DATAR: A 20-Year Research Program

by D. Dwayne Simpson, IBR Director

The TCU Drug Abuse Treatment and Assessment Research (DATAR) program is now entering its 15th year, and the National Institute on Drug Abuse (NIDA) is expected to extend it for another 5 years through a special MERIT award for innovative research. The programmatic focus of its successive phases (reported in over 85 publications) began with studies of targeted interventions developed for enhancing and sustaining specific stages of clinical progress, followed by how therapeutic engagement and process measures are related to outcomes, and finally on technology transfer research for examining organizational attributes in relation to the way treatment programs respond to efforts for change.

In the next 5 years we plan to examine integrative organizational and clinical change strategies for improving large-scale community-based treatment systems. Special award supplements have extended DATAR studies to include new populations and address health disparities, international collaborations, and correctional organizations. More importantly this program of research has spun off into a family of federally funded TCU projects for cognitive-based interventions, treatment for special populations (e.g., correctional settings, women-with-children programs), and treatment cost studies. Embedded in these interconnected grants are dedicated research scientists and graduate student trainees who partner with a national network of collaborating treatment providers for grounding us in “real-world” applications.

This newsletter summarizes some of our latest work in the DATAR project, which has been guided by the TCU Program Change Model to evaluate relationships between program needs, institutional functioning, training strategies, and changes over time.

Identifying core factors of change

Building on the foundations of the TCU conceptual models for treatment process and program change, a new series of studies and collaborative investigations at IBR designed to explore the stages and dynamics of “second order” systems change within organizations is underway. The psychometric integrity of the core TCU assessments for transitional research has been established through repeated administrations in a variety of treatment settings and organizational structures. These assessments, including the Survey of Program Training Needs (PTN), Survey of Program Training Needs (PTN),...
The availability of complete data sets for this type of research is contingent on working in the field with an organization over a period of at least 12 to 18 months. This allows sufficient time for the data collection sequence to assess each of the stages described in the TCU Program Change Model (see Figure 1). The process begins with program staff and management identifying training needs and desired changes within the organization based on administration of the PTN. Information from the PTN is used to plan a targeted training opportunity for staff that addresses these needs. In the months preceding the training, staff and management complete a more detailed assessment of individual factors and organizational functioning (using the ORC survey). In addition, a sample of active clients contributes information about their own psychosocial functioning and their perceptions of program services and treatment effectiveness using the CEST. During the targeted training event, workshops are evaluated using the TCU Workshop Evaluation (WEVAL) that assesses participants’ intent to adopt new materials, as well as their perceptions of barriers to adoption. The Workshop Assessment Follow-up (WAFU) survey is completed by participants about 3 months following the training and examined in relation to ratings from the WEVAL. Participant reports of exploratory use or outright adoption of the interventions introduced in the training provide evidence that the needs originally identified by staff on the PTN have been satisfied and that change is taking place within the organization. A second administration of the staff and client assessments (ORC and CEST) approximately 6 to 9 months after the first helps identify and highlight salient dimensions of emerging change within the organization, as well as the impact of these changes on client and program functioning (see Figure 2.)

Both program and client data are used to highlight emerging change within the organization.

**Research Collaborations**

The Louisiana Office of Addictive Diseases (LOAD) funds and oversees approximately 65 treatment programs across the state. An ongoing study of technology transfer within this state agency was launched 18 months ago with the administration of the PTN survey to clinical staff. Results from this assessment indicated that counselors were interested in more training on dual diagnosis issues, working with adolescents, and ways to improve clinical practice. In collaboration with the Gulf Coast ATTC, a training agenda was developed to address these needs and conferences were held over two consecutive weeks, allowing the entire LOAD workforce to attend. The TCU Workshop Evaluation (WEVAL) was used to assess potential transfer and results found variations across workshops in terms of participants’ intentions to try or adopt new skills and information. Clinical staff who attended the training conference also attended a regional “booster” training on one of the conference topics (client-directed improvements to clinical practice). The TCU Workshop Assessment Follow-Up survey (WAFU) was administered following these “booster” trainings. Studies are in progress for examining whether counselors more readily adopt new material based on booster participation and whether the WEVAL and WAFU instruments are effective in predicting trial adoption of new clinical practices.

In Texas, a statewide quality initiative is underway involving research teams from IBR, the Texas Commission on Alcohol and Drug Abuse (TCADA) and the Gulf Coast ATTC. This initiative involves organizational and client performance assessments for all state-funded drug treatment facilities in the state. The goal is to integrate the TCU assessments into the state’s existing web-based data collection system (BHIPS) for the purpose of improving program management. To this end, a pilot study involving a web-based administration of the TCU/ORC to clinical staff in all TCADA-funded programs was undertaken this past summer. In addition, a sample of TCADA programs was selected for administration of the CEST instrument to clients. Results have allowed researchers to problem-solve some of the logistics of online surveying options and to refine the database of TCADA-funded programs. A web-based, statewide administration of the PTN is currently underway and will provide information for planning the state’s...
Stages of Change

1-Exposure (Training)
- Lecture
- Self Study
- Workshop
- Consultant

2-Adoption (Leadership decision)

3-Implementation (Exploratory use)

4-Practice (Routine use)

Institutional Supports
- Monitoring
- Feedback
- Rewards

Staff Attributes
- Satisfaction
- Ease of use
- Values fit

Organizational Dynamics
- Institutional Supports
- Motivation
- Resources

Reception & Utility

Program Improvement (Services/Process/Management)

Figure 1. TCU Program Change Model, representing sequential influences of organizational functioning and staff attributes on stages of program change.

Figure 2. Planning and Evaluating Change

Did “program improvements” (staff & clients) follow adoption of training?
Research training is an integral part of IBR’s commitment to the conduct of quality behavioral research. With this goal in mind, the IBR provides a unique and stimulating environment for doctoral training in experimental psychology, carried out in close alliance with the TCU Department of Psychology.

The student area at the IBR is a place where one can frequently find interesting discussions ranging from new research in psychological science to U.S. economic policy to the philosophical implications of the latest Matrix movie. However, on a typical day IBR students can be found hard at work conducting statistical analyses, writing papers for publication, preparing presentations for conferences, or even traveling to prisons to collect data. Each of the four current IBR graduate research assistants brings a unique set of interests and goals to the group.

Shawn Reynolds, M.S. (ABD), is a University of North Carolina at Chapel Hill graduate from Biscoe, North Carolina. During his time at the IBR, Shawn has worked primarily with the Drugs in the Workplace project, helping to develop and evaluate two substance abuse prevention-training courses that were tested with large municipal workforces. He is currently completing his dissertation and plans to finish in early 2004. For his dissertation, Shawn is using data from the Drugs in the Workplace project and is examining the combined influence of perceived risky work climate and perceived drinking norms (e.g., perceptions that coworkers abstain from drinking, that they will respond to the drinking of fellow coworkers by talking with supervisors, and that discipline will follow) on prevention-training effects and on beliefs that policy is fair and effective. Shawn has been working on his dissertation during the past year while living abroad in Accra, Ghana, where he has been working with Dr. Charles Bond from the TCU psychology department and others to study beliefs about detecting deception. Shawn also has served as a consultant on a project to assess health promotion services for recent immigrants to the U.S. and describe beliefs and behaviors that may predict successful integration into U.S. society.

Sandhya Rao, M.S., (ABD), from Bangalore, India and a graduate of the University of Bombay is a fifth year doctoral student at IBR. She has worked on the DATOS, DATAR, CETOP, and Criminal Justice projects during her time at the IBR. In her doctoral dissertation (due to be finished in a few months) she is validating a stage-based schema for understanding client motivation for drug treatment using the TCU Motivation Scales using a sample of Texas probationers mandated to a residential treatment program. As part of this research she is validating assessments of distinct stages of motivation for treatment and examining the utility of this schema in predicting during- and post-treatment outcomes. In addition she is examining movement through these motivational stages over the course of treatment to explore the importance of during-treatment motivation for prediction of treatment outcomes (i.e., Does including during-treatment motivation in a conceptual model add substantially to the prediction of outcomes). Outside of her scholastic interests, Sandhya enjoys reading mystery novels, watching movies, hiking and swimming.

Katherine Courtney, M.S., a graduate of the University of New Mexico is a third year doctoral student with interests in cognitive psychology. Her most recent accomplishment was the completion of her master’s thesis, which examined the relationship of religiosity to client functioning at intake to drug treatment. Results suggested that religiosity is related to better client functioning at intake, including better psychosocial functioning, and less criminality. She is currently completing a manuscript of her thesis to submit for publication. In addition, she has developed a Spiritual Beliefs survey that is being tested for validity through administration to diverse populations (i.e., men in treatment settings, TCU undergraduates, substance abuse clients). As a contributor to the DATAR-3 project she is involved in several diverse studies including an examination of gender differences by treatment modality using data from the TCU CEST and a follow-up study of drug treatment outcomes among women with a history of sexual abuse. She took the lead in a poster presented at the Association for the Treatment of Sexual Abusers annual conference that focused on the utility of the CEST instrument adapted for assessing treatment motivation and psychosocial functioning in a sample of sex offenders. In her spare time Katherine is a frequent contributor to the TCU student newspaper The
annual training institute for substance abuse counselors.

In addition to the research partnerships established with substance abuse treatment programs in Texas and Louisiana, other collaborations also are underway. Of note, the drug treatment office of a large Midwestern state prison system has been working with IBR to develop and test criminal justice versions of the PTN and the ORC. Results from the administration of the CJ-PTN were used to develop a training package for drug treatment counselors who work with inmates. Prison officials are currently working with IBR staff on plans to integrate the CJ-PTN, the CJ-ORC, and the CJ-CEST into the state’s information tracking system.

Internationally, a collaborative study of treatment programs within the Italian public health service is underway using translations of organizational and client level TCU forms. Closer to home, Addiction Technology Transfer Centers (ATTC) in various regions across the U.S. are using concepts from the TCU Program Change Model as a foundation for exploring factors that influence change in service delivery systems. More information on these and other IBR research projects is available at www.ibr.tcu.edu.

Research Highlights

The effectiveness of combining contingency management with a cocaine-specific relapse prevention counseling module was examined in a study of 61 cocaine-using methadone clients randomly assigned to participate in an 8-week intervention and 8-week follow-up period. Results suggest that contingency management with low-cost rewards for treatment compliance was significantly related to reductions in cocaine use and exposure to the counseling module was positively related to 6-month retention rates. Both interventions were associated with positive treatment gains with effects in different behavioral outcomes. Rowan-Szal, G. A., Bartholomew, N. G., Chatham, L. R., & Simpson D. D. (in press). A Combined Cognitive and Behavioral Intervention for Cocaine-Using Methadone Clients. Journal of Psychoactive Drugs.

The impact of depression and hostility on treatment outcomes was examined using samples of methadone patients from the Drug Abuse Treatment Outcome Studies (DATOS) at Year 1 and Year 5 follow-up. Multiple logistic regression analyses showed that high levels of depression predicted less drug use in the year preceding each follow-up assessment, but higher hostility predicted increased drug use and criminality at each follow-up. These findings suggest that depression and hostility have opposite associations with treatment outcome and should be assessed separately in order to tailor treatment plans. Rao, S. R., Broome, K. M., & Simpson, D. D. (in press). Depression and Hostility as Predictors of Long-Term Outcomes Among Opiate Users in DATOS. Addiction.

Bryan Garner, B.S., from Collinsville, Illinois and a graduate of Southern Illinois University is the newest IBR graduate student, completing his second year of study in cognitive psychology. Bryan worked with Lighthouse Research Institute in Bloomington coordinating studies on adolescent treatment outcomes before coming to TCU. He works with the CJ-DATS project and currently spends his days traveling to federal Bureau of Prisons sites throughout Texas, as well as to numerous Texas state (TDCJ) prisons to collect data for the Performance Indicators for Corrections (PIC) study. Bryan helps oversee the administration of a newly developed CEST instrument for criminal justice populations (CJ-CEST) to samples of inmates. He will be performing the preliminary analyses on this data set and will continue to help oversee data collection in the field. Keeping with his interest in prison-based treatment, Bryan has recently started working on his master’s thesis using data from a prison-based treatment study to examine risk factors that are predictive of recidivism. Bryan’s main research interest is in integrating criminal justice treatment findings into the TCU Treatment Process Model.

More information about Graduate Student Training Opportunities is available in “About IBR” at www.ibr.tcu.edu.

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Bryan, and also has written for The Fort Worth Weekly.

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What’s New on the Web

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

**Forms:** The “Core Set of Forms” have been moved and renamed the **TCU Treatment Assessment Forms** with assessments listed separately for **community** and **correctional treatments**. Forms are available to download in Adobe PDF format. The community and correctional treatment assessments are provided in these categories:

- Screening for Treatment
- Client Needs & Progress
- Organizational Assessments
- Training Needs
- Workshop Evaluations (community only)

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

**Publications—Listed By Topics:** A concluding set of **5-Year Outcome Studies** is in press (Journal of Substance Abuse Treatment) and will bring the total publications from DATOS to 85.

**Conference Presentations:** A new section of the Presentations page provides PDF handout files of conference presentations on special DATOS topics.