Designing a National Model Meth Program

By Ed Roberts, Paul Redfield, David Olson, Richard Rawson and Kevin Knight

In late 2006, as the result of a decade-long rise in methamphetamine (meth) use and its severity,[1] as well as a corresponding rise in the number of crimes involving the use or distribution of meth in the rural Midwest, the Illinois Department of Corrections entered into a collaborative effort with Community Education Centers (then Civigenics) of West Caldwell, N.J., to design a national model for the in-prison treatment of meth addiction at the Southwestern Illinois Correctional Center (SWICC).

During the past 30 years, a wealth of criminal justice research has led to the conclusion that "corrections-based drug treatment can be effective, but implementing new programs and improving existing ones require an understanding of how treatment works."[2] Evidence clearly indicates that a deliberate process of assessment, planning and delivery of tailored interventions, along with ongoing program monitoring, is "fundamental to treatment effectiveness."[3] In this regard, Texas Christian University developed the TCU Treatment System to offer a general conceptual framework for planning, implementing and assessing progress in using evidence-based treatment innovations for substance abuse programming in correctional settings. This system, in part, places great emphasis on the fact that "because of the frequency of early dropouts and associated costs, greater vigilance for 'front end' stages of treatment is crucial."[4]

Using this framework as a guiding force for directing innovation, and then looking to integrate research-based best practices approaches specific to the treatment of meth addiction, the Illinois DOC and Community Education Centers set out to create the SWICC National Model Meth Program.

Meth offenders participate in art therapy at SWICC.

Music therapist John Brinton sings "The Meth Song," which was written by offenders at SWICC. Counselor Lena Foster observes.

Photos by Marvin Bateman

Meth Use and Its Effects

Meth can be orally ingested, injected, smoked or snorted. The effects most often experienced include increases in blood pressure, body temperature, energy, sex drive, alertness, talkativeness and self-confidence, as well as an increased sense of euphoria. At the same time, the drug decreases fatigue, hunger, boredom, timidity and loneliness.

The negative effects associated with the drug are numerous and include both acute and chronic symptoms ranging from cramps, shaking, bruxism (grinding teeth), sweating, dry mouth, general weakness, weight loss, cardiac arrhythmia and heightened levels of both anxiety and aggression to paranoia, hallucinations and even psychosis. Psychological effects of the drug involving cognitive, intellectual and affective impairments are now believed to be longer lasting than previously imagined, and these symptoms are often exacerbated by prolonged use.[5] While these represent significant challenges, especially to the earlier stages of the recovery process, the prominent myth that there is no effective treatment for meth users, or that success rates among meth addicts are almost nonexistent, is unsupported.

Treating Meth Abuse and Dependence

Meth users have been known to respond to treatment protocols designed for treating cocaine dependence, but two empirically tested methodologies more specifically targeted to the treatment of meth dependence have been shown to be effective in randomized, controlled clinical trials: contingency management and the matrix model. Unlike contingency management, the matrix model is a curriculum-based protocol.[6]

The matrix model was initially developed with funding from the National Institute on Drug Abuse and was evaluated in a multisite trial by the Substance Abuse and Mental Health Services Administration. A partial overview of its history and evolution is useful not only for its ability to provide a basic understanding of the unique issues and challenges involved in treating meth addiction, but also for what it reveals about the more global concern of using current research and best practices to tailor services and guide innovation in program development.

The matrix model was developed at the height of the stimulant epidemic in Southern California in the 1980s. The developers of the model were committed to using "empirically-based findings" and evaluations of "practical utility" as opposed to those driven by "theoretical or ideological considerations."[7] The key to the matrix model is its refinement over time in accordance with ongoing dialogue between the clinicians working with clients and their families and the researchers collecting and evaluating data. This led to a more tailored intervention providing key insights and understandings of great benefit to the outpatient settings where first observed. Due to the nature of the corrections environment and culture, however, some of these insights are of even greater significance in prisons.

Integrating Brain Research Into Standardized Treatment

Stimulant abusers new to treatment frequently fail to follow directions and show poor retention of information. This has often led to them being regarded as lacking motivation at best, or resistant to treatment at worst. In fact, it is likely that these common "presenting features" of this population are (at least to some degree) responsible for the myth that there is no effective treatment for meth users. In outpatient programs, such individuals might be assigned to more intensive levels of treatment or assessed as simply "not ready" for treatment and discharged. In the prison environment, where "the majority of people working in corrections are all too aware that most residents are unmotivated, resistant to change"[8] and where an even higher value is placed on behavioral compliance, the likelihood of misreading such behavioral dynamics in meth users is even greater. Such misunderstandings can only result in the high early program drop-out rates or program dismissals that caused Texas Christian University researchers to emphasize the need for vigilance in focusing on front-end treatment issues in the first place. The results are sure to be reductions in both cost efficiency and program effectiveness.

The major contribution of the matrix model has been bringing new clarity to understanding how stimulant abuse affects brain function. Psychoeducational modules and

Table 1. Highlights of Matrix Model and SWICC Model Meth Program

Matrix Methods of Incorporating Brain Research	SWICC Integration and Innovation Based on Matrix
Physiological vs. psychological causation of early treatment difficulties	Cross-training with correctional staff for more appropriate response to issues of noncompliance
Psychoeducational modules explaining brain changes	Additional shorter and smaller group sessions with meth users
Use of PowerPoint slides and videos for increased attention/focus	Added use of music and art therapy to increase engagement, attention and focus, also using different areas of the brain for increased retention of program content
Simplified presentation of material	Use of mapping by group members for simpler, more visual notetaking and better comprehension/retention
Personalization of materials through use of elder group members as co-facilitators, role models	HRI URWHU SUR UP WWRU SHHUHH S H and co-facilitators in a therapeutic community context of increased social support
H HP S R WWFWU R H FW WH WR reduce feelings of anxiety and distorted decision-making	Use of roles in the therapeutic community structure as well as institutional jobs to assist in structuring of daily activity during in-prison treatment phase

treatment protocols included in the matrix are designed to increase awareness for both clinicians and clients about the neurological effects of meth addiction seen in early treatment. In the prison treatment setting, the use of cross-training has had the additional benefit of providing correctional officers with a better understanding of these effects as well. Thus, in the SWICC Model Meth Program, officers and clinicians are able to respond more appropriately to symptoms of brain dysfunction. In the early stages of program development, it was believed that implementing the matrix model in the SWICC program would be crucial to operationalizing the "front-end vigilance" the Texas Christian University framework emphasized, and thereby decrease the number of erroneous, early discharges. For more than 30 years, outcome studies have generally shown retention to be among the strongest and most reliable predictors of drug use and criminality improvements resulting from correctional treatment programs.[9] For this reason, retention in programming must be a top priority in program design.

What the brain research incorporated into the matrix model clearly established is that behaviors once believed to be rooted in psychological issues of motivation and resistance are actually physiological issues rooted in impaired brain function.[10] By integrating matrix protocols into the SWICC Model Meth Program, a positive impact could likely be achieved in program retention not only by increasing the appropriateness of staff responses to those early in the treatment process, but also by using a framework and its inherent methods for service delivery that would likely increase client engagement and treatment responsiveness.

As had been experienced in outpatient treatment settings, it was believed that when incarcerated meth users gained a clearer view of how their problems were being caused by brain dysfunction that can be corrected over time, they would also gain the sense that they could recover from these debilitating symptoms by adhering to the methods and strategies being taught and reinforced daily in the treatment regimen. Again, the additional emphasis the correctional setting places on program compliance made the rationale for full integration of the matrix into the SWICC Model Program appear all the more attractive. Lastly, it was believed that while the matrix model had been originally designed for outpatient settings, in a residential, intensive prison setting such as SWICC, additional enhancements could be made to programming, congruent with the brain research and foundational principles of matrix, that might even further enhance program responsivity. Table 1 indicates innovations from the matrix model designed to ameliorate issues of brain dysfunction. Additional innovations to the SWICC Model Meth Program, theoretically congruent with this brain research are displayed on the right.

Impact on Program Retention

The SWICC Model Meth Program is a 200-bed therapeutic community within a fully dedicated treatment facility of 671 total beds. The remaining 471 beds in the facility represent a more generic therapeutic community for substance-abusing offenders.

Figures 1 and 2 show preliminary findings of the Model Meth Program. While the amount of data available at this time is limited, what is promising, is that in the first full year of programming (July 1, 2007, to June 30, 2008), when implementation was still in its infancy and adoption of the model was the most rudimentary, the program completion rate was 66 percent, with behavioral discharges (defined as participants removed for disciplinary reasons or for refusal to comply with programming) at 34 percent (see Figure 1). Those designated in the graph as "nonbehavioral" discharges were actually ineligible and removed from the program for that reason. Thus, they did not figure into the percentages presented.

Figure 1. Meth Discharges

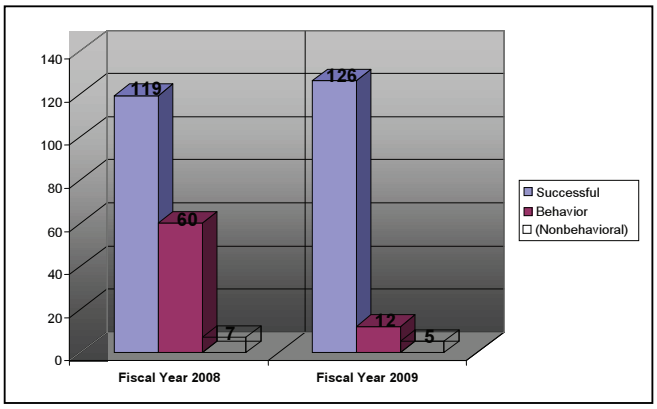
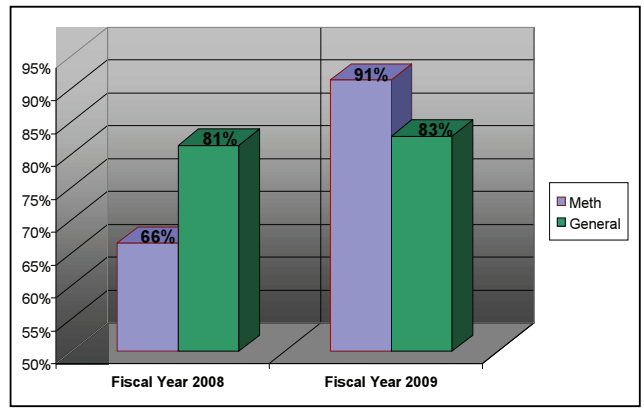


Figure 2. Completion Rate



In the second full year of programming, from July 1, 2008, to June 30, 2009, the program completion rate was 91 percent, with behavioral discharges falling to an impressive 9 percent, with no significant policy changes occurring within this timeframe that could account for the improvement.

Figure 2 compares the program completion rates of the SWICC Model Meth Program with the figures from the general therapeutic community program, which began at the same time as the meth program. What becomes obvious in reviewing this comparison is that the number of completers in the general therapeutic community program at SWICC have remained consistent during the first two years, while enhancements to the Model Meth Program appear to have fostered a level of retention that in 2008-2009 exceeded the general program.

Impact on Outcomes

The impact on outcomes also appears to be promising. Recidivism analyses indicate that inmates released from SWICC had a 22 percent lower likelihood of recidivism than the comparison group. SWICC participants returned to prison were compared with a statistically similar group of inmates released from other prisons in Illinois. On average, at 18 months post-release the standardized recidivism rate for the SWICC graduates was 25 percent compared with 34 percent for the comparison group. However, consistent with prior research on the effectiveness of drug-treatment for prison inmates, those SWICC participants who completed aftercare were even less likely to return to prison. Among those SWICC participants who completed aftercare (or were still enrolled in aftercare), their recidivism rate was one-half of the comparison group's rate of return to prison at 18 months (16 percent versus 34 percent).

Among those released from SWICC who participated in the Model Meth Program (265 of the 1,149 released and tracked for recidivism), their recidivism rate was statistically similar to that of the overall SWICC releasees. After 18 months following their release, 26 percent of the meth program participants had been returned to prison compared with the overall SWICC recidivism rate of 25 percent and the overall comparison group rate of 34 percent. Further, despite the fact that Model Meth Program participants tended to come from more rural areas of Illinois, where aftercare treatment programs tend to be less readily available, there were only slight differences between the Model Meth Program participants and the general SWICC participants in terms of their post-release aftercare admission and compliance — roughly 67 percent of the general SWICC participants completed aftercare, compared with 61 percent of the Model Meth Program participants. Thus, the slightly higher recidivism rates of Meth Program participants compared with the general SWICC participants is likely due to the slight differences in access to and completion of aftercare.[11]

Conclusion

The fact that the current year (July 1, 2009, to June 30, 2010) was not yet complete as of this writing prevented a full and accurate reporting on this year's totals regarding enhanced retention in programming. However, the totals look as though they will be around 80 percent for this year's completers of the SWICC Model Meth Program. Thus, while the 2009-2010 totals will not likely be quite as impressive as those for 2008-2009, what looks promising is the fact that at this point, a population known for being harder to engage and more likely to drop out early or to be discharged for noncompliance is maintaining completion rates comparable to the general therapeutic community program at SWICC. Making definitive statements based on this small of a set of comparative figures is not possible, but noting the preliminary indications supportive of using an "adaptive treatment"[12] approach for enhanced retention is.

Lastly, it must be stated that the SWICC Model Meth Program, much like the design of the matrix model itself, is still being modified based on feedback from program staff and data collected. The goal is to move more toward even greater adherence to evidence-based principles, methods and strategies based on what appears to have greatest utility in fostering change. "Reviews of the available evidence note that adoption and implementation of innovation is a process, not an isolated event."[13] Additional program enhancements for the Model Meth Program at SWICC now being implemented include:

- The addition of specialized Texas Christian University Targeted Interventions for Corrections directed at further reducing hostility and increasing motivation in orientation (early treatment), and directed at HIV risk reduction in later programming.

This mural, painted by SWICC program participants, depicts the journey through addiction to recovery.

- A new clinical supervision protocol ensuring fuller use of ongoing TCU CEST (client evaluation of self in treatment) assessments in treatment plan updates that also measure levels of client satisfaction and social support in the program.
- Increased training and use of TCU mapping-enhanced counseling for further embedding a simplified and more visual presentation/delivery process for all curriculum-based materials.

The CEST is an assessment instrument designed by TCU. The instrument has several different scales that can be used not only to assess initial problems for treatment planning, but that can be re-administered at varying intervals during treatment to note progress in a given area, and then to update the treatment plan based on progress (or regression) in a given area. By implementing a clinical supervision protocol that requires more emphasis on the specific scales of the instrument regarding client satisfaction and social support, staff can get a better picture of how effective the program is regarding responsiveness to the meth clients/offenders. If patterns emerge in the responses to these scales indicating an area where the residents feel they are not supported or "heard," by staff, this can serve as a quality assurance measure and help staff make adjustment in programming to ensure greater responsiveness. Thus, better utilization of the CEST can serve the two-fold function of not only helping to measure client progress in treatment, but also quality assurance in program delivery.

While these are further adaptations for increasing retention during the in-prison phase of the SWICC program, further considerations also must be given to enhancing retention strategies beyond the prison's gate. The Illinois DOC and its partners have shown tremendous commitment to the mission of providing the best possible services and greatest public good with the funding that has been provided for both in-prison and aftercare programming. In times of increasingly tough budgetary constraints, the challenges to do more with less can seem nearly insurmountable. However, such constraints are all the more reason for paying increased attention to the dynamics and details of client engagement and program retention in all phases of programming, and in using innovative measures well-grounded in the available science.

ENDNOTES

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