pennsylvania
DEPARTMENT OF CORRECTIONS

Therapeutic Communities (TC) Evaluation

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Purpose

The purpose of this evaluation is to examine the effectiveness of the Pennsylvania Department of Corrections (PA DOC) Therapeutic Communities (TC). This evaluation compared three different groups of TC participation with those individuals receiving outpatient (OPT) Substance Use Disorder (SUD) treatment services. Participant characteristics, recidivism and relapse outcomes, and cost benefit analyses are reported.

Key Points

- Overall, no significant differences in *recidivism* outcomes were found between TC and OPT participants.
- Overall, no significant differences in *relapse* outcomes were found between TC and OPT participants.
- PA DOC would save about ***$5.8M*** annually if all of the TC inmates who scored less than 6 on the Texas Christian University Drug Screen (TCU) instrument went to OPT and were not overridden, ***$2.9M*** if half of the inmates went to OPT, and ***$1.5M*** if only a quarter of the inmates went to OPT instead of TC.
- If the PA DOC moved the TCU score up to 7 as the cutoff for TC placement, an additional ***$2.3M*** annually could be saved. Therefore, if the overrides to TC were eliminated and the cutoff for TC was moved to 7, ***the DOC could save up to $8.1M annually.***

Background

The primary goal of the PA DOC's SUD treatment programs is to reduce incidents of relapse and recidivism, promote pro-social behavior and enable inmates to exhibit conduct in compliance with the rules and procedures of the Department. To achieve this mission and assist inmates in successful reintegration back into the community, the PA DOC operates TC programs, dedicated units for drug users convicted of a criminal offense.

TC Goal

The TC model views addiction as a disorder of the whole person, reflecting problems in conduct, attitudes, values, moods, and emotional management. The overall purpose of the TC is to provide treatment to an inmate in need, with the ultimate goals of relapse prevention, successful re-entry to the community and crime-free lifestyle. Through intensive, structured treatment programs, the inmate is given the opportunity to learn to effectively deal with recovery and relapse issues while he/she pursues better interpersonal communication skills, emotional stability, and adjustment toward a law-abiding, crime-free life.

Inmates who participate in the TC program at a PA DOC prison go through three treatment phases (Orientation, Primary Treatment and Relapse Prevention and Aftercare) for approximately four months. The TC uses a staged, hierarchical model in which treatment stages are related to increased levels of individual and social responsibility. Peer influence, mediated through a variety of group processes, is used to help residents learn and assimilate social norms and develop more effective social skills. In particular, the TC emphasizes the necessity of the inmate taking responsibility for his/her behavior before, during, and after treatment. Moreover, TC inmates play an important role in structuring group norms and sanctions.

TC Admission Criteria

- An inmate scoring a six to nine on the TCU is considered for placement in a TC. Also, consideration for placement in a TC may be given to an inmate scoring three to five on the TCU, on a case-by-case basis.
- Mental health stability scores are verified prior to admission. Referrals should be generated and returned within a two-week period prior to admission. If an inmate is Seriously Mentally Ill (SMI) and co-occurring, then he/she may be referred for placement in dual diagnosis treatment.

Table 1: TC Admissions

Jan.1, 2018 - Dec. 31, 2018

	Number	Percent
Total Admissions	4,850	—
GENDER	Number	Percent
Male	4,156	85.6%
Female	682	14.4%
RACE	Number	Percent
Black	1,341	27.6%
White	3,127	64.4%
Hispanic	335	7%
Other	47	1%
AVERAGE AGE at TC ADMISSION	36	—

Table 2: TC Releases

Jan.1, 2018 - Dec. 31, 2018

	Number	Percent
Total Releases	5,018	—
GENDER	Number	Percent
Male	4,310	85.8%
Female	708	14.2%
RACE	Number	Percent
Black	1,351	26.9%
White	3,304	65.8%
Hispanic	334	6.6%
Other	29	<1%
AVERAGE AGE at TC RELEASE	36	—
REASON FOR TC RELEASE	Number	Percent
Successful Completion	4,071	81.1%
Discharged	175	3.5%
Failure	772	15.4%

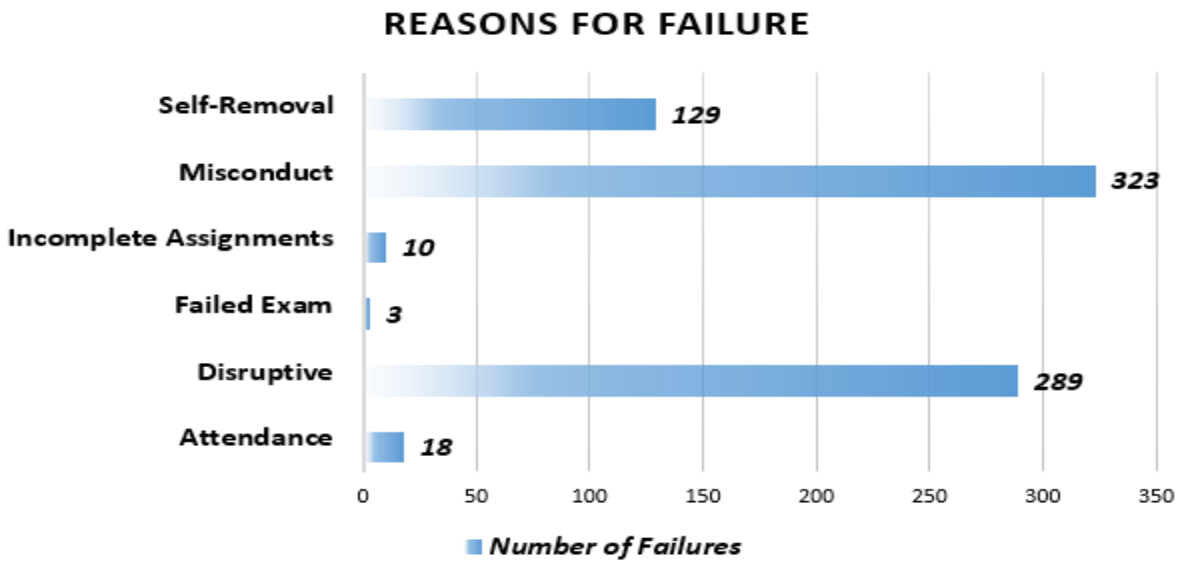
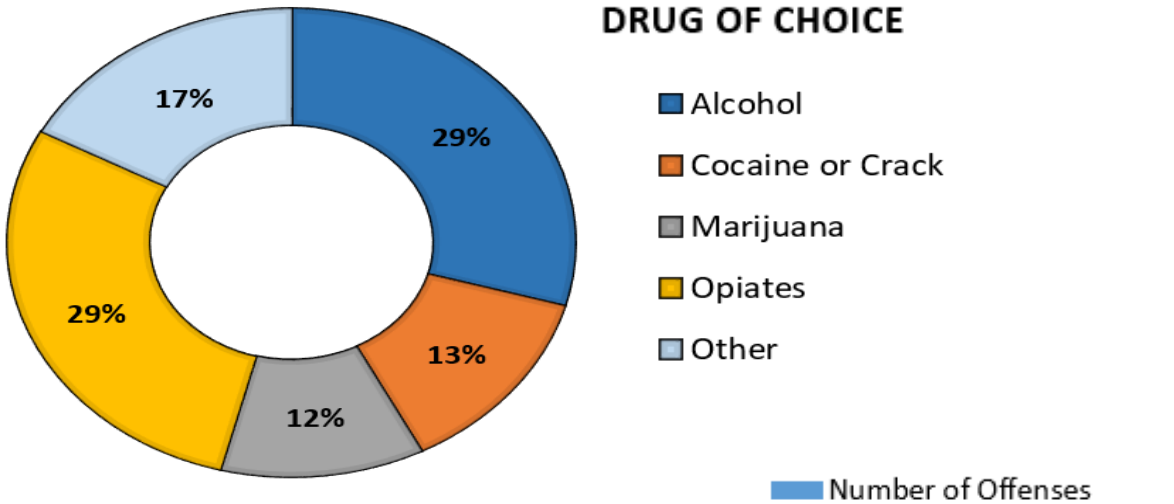


Table 3: TC Profile

Population as of Dec. 31, 2018

	Number	Percent
# of TC participants	1,393	—
GENDER	**Number**	**Percent**
Male	1,200	86.0%
Female	193	14.0%
RACE	**Number**	**Percent**
Black	410	29.4%
White	863	62.0%
Hispanic	105	7.6%
Other	15	1.0%
AVERAGE AGE at TC ADMISSION	36	—



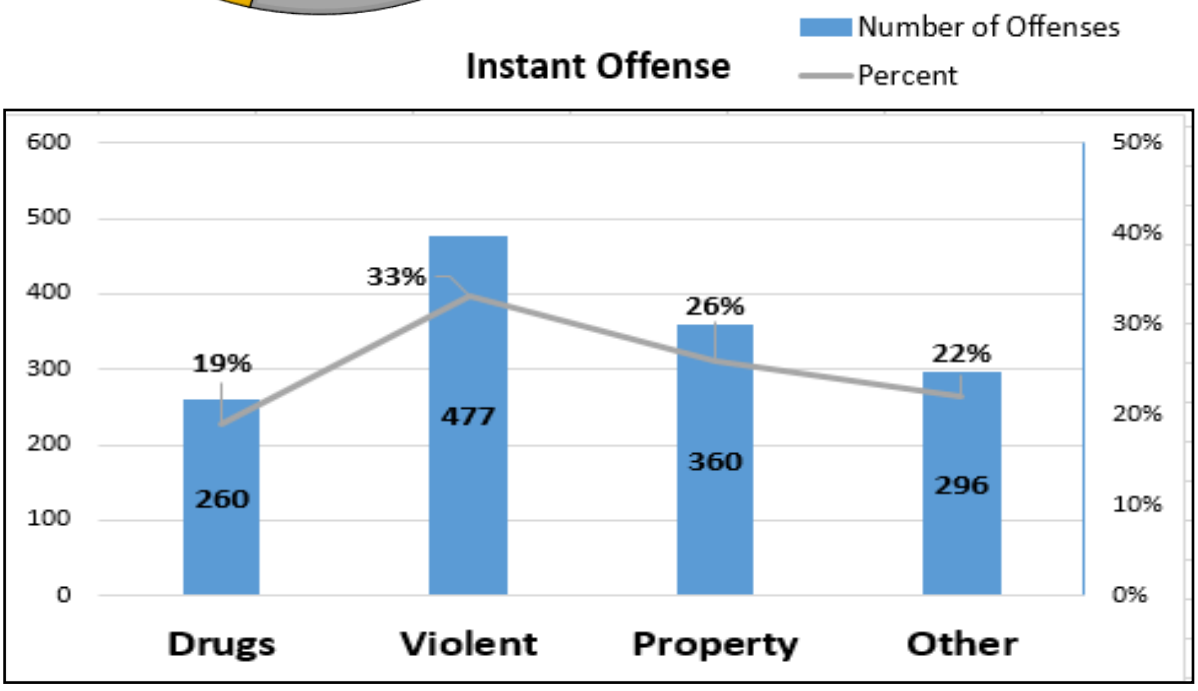
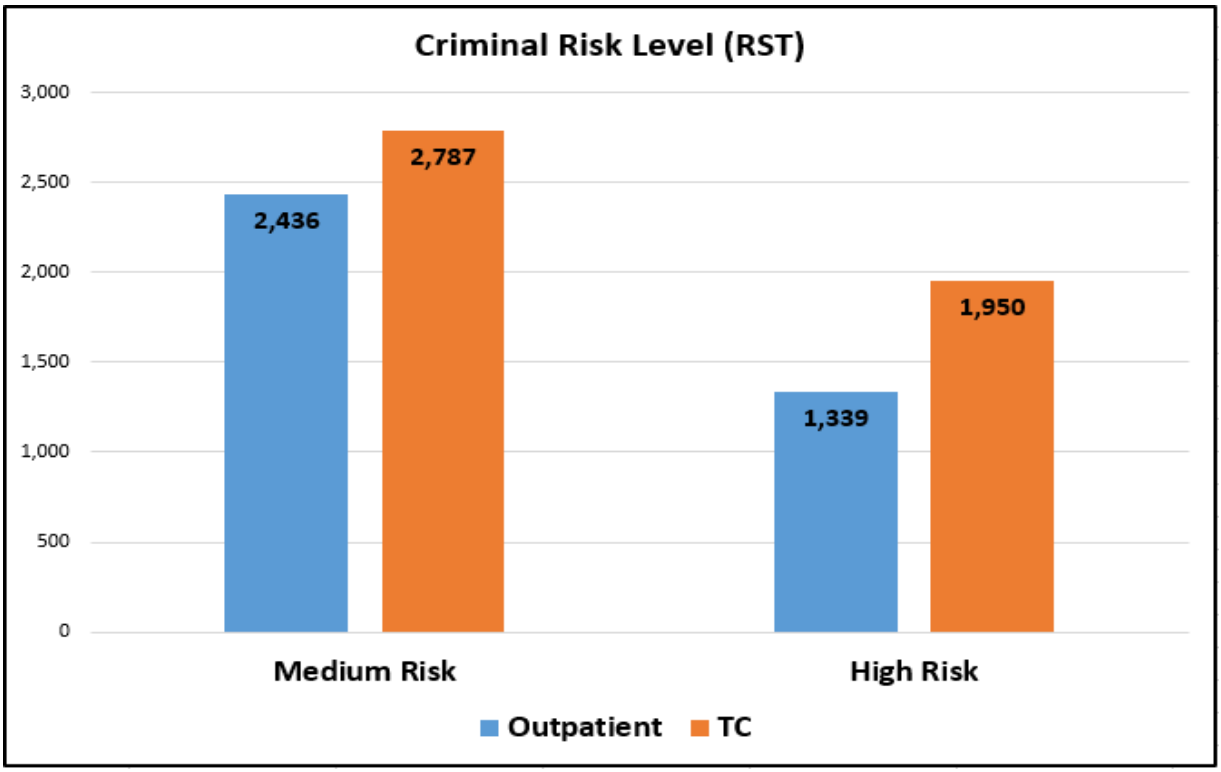


Table 4: Study Profile		
	TC	Outpatient
# of study participants	n = 3,775	n = 4,737
GENDER		
Male	100%	100%
RACE		
Black	38.8%	56.7%
White	51.1%	31.5%
Other	10.1%	11.8%
PRIOR SUD TREATMENT		
	66.7%	54.8%
AVG. AGE at PROGRAM START		
	31	32
PREVIOUSLY INCARCERATED		
	32.2%	34.8%
AVG. # OF MISCONDUCTS		
	.58	.51
DRUG OF CHOICE		
Alcohol	44.6%	27.3%
Opiates	20.3%	6.4%
Other	35.1%	66.3%



Recidivism Analyses

In order to assess the effectiveness of TC treatment, three separate statistical models were developed and analyzed. ***Recidivism*** was measured at both six months and one year post-release from prison.

Model 1: Inmates who scored a 6 (TC group) on the TCU Drug Screen versus those who scored a 5 (OPT group).

Model 2: Inmates whose TCU Drug Screen scores were overridden (TCU override score = 6) and placed into a TC, versus inmates receiving strictly outpatient SUD treatment (those with TCU scores of 3, 4, & 5).

Model 3: Inmates who scored a 5 on the TCU Drug Screen (OPT group) versus inmates who scored a 5 and were subsequently overridden to a 6 (TC group).

Model 1	
TC	**Outpatient**
(n=275)	**(n=281)**
Six-Month Recidivism %	
23.3%	**21.8%**
One-Year Recidivism %	
41.1%	**37.5%**

Model 2	
TC	**Outpatient**
(n=2,618)	**(n=4,737)**
Six-Month Recidivism %	
20.6%	**22.5%**
One-Year Recidivism %	
39.3%	**39.1%**

Model 3	
TC	**Outpatient**
(n=759)	**(n=266)**
Six-Month Recidivism %	
20.9%	**19.4%**
One-Year Recidivism %	
37.5%	**34.6%**

Relapse Rates

In order to assess the effectiveness of TC treatment, three separate statistical models were developed and analyzed. ***Relapse*** was measured at both six months and one year post-release from prison.

Model 1: Inmates who scored a 6 (TC group) on the TCU Drug Screen versus those who scored a 5 (OPT group).

Model 2: Inmates whose TCU Drug Screen scores were overridden (TCU override score = 6) and placed into a TC, versus inmates receiving strictly outpatient SUD treatment (those with TCU scores of 3, 4, & 5).

Model 3: Inmates who scored a 5 on the TCU Drug Screen (OPT group) versus inmates who scored a 5 and were subsequently overridden to a 6 (TC group).

Model 1	
TC	Outpatient
(n=275)	(n=281)
Six-Month Relapse %	
19.3%	16.7%
One-Year Relapse %	
33.5%	29.5%

Model 2	
TC	Outpatient
(n=2,618)	(n=4,737)
Six-Month Relapse %	
23.9%	22.1%
One-Year Relapse %	
35.2%	33.2%

Model 3	
TC	Outpatient
(n=759)	(n=266)
Six-Month Relapse %	
18%	16.2%
One-Year Relapse %	
32%	28.9%

Cost-Benefit Analysis

With no significant difference between the outcomes of TC and OPT at the margins, the next step is to evaluate the costs associated with each treatment track. The below table shows the difference in costs of the TC versus OPT. Overall, it costs about $4,633 more for an inmate who is on the TC track instead of the OPT track. In this analysis of releases between January 2013 and December 2015, 3,775 of the TC inmates were overridden from an original TCU score that would have put them into OPT (3 to 5).

As a result, the PA DOC would save about ***$5.8M*** annually if all of the TC inmates who scored less than 6 on the TCU instrument went to OPT, ***$2.9M*** if half of the inmates went to OPT, and ***$1.5M*** if only a quarter of the inmates went to OPT instead of TC.

	TC	OPT	Difference
Avg. Daily Rate	$132.48	$125.57	$6.91
Avg. # of TC Days	144	0	144
Avg. Length of Stay	879	852	27
Avg. Incarceration Cost	$111,371.07	$106,985.64	$4,385.43
Avg. Community Cost	$8,137.59	$7,890.09	$247.50
Total Avg. DOC Cost	$119,508.66	$114,875.73	$4,632.93

Additionally, within the release cohort between January 2013 and December 2015, 1,499 inmates scored a 6 (without an override) on the TCU. If the PA DOC moved the TCU score to 7 as the cutoff for OPT, an additional ***$2.3M*** annually could be saved. Therefore, if the overrides to TC were eliminated and the cutoff for TC was moved to 7, ***the PA DOC could save up to $8.1M annually.***

Recommendations

- Ensure ***selection criteria for TC*** are consistently implemented so that program participants reflect appropriate levels of treatment need.
  - ◊ Change cut off score for TC from 6 to 7 on the TCU drug screening tool.
  - ◊ Eliminate the full comprehensive TCU assessment for inmates who score 3, 4, or 5 as they are already going to OPT treatment.
  - ◊ Complete the initial assessment only on inmates who score 0, 1 or 2 on their TCU.
  - ◊ Encourage parole board decision makers to replace treatment as a condition of parole with a recommendation for an assessment.
- Eliminate ***automatic overrides into a TC*** when determining program placement.
- Remain cognizant of best practices as they pertain to ***drug treatment standards and policies*** and develop a method for monitoring staff compliance to recently implemented programs. This would include:
  - ◊ Provide medication-assisted treatment (MAT) education to inmates and parolees who were TC or OPT participants.
  - ◊ Ensure continuity of care directly after SUD treatment in the prison, as well as upon release to community supervision.
  - ◊ Enhance SUD training for parole agents to include the new MAT protocols provided upon reentry and the recovery services available through Drug and Alcohol Programs (DDAP) and the Single County Authorities (SCAs) for reentrants who need continuity of care.
  - ◊ Establish a monitoring system to ensure program compliance.
- Consider both ***risk level and dosage*** when determining treatment needs.
- Conduct ***future evaluation*** of the TC to assess the impact of these recommendations.

Appendix—Methodology

The effectiveness of Therapeutic Community (TC) treatment within the Pennsylvania Department of Corrections (PA DOC) is assessed using overall recidivism and relapse rates. Rearrest rates are calculated using official rap sheet data provided by the Pennsylvania State Police. Reincarceration rates are calculated using administrative records to determine who has returned to PA DOC custody. Overall recidivism is measured as the first instance of any type of rearrest or reincarceration after the inmate's release from prison.

Examining the recidivism rates provides insight into whether former TC participants are less likely to engage in criminal behavior compared to a similar group of reentrants who did not participate in TC. Relapse rate comparisons focus specifically on the effectiveness of the TC treatment in helping reentrants succeed in recovery. Relapse rates are based on drug test results of the paroled reentrants. Overall, the two outcome measures, recidivism and relapse, provide useful feedback on the impact of TC treatment within PA DOC state correctional institutions (SCIs).

A primary challenge in this evaluation is developing a comparison group of similar inmates who were not TC participants. The approach that was taken in this analysis was similar to a Regression Discontinuity design. Inmates are assigned to a TC by scoring a 6 or above on the TCU, and are assigned to an Outpatient group by scoring a 3 to 5 on the TCU. The logic in this analysis is that inmates scoring a 5 (Outpatient) and 6 (TC) are sufficiently like one another, with the main difference being that they scored one point apart on the TCU, which affected whether they were assigned to TC versus Outpatient. So, comparing TC inmates to non-TC inmates who scored a 5 on the TCU should be a sufficient starting point for comparison. After that, Propensity Score Matching (PSM) was used to match TC participants to Outpatient participants on their likelihood of receiving TC. This further refined the comparison group to be more appropriately matched to TC participants.

The treatment and comparison groups were drawn from male inmates released from an SCI between January 2013 and December 2015 and were deemed medium- and high-risk as measured by the Risk Screen Typology (RST) score. The TC group excluded participants of the specialized TC for SIP and non-English speaking Hispanic inmates. The statistical software package Stata was used to identify the control group using PSM. The two groups were matched on the following variables: age at program start, race, gender, drug of choice as well as any issues with opiates or alcohol, counts of misconducts and prior incarcerations, RST score, and prior treatment. After the PSM procedure, the two groups were found to be balanced (i.e., statistically equivalent) on the matching variables. Therefore, there was a reasonably high degree of confidence in the equivalence of the two groups. Estimates of the 6-month and 1-year recidivism rates and relapse rates were calculated for both of the TC group as well as for the comparison group.

One limitation of this methodology is that the results are not able to speak to how outcomes for TC compared to Outpatient for inmates on the higher or lower end of the TCU scoring spectrum. For instance, this analysis will not show if inmates scoring 8 or 9 on the TCU will do better or worse than Outpatient. Similarly, this analysis won't show whether Outpatient inmates scoring 3 or 4 on the TCU will do better or worse than TC inmates. The results can only be generalized to inmates who are on the margin of TCU scoring for receiving TC or Outpatient treatment.

Appendix—Methodology (Cost Benefit)

On average, TC costs $132.48/day, or $6.91 more per day than an inmate in general population. The extra per day costs for TC include more drug and alcohol counselors, treatment materials, as well more treatment hours due to the TC program being longer in length. In this analysis, an inmate who needed TC spent an average of 879 days incarcerated, while an inmate who attended OPT spent 852 days incarcerated. Thus, the average TC inmate costs the PA DOC $111,371.07 ($132.48*144 days + $125.57*735 days), while the average OPT inmate costs $106,985.64 ($125.57*852 days).

In the community, the groups had little variation in the days spent in a Community Corrections Center/Facility (about 100 days). In this analysis over a three-year time period, the TC group (n=3,775) cost the PA DOC $30,719,383.76 and the OPT group (n=4,737) cost $37,375,366.22. So, the cost per TC participant in the community is $8,137.59 and the OPT participant is $7,890.09 – thus, the average TC participant cost the PA DOC about $247.50 more than OPT.

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DEPARTMENT OF CORRECTIONS

The PA DOC operates as one team, embraces diversity, and commits to enhancing Public Safety. We are proud of our reputation as leaders in the corrections field. Our mission is to reduce criminal behavior by providing individualized treatment and education to offenders, resulting in successful community reintegration through accountability and positive change.