Forum advances evaluation science

by Dwayne Simpson, IBR Director

The research teams from NDRI, NIDA, TCU, and UCLA decided the last scheduled meeting for the DATOS Cooperative Agreement should include other scientists involved in large-scale treatment evaluation projects. A two-day meeting in Fort Worth, Texas on May 8 - 9 was the result, and it was very well received by the 20 senior scientists and associates invited to participate. The purpose of the TCU Forum was three-fold: (1) to give an overview and share the latest studies from the national Drug Abuse Treatment Outcome Studies (DATOS), (2) to offer a forum for the conceptual and scientific discussion of other large-scale treatment evaluations (including both past studies and those still in progress), and (3) to encourage and mentor some of our junior scientists through discussion and information sharing. Our goals were superbly achieved, largely due to the all-star cast that agreed to come and participate. In addition to hearing about an impressive array of treatment outcome studies (in the U.S. and England), attention was devoted to their intersections with managed care and organizational factors that influence service delivery. Some highlights of the meeting are summarized in this issue of our newsletter.

Forum Summary

Reports on DATOS findings

Dr. Barry Brown chaired the meeting and opened with a historical overview of national studies on drug treatment effectiveness carried out over the last 30 years that laid the groundwork for DATOS, including the Drug Abuse Reporting Program (DARP) of the 1970s and the Treatment Outcome Prospective Study (TOPS) of the 1980s. These early evaluations provided empirical support for the effectiveness of community-based treatment, defined the methodology for large-scale outcomes studies, and helped document the changing patterns of drug use in America.

Dr. Robert Hubbard (NDRI) went on to discuss his group’s recent findings related to treatment structure, utilization, and cost in DATOS, noting that in today’s treatment environment, clients select (or are selected for) a treatment modality based on type of drug use and severity of problems. Treatment

See DATOS Findings, next page.
was found to be generally effective for the type of drug being treated and treatment stays of 90 days were found to significantly reduce the chance of relapse to that drug in the year following treatment. However, in long-term residential modalities, a year of treatment was found to be optimal for increasing the likelihood of full-time employment and decreasing criminality in the year after treatment. He noted that future evaluation studies face design and analytic challenges due to the complex relationships among substance abuse treatment, criminal justice initiatives, social service delivery, and managed health care systems. These evolving relationships will impact revenue streams, access to services, and costs.

He was followed by Dr. Patrick Flynn (NDRI), who provided an overview of cost-benefit studies from DATOS that examine how drug treatment saves money through reductions in criminal recidivism. His analyses, using estimated costs of treatment, costs of crime to society, net benefits, and cost-benefit ratios, show that across all modalities treatment more than pays for itself through averted crime, with longer retention being associated with the greatest crime-cost savings. He voiced concern that today’s cost containment practices targeted toward reducing time in treatment and available services may ultimately lead to increased social costs.

Dr. Dwayne Simpson (TCU) reiterated the importance of treatment engagement and retention, citing DATOS studies that suggest programs with lower retention tend to have caseloads with more severe problems (such as cocaine and alcohol dependence, psychological problems, and more episodes of previous treatment). However, client problems did not appear to explain all program differences in retention rates, suggesting the need to closely examine how factors such as client motivation, desire for help, and treatment readiness interface with program factors such as client-counselor rapport, treatment confidence, and therapeutic involvement. He used the TCU Treatment Process Model (detailed on the IBR website) to explore the interrelationships among treatment induction, process, and outcome across several DATOS studies, noting that continued insight into treatment process and the facilitation of technology transfer of research-based findings are pressing issues for the field.

Dr. Christine Grella concluded the DATOS session with findings from UCLA on drug treatment careers, long-term outcomes, and adolescent treatment. In studies of treatment careers in DATOS, clients with more severe drug problems (e.g., dependence, injection use, polydrug use, early initiation to drug use) and those reporting criminal activity (including sex work) were more likely to have prior treatment histories. Clients entering treatment for the first time were more likely to attend individual counseling and more likely to comply with program instructions, while those with prior treatment histories had higher motivation and more needs, especially related to employment and family issues. Longer treatment stays and more individual counseling sessions were associated with better treatment outcomes, especially for treatment repeaters. Preliminary analyses from the DATOS long-term follow-up have examined patterns of relapse, abstinence, and treatment reentry.

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Forum Summary

Highlights of invited presentations

National Survey of Programs

Drs. Paul Roman and Aaron Johnson with the University of Georgia’s Institute for Behavioral Research opened the invited session with a presentation on the structure and organization of private substance abuse treatment based on a national study of 450 programs (SOPSAT). The study documents changes in the structure of private facilities from the late 1980s to the 1990s, with a trend toward hospital-based programs that offer a number of inpatient and outpatient levels of care, as well as other chemical dependency services (such as DUI assessments and EAP programs). Drs. Roman and Johnson also discussed success rates in private treatment programs, noting that respondents reported about 56% of clients remained abstinent in the 6 months following treatment. However, almost 75% of these programs were unable to provide an estimate of treatment success, pointing to a glaring lack of outcome or follow-up studies in private substance abuse treatment programs.

England’s National Evaluation

Dr. Michael Gossop from the National Addiction Centre in London provided an update from the National Treatment Outcome Research Study (NTORS), a 5-year British prospective study similar to DATOS in its scope and design. Improvements were found in major problem areas for even the most seriously drug dependent clients, including substantial reductions in the use of heroin, cocaine, and other drugs, as well as reductions in injection frequency and needle sharing. High rates of crime prior to intake were greatly reduced at follow-up, a finding strongly related to reductions in heroin use. Time in treatment was positively related to outcomes in both residential and outpatient methadone programs. A total of 54 substance abuse treatment agencies from across England participated in NTORS and the findings have been influential in determining government policy in the United Kingdom.

Multi-site Evaluations

In a review of findings from several recent multi-site evaluations in the U.S. (NTIES, CALDATA, SROS), Dr. Dean Gerstein, with the National Opinion Research Center, pointed out that across different self-reported and external measures at 1-year follow-up, treatment seems to reduce the use of drugs and alcohol by about half, with similar reductions noted in problems associated with substance abuse such as criminality, poor health, HIV risks, and suicide. Gender and ethnicity did not appear related to treatment outcome, nor did the primary drug of addiction, although results for heroin treatment tended to be weaker than for other drugs.

Studies generally reflect variability in treatment outcomes due to differences in service delivery and severity of client problems.

These studies found great variability in treatment efficacy across programs, although the average cost of delivering care was remarkably similar across modalities. In looking at cost-benefit analyses, these studies also found that treatment generally pays for itself through reductions in crime and improved client functioning.

Target Cities Evaluation

Cleveland Target Cities

Dr. Richard Stephens, with the University of Akron Center for Health and Social Policy, described research currently underway as part of the National Target Cities and the Cleveland Target Cities evaluations. The National Target Cities project is a multi-city study on the effectiveness of using centralized intake units to conduct psychosocial assessments of clients presenting with substance abuse problems and refer them to appropriate treatment using a matching protocol. A

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specialized management information system was developed to track clients through this process and to assess progress, satisfaction, and reductions in time to treatment. The Cleveland Target Cities evaluation consists of baseline, 6, and 12-month follow-up assessments using a computerized instrument that yields patient-treatment matching. Results showed that at 1-year follow-up, 30% of patients reported no problems due to substance abuse. In addition, patients who obtained outpatient mental health care and those who participated in 12-step self-help groups were more likely to be abstinent and free of problems. Patients involved in 12-step based treatment appeared to improve more, however, there was no evidence that 12-step treatment was more beneficial than cognitive-behavioral treatment for certain types of patients.

**Substance abuse treatment has been found to pay for itself through reduced crime and improved client functioning.**

psychosocial history, DSM-IV diagnosis for drugs and alcohol, a narrative summary, and recommendations for level of care. Analyses of both the Cleveland and national databases are ongoing. In addition, the Persistent Effects of Treatment Study (PETS) will follow the Cleveland sample for an additional 2 years in order to closely examine types of treatment provided and in-depth utilization of services.

**Practical Applications of TC Studies**

In reviewing his seminal work on therapeutic communities (TC), Dr. George De Leon, of NDRI’s Center for Therapeutic Community Research, discussed recent studies on the nature of TC treatment and its effectiveness. The guiding philosophy of TC treatment stresses the purposive use of community as the primary method for facilitating change (i.e., the environment, residents, staff, norms, values, roles, and daily activities). Both Traditional and Modified TCs appear to support these elements as essential to the modality, although adaptations based on funding, program diversity, and other constraints are not uncommon. For example, recent studies have found suitably modified TCs can be effective with challenging populations such as prisoners, adolescents, and homeless, mentally ill drug abusers. Future studies will continue to examine factors such as client motivation, treatment retention and completion, and participation in aftercare on the outcomes of TC treatment.

**Process-Effectiveness of VA Programs**

Dr. John Finney, with the Center for Health Care Evaluation at Palo Alto VA, provided an overview of findings from a multi-site, comparative, process-effectiveness evaluation of substance abuse treatment programs operated by the Department of Veterans Affairs (VA). The evaluation examined outcomes at follow-up, the effectiveness of different treatment approaches, treatment process, and research participants in these areas requires patience, respect for cultural norms, and lots of painstaking bridge-building using accepted folk pathways such as home visits, personal self-disclosure, and story telling. Alcohol is the most frequently abused substance in rural areas and marijuana the most frequently used illegal drug. Other illegal drugs are used when available. A history of physical abuse is common for female substance abusers in rural areas.
Clients who enter treatment often have had several episodes of prior treatment and HIV risks from multiple sex exchanges are not uncommon among rural substance-abusing populations.

**Drug Evaluation Network System**

An update on the Drug Evaluation Network System (DENS) was presented by Dr. Tom McLellan (University of Pennsylvania), who discussed methodological challenges and future directions for this project. DENS, a national, electronic, treatment tracking project, seeks to provide practical and current clinical and administrative information on types of clients. Data collection centers on the characteristics of clients entering treatment, the severity of their problems, the modality they enter, and their length of stay. The Addiction Severity Index (ASI) serves as the major source of client data. The ultimate goal is to provide useful information to policy makers at the state and federal levels to help guide funding and administrative decisions. Dr. McLellan highlighted issues involved in the establishment of the DENS computerized central information system, which makes data available rapidly and continuously in order to observe changes over time, and the addition of new research sites to the DENS project.

**Service Delivery and Client Utilization**

Findings on the utilization of ancillary services by drug abuse treatment clients were presented by Dr. Thomas D’Aunno with University of Chicago’s School of Social Service Administration. He reported on his recent studies that looked at the impact of linkage mechanisms such as on-site availability, transportation assistance, formal arrangements with other service providers, and case management on client utilization of medical and psychosocial services. On-site service delivery and transportation assistance were associated with significantly higher levels of utilization. On-site case management was related to client usage of some services, but off-site case management was not. Referral and other external arrangements did not appear to impact utilization. Dr. D’Aunno also discussed the impact of organizational factors such as program affiliation, resources, leadership, staffing, and treatment philosophy on client access to primary care and mental health services and emphasized the need to examine the role of organizational variables in service delivery and utilization.

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**On-site service delivery and other concrete linkages may increase client use of medical and psychosocial services.**

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**Forum Participants:** (Standing; left to right in the Saul B. Sells Library), Richard Millstein, NIDA; Bennett Fletcher, NIDA; Thomas D’Aunno, U. of Chicago; Patrick Flynn, NDRI-North Carolina; Carl Leukefeld, U. of Kentucky, Lexington; John Finney, VA, Palo Alto, CA; Richard Stephens, U. of Akron, Ohio; Barry Brown, U. of North Carolina, Wilmington; George Woody, U. of Pennsylvania, Philadelphia; George Joe, TCU; Michael Gossop, The Maudsley, London; Constance Horgan, Brandeis U., Waltham, MA; and Christine Grella, UCLA. (Seated, left to right), Paul Roman, U. of Georgia, Athens; George De Leon, NDRI-New York; Tom McLellan, U. of Pennsylvania, Philadelphia; Dwayne Simpson, TCU; Dean Gerstein, NORC, Washington, DC; and Robert Hubbard, NDRI-North Carolina. *Photo by Melvin Vertison.*
Invited Presentations, continued from page 5.

**Treatment Evaluation and Managed Care**

Dr. Constance Horgan, a lead investigator with the Schneider Institute for Health Policy at Brandeis University, provided insight into managed care issues impacting the organization, financing, and management of drug abuse treatment services. With funding from NIDA, NIAAA, and SAMSHA, her team conducted a nationally representative survey of managed care organizations in order to better understand how they contract for and provide substance abuse and mental health services. The survey targeted over 400 organizations in 60 market areas and has yielded a comprehensive picture of current substance abuse delivery systems and treatment outcomes. A variety of studies are underway to identify the factors that affect the scope and quality of treatment, access to and availability of appropriate care, the relative cost-effectiveness of treatment, and managed care contracting arrangements. Of particular interest are studies that will look at per-person utilization of substance abuse treatment services financed through Medicaid and public-sector block grant funds.

**NIDA’s Clinical Trials Network Delaware Valley Node**

An overview of the new NIDA Clinical Trials Network (CTN) with a focus on the Delaware Valley Node was presented by Dr. George Woody, the project’s Principal Investigator (University of Pennsylvania). The node consists of 10 organizations that administer 30 substance abuse treatment programs and treat a representative sample of men, women, children, and adolescents within the Delaware Valley. Every current treatment modality is represented in these programs with the exception of a traditional therapeutic community. Dr. Woody also presented data from a survey of staff attitudes toward treatment and research that represented the views of 325 treatment providers within this network. The data showed areas in which staff consistently endorsed the value of certain treatment interventions, as well as areas where there were significant differences of opinion. Responses seemed to be determined by educational level of staff and their roles within the program, but differences were also seen between programs. These findings suggest that developing a consensus between research findings and treatment practices is likely to be a complex process that will require ongoing communication and understanding from all persons involved.

**Ongoing studies seek to understand how substance abuse services fit into managed care contracting arrangements.**

**Implications for Research**

Dr. Bennett Fletcher, with NIDA’s Services Research Division, discussed implications for future research based on what has been learned to date from large scale national treatment evaluations. He noted that research on ways to improve effectiveness, the role of treatment process, and the economics of drug abuse treatment, including service delivery models and cost-benefit studies will continue to be important initiatives. He was followed by Dr. Richard Millstein of NIDA’s Office of the Director, who concluded the meeting by summarizing and commenting on the presentations. Dr. Millstein stressed the importance of ongoing research and the need for researchers to develop new ways to disseminate findings and make them more accessible and understandable to policy-makers and the voting public. In closing the meeting, he challenged researchers to consider ways to expand technology transfer efforts so that research-proven drug abuse treatments become more readily available to practitioners seeking the best treatment options for their patients. ■
These findings on 5-year follow-up showed that the likelihood of relapse was highest in the 12 months following treatment. After 5-years, 55% of clients reported no arrests, 68% had received no additional treatment, and 40% reported no relapse to weekly drug use. The DATOS evaluation of adolescent treatment replicated adult findings on the effectiveness of drug treatment and the importance of sufficient retention for reducing drug and alcohol abuse and criminal involvement. The study also examined the impact of comorbidity (i.e., attention deficit disorder, depression) on adolescent treatment outcomes. Comorbid adolescents received more services early in treatment, such as family, health, and HIV services, but were not more likely to receive mental health services. Overall, comorbidity was associated with poorer treatment outcomes for teens at follow-up. She noted that these findings are part of a series of studies from the DATOS-Adolescent project now in preparation for a special issue of *Journal of Adolescent Research*.  ■
What’s New on the Web

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

New DATOS Presentations are available to download in Microsoft PowerPoint® 2000. These include: “Overview of Treatment Outcome Studies,” “Overview of Treatment Retention Findings,” “Overview of Treatment Engagement Findings,” and “Overview of Cocaine Treatment Study.”

Web Posters — Posters from the June CPDD meeting are ready for viewing.

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

Downloads — This new page provides a convenient, indexed list of all files that can be downloaded from the IBR site.

Newsletters — New TCU Research Summaries focus on “Drug Treatment in Correctional Settings,” “Treatment Process and Outcomes,” and “Intervention Manuals for Counselors” and are provided in Adobe® Acrobat® PDF format.

Web Posters — A Microsoft PowerPoint® animated presentation on the “TCU Treatment Process Model” is available for downloading. Also, posters presented at recent meetings of the American Methadone Treatment Association (AMTA) and the College on Problems of Drug Dependence (CPDD) are available for viewing.

Manuals — All session materials for Straight Ahead are now included in PDF format. A sample session also is available in PDF for the new manual, Partners in Parenting.