An Evaluation of an In-prison Therapeutic Community: Treatment Needs and Recidivism

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DRUG USE, PARTICULARLY among individuals released from incarceration, is a major problem that needs to be addressed. According to the Bureau of Justice Statistics, 68 percent of those recently released from prison were arrested within 3 years of release, with longer term desistance from crime continuing to decline over time (Alper, Durose, & Markman, 2018). Involvement in drug use is a key factor driving this poor outcome, with more than half (58 percent) of those in state prison currently meeting criteria for a diagnosis of substance abuse or dependence (Bronson, Stroop, Zimmer, & Berzofsky, 2017). And these individuals are among the more than 130 lives a day being lost as a result of the current nationwide opioid epidemic (National Institute on Drug Abuse, 2019). Furthermore, the Centers for Disease Control and Prevention reports that overdose death rates continue increasing across different age and race groups, and these overdoses include a wide range of drugs. Between 2015 and 2016, "age-adjusted cocaine-involved and psychostimulant-involved death rates increased by 52.4 percent and 33.3 percent, respectively" (Kariisa, Scholl, Wilson, Seth, & Hoots, 2019). Methamphetamine's widespread abuse has been significantly increasing in recent years, especially in the central and western regions of the country (Artigiani, Hsu, McCandlish, & Wish, 2018).

With such a rise in drug use problems, coupled with the significant number of incarcerated individuals meeting substance use disorder (SUD) diagnostic criteria, specialized in-prison treatment communities have been one way to provide appropriate treatment and support for those who need it most. Specific, targeted curricula to treat incarcerated individuals are being provided within secure facilities across the U.S. and have shown promising results. For example, the program offered to individuals with methamphetamine problems at the Southwestern Illinois Correctional Center (SWICC) in Illinois has shown that their focus on tailoring of services has had a significant impact on participant "treatment readiness" and program retention (Roberts, Redfield, Olson, Rawson, & Knight, 2010).

Catering to the unique treatment needs of offenders with an extensive history of substance abuse, the modified therapeutic community (TC) model at SWICC is founded on the notion that drug abuse is a primary symptom of a "disordered personality" (De Leon, 2000). The SWICC TC is designed to treat the person as a whole in a peer-community setting, supporting participants through treatment phases, which promote increased levels of responsibility (De Leon, 2000). While in-prison TCs have varying components, there are common elements within the model that are essential components of the SWICC program. One such component is that treatment participants are housed separate from the general prison population in a designated dorm unit. In order to deliver an effective, high-intensity drug treatment program that promotes a complete lifestyle change, participants are housed away from the influence of antisocial behavior in order to cultivate an atmosphere focused on rehabilitation and positive change (Mitchell, Wilson, & MacKenzie, 2007; NIDA, 2015; Wexler, & Prendergast, 2010). Another component of the model is the community design of the therapeutic dorm unit. Participants of the program are directly involved in running the therapeutic unit by leading group sessions, actively monitoring each other in adhering to the community rules, and resolving conflict while working on eliminating their own antisocial behavior

and developing prosocial attitudes and values (Wexler et al., 2010). The community design of this model relies on staff and participants challenging any antisocial behavior, while supporting prosocial transformations (Mitchell et al., 2007). Perrin, Frost, and Ware (2018) provide a concise summary of the positive effects of peer support in prison, pointing out not only the mutual benefit for prisoners when they seek support from one another, but also the higher level of understanding for one another's struggles brought by peers rather than the treatment staff who may not have experienced incarceration and SUDs. Given the prison environment, the SWICC in-prison TC program has been modified to reflect the fact that peers in the program cannot supervise each other or directly mete out rewards and punishments, which falls under the correctional staff's purview.

Given that pairing in-prison TC programming with an aftercare component has been shown to be especially beneficial in reducing recidivism, SWICC participants continue to receive support once they are released to the community. Olson and Lurigio (2014) studied a sample of individuals who completed an in-prison TC program and were assigned to an aftercare program in Illinois. The researchers developed a large sample of program completers (n=1,501) and compared them with a comparison group (n=2,858) along a number of dimensions. After developing four models to test their hypotheses, the researchers found that participation in an in-prison TC (such as the SWICC program) lowered the risks of relapse and recidivism by an average of 6.9 years post-release. The researchers also found that the inclusion of aftercare strengthened the beneficial effects of the in-prison TC. Indeed, including ongoing support is critical; findings from multiple studies evaluating the effectiveness of TCs and aftercare have shown that program participants who complete the TC and aftercare components are the least likely to recidivate during an extended follow-up period when compared to participants who drop out of aftercare (Martin, Butzin, Saum & Inciardi, 1999). Furthermore, program participants with the highest levels of drug use severity benefit the most when they complete in-prison treatment and aftercare treatment components (Knight, Simpson, & Hiller, 1999; Olson & Lurigio, 2014; Wexler, De Leon, Kressel, & Peters, 1999). Support for the effectiveness of a full continuum of TC programming on reducing recidivism is further captured in the Mitchell et al. 2007 meta-analysis.

Despite these positive findings, research on the effectiveness of therapeutic communities for reducing recidivism and relapse has been mixed. For example, Jensen and Kane (2012) studied four in-prison TCs located in Idaho with participants who were released into the community in 2004. These researchers found that participation in the therapeutic communities had a significant effect on subsequent arrests for the treatment groups, but did not have statistically significant effects on reconvictions for the treatment groups. Zhang, Roberts, and McCollister (2011) evaluated a TC program in California and found no significant recidivism results after five years post-release between the treatment and the control group; however, they did find that the TC significantly reduced disciplinary infractions (Zhang, Roberts, & McCollister; 2009).

These discrepant findings are not surprising, given that achieving improved outcomes depends upon the fidelity of the treatment program; adherence to the risk, need, and responsivity principles for the planning and deliberation of each participant's plan; as well as ongoing measurement of participant responsiveness to dynamic factors throughout the treatment phases (Simpson, Knight, & Dansereau, 2004; Welsh, Zajac, & Bucklen, 2014). Individuals with substance use problems that come through the correctional system are a diverse group, requiring an individualized level of treatment depending on their risk of reoffending, the criminogenic needs that drive their relationship with crime, and their unique learning styles along with various cultural considerations. Assessment results are needed that provide data about the individual's current risk level as well as criminogenic needs. When available, this information can be used to establish the priority with which treatment is delivered, primarily based on the severity of the substance use disorder and other criminogenic needs that should be the focus of treatment. Assessments of individuals entering a treatment program is a pivotal step, as the assessment findings allow for tailored case planning and treatment management aimed at changing behavior in order to minimize one's potential for reoffending and relapsing (Knight, Garner, Simpson, Morey, & Flynn, 2006; Simpson et al., 2004).

The current study analyzes the impact of the SWICC program on recidivism over a three-year period, using the Illinois Department of Corrections' definition of recidivism as return to prison. First, the current study examined whether completion of the SWICC curriculum significantly reduced recidivism rates compared to non-completers of the SWICC curriculum. Second, the study examined subscales from the TCU Criminal Thinking Scales (CTS) and the TCU Client Evaluation of Self and Treatment (CEST) to assess the relationship between criminal thinking and poor psychosocial functioning (potential treatment targets) during treatment with subsequent recidivism.

Southwestern Illinois Correctional Drug-Treatment Program

Southwestern Illinois Correctional Center (SWICC) is a minimum security, all male, 720-bed facility that offers comprehensive substance abuse treatment. SWICC is the product of a collaboration between the Illinois Department of Corrections and the GEO Reentry Services, LLC, a private services provider that partners with public agencies to provide correctional programming. Using a modified therapeutic community (TC) model, GEO Reentry Services treatment professionals provide an addiction recovery and behavior modification curriculum encompassing four phases of treatment: Orientation and Lifestyle Changes (Phase I), Intensive Treatment (Phase II), Re-entry (Phase III), and Transition (Phase IV). During each of these phases, participants receive an average of 15 hours of treatment per week from quality, evidence-based programs along with pre- and post-treatment assessments used for case planning and progress monitoring. A participant is considered a successful curriculum completer if he has progressed through the Re-entry Phase, which usually takes a year of programming and phase progression. Individuals who have not completed the full curriculum are discharged upon sentence completion, and their non-completion status is documented. None of the participants in the current study were discharged from the TC for disciplinary reasons.

While it was not examined specifically as part of this study, it is worth noting that GEO has a dedicated methamphetamine recovery program at SWICC, targeted to the specific etiology of methamphetamine abuse and employing a comprehensive and groundbreaking clinical design (Roberts et al., 2010). Therapeutic interactions between counselors and treatment participants are adjusted to clients' varying degrees of cognitive impairment during early methamphetamine recovery, particularly regarding short-term memory

(Volkow, Chang, Wang, Fowler, Leonido-Yee, Franceschi, Sedler, Gatley, Hitzemann, Ding, Logan, Wong, & Miller, 2001). For example, the Orientation Phase of the methamphetamine program is two weeks longer than the typical Orientation phase for the other TC participants. Cognitive and behavioral skills are modeled repeatedly in different ways, in different group contexts, and over the full course of client's treatment so that participants can be helped to comprehend and retain basic recovery concepts. An advanced, meth-specific curriculum (the "Matrix Model") has been adopted for use in a prison treatment setting by Dr. Richard Rawson.

Groups at SWICC are designed to provide peer support and teach participants to pursue a prosocial lifestyle. Following Deleon's "Community as Method," the entire TC community is responsible for each other (their brother's keeper) and for reshaping the whole person, not just ameliorating the substance use disorder symptoms. In addition to providing participants with an opportunity to learn how to be free from substance dependency, both physically and mentally, participants have the opportunity to participate in other programs designed to better prepare them for the transition back to society. These programs include: 1) Certified Associate Addictions Professional (CAAP) program offering a hands-on training and educational experience geared toward enhancing participants' personal recovery as well as their professional and clinical experience, 2) Inside-Out Dad programming aimed at enhancing parenting skills, 3) the GEO Family Reunification Program (FRP), and 4) trauma-informed care. Before discharge, SWICC participants are provided with an aftercare plan. For purposes of the current study, the aftercare programming was not included in the analysis.

Methodology

Sampling

To assess the impact of SWICC's substance abuse programming on recidivism (return-to-prison within three years after release), program participants released between 2007 and 2014 were selected. All participants departed the facility in good standing. Program completion may or may not have been achieved, as some participants did not remain in the facility for sufficient time to complete the curricula—approximately 12 months.

Measures

Study measures include the following: Texas Christian University's (TCU) Criminal Thinking Scales (CTS) and Client Evaluation of Self and Treatment (CEST), and the Addition Severity Index (ASI). The TCU CTS and TCU CEST assessments were administered at intake, completion of each program phase, and within two weeks prior to successful release. The ASI scores were collected at intake to assist with evaluating the severity of the substance use disorder.

Scales Included from the TCU Criminal Thinking Scales (CTS)

The TCU CTS comprises 36 questions that are answered by the participant, and the tool uses a 5-point Likert scale. Because of the instrument's ease of administration, the TCU CTS is ideal for assessing programmatic impact on the participant's changes in criminal thinking. The TCU CTS measures the following factors of criminal thinking: Entitlement (sense of ownership and privilege), Justification (minimizes antisocial acts as being due to external circumstances), Personal Irresponsibility (willingness to accept ownership for criminal actions), Power Orientation (need for power and control), Cold Heartedness (lack of emotional involvement), Criminal Rationalization (negative attitude toward the law and authoritative figures). It is important to note, however, that correctional institutions and community-based programs do not target all six factors equally. For example, Cold Heartedness is a scale that seems to be less impacted by corrections programming than the other five. Thus, this study examines Entitlement and Criminal Rationalization, two criminal thinking domains that are targeted for change as part of the SWICC program.

Scales Included from the TCU CEST (Texas Christian University Institute of Behavioral Research, 2007):

Hostility. This subscale measures the level of hostility and anger in the participant.

Treatment Satisfaction. This subscale assesses overall satisfaction with the program, services offered, and the convenience of participating.

Peer Support. This subscale assesses the existence and quality of the relationship with peers in the program.

The Addiction Severity Index scores (ASI; McLellan, Luborsky, Woody, & O'Brien CP, 1980)

The ASI assess varying factors (i.e., legal problems, medical status, employment, drug/alcohol use, family/social relationships, psychiatric status) that correlate with three of the four top risk factors (history of criminal behavior, antisocial personality patterns, and anti-social associates; Andrews & Bonta, 2006).

Results

Demographic and sociodemographic variables are presented in Table 1 (next page). The total sample for the study of SWICC participants was $N = 4480$ and the median age was 33.37 years.

Overall, the sample showed that there was a higher percentage of Whites in the completers group versus non-completers. There was a higher percentage of African Americans and Hispanics among non-completers. At intake, the primary drug in the overall sample that led them to their arrest was alcohol, followed by cannabis, meth, heroin, and cocaine. Within those who showed alcohol, cannabis, and cocaine as their primary intake drug, there was a higher percentage of non-completers in comparison to completers of the SWICC curriculum. Looking at those whose primary drug was heroin or meth, there was a higher percentage of completers in comparison to non-completers. Finally, there was a significant difference between the ASI-drug score at intake between those who completed the SWICC curriculum ($M = 5.75$) versus non-completers ($M = 5.53$), $p \leq .001$.

With respect to the SWICC Curriculum criminal characteristics presented in Table 2 (next page), most of the participants were admitted due to a drug offense, and drug offenders showed a higher representation of those who completed the SWICC Curriculum. Next, and as expected, there was a longer prison sentence among those who were in the completers group ($M = 613.25$) in comparison to the non-completers group ($M = 296.89$). Finally, results showed that completers of the SWICC Curriculum ($M = 444.95$) took longer to return to prison compared to the non-completers ($M = 414.51$), $p = .043$. From a different perspective, 26.67 percent who completed the SWICC Curriculum recidivated within three years as opposed to 28.57 percent who did not complete the SWICC Curriculum (see Table 3, page 13).

The correlations among CTS and CEST

TABLE 1
Comparisons of Demographics and Socioeconomic Characteristics between SWICC SU Curriculum Completers vs. Non-Completers

Characteristic	Non-Completers n = 2114	Completers n = 2366	Total N = 4480
Intake Age[a]	M = 32.10	M = 34.50	M = 33.37
Race[b]			
White	41.91%	47.13%	44.67%
African American	50.47%	47.46%	48.69%
Hispanic	5.96%	4.31%	5.09%
Total	100.0%	100.0%	100.0%
Education Level[c]			
HS Graduate	52.18%	44.21%	52.03%
Not a HS Graduate	47.82%	55.79%	47.97%
Total	100.0%	100.0%	100.0%
Primary Drug[d]			
Alcohol	28.86%	25.78%	27.59%
Cannabis	27.44%	21.85%	24.49%
Cocaine	9.99%	9.80%	9.87%
Heroin	13.06%	14.58%	13.86%
Methamphetamines	13.58%	20.96%	17.48%
Total	100.0%	100.0%	100.0%
ASI-Drug Score at Intake[e]	M = 5.53	M = 5.75	M = 5.64

Note: ASI = Addiction Severity Index. [a]$t(7.91) = .005$, $p \leq .001$; [b]$X^2 = 22.60$, $df = 2$, $p \leq .001$; [c]$X^2 = 28.39$, $df = 2$, $p \leq .001$; [d]$X^2 = 64.64$, $df = 4$, $p \leq .001$; [e]$t(4.41) = 33.70$, $p \leq .001$.

TABLE 2
Comparison of SWICC SU Curriculum Completers vs. Non-Completers Criminal Characteristics

Characteristic	Non-Completers n = 2114	Completers n = 2366	Total N = 4480
Admission Offense[a]			
Drug Offense	41.53	45.22	43.48
DUI	7.99	5.28	6.57
Property	16.70	18.00	17.39
Robbery	8.50	10.44	9.53
Weapons	6.53	6.13	6.31
Total	100%	100%	100%
Days in Prison[b]	M = 296.89	M = 613.25	M = 463.97
Days to Return to Prison[c]	M = 414.51	M = 444.95	M = 430.06

[a]$X^2 = 62.92$, $df = 4$, $p \leq .001$; [b]$t(61.37) = 857.50$, $p \leq .001$; [c]$t(2.20) = .477$, $p = .043$.

variables were examined; variables to be included in the current model were not highly correlated, r's ≤ .45. The admission date range for the study spanned from March 2004 to April 2017 and the discharge date spanned from June 2007 to August 2017. Half of the sample had drug- and/or alcohol-related charges at the time of admission to SWICC.

To answer the study's second research questions, a multiple logistic regression was conducted predicting recidivism at three years on *Entitlement*, *Criminal Rationalization*, *Hostility*, *Treatment Satisfaction*, and *Peer Support* (see Table 4). Control variables were race (Black versus other) and ASI drug intake score. The dependent variable was measured on a dichotomous scale (0 = did not recidivate within three years, 1 = did recidivate within three years from discharge). The independent variables were continuous. Results from the analysis revealed that the overall model was statistically significant, $X2(7) = 59.99$, and the model explained 3.10 percent of the variance (Nagelkerke's $R2$). A test for the goodness of fit for the overall model was non-significant $X2(8) = 6.51$, $p = .590$, indicating a good fit. After controlling for race, HS graduate, and drug score from the ASI, results from this analysis showed that higher *Entitlement* (OR = 1.01, $p = .018$) and higher *Hostility* (OR = 1.02, $p \leq .001$) were associated with a higher odds ratio of recidivism within three years. For every one-unit increase in *Entitlement*, the log odds of returning to prison increased by .016 units; the logs odds of returning to prison increased by .02 units for *Hostility*. Results also indicated that completion of the program resulted in .8 odds ratio of not returning to prison, $p = .004$.

Discussion

Past research has documented the effects of in-prison TC outcomes. Specifically, evaluations of TC treatment show sustained impacts using national samples at two-year and three-year follow-up. Favorable outcomes of TC programming are believed to be due in part to the high intensity drug treatment programming, and to the therapeutic housing designed to cultivate an atmosphere focused on rehabilitation and positive change along with aftercare. Less is known about the thought processes and psychosocial variables related to recidivism outcomes. The current study examined the prediction of 3-year recidivism outcomes using multiple treatment process and psychosocial predictors, including subscale measures from the TCU CEST and CTS

collected at treatment discharge.

The current study's hypotheses were that the following subscales from the TCU CTS and the TCU CEST: *Entitlement*, *Criminal Rationalization*, *Hostility*, *Treatment Satisfaction*, and *Peer Support* at discharge were related to increased odds of recidivism within three years. After controlling for race and ASI drug score at intake, the results found that *Entitlement* and *Hostility* were related to recidivism. In other words, the predicted odds ratio of recidivism was higher for those who scored higher on ratings of *Entitlement* and *Hostility*. Likewise, the predicted odds of recidivism are greater than for someone who is discharged from SWICC with lower scores on *Entitlement* and *Hostility* than for those with higher scores. In light of these findings, programming efforts may benefit from targeting these client factors in an effort to reduce recidivism risk. The central theme between the subscales of *Entitlement* and *Hostility* seems to stem from criminogenic factors related to antisocial attitudes and antisocial personality variables (Andrews & Bonta, 2010). With respect to *Entitlement*, this provision of grandiosity and exaggerated prerogative could be a product of negative feelings towards the prison, personal grievances, or societal customs. In a like manner, *Hostility* could result from a charged aggressive psychosocial functioning, which may also stem from similar contexts.

Although SWICC and similar TC programs may not specifically target both *Entitlement* and *Hostility*, these factors should be evaluated at each phase of treatment. Adjustments in treatment planning for those individuals who continue to exhibit elevated scores on the *Entitlement* subscale of the TCU CTS and the *Hostility* subscale of the TCU CEST should be considered as these two variables are shown in the current study to be related to recidivism. By individualizing the treatment for those participants with elevated scores on these subscales, specific responsivity can be addressed moving away from the "one size fits all" approach. One possibility would be to increase the dosage of individual sessions with these individuals to work specifically on entitlement and hostility issues.

The importance of completing the SWICC Curriculum also deserves discussion. Our findings corroborate previous findings that there is a direct relationship between the full participation/completion and favorable outcomes (i.e., Olson & Lurigio, 2014). After controlling for all other variables in the model, the odds ratio was found to be directly related to not returning to prison within three years. And although a formal cost-benefit analysis was not conducted, the results of the current study found that individuals in the SWICC program, whether they completed the full curriculum or not (28.57 percent and 26.67 percent respectively), had lower rates of recidivism than the Illinois State rate of 43 percent (Illinois Sentencing Policy Advisory Council, 2018). The Illinois Advisory Council reported that one recidivism event costs the State $151,662 when the taxpayer, victimization, and indirect costs are factored into the equation. The Illinois Advisory Council findings indicate that a significant cost-avoidance would be realized if the recidivism rates were similar to SWICC. These findings suggest that significant cost avoidance is being achieved based on the current SWICC programming that is being provided.

As with any study, there were strengths and limitations to the design. The results were based on individuals who voluntarily participated in an in-prison TC. These individuals had also attained minimum security status. Given that risk scores were not available, it is unclear if these results would be found in a population with different risk scores. Furthermore, this study examined measures collected prior to discharge. It would be useful to examine data collected over time during treatment to assess the impact of positive changes on these measures in relation to reduced recidivism rates. In conclusion, future refinement of in-prison TC programming that takes into consideration an individual's level of criminal thinking and psychosocial functioning is likely to lead to even better post-release outcomes.

TABLE 3
Percentage Characteristics of Returning to Prison (Recidivism) among SWICC SU Curriculum Completers vs. Non-Completers

Characteristic	Non-Completers n = 2114	Completers n = 2366	Total N = 4480
Return to Prison (3yrs)			
Yes	28.57%	26.67%	27.57%
No	71.43%	73.33%	72.43%
Total	100%	100%	100%

TABLE 4
Logistic Regression Examining Recidivism (0 = No Return to Prison, 1 = Return to Prison) among SWICC Prisoners

Independent Variables	*B*	Wald	*p*	Exp(B) Odds Ratio
Race (Black vs. Other)	.161	4.21	.040	1.174
ASI-Drug at Intake	.080	8.48	.004	1.083
HS Graduate	-1.70	32.11	.001	.640
CTS Entitlement	.016	5.63	.018	1.016
CTS Criminal Rationalization	.006	1.07	.302	1.006
CEST Hostility	.020	10.81	.001	1.020
CEST Treatment Satisfaction	.011	3.00	.083	1.011
CEST Peer Support	-.005	.60	.440	.995
SWICC Curriculum Completion (1)	-.224	8.18	.004	.800

Note: ASI = Addiction Severity Index, CTS = Criminal Thinking Scales, and CEST = Client Evaluation of Self and Treatment

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