E. Grella, Shih-Chao Hsieh, M. Douglas Anglin, & Barry S. Brown

Using data collected from cocaine-abusing patients who participated in the Drug Abuse Treatment Outcome Studies (DATOS), we contrasted patients in treatment for the first time and patients having extensive histories of prior treatment to identify factors associated with better outcomes in each group. Compared with first-timers, treatment-experienced patients had less favorable post-treatment outcomes. Indicators of early engagement in DATOS treatment predicted post-treatment abstinence for both groups. Importantly, the interaction of treatment history and several process measures affected post-treatment abstinence. For example, individual counseling and program compliance had greater impacts on abstinence among treatment repeaters in outpatient drug-free programs than for first-timers. Social support and environmental context were significantly related to abstinence. These findings confirm the importance of considering

treatment process and aftercare in developing and implementing strategies to optimize treatment for patients with different treatment histories.

Patient Histories, Retention, and Outcome Models for Younger and Older Adults in DATOS

Christine E. Grella, Yih-Ing Hser, Vandana Joshi, & M. Douglas Anglin

Structural equation modeling with multiple groups was used to examine relationships among pretreatment patient characteristics, treatment retention, and treatment outcomes among younger and older adults in the Drug Abuse Treatment Outcome Studies (DATOS). Separate models were tested for 551 patients treated in long-term residential (LTR) programs and 571 patients treated in outpatient drug-free (ODF) programs. There was a stronger positive relationship between treatment retention and abstinence at follow-up for younger adults in both treatment modalities. Prior treatment history had a negative effect on self-efficacy to resist drug use for older adults in LTR. Negative reference group influence was reduced for all groups following treatment, however, it was more strongly related to abstinence for younger adults in LTR and for older adults in ODF. Clinical implications of age-related differences in these relationships are discussed.

Costs and Benefits of Treatment for Cocaine Addiction in DATOS

Patrick M. Flynn, Patricia L.

Kristiansen, James V. Porto, & Robert L. Hubbard

Our objective was to examine the cost of long-term residential (LTR) and outpatient drug-free (ODF) treatments for cocaine-dependent patients participating in the Drug Abuse Treatment Outcome Studies (DATOS), calculate the tangible cost of crime to society, and determine treatment benefits. Subjects were 502 cocaine-dependent patients selected from a national and naturalistic nonexperimental evaluation of community-based treatment. Financial data were available for programs from 10 US cities where the subjects received treatment between 1991 and 1993. Treatment costs were estimated from the 1992 National Drug Abuse Treatment Unit Survey (NDATUS), and tangible costs of crime were estimated from reports of illegal acts committed before, during, and after treatment. Sensitivity analyses examined results for three methods of estimating the costs of crime and cost-benefit ratios. Results showed that cocaine-dependent patients treated in both LTR and ODF programs had reductions in costs of crime from before to after treatment. LTR patients had the highest levels and costs of crime before treatment, had the greatest amount of crime cost reductions in the year after treatment, and yielded the greatest net benefits. Cost-benefit ratios for both treatment modalities provided evidence of significant returns on treatment investments for cocaine addiction. ■

Research Highlights

IBR reports in press

The Alcohol Abstinence Self-Efficacy Scale (DiClemente et al., 1994) was adapted to measure its utility with offenders involved with drugs. The scale was administered to 250 probationers mandated to 6 months of residential treatment. Confirmatory

factor models replicated four previously reported dimensions (negative affect, social/positive, physical and other concerns, and cravings and urges) and high levels of construct validity were found for the adapted scale. It was recommended that self-efficacy be further examined as a prospective measure of treatment

progress and to determine its association with outcomes in corrections-based treatment. **Measuring Self-Efficacy Among Drug-Involved Probationers**, [Matthew Hiller](#), Kevin Knight, Kirk Broome, & Dwayne Simpson. *In Press: Psychological Reports*.

See **Research Highlights**, page 5.

Drug Treatment Outcomes for Correctional Settings

3-Year Outcomes of Therapeutic Community Treatment for Drug-Involved Offenders in Delaware: From Prison to Work Release to Aftercare

Steven S. Martin, Clifford A. Butzin, Christine A. Saum, & James A. Inciardi

Delaware researchers have argued for a continuum of *primary* (in prison), *secondary* (work release), and *tertiary* (aftercare) therapeutic community (TC) treatment for drug-involved offenders. Previous work has demonstrated significant reductions in relapse and recidivism for offenders who received *primary* and *secondary* TC treatment 1 year after leaving work release. However, much of the effect declines significantly when the time at risk moves to 3 years after release. Further analyses reveal that program effects remain significant when the model takes into account not simply exposure to the TC program, but, more importantly, program participation, program completion, and aftercare. Clients who complete *secondary* treatment do better than those with no treatment or program dropouts, and those who get aftercare do even better in remaining drug- and arrest-free.

3-Year Reincarceration Outcomes for Amity In-Prison Therapeutic Community and Aftercare in California

Harry K. Wexler, Gerald Melnick, Lois Lowe, & Jean Peters

The study assessed 36-month recidivism outcomes for a prison therapeutic community (TC) program with aftercare using an intent-to-treat design with random assignment. Outcomes for 478 felons at 36 months replicated findings of an earlier report on 12 and 24-month outcomes, showing the best outcomes for those

who completed both in-prison and aftercare TC programs. At 36 months, 27% of the prison TC plus aftercare completers recidivated, versus 75% for other groups. Additionally, a significant positive relationship was found between the amount of time spent in treatment and the time until return for the parolees who recidivated. However, the reduced recidivism rates for in-prison treatment found at 12 and 24 months was not maintained at 36 months.

3-Year Reincarceration Outcomes for In-Prison Therapeutic Community Treatment in Texas

Kevin Knight, D. Dwayne Simpson, & Matthew L. Hiller

Longer-term In-prison TC (ITC) outcome studies are needed along with more attention on who benefits most

treatment when it is integrated with aftercare, and the benefits are most apparent for offenders with more serious crime and drug-related problems.

A Cost-Effectiveness Analysis of In-Prison Therapeutic Community Treatment and Risk Classification

James D. Griffith, Matthew L. Hiller, Kevin Knight, & D. Dwayne Simpson

Policymakers need scientifically-based information to help them determine which correctional treatment alternatives are effective and economically viable. Three-year outcome data from 394 parolees (291 treated, 103 untreated comparison) were examined to determine the relative cost-effectiveness of prison-based treatment and aftercare, controlling for risk of recidivism. Findings showed that intensive services were cost-effective only when the entire treatment continuum was completed, and that the largest economic impact was evident among "high-risk" cases. Therefore, assignments to correctional treatment should consider an offender's problem severity level, and every effort should be made to engage them in aftercare upon release from prison.

A Meta-Analytic Review of the Effectiveness of Corrections-Based Treatments for Drug Abuse

Frank S. Pearson & Douglas S. Lipton

The Correctional Drug Abuse Treatment Effectiveness (CDATE) project obtained and coded evaluation research studies (unpublished as well as published) of treatment/intervention programs reported from 1968 through 1996. Meta-analysis was used to examine evidence for their effectiveness in reducing recidivism



See special insert section, Research Summary, for bar charts and highlights from these studies.

from these programs. This study examined reincarceration records for 394 non-violent offenders during the 3 years following prison. Those who completed both ITC and aftercare were the least likely to be reincarcerated (25%), compared to 64% of the aftercare dropout and 42% of the untreated comparison groups. Furthermore, high-severity aftercare completers were reincarcerated only half as often as those in the aftercare dropout and comparison groups (26% versus 66% and 52%). The findings support the effectiveness of intensive

for incarcerated offenders who are drug abusers. Results supported the effectiveness of therapeutic community programs, but not boot camps and drug-focused group counseling. Evaluations of other interventions were based on too few studies to draw strong conclusions, but promising treatments that warrant further attention include use of methadone maintenance treatment, substance abuse education, 12-Step programs, and cognitive behavioral therapy for offender populations.

Risk Factors that Predict Dropout from Corrections-Based Treatment for Drug Abuse

Matthew L. Hiller, Kevin Knight, & D. Dwayne Simpson

Early dropout or failure to engage in drug abuse treatment is a common problem in correctional settings. This study presents findings from 339 felony probationers mandated to a 6-

month modified therapeutic community (TC) in lieu of imprisonment. Early dropout was related to cocaine dependence, having a history of psychiatric treatment, being unemployed before adjudication to treatment, and to higher levels of depression, anxiety, and hostility. Dropout rates also were higher for probationers with deviant peer networks and lower ratings of self-efficacy. However, multivariate analyses showed that scoring "high" on a criminality risk index was the strongest predictor of leaving treatment early and appears to represent a good composite risk measure. These findings can help identify who needs residential treatment, and who is at greatest risk for not completing it.

Cognitive Enhancements of Readiness for Corrections-Based Treatment for Drug Abuse

Jason Blankenship, Donald F. Dansereau, & D. Dwayne Simpson

Motivational readiness for engaging in drug treatment is a common problem for probationers mandated to criminal justice programs, particularly for those with limited educational experience. This study presents initial findings on the impact of a new 4-session treatment readiness program that includes an array of cognitive engagement strategies. Probationers in a 4-month mandated residential program were randomly assigned to receive a standard (n = 244) or enhanced treatment readiness program (n = 249). The enhanced program was given favorable overall ratings, and the low education group in this condition rated their midterm improvements in motivation and confidence as being higher than did the group receiving the standard program. ■

Research Highlights, continued from page 3.

In order to help describe the diversity of therapeutic community (TC) programs, the Survey of Essential Elements Questionnaire was used to develop a typology of TC programs based on 19 DATOS (Drug Abuse Treatment Outcome Studies) programs that identified themselves as either traditional or modified TCs. Traditional and modified programs differed on a variety of elements, with traditional TCs more likely to emphasize self-reliance, work, vocational training, and family. Modified programs showed a greater tendency to rely on counselors.

Therapeutic Communities: Diversity in Treatment Elements, Gerald Melnick, George De Leon, Matthew Hiller, & Kevin Knight. *In Press: Substance Use and Misuse.*

This report focuses on a comprehensive treatment program for

women and their children (Salvation Army First Choice Program), including specific program attributes such as child care, therapeutic interventions for both mothers and children, community linkages, and staffing patterns. A 5-year evaluation initiative for the program, designed to examine relationships between client characteristics, program participation, and client progress, is outlined. Initial analyses of program retention suggest a complex interaction among client problems at intake, psychosocial functioning, social support, and program services.

Residential Treatment for Women with Dependent Children: One Agency's Approach, Danica Knight, Paula Hood, Sarah Logan, & Lois Chatham. *In Press: Journal of Psychoactive Drugs.*

This study of survey data from 764 municipal employees examined

employee exposure to co-worker behavioral problems (violence, hostility, sexual harassment, and substance use) and organizational factors that support total quality management (TQM) work practices. Analyses assessed whether exposure to problems was associated with workplace climate and how exposure to problem co-workers compared to other types of job stress. Findings suggest the need for links between behavioral risk management and quality work practices.

The Relationship Between Problem Co-workers and Quality Work Practices: A Case Study of Exposure to Sex, Drugs, Violence, and Stress, Joel Bennett & Wayne Lehman. *In Press: Work & Stress: An International Multidisciplinary Quarterly of Stress, Health, and Performance.* ■

What's New on the Web



At the **IBR site**, <http://www.ibr.tcu.edu>

Projects, Women and Children — A new technical report by the director of a women and children's treatment program describes how TCU evaluation data was used to improve service delivery.

Publications — Online archives now include abstracts from IBR studies from 1990-1992.

Manuals — Sample chapters are added from selected **TCU Counseling Manuals**.

At the **DATOS site**, <http://www.datos.org>

Highlights — New sections on "Treatment Engagement and Process" and "Cost Benefits of Cocaine Treatment" are included.

Publications — Abstracts from the special December 1999 issue of *Drug and Alcohol Dependence* on "Treatment Process and Outcome Studies from DATOS" are included in 1999 Publications.

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