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The Effectiveness of the CrossRoad to Freedom House Therapeutic Community

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I. Introduction

The CrossRoad to Freedom House Therapeutic Community (TC) opened at the Arrowhead Correctional Center in March 1993. The substance abuse program was initially funded by the Edward Byrne Memorial State and Local Law Enforcement Assistance Formula Grant Program, administered by the Colorado Department of Public Safety, Division of Criminal Justice. The TC began as a joint treatment program for substance abusers and sex offenders. The programs operated independently of each other, although there was some overlap between them. The TC featured a greenhouse where offenders worked together as part of their treatment.

As the first prison-based TC in Colorado, the program began small. Initially, both substance abusers and sex offenders were housed in the same living unit as general population inmates. However, the negative influence of the general population on the TC residents soon became evident. With the aid of Department of Corrections (DOC) administration, the program enlarged to the size of the entire housing unit.

While the removal of general population inmates from the housing premises presented an improvement, the alcohol and drug program continued to experience difficulties. Retention rates for the substance abuse program were remarkably low (O'Keefe, Garcia, Hook, & McGuffey, 1997). More than half of the offenders dropped out of treatment and only occasionally an inmate transitioned from treatment to the community. Few incentives were available to retain clients longer and consequences were rarely incurred by dropouts.

December 1996 marked a milestone for this substance abuse program; a series of changes occurred nearly simultaneously. The sex offender and substance abuse programs each obtained their own housing unit, doubling the program's size. Not only did the program expand considerably, but the association of substance abusers with sex offenders declined. Also, consequences for unsuccessful terminations were enforced and incentives were conferred upon residents who remained in treatment. Finally, the therapeutic staff reconsidered their approach with new participants and subsequently made changes in their delivery of treatment services.

In August 1997, a continuing care element was added to the TC. Peer I, a community corrections center hosting a 6 to 12 month TC, established 10 beds for successful Arrowhead TC clients. A counselor was hired to prepare prison TC residents for the transition to the community and continue treatment with them at Peer I. This partnership enables a greater influx of TC residents into the community.

Purpose

Two process evaluations have been completed on the alcohol and drug component of the TC (O'Keefe, Arens, Hughes, & Owens, 1996; O'Keefe et al., 1997). These evaluations have described the program components, staff, and participants in detail. It is the intent of the present study to build upon the knowledge acquired through these studies. Readers are directed to these studies for additional information regarding program content and structure.

The present study was designed to examine the issues of treatment retention and program effectiveness. It was hypothesized that treatment retention has improved since the most recent evaluation due to extensive programmatic changes. It was anticipated that offenders who discharged following the programmatic changes remained in treatment longer than those who discharged prior to the changes. It was further postulated that the TC reduces recidivism over a control group. This study also explored the role of community corrections placements in the recidivism rates.

II. Method

Participants

To examine retention in treatment, admissions from program inception through August 1998 were analyzed (N = 673). In the event of multiple admissions per offender, each admission was analyzed individually. The outcome analyses included the 157 TC participants who released from prison prior to August 1997.

A control group was selected for the outcome analyses. The 202 offenders in the control group met the following criteria: (1) released from prison prior to August 1997, (2) were not sex offenders, (3) male, (4) never participated in the Arrowhead TC, and (5) had a standardized assessment prescribing TC placement.

Measures

Two measures were used in obtaining a control group. Scores from these measures are used to match offenders to a treatment modality, such as TC. The first measure was the Level of Supervision Inventory

(LSI; Andrews & Bonta, 1995). The LSI is a risk measure of 54 items, administered as a semi-structured interview. Possible scores range from 0 to 54, where higher scores characterize offenders with more serious re-offending risk. The LSI exhibited moderately high internal consistency estimates in studies with Canadian (Andrews, 1982; Loza & Simourd, 1994) and Colorado offenders (Arens, Durham, O'Keefe, Klebe, & Olene, 1996). Validity studies found that the LSI performs as well or better than similar instruments in predicting re-offense with Canadian (Andrews, 1982; Bonta & Motiuk, 1985, 1987, 1990; Gendreau, Little & Goggin, 1996) and Colorado felons (O'Keefe, Klebe, & Hromas, 1998).

The second measure was the Adult Substance Use Survey (ASUS; Wanberg, 1992). This self-report questionnaire measures substance abuse information using Likert-type items across five subscales: (1) lifetime involvement in drugs across ten categories, (2) disruptive consequences and problems related to drug use, (3) antisocial attitudes and behaviors, (4) mental health or emotional distress, and (5) defensive test-taking attitude. Internal consistency correlation coefficients of the subscale scores ranged from .80 to .95 (Wanberg, 1997). The subscale scores had low to moderate correlations with prior inpatient and outpatient treatment attendance.

Recidivism information was gathered for control and TC participants in the outcome analyses. Offenders were coded as recidivists or non-recidivists based on whether they returned to prison in the year following their release. All participants had a 1-year at risk period following release.

The amount of time spent in community corrections centers was collected for control and TC participants. Because offenders in community centers are still on inmate status, time spent in community corrections occurs prior to their release. For TC participants, placements at community centers were counted if they occurred between program discharge and release from prison. For control participants, any time in a community center prior to their release, but since their last episode on the streets, was measured.

Procedures

Data regarding program attendance was collected from a computerized database maintained by TC staff. This data was verified through the DOC information system; as well, all other data was obtained from the department's automated database system. There was some data missing for participants. Ethnicity data was missing for 2 TC subjects, ASUS scores for 82 TC subjects, and LSI score for 1 control and 82 TC subjects. The quantity of missing assessment data was so large for TC subjects because the protocol was not fully instituted in DOC until 1996.

Comparison analyses were conducted to discern whether the control and treatment groups were similar. Table 1 summarizes the data and comparison analyses. The two groups were similar on ethnicity, the five ASUS subscale scores, LSI scores, and prison release types. However, the control group was significantly younger than the treatment group by 2 years. Furthermore, the treatment group had more serious criminal histories, indicated by significant group differences on the following variables: prior incarcerations, prior paroles on current incarceration, felony class, and sentence length.

Overall, the treatment group appeared to be a more serious offender group than the control group. Although the age difference would suggest that the TC group was at lower risk, that difference was slight. On the other hand, the number of criminal history variables revealing significant differences would indicate that the TC group was more serious indeed. Attempts to statistically equalize the groups were unsuccessful. Thus, it was determined to use the existing control group in the subsequent analyses. The result of this bias would only make it more difficult to show the program's effectiveness.

III. Results

Treatment Retention

To compare changes made within the program over time, TC admissions were divided into two groups. These groups included discharges prior to and after programmatic changes in December 1996. These groups will heretofore be called 'before' and 'after'.

Lengths of stay in treatment were examined for TC participants, including active residents (see Figure 1). The After (n = 368) group had significantly longer treatment stays than the Before (n = 305) group, χ^2 (5, 673) = 69.13, p < .01. Termination reasons were analyzed for treatment discharges prior to August 1998 (see Figure 2). Community transitions included release to community corrections or parole, staff-recommended transfer to a minimum center, or sentence discharge. The After (n = 285) group was more likely to make a community transition and less likely to quit treatment than the Before (n = 302) group, χ^2 (3, 587) = 81.22, p < .01.

Table 1. Means and Percentages for Group Profiles.

	TC $N = 157$	Control $N = 202$	Comparison Analyses
Ethnic Background			χ^2 (3, 357) = 1.91, p = .59
Caucasian	54.2%	60.9%	
African American	20.0%	17.8%	
Hispanic	22.6%	17.8%	
Other	3.2%	3.5%	
Age	34.4 (8.3)	32.4 (8.5)	t(357) = -2.25, p < .05
ASUS Subscales			
Involvement	15.8 (8.7)	14.6 (8.5)	t(275) = -1.04, p = .30
Disruption	33.5 (21.0)	29.8 (17.4)	t(275) = -1.48, p = .14
Social	11.6 (5.3)	10.8 (4.7)	t(275) = -1.25, p = .21
Mood	7.1 (4.6)	8.1 (5.7)	t(275) = 1.35, p = .18
Defensive	5.9 (3.0)	6.1 (3.0)	t(275) = .44, p = .66
LSI	31.3 (6.6)	32.5 (6.0)	t(274) = 1.42, p = .16
Prior Incarcerations			χ^2 (1, 359) = 5.72, p < .05
No	63.1%	74.8%	
Yes	36.9%	25.2%	
Prior Paroles on Current Incarceration			χ^2 (1, 359) = 3.99, p < .05
No	75.2%	83.7%	
Yes	24.8%	16.3%	
Felony Class of Most Serious Crime			χ^2 (3, 359) = 19.14, p < .01
2-3	31.2%	16.3%	
4	41.4%	36.1%	
5	21.7%	34.2%	
6	5.7%	13.4%	
Prison Release Type			χ^2 (1, 359) = .02, p = .89
Parole	78.3%	77.7%	
Sentence Discharge	21.7%	22.3%	
Sentence Length in Years	6.5 (5.1)	3.7 (2.9)	t(357) = -6.58, p < .01

Note: Standard deviations are reported in parentheses.

Figure 1. Lengths of Stay in Treatment Before and After Programmatic Changes.

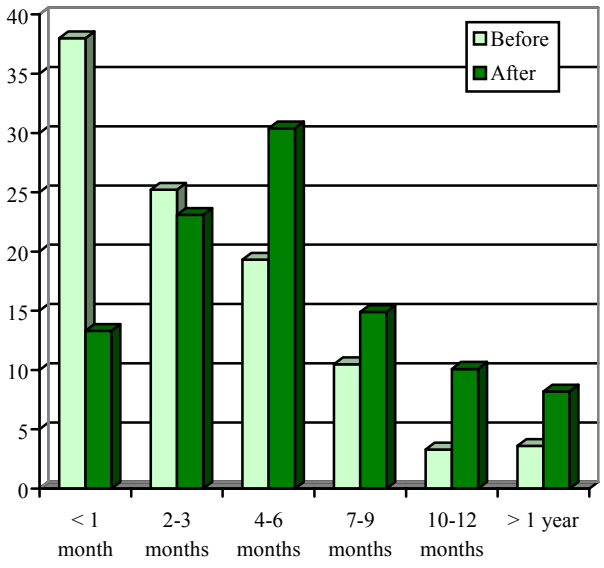
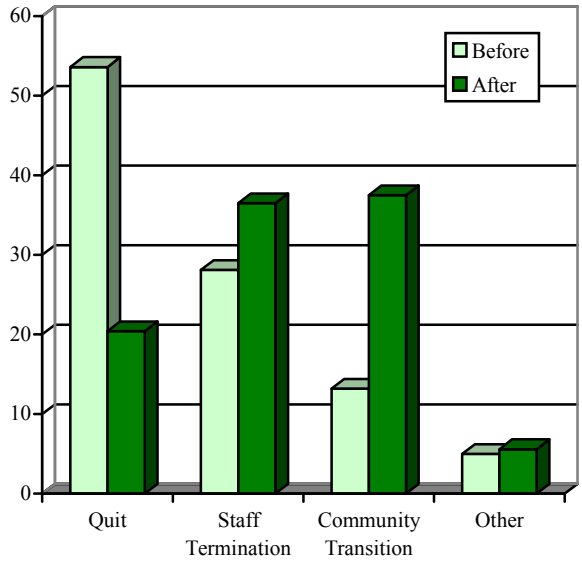


Figure 2. Discharge Reasons Before and After Programmatic Changes.

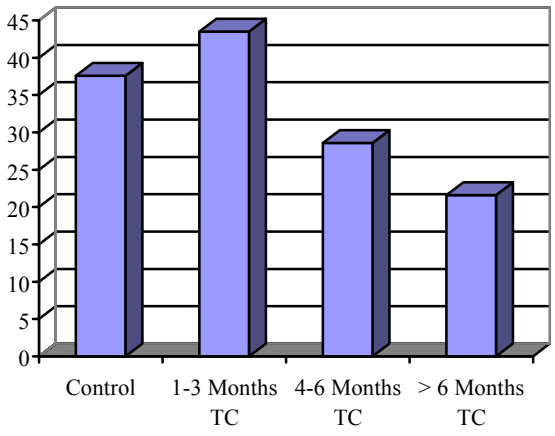


Recidivism Rates

One year re-incarceration rates were collected for the control and TC groups to examine the program's effectiveness. The return rates were 37.6% for the control group and 35.0% for the TC group. There was no difference between the groups, χ^2 (1, 359) = .26, p = .61. However, the TC group included all offenders regardless of their length of participation. A minimum of 3 months in this treatment modality is required to produce successful outcomes, with optimal stays extending 6 to 12 months (Bleiberg, Devlin, Croan, & Briscoe, 1994; Wexler, 1995).

The treatment group was divided into three groups based on their time in treatment. Lengths of stay were summed across admissions for those admitted more than once. Eighty-five offenders remained in treatment 1 to 3 months, 35 stayed in 4 to 6 months, and 37 stayed in more than 6 months. Figure 3 displays the recidivism rates for these groups. Group differences were not statistically significant, χ^2 (3, 359) = 6.41, p = .09. Nonetheless, differences between groups in recidivism rates have practical significance. Offenders with more than 6 months of treatment have a decline of 43% in re-incarceration rates over control subjects. This decline is even more meaningful when considering that the TC group had more serious criminality problems than the control participants. When comparing TC participants who stayed in treatment at least 6 months to those who stayed in for 3 months or fewer, recidivism rates were cut in half.

Figure 3. Recidivism Rates.



TC residents who transitioned to the community (n = 41) were compared to those who discharged unsuccessfully (n = 105). Offenders who terminated for another reason, such as medical problems, were excluded from this analysis (n = 11). Interestingly, the differences were not statistically significant but were in the direction opposite of the expected result, χ^2 (1, 146) = 3.27, p = .07. Re-incarceration rates were 30.5% for unsuccessful discharges and 46.3% for community transitions.

Community Corrections

Inmates' transition to the community is a crucial period for them. Treatment is almost always included in the program. Depending on the center, treatment modality and intensity varies. The present study did not differentiate between specific centers because attendance rates were so low. Attendance rates at community corrections were 19% for the control group (n = 39) and 28% for the TC group (n = 44). There was no difference in participation rates between groups, χ^2 (1, 359) = 3.78, p = .05. The mean number of days spent in community corrections for both groups were as follows: 148 for the control group and 212 for the TC group. A t-test revealed that this difference was statistically significant, $t(81) = -2.64$, $p < .05$.

TC participants who remained in treatment for more than 6 months (n = 37) were divided into two groups: (1) 6 months or fewer in community corrections and (2) more than 6 months in community corrections. The return rate was 30.4% for the first group and 7.1% for the second group. This represents a decline of 77% for high-risk substance abusing offenders who spend at least 6 months each at the Arrowhead TC and community corrections.

IV. Discussion

Within a short span of time, the TC has substantially lengthened treatment stays. Fewer residents are now dropping out of treatment and more are transitioning to minimum centers, community centers, or parole. It is important to not sacrifice program integrity for the sole purpose of retaining clients longer. It is conceivable that some programs which have good retention rates keep participants in treatment regardless of their progress or compliance with rules. However, it appears that the staff does not keep offenders in treatment who may be disruptive to the treatment process, evidenced by the high rate of involuntary terminations.

The findings in this study demonstrate the effectiveness of the TC in reducing recidivism. Even when compared to a control group composed of less serious offenders, the TC reduced recidivism by 43%. While not statistically significant, this reduction has

strong implications for using substance abuse treatment to rehabilitate criminals. High risk substance abusing criminals are often considered the most difficult to treat. This program has lowered the recidivism rate for this population, breaking the cycle of drugs and crime.

This study echoed the research findings in the literature. Length of stay in treatment is the most important factor in reducing recidivism. Indeed, discharges to the community did not produce better recidivism rates over unsuccessful discharges. In this study, the lowest recidivism rate was achieved by offenders who stay in treatment more than 6 months. It is probable that a further decline would be evidenced by TC participants who remained in treatment for at least 9 months (see Bleiberg et al., 1994).

It is important to consider the programmatic changes when interpreting the outcome analyses. Clearly, these changes positively impacted the retention rates. Yet, most of the TC participants in the outcome analyses attended treatment before those changes occurred. Thus, the outcome analyses show the effectiveness of the Arrowhead TC *prior to* the programmatic changes. Subsequent outcome studies need to consider that there are two different offender populations within the TC program. It is expected that subsequent outcome analyses, which follow residents in treatment after the changes, would yield even lower recidivism rates.

Exploratory analyses of time spent at the Arrowhead TC coupled with time in community corrections centers supplied interesting results. TC participants had longer stays at community centers than control participants. It is possible that an important program strength is its capacity to link offenders to community treatment, aiding continuity of care for offenders. The findings suggested that at least 6 months each of prison-based TC and community corrections produce a substantial reduction in recidivism. The sample size was extremely small and the type of treatment provided at community centers was not explored. However, there appears to be an important trend worthy of further research.

Recommendations

This study produced one surprising finding: inmates who transitioned to the community had worse recidivism rates than unsuccessful terminations or dropouts. It is possible that many offenders who participate in treatment for more than 6 months may quit or be terminated by staff. In another scenario, inmates may be referred to TC but then transition to parole or community corrections after only a month or two of treatment. Thus, it is understandable that length of stay would be a more important determinant in outcomes than discharge type. It is recommended that the department and the TC work together to refer inmates to the program who can remain in treatment for a minimum of 6 months.

Limitations

As with all quasi-experimental research designs, there are limitations to the present study. There was no random assignment, making it impossible to draw solid conclusions about the effectiveness of the TC group over the control group. There may be some unmeasured difference between the groups accounting for the differences in recidivism rates other than treatment.

Another limitation of the present research was that it relied upon only one outcome measurement. Multiple outcome measures, especially from various sources, produce more stable conclusions. Particularly since the program treats substance abuse problems in addition to criminality, measures of substance use following release should be included in outcome analyses.

The sample size for TC participants in the outcome analyses was fairly small. As a whole, the TC group was sizeable. However, when the TC group was divided into three groups by their time in treatment, the sample sizes diminished substantially. A larger sample, particularly for offenders with more than 6 months of TC treatment, is needed to make sound inferences regarding the program's effectiveness.

The analyses regarding community corrections participation were clearly exploratory. This study did not take into account any of the factors that may be occurring with community corrections placements. It is important to better understand the community corrections selection process, treatment attended while placed at a center, and differences between the different centers.

Future Research

Future research needs to continually follow outcomes of TC participants. The changes evidenced in the program over the past 20 months are not reflected in the outcome analyses. As more TC residents with longer treatment stays are released, there will be a greater opportunity to examine program effectiveness.

This outcome evaluation is merely a preliminary analysis of outcome, with further evaluation pending. With the community corrections beds at Peer I reserved for Arrowhead TC residents, it will be essential to understand the role of the programs in combination with each other. Perhaps the most appropriate design would compare recidivism rates for the following four groups: (1) Arrowhead TC only, (2) Peer I TC only, (3) both programs, and (4) neither program. Thus, the effectiveness of each program alone and in combination can be explored to understand the continuum of prison and community based treatment.

In addition to conducting outcome research, process evaluations are recommended. Process evaluations provide continual monitoring of daily activities, program structure, and participant profiles. The findings herein were consistent with the literature; longer stays in treatment produce better outcomes. Yet, questions always surface about what changes occur in participants over time. The research community needs to discover the factors underlying treatment stays.

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