

# RESEARCH ROUNDUP

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Ludy T. Benjamin  
for APA  
President

## Cocaine treatment outcomes

by Dwayne Simpson, *IBR Director*

The latest publication from our family of Drug Abuse Treatment Outcome Studies (DATOS) appeared in the June 1999 issue of *Archives of General Psychiatry*. One-year follow-up interviews with a national sample of 1605 clients treated for cocaine dependence in 55 programs has shown (again) that longer treatment stays are related to better outcomes. Overall, 1 of 4 (24%) reported relapses to weekly cocaine use and another 18% obtained further treatment in the year after discharge in DATOS due to continuing problems.

However, comparisons between different types of client and treatment programs were the main focus of the study. Problem severity at Intake (defined by scores on drug history and psychosocial measures) was predictive of relapse to weekly cocaine use after treatment, but different programs were not all equally effective. While low-severity clients did about equally well regardless of the type of treatment they received or how long they stayed, outcomes for medium-to-high problem clients improved significantly if they were treated for at least 3 months.

See **Cocaine outcomes**, page 2.

## DATAR 2: A review of findings and treatment tools

Field research for the second phase of the Drug Abuse Treatment Assessment and Research project (DATAR 2) was recently completed in San Antonio, Texas. The project is a continuation of work begun in 1989 by Principal Investigator [Dr. Dwayne Simpson](#) and colleagues to develop, implement, and evaluate treatment strategies designed to increase client engagement and compliance in treatment and improve outcomes. Clients participating in this project

received services at Drug Dependence Associates (DDA) of San Antonio, the private practice of [J. Thomas Payte, M.D.](#), an internationally-recognized expert in methadone maintenance treatment.

### Characteristics of DATAR Clients

A total of 547 clients were admitted to DATAR 2 between September 1995 and

See **DATAR 2**, page 3.

### Also in this issue:

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  - includes a new downloadable version of the *TCU Treatment Process Model*

**Significant improvements were reported for clients who were in treatment for at least 3 months.**

### Cocaine outcomes, continued from front page.

But for the most severe cases, treatment setting also became highly significant. In particular, we found that these clients needed at least a “minimum dose” of more intensive services in long-term residential (usually therapeutic community) programs. After staying in one of these programs for at least 3 months, 15% relapsed in the 1-year follow-up. By comparison, relapse rates were 29% for similar clients treated in outpatient drug-free settings for 3 months or longer and 38% of those treated for prescribed stays of at least 21 days in short-term inpatient programs.

The results of this study, of course, lead to many other questions about the particular treatment services involved, the therapeutic engagement process, influences of treatment history and social context, and cost benefits. These are some of the topics addressed in

the next wave of DATOS articles contained in special issue of *Drug and Alcohol Dependence* that is currently in press. A report on the first national study of treatment outcomes in England is also included, which replicates many of the DATOS findings. (Watch the DATOS Web site at [www.datos.org](http://www.datos.org) for more details.)

#### References:

Simpson, D., Joe, G., Fletcher, B., Hubbard, R., & Anglin, D. (1999). A national evaluation of treatment outcomes for cocaine dependence. *Archives of General Psychiatry*, 56, 507-514.

Simpson, D. & Brown, B. (Eds). (In press). Special issue on treatment process and outcome studies from DATOS. *Drug and Alcohol Dependence*. ■

**Clients meeting eligibility requirements for DATAR 2 were offered 12 months of free treatment.**

### DATAR 2, continued from front page.

June 1999. Potential clients were screened for admission to determine their eligibility for DATAR and their preferences for treatment. In order to be eligible for admission to the research project, clients were required to be 18 or older, to meet federal criteria for admission to methadone maintenance, to have injected drugs in the past 6 months, to have not been in treatment in the previous 6 months, and to have basic literacy skills in English. Eligible clients were offered 12 months of free treatment in exchange for participating in the study. The screening process used for the project revealed that the major reasons for non-admission included not meeting criteria for the project (e.g., not having adequate literacy skills), voicing a preference for private treatment or detoxification-only instead of methadone maintenance, and deciding against entering treatment at that time.

Information collected at admission showed 70% were male, the average age 38, and the

average amount of schooling was 10.6 years. Sixty-five (65%) percent were Hispanic and 34% were married or living as married. Twenty-five (25%) percent were employed either part-time or full-time during the month before admission and the average annual income was \$4,394. Ninety-nine (99%) percent reported daily heroin use and 22% reported weekly or more frequent cocaine use in the 6 months prior to admission. Fifty-six (56%) percent of the sample had a history of legal involvement.

### Client Problem Assessment Profiles

The TCU Initial Assessment (IA) is a short intake form that includes background and psychosocial measures, a brief history of illegal drug use, and assessments of cocaine and alcohol dependency status based on DSM-IV criteria (available from the IBR Web site). An electronic version of the IA was developed and implemented during DATAR 2 to further expand its usefulness

and applicability. Its computerized administration allowed for the creation of a prototype program for generating rapid reports to assist counselors with treatment planning. The Client Problem Assessment Profile (CPAP) is able to generate Individual Client Profiles that highlight client problems in various treatment areas and Group Summary Profiles that give a combined picture of all agency clients (see Figure 1). In addition, the program can be used to generate graphical compilations of client subgroup profiles and comparisons (e.g., contrasting cocaine dependent versus non-dependent clients). CPAP will undergo further development and refinement during the coming year.

### Development and Validation of a TCU *Simpatía* Scale

Because the majority of DDA clients were Hispanic, a 17-item scale was developed to assess the importance of *simpatía* in the counseling relationship ([available from the IBR Web site](#)). *Simpatía* is a cultural script that promotes smooth social relations and often is cited as an important consideration in the treatment of Hispanics. To say that

someone has *simpatía* (or that someone is *simpático*) means that person is empathic and behaves with dignity and respect toward others. Additionally, someone who is *simpático* strives to achieve harmony and avoid conflict in interpersonal relationships. The TCU *Simpatía* Scale, which asks questions about the client-counselor relationship related to Agreeableness, Respect, and Politeness, was found to have good reliability and validity. In general, high scores on the *simpatía* scale were associated with higher levels of social support and social conformity, lower levels of hostility, and higher ratings of program satisfaction and counselor skills. *Simpatía* was not associated with age, gender, or reasons for drug use.

The scale informs counselors on how *simpatía* may impact the development of therapeutic alliance with Hispanic clients. Specifically, confrontation may be contraindicated for clients with high levels of *simpatía* and counselors may want to monitor these clients to make sure they truly understand information given in counseling sessions. High *simpatía* was associated with

Continued, page 4.

**The TCU *Simpatía* scale assesses factors related to the client-counselor relationship.**

TCU INITIAL ASSESSMENT		DATE:	7/1/99
<b>GROUP SUMMARY</b>		<b>PROBLEM ASSESMENT PROFILE</b>	
		<b>RETURN</b>	
AGE	38.2	EDUCATION	10.6
		RACE/ETHNICITY	
GENDER		MARITAL STATUS	
LEGAL STATUS	56.1%	WORKED FT/PT	28.9%
CURRENT LIVING ARRANGEMENT		NUMBER OF CASES	547
<b>TREATMENT PROBLEM AREA</b>			
	<b>YES</b>		<b>YES</b>
HIGH NEED FOR TREATMENT	98.5%	HIV/AIDS RISK PROBLEMS	99.3%
HIGH PRESSURE FOR TREATMENT	39.3%	ALCOHOL PROBLEMS	33.6%
LEGAL/CRIMINALITY PROBLEMS	25.6%	COCAINE PROBLEMS	40.8%
SOCIAL PROBLEMS	72.8%	HEROIN PROBLEMS	100.0%
EMPLOYMENT PROBLEMS	42.8%	MULTIPLE DRUG PROBLEMS	5.5%
PSYCHOLOGICAL PROBLEMS	52.3%	ALCOHOL DEPENDENT (DSM IV)	28.2%
MEDICAL PROBLEMS	57.8%	COCAINE DEPENDENT (DSM IV)	35.5%

**Figure 1.** Group summary profile showing percentages of client problems

## DATAR 2, continued from page 3.

socially desirable responding, indicating a tendency for these clients to agree uncritically or to say they understand things simply to be agreeable and avoid conflict. Overall, *simpatía* may affect the ability of counselors to establish positive relationships with Hispanic clients which could increase engagement and treatment retention.

**Reference:** Griffith, J., Joe, G. W., Chatham, L. R., & Simpson, D. D. (1998). The development and validation of a *Simpatía* scale for Hispanics entering drug treatment. *Hispanic Journal of Behavioral Sciences*, 20, 468-482.

**High levels of client-counselor rapport were related to less opiate and cocaine use during treatment.**

## Rapport and Outcomes During and Following Treatment

The importance of rapport between clients and counselors has long been cited as a factor in treatment compliance and retention. A study was conducted in DATAR to assess the influence of counselor-client rapport on drug use during and following treatment using a set of measures that rate both client and counselor perceptions of the counseling relationship. A high level of rapport was significantly related to less opiate and cocaine use during treatment and to less cocaine use (but not opiate use) at follow-up

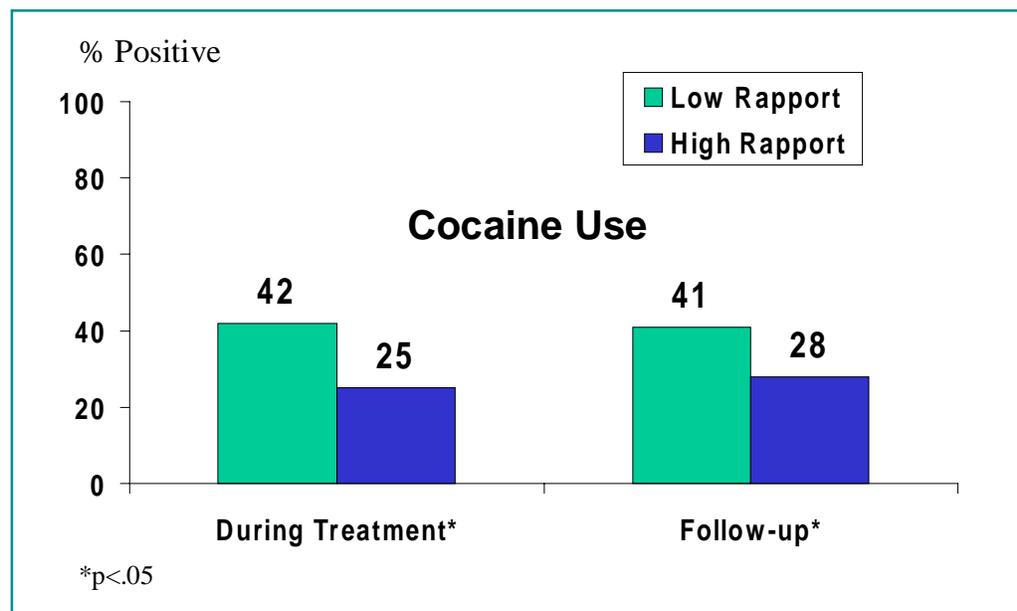
(see Figure 2). This relationship was strongest for clients who were not still in treatment at follow-up, compared to those who remained in treatment. In general, low rapport clients were more likely to use cocaine whether in or out of the treatment setting.

## Intake Characteristics of Female Clients with Sexual Abuse Histories

Research over the past two decades has consistently found that sexual abuse is reported more often by female than male clients who enter substance abuse treatment and that a history of sexual abuse often is associated with greater psychopathology (e.g., depression, anxiety, PTSD). A study was undertaken to determine if there were differences at Intake between female DATAR clients with and without a history of sexual abuse in terms of demographics, psychosocial functioning, family relations, drug use, health, and HIV risks.

In a sample of 137 female clients admitted between 1995 and 1998, 39% (N=53) reported a history of sexual abuse (SA) and the other 61% (N=84) reported no sexual abuse (NSA). No group differences were

**Figure 2.** During treatment and follow-up urinalysis by level of rapport (n=169)



found in terms of race, age, education, marital status, number of children, employment, and previous treatment. In addition, both SA and NSA clients appeared to enter treatment with the same levels of motivation. However, SA clients were more likely to have experienced physical and emotional abuse and to report more negative family-of-origin relationships (e.g., family conflict, parental criminality) than NSA clients. SA clients self-reported more drug-related problems and more frequent use of marijuana, nonprescribed tranquilizers, and other opiates in the month before entering treatment. They also were more likely to have used prescribed psychotropic medication (e.g., antidepressants) in the 6 months before Intake. Compared to NSA clients, women with SA histories reported more indicators of depression and anxiety, more thoughts of suicide, and more trouble processing information and controlling violent behavior. In addition, these women reported higher HIV risks related to trading sex for money or drugs without using a condom.

### Contingency Management and the “COCA” Intervention

Methadone clients who also use cocaine are considered difficult to engage in treatment and more likely to dropout. Contingency management (CM) and several cognitive-behavioral counseling approaches have been found to help retain these clients and reduce drug use. A specialized intervention combining CM with a structured psycho-educational module, Counseling on Cocaine Abuse (COCA), was studied using a sample of DATAR clients who showed evidence of heavy cocaine use and/or dependence (e.g., self-reported use, cocaine-positive urinalysis, or DSM-IV-based indicators from initial assessment).

Sixty-one clients were randomly assigned to one of four treatment conditions (participation in the COCA module with and without CM and nonparticipation in COCA with and without CM). Clients participated in their assigned interventions for 8 weeks and their progress was followed for 8 weeks

postintervention. Results showed that the COCA intervention was positively related to 6-month retention rates and that CM was significantly related to reductions in cocaine use during the 8-week intervention and the 8-week postintervention period. Overall, both COCA and CM were associated with positive treatment response, but with different focal points of influence.

**Reference:** Rowan-Szal, G. A., & Simpson, D. D. (1999, June). Contingency Management and Relapse Prevention Training in a Sample of Cocaine-Using Methadone Clients. Presented at the meeting of the College on Problems of Drug Dependence (CPDD), Acapulco, Mexico.

### DATAR Follow-up Sample

All clients admitted in 1995 and 1996 (n=357) were selected for follow-up interviews scheduled approximately 18-months post intake. About 92% were successfully located; of these, 22% were in jail or prison and therefore not scheduled for interview, 3% were deceased, and 5% had moved from the area or refused the interview. Almost all of the remaining eligible clients who were located agreed to be interviewed. Overall, 67% of clients admitted in 1995 and 60% of those for 1996 have been interviewed, providing a total follow-up sample of 212. Those who completed the interview were given \$20 for their time and an additional \$5 for a urine sample for drug testing. The follow-up interview asked questions similar to those completed by clients at Intake so that comparisons can be made for key outcome measures such as drug use, psychosocial functioning, and other behavioral indicators.

Clients who completed the full 12-months of treatment offered through the DATAR project were more likely to still be in treatment at follow-up (41% of completers were still in treatment versus 22% of noncompleters). Overall, clients had significantly lower levels of drug use compared to what they reported at Intake, along with

Continued, page 7.

*A combination of CM and targeted counseling proved useful with cocaine clients.*

*Clients reported less drug use and better overall functioning at follow-up.*

# Research Highlights

## Reports in press

A sample of 635 clients in outpatient methadone treatment was used to examine gender differences in services needed and provided during the first 3 months of treatment.

Results showed that compared to males, women entered treatment with more psychological symptoms and HIV risks. However, women presented with less criminal activity, less alcohol use, and higher motivation. Counselors addressed more crisis and psychological issues with women and used strategies directed toward improving problem-solving and communication skills. Counselors also made more medical referrals and reported higher rapport with women. However, counseling directed toward employment and reducing HIV risk behaviors did not differ by gender even though women reported more needs in these areas.

**Services Provided During Methadone Treatment: A Gender Comparison**, Grace Rowan-Szal, Lois Chatham, George Joe, & Dwayne Simpson. *In Press: Journal of Substance Abuse Treatment*.

A meta-analysis of contingency management interventions in outpatient methadone treatment was conducted with a focus on the outcome measure of drug use during treatment. Based on 30 studies, the effectiveness of behavioral interventions yielded an overall effect size ( $r$ ) of .25. The type of reinforcement provided, the time of reinforcement delivery, the drugs targeted for behavioral change, the number of urine specimens collected per week, and the type of subject assignment were found to be significant moderators of outcomes. **Contingency**

**Management in Outpatient Methadone Treatment: A Meta-Analysis**, James Griffith, Grace Rowan-Szal, Ryan Roark, & Dwayne Simpson. *In Press: Drug and Alcohol Dependence*.

The impact of internal motivation (treatment readiness) and external legal pressure on drug treatment engagement and retention was examined using a national sample of 2,194 clients admitted to long-term residential programs. Although there was no significant interaction effect, clients with higher levels of treatment readiness at Intake stay in treatment at least 90 days regardless of legal pressure. Similarly, those under legal pressure remained in treatment longer regardless of treatment readiness. However, motivational readiness was more influential on retention and better therapeutic engagement than legal pressure. **Legal Pressure, Treatment Readiness, and Engagement in Long-Term Residential Programs**, Kevin Knight, Matthew Hiller, Kirk Broome, & Dwayne Simpson. *In Press: Journal of Offender Rehabilitation*.

Outpatient methadone treatment (OMT) clients who use cocaine or alcohol are difficult to engage and retain in treatment. A sample of 127 OMT clients was studied to assess the impact of polysubstance abuse on treatment. Admission characteristics, treatment response, and retention were compared among clients dependent on opiates only, opiates and alcohol, opiates and cocaine, and all three drugs. Results showed that these clients differ in admission needs assessment, session attendance, issues discussed during

counseling, and counselor rapport. Clients dependent on all three drugs—opiates, cocaine, and alcohol—were significantly more difficult to engage and retain in treatment. **Importance of Identifying Cocaine and Alcohol Dependent Methadone Clients**, Grace Rowan-Szal, Lois Chatham, & Dwayne Simpson. *In Press: The American Journal on Addictions*.

A sample of 900 clients enrolled in long-term residential programs as part of the Drug Abuse Treatment Outcome Studies (DATOS) project was used to investigate whether type of cocaine used (e.g., crack versus powdered) was related to retention in treatment. All met DSM-III-R criteria for cocaine dependence and were at least weekly users. It was found that crack users had lower retention rates compared to clients who used other forms of cocaine. In general, clients with higher retention rates were older, had completed high school, were unmarried, and had fewer arrests. In addition, they were less likely to be depressed, had higher motivation for treatment, and were more likely to be dependent on alcohol. **Treatment Retention of Crack and Cocaine Users in a National Sample of Long-Term Residential Clients**, Grace Rowan-Szal, George Joe, & Dwayne Simpson. *In Press: Addiction Research*.

## New projects

IBR has received funding from the National Institute of Justice (NIJ) for a 2-year project that will track posttreatment recidivism rates for probationers who received treatment at the Dallas County Judicial Treat-

## DATAR 2, continued from page 5.

significant reductions in injection frequency and criminal activity. For example, 98% were positive for any type of illegal drug at Intake compared to 79% at follow-up (see Figure 3). Similarly, 92% were positive for opiates at Intake compared to 61% at follow-up. In terms of cocaine use, 46% of clients tested positive for cocaine at admission versus 35% at the time of follow-up.

Clients also reported significant improvements in psychosocial functioning, including increased self-esteem, decision-making, and socialization and decreased depression, anxiety, hostility, and risk-taking.

## Conclusions

The DATAR 2 project has continued efforts to improve the overall effectiveness and efficiency of drug abuse treatment through the illumination and rigorous study of therapeutic ingredients that make up the so-called “black box” of treatment. Assessment instruments and methodologies were developed to capture the influence of components of the treatment process (e.g., engagement, participation, rapport, compliance) on key

outcome indicators such as drug use, psychosocial functioning, criminality, and aftercare/treatment continuation. These assessment and monitoring instruments have been placed in use during the course of the DATAR project. They are free for downloading in the [Forms Section](#) at the IBR Website).

Consistent with earlier findings (both from DATAR 1 and other national studies), the DATAR 2 follow-up data reinforce the importance of length of stay in treatment. Future studies will continue to look at treatment factors such as early

recovery, program participation, and the client-counselor relationship in an effort to better understand the dynamics of longer retention. The role of innovative interventions that appear to improve engagement and retention (such as contingency management, node-link mapping, and specialized modules) will be a primary focus. It is hoped that as analyses of these data are completed, the sequential therapeutic elements that link together over time to help sustain treatment retention and thereby improve outcomes will become clearer. ■

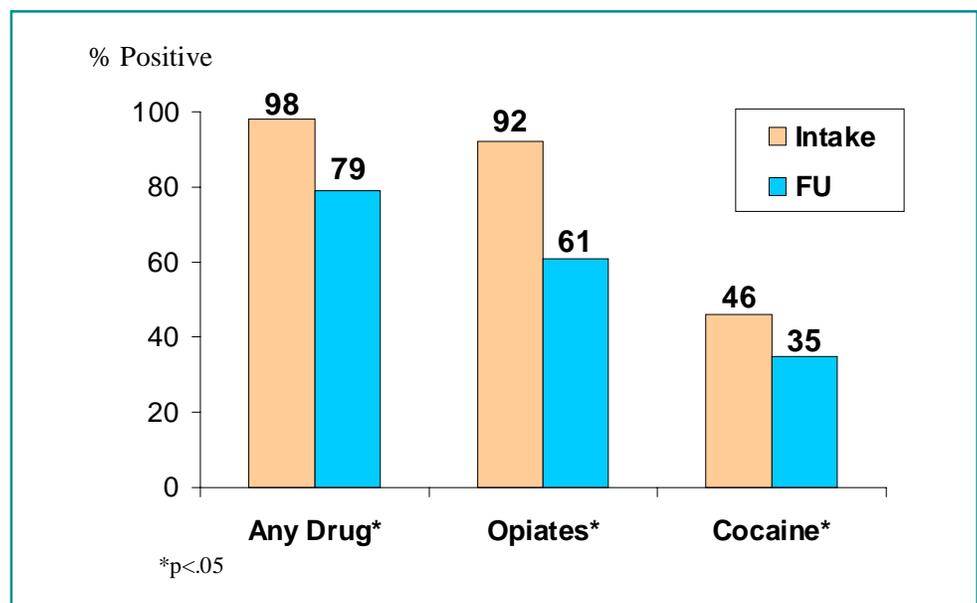


Figure 3. Intake to follow-up urinalysis results (n=198).

ment Center. [Dr. Matthew Hiller](#) is Principal Investigator for the Outcome Assessment of Correctional Treatment (OACT) project and [Dr. Kevin Knight](#) is Co-Principal Investigator. This project follows and expands the Process Assessment of Correctional Treatment evaluation previously awarded to IBR by the NIJ.

## Conference presentations

Dr. Kevin Knight presented “Drug Treatment for Offenders: An Overview of Research Findings” at the Annual Conference on Criminal Justice Research and Evaluation sponsored by the Department of

Justice in Washington, DC. Dr. Knight also spoke on “TC Outcome Research: An Overview” at the Training on Therapeutic Community Program Design and Implementation in Columbus, OH. ■

## What's New on the Web



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

**Forms** — New data collection forms are now available for **Correctional Outpatient Treatment** settings.

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

**Web Posters** — New animated presentation of the *TCU Treatment Process Model* is now available for downloading as a Microsoft PowerPoint® presentation file.

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

**Highlights** — New section on “Outcomes for Treatment of Cocaine Dependence” is included. The summary of an article appearing in the June issue of *Archives of General Psychiatry* provides an abstract, details of findings, and charts.

**Web Posters** — New DATOS presentations from the CPDD June conference can be viewed.

The DATOS web site homepage was recently redesigned to allow easier browsing and more efficient information retrieval.

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