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**The Amity Prison TC Evaluation: Reincarceration Outcomes**

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## **The Amity Prison TC Evaluation: Reincarceration Outcomes**

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### **Abstract**

The present report is drawn from an ongoing evaluation of the effectiveness of the Amity prison therapeutic community (TC) and aftercare program for substance abusers located in San Diego, California. Data collection consisted of face-to-face interviews and reviews of criminal justice records, on a sample of 715 male inmates. This study reports on reincarceration rates established from the California correctional system data files. The experimental design involved random assignment to the prison TC intent-to treat group and no-treatment control group from a waiting list of inmates who had volunteered for substance abuse treatment in the Amity program. Reductions in reincarceration rates of over 40% at 12 months and over 50% at 24 months after release from prison were found for the group that completed prison TC plus aftercare. These improvements remained significant after controlling for client characteristics that have been identified as predictors of recidivism. The findings support the efficacy of prison TC plus aftercare in reducing reincarceration rates among inmates treated for substance abuse.

The efficacy of the modified prison therapeutic community (TC) for the treatment of substance abusing inmates has been substantiated in a number of recent studies (see reviews by Lipton, 1995; Wexler, 1995). In general these studies report significant reductions in criminality and substance abuse at follow-up among inmates treated in prison based TC programs.

Therapeutic community evaluation studies document that a critical factor related to positive outcomes, in both community and prison based TC substance abuse treatment, has been "treatment density" or "time in treatment" (De Leon, 1984; Wexler, Falkin, & Lipton, 1990). Treatment density has been truncated in earlier prison TC studies because treatment duration did not include community aftercare. For example, the earlier "Stay'n Out" program, provided only

anecdotal information indicating improved outcomes for inmates who attended residential treatment programs after release from prison. The impact of aftercare, itself, was not systematically studied.

Recently, several large scale prison TC evaluations have been undertaken to assess the effects of prison TC substance abuse treatment followed by either work release (Inciardi, Butzin, Hooper, & Harrison, 1997) or an aftercare (Knight & Simpson, 1996) TC treatment. Both treatment studies indicate that prison TCs with aftercare produce large positive outcomes while prison TCs alone shows relatively small and mostly non-significant effects. Differences in samples, and methodology across these studies surface several issues that are relevant to the interpretation of the efficacy of Prison TCs.

The study by Inciardi and associates evaluated a Delaware prison TC program (Key) and a TC work release program (CREST) by comparing their individual and combined effects with a comparison group. There were several design limitations that compromised the comparability of the prison TC group including: (a) the Key prison TC sample was not randomly selected; (b) the Key sample was historical, so time at risk in the community was not synchronous with the other groups; (c) the prison TC group was all male (who sometimes have poorer outcomes) while females were included in the other groups; (d) the Key group was exposed to fewer treatment phases than the other treatment groups; and, (e) 56% of the no-treatment comparison group actually received some treatment after prison, which may have improved their outcomes. Thus, information is needed on the contribution of post release aftercare to outcomes among the inmates who do not enter TC oriented after settings.

The study by Simpson and associates which evaluated prison TC and aftercare outcomes also has several design limitations: (a) Random selection was not employed (a quasi-experimental design with a matched-comparison sample was used); (b) the in-prison sample was actually a group who completed a prison TC and then went on to an aftercare program that they failed to complete. The second design issue is important since the in-prison TC group was actually an aftercare drop-out group that does not represent prison TC graduates who simply go on to regular parole. Thus, there is a need to evaluate dropouts as well as completers of Prison TCs and of aftercare programs.

Another issue emerging from the research on prison TCs concerns the generality of effects. For example, the above studies showed relatively small effects for prison treatment alone which contradicts the positive time in prison treatment findings reported in the earlier Stay-in- Out study. Such apparent contradictions may reflect differential program and client characteristics. In general, however, the programs studied were adaptations of the Stay-in- Out

program and utilized similar treatment models. Therefore inmate characteristics, particularly criminal severity and psychological status, must be considered while interpreting differential treatment outcomes across studies.

With regard to the above issue an important distinction between “static” and “dynamic” variables has been drawn in the TC literature (e.g., Condelli & De Leon, 1993). Static variables refer to background information that is set at specific time periods and not susceptible to change (e.g., sex, ethnicity, or parents educational level), while dynamic variables describe personal characteristics that can change, such as psychological and behavioral variables. Recently, Gendreau, Little, & Goggin (1996) conducted a meta-analysis to identify static and dynamic client variables that consistently predict recidivism in non-treatment offender populations. Thus, the relevance of these predictors must be clarified for inmate substance abusers electing prison TC drug treatment.

A broader issue concerns the use of various measures of criminal outcomes to assess treatment efficacy. Each measure has its own clinical, theoretical as well as policy implications. Past studies have shown that reductions in reincarceration rates are generally correlated with reductions in drug abuse and other measures of criminal activity. Treatment related reductions in reincarceration rates provide compelling empirical support for alternatives such as TC oriented prison treatment and aftercare programs.

These issues shaped the aims and design of the present study. First, the study design assigned inmates randomly to an intent-to-treat group and a no-treatment control group. This assignment provides a clearer test of treatment effects. In addition, clearly delineated study groups based on extent of treatment involvement are identified. This allows for a rigorous comparison of outcomes along a continuum of treatment duration. Second, multivariate analyses assessed the relative contribution of dynamic and static client characteristics and treatment group differences to reincarceration outcomes. Third, the study focused on returning to prison rather than other outcome variables. Changes in reincarceration rates and time to first reincarceration were assessed in relation to TC oriented treatment in prison and in post release aftercare. In this study reincarceration data was abstracted from department of corrections files. Additional reports provide outcomes in criminality; drug use and other social and psychological domains based on self-reported data.

## Method

### Treatment Program Description

The Amity prison TC was set up as a demonstration project funded by the California Department of Corrections (CDC) in 1989. The Amity TC is located at R. J. Donovan medium security Correctional Facility in San Diego. (See Winnet,

Lowe, Mullen, & Missakian, 1992; Graham & Wexler, 1997, for detailed program descriptions.)

The prison houses approximately 4,000 men in five self-contained living areas. All aspects of daily living (housing, sustenance, education, and work) are accommodated within the confines of each prison area. One 200 man-housing unit was designated for Amity project occupancy. The men who resided in the unit participated in daily programming, which was conducted in two trailers located in close proximity to the housing unit.

The program utilized a three phase treatment process that has been described in the literature (e.g., De Leon, 1995; De Leon & Rosenthal, 1989; Wexler & Williams, 1986). The initial phase (2 to 3 months) included orientation, clinical assessment of resident needs and problem areas, and planning interventions and treatment goals. Most residents were assigned to prison industry jobs and given limited responsibility for the maintenance of the TC. During the second phase of treatment (5 to 6 months), residents were provided opportunities to earn positions of increased responsibility by showing greater involvement in the program and through hard emotional work. Encounter groups and counseling sessions focused on self-discipline, self-worth, self-awareness, respect for authority, and acceptance of guidance for problem areas. During the reentry phase (1 to 3 months), residents strengthened their planning and decision making skills and worked with program and parole staff to prepare for their return to the community.

Restraints on inmates' freedom and working within the many rules and limitations of the Donovan prison posed a number of problems. The TC staff coped with these problems by modifying the program and negotiating compromises with the prison administration. Some of the problems and program modifications included:

1. Program activities had to be scheduled to conform to the prison general schedule (e.g., meals, and "count" where inmates are locked up and counted several times a day).

2. Permission for special groups that conflicted with prison schedules (e.g., extended 24-hour groups) was negotiated and had to be limited.

3. A Donovan prison requirement that all inmates had to hold prison jobs reduced the time TC members could participate in the program. The TC negotiated an allotment of 40 paid inmate positions for the program that provided a core group of full time residents. The remaining 160 residents divided their time between prison work assignments and treatment.

Upon release from prison, graduates of the Amity prison TC were offered an opportunity to participate in a community based TC treatment program for up to one year in an Amity operated facility. The community TC accommodated up to 40 residents. Residents at the Amity Aftercare TC had responsibility for the work to maintain this facility (under staff supervision) and to continue the program curriculum they began in prison. The program content built on the foundation of the prison TC curriculum and was individualized for each resident based on the progress achieved by the resident while in the prison treatment program. The aftercare TC also provided services for the wives and children of residents.

Highly committed people who are primarily recovering from substance abuse and criminal histories staff the Amity prison and aftercare programs. The staff is willing to share their personal growth experiences and are very proud of their ability to demonstrate current life styles that have integrity. The program also has a number of unique components that are rarely found in other community or prison TCs. They are briefly summarized:

1. Use of formal curriculum to complement informally mediated teachings. The curriculum which includes workbooks, teachers guides and video tapes focuses on such topics as: "Basic Assumptions of a Teaching and Therapeutic Community," "The Therapeutic Community as a School for Moral Development," and "Understanding Violence Both Inside and Outside of Yourself."
2. Use of psychodrama groups to complement standard TC groups and meetings. Participants reenact roles or situations that remain unresolved. Through role play these action oriented groups often elicit strong emotion and insights through role play.
3. Use of video playback as a therapeutic tool to raise self-awareness and foster realistic self-perception. Through video playback, residents can see themselves and make appropriate judgments as they would if they were viewing another person.
4. Use of "lifers" as counselor interns and counseling staff. Several lifers serve as "live-in" staff with the program 24 hours a day, seven days a week. They are carefully selected, trained extensively, and remain under the supervision of senior Amity staff. They are credited with lending credibility to the program "on the yard" and adding stability to the program. Lifers are especially credible role models because they have demonstrated great commitment and very positive personal changes in spite of their severe criminal histories.

## Study Design

A prospective follow-up study (N=715 males) was conducted to evaluate the Amity TC. The study utilized an experimental design with random selection of clients. An eligible pool was created by the formation of a waiting list of volunteers who met the admission criteria of having a drug problem and being between 9 and 14 months from parole. Inmates who had been convicted of arson or sexual crimes to minors were excluded. Subjects in the voluntary pool were randomly selected and assigned to the treatment condition, as bed space became available. The random assignment procedure was stratified to obtain approximately equal ethnic proportions. Inmates who were not randomly selected remained in the pool until they had less than nine months to serve, at which time they were removed from the pool and became members of the no-treatment control group. Approximately 10% of the control group, however, consisted of inmates who met the program eligibility criteria but were not admitted into the sample pool for technical reasons (e.g., less than 9 months from parole).

## Data Collection

Data were collected on inmates prior to admission, during prison TC treatment, during community TC aftercare treatment, and at follow-up 12 months post release from prison. The current study analysis utilizes the background interview and California Department of Corrections reincarceration record data. The background interview included information on family background, criminal involvement, drug use history, educational background, psychological and medical health status, attitudes toward substance abuse treatment and treatment history. A psychological test battery was administered that included the Beta IQ, the Tennessee Self-Concept Scales, the Beck Depression Inventory, the Symptom Checklist-90 (SCL-90-R), and the Taylor Manifest Anxiety Scale. In addition, the Diagnostic Interview Survey (DIS), a structured psychiatric interview developed to generate DSM-III-R diagnoses, was utilized. The Circumstances, Motivation, Readiness and Suitability Scale (De Leon, Melnick, Kressel, & Jainchill, 1994), a treatment motivation measure, was also included.

Reincarceration information was obtained from the California Department of Corrections computerized data system. Reincarceration outcomes are less ambiguous than incidents of arrest because they include an adjudication process that is more likely to reflect significant criminal behavior. The study included a related outcome measure, “days until first incarceration”, which provided information on relative treatment effectiveness for inmates who were returned to prison. All study subjects had been released from prison for at least 12 months (“period at risk”) before their reincarceration records were reviewed. Reincarceration included returns to prison for either a parole violation, or for

new arrests. Drug and alcohol temporary returns for less than 30 days, known as “dry outs”, were not considered reincarcerations.

### Study groups

Inmates were randomly assigned to an intent-to-treat group and a no-treatment group. At the conclusion of the study five study groups were identified: (a) inmates who volunteered for the in-prison TC program but who were never selected for participation (no-treatment control); (b) inmates who entered the in-prison treatment program but who left prematurely for disciplinary or personal reasons (prison TC drop outs); (c) inmates who completed the in-prison TC but did not choose to parole to the aftercare TC in the community (prison TC treatment completers); (d) inmates who completed the in-prison TC and volunteered to attend the aftercare TC but dropped out in less than three months (aftercare TC treatment drop outs); and, (e) inmates who completed the prison and after TC programs (aftercare TC completers).

The five study groups spent differential amounts of time participating in the prison and/or community aftercare TCs: (1) no-treatment control group (0 days); (2) prison TC drop out group (175 mean days); (3) prison TC completer group who were directly paroled to the community (377 mean days); (4) aftercare TC treatment drop out group (390 prison TC mean days plus 33 aftercare TC mean days); and, (5) aftercare completer group (381 prison TC mean days plus 270 aftercare TC mean days). The study expectation was that increasing amounts of program time would be negatively associated with incidence of reincarceration and positively associated with the number of days until first incarceration.

### Analytic Strategy

To assess treatment effectiveness analyses first tested the overall comparisons between the intent-to-treat and no-treatment groups followed by analyses of differences between the five study groups. Reincarceration rates and the number of days until first reincarceration were analyzed for 12 and 24-month periods of risk. Outcomes for the first 12 months post release were obtained for all 715 subjects; and, 24 month outcomes were obtained for a smaller sub- group of 263 subjects who had been at risk for a minimum of 24 months at the time of record review.

For the prediction analyses, client variables were classified into static and dynamic factors that were similar to the Gendreau et al. (1996) classification of client characteristics that have consistently predicted recidivism. The static and dynamic variables were then independently correlated with reincarceration to identify significant predictors to be included in the multivariate analyses.

The static variables included: (a) age was divided into three categories: less than 25; 26-35; 36 plus); (b) ethnicity was coded into white and nonwhite categories (ethnicity was included although it was not correlated with outcomes); (c) criminal history was coded as a dichotomous variable indicating whether subjects were incarcerated before the age of 18; (d) IQ was used as a measure of intellectual functioning; and (e) history of childhood problems was the number of self-reported childhood behavioral problems. Other categories of static background variables that were not significantly related to recidivism in the current study -- family criminality, family structure, and family social economic status -- were excluded from the analyses.

The dynamic variables consisted of: (a) anti-social personality and criminogenic needs, defined by antisocial DSM-III-R diagnostic criteria, which includes an array of antisocial behaviors; (b) personal distress, an index of three variables (SCL-90-R anxiety subscale and psychosis subscale, and self reported serious lifetime anxiety) (Cronbach alpha = .64); and, (c) social achievement which was assessed by a three category education variable measuring respondent's level of education. Other categories of dynamic background variables that were not significantly related to recidivism in the current study (e.g., anti-social companions and interpersonal conflict) were not included in the analyses.

## Results

### Client Profiles

Table 1 shows profile characteristics for inmates randomly assigned to the intent-to-treat and control groups. The only significant group difference was in educational level where the control group had slightly more subjects who had continued their education beyond the high school level.

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Table 1 About Here

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The inmates at Donovan prison who volunteered for the Amity TC had extensive criminal histories. Table 1 shows that 74% had been arrested before age 18, 55% had been arrested for violence against persons, and 49% had been arrested for weapons charges. As expected, the rate of drug related arrests was high with 80% reporting drug possession arrests and 49% having been arrested for drug sales. Overall, the men had been arrested 27 times and had been incarcerated for a total of about 80 months during their lifetime. Clearly, the sample was at high risk for continued criminality after prison.

Other than alcohol, various forms of stimulant drugs (cocaine, methamphetamine, crack) were the most widely used drugs, taken by 95% of the

inmates surveyed at some time throughout their lives. Almost 60% engaged in intravenous drug use at some time in their lives. In addition, more than three fifths of these men had injected with dirty needles and 25% had shared needles with strangers. Sexual relations were for the most part limited to heterosexual partners (except for 4%) and almost all the inmates (97%) practiced unprotected sex. The inmates were at considerable risk for continued substance abuse and HIV related behaviors after release from prison.

There was considerable prevalence of psychiatric disorders in the study group. As might be expected, over half the group received an Anti-social Personality diagnosis. Of special interest is the considerable number of inmates who had a diagnosis of Adult Attention Hyperactivity Disorder (33%).

### Reincarceration Rates

Figure 1 shows the reincarceration rates after 12 months at risk following release from prison for the intent-to-treat and control groups as well as for the treatment study groups (prison TC drop outs, prison TC treatment completers, aftercare TC treatment drop outs, and aftercare TC completers).

At 12 months post release, the no-treatment control group had significantly (Chi Sq. = 17.828, d.f. = 1,  $p < .0001$ ) greater levels of recidivism to prison than the intent-to-treat group (49.7% vs. 33.9%). The 12-month reincarceration rate was consistently higher for the control group and decreased consistently across the four-treatment study groups. The offenders who completed both the prison and aftercare TCs showed the lowest rate of reincarceration (8.2%).

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Figure 1 About Here

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A possible confound in the 12 month findings is that the aftercare completer group spent almost all their 12 months post prison at risk time in the residential TC aftercare setting. Although they could leave at any time, these clients voluntarily elected to remain in the aftercare program. Nevertheless it could be argued that they were at “less risk” during the 12-month follow-up period than prison TC completers who paroled directly to the community. However, the potential confounding effect of residential status is less a factor in the 24-month outcomes.

Figure 2 shows a pattern of 24-month reincarceration outcomes, which is very similar to the 12-month results. The no-treatment control group had significantly (Chi Sq. = 13.039, d.f. = 1,  $p < .001$ ) greater levels of recidivism to prison than the intent-to-treat group (67.1% vs. 43.3%, receptively). A non-significant reversal occurs for the aftercare TC drop outs, although they still maintained a success rate that was 7% better than the no-treatment control group. The study group

that completed both the prison and aftercare TCs had a very low reincarceration rate of 14% at 24 months which is a full 12 months after completing aftercare TC treatment.

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Figure 2 About Here

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#### Days to Reincarceration

Among the offenders who were returned to prison, there were significantly ( $t(286) = 1.92, p = .05$ ) fewer days to reincarceration for the no-treatment controls compared to the intent-to-treat group (172 mean days vs. 192 mean days, respectively). Table 2 shows the average number of days until reincarceration at 12 months after release from prison. There was a consistent and significant pattern of increasing days to reincarceration across the five study groups. The greatest difference was found for the group that completed aftercare TC treatment compared to the control group. As with the reincarceration rate results, the potential confounding effect of residential aftercare status is less a factor in the 24-month outcomes. Table 2 shows a similar pattern of increasing days to incarceration after 24 months at risk. The group that completed aftercare TC treatment returned to prison 175 days later than the control group.

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Table 2 About Here

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Overall, reincarceration rates and days to reincarceration display a similar pattern of positive results. The full intent-to-treat group revealed significantly more positive effects than the no-treatment controls. And within the treatment sample, post release improvements are generally related to increased treatment involvement. The most favorable outcomes occur in clients who completed both the Prison TC and the Vista aftercare program.

#### Predictors of Reincarceration

Table 3 shows the simple correlations between the static and dynamic variables with reincarceration at 12 months post prison. Logistic regression and multiple regression procedures were employed to examine the relative contribution of client and treatment factors to reincarceration. Logistic regression was used with the dichotomous 12 and 24 month reincarceration variables and ordinary least squares regression (OLS) was used to assess predictors of the number of days until first reincarceration. The client variables were entered into the equations hierarchically, static predictors entered first, followed by the dynamic factors and finally the level of treatment variable (i.e., study groups) was entered. The effects of static and dynamic client variables were assessed both before and after the introduction of treatment.

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Table 3 About Here

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The first set of logistic and OLS regressions focused on comparisons between the controls and the full intent-to-treat group. After controlling for static and dynamic client predictors, participation in the TC program was most related to positive outcomes. At 12 months post prison, the intent-to-treat group had a significantly lower reincarceration rate and the odds ratio was .52 ( $p < .001$ ). Thus, compared to controls, inmates who had any level of participation in the prison TC treatment were 48% less likely to be reincarcerated within 12 months after release to the community. Similar reincarceration findings were found at 24 months post prison with a significant odds ratio of .63 ( $p < .01$ ). Compared to controls TC participants were 37% less likely to be reincarcerated at 24 months following release from prison.

Additional regression analyses were conducted to assess the impact of increasing amounts of treatment (reflected by the four treatment study groups) on the reincarceration outcome measures, while controlling for client background characteristics. Separate regressions examined the relative contribution of each treatment group to outcomes. The control group served as the reference group for each analysis. The 4 sequential levels of treatment included prison TC dropouts, prison TC treatment completers, aftercare TC drop outs, and aftercare TC completers. The results are presented sequentially below for each group.

There were no significant predictors of reincarceration for the prison TC dropout group at either 12 months or 24 months post prison and there were no significant client predictors of outcomes in either the dropouts or the prison TC completers only group.

For the aftercare TC completers, client variables and treatment condition predicted outcomes. Age, criminal history and personal distress were significant 12-month reincarceration predictors after treatment was entered into the equation, and age remained significant after treatment participation was accounted for at 24 months. The OLS regressions yielded similar results for the aftercare completion group on days to first incarceration. Aftercare completion had a positive relation to days until reincarceration after background factors were held constant ( $R^2 = .10$ ,  $p < .01$ ). In addition, only the client factor of age remained significant after treatment effects were controlled for.

The significant relationships between age, criminal history, and personal distress show those older inmates with less severe criminal histories and less personal distress have better post prison outcomes independent of treatment.

However, when these individual predictors are controlled, treatment participation continued to show significant positive impacts on recidivism. An examination of the interactions between age, criminal history, personal distress and treatment participation did not reveal any significant interactions between client characteristics and treatment. However, in all these regressions, completing aftercare remained the largest and most significant predictor of positive outcomes regardless of client contribution.

## Discussion

The overall finding that the group of inmates who were randomly assigned to the treatment condition (intent-to-treat group) had significantly lower recidivism rate than the no-treatment control group provides general empirical support for the effectiveness of prison TC drug treatment. The modest positive outcomes for prison TC completers who did not attend aftercare, indicates that prison TCs alone can produce moderate impacts on recidivism. However, the most impressive outcomes were found for inmates who completed both the prison TC and Aftercare TC and the effects remained significant up to 24 months post prison.

The present reincarceration findings replicate those reported in the earlier Staying 'n Out study in New York, which did not analyze aftercare, and those reported in recent studies of prison TCs with aftercare components. Post release reductions in criminality (and drug use) were obtained for The CREST work release project in Delaware (Inciardi & Lockwood, 1995; Inciardi et al., 1997) and for a prison TC with an aftercare component in Texas (Knight & Simpson, 1996). The Amity, Delaware and Texas studies are not strictly comparable in that their reports focused on different criminal outcome variables. Nevertheless, all three studies report superior effects for groups that had prison plus aftercare.

The Amity-Donovan findings also suggest that prison TC treatment can be effective across a range of criminal populations. Compared to other prison TC studies, the Donovan prison study sample shows higher overall recidivism rates. The differences in recidivism may be related to sample characteristics. A preliminary comparison of the criminal histories found in the California, Delaware and Texas, and original Stay 'n Out study samples indicated greater criminal severity among the Donovan inmates. For example, the total number of lifetime arrests for the Donovan sample averaged 27 versus 10.3 for Delaware, 17 for Texas and 8 for Stay 'n Out. The ages for the four samples were similar, ranging from 29.5 to 35, with the Donovan mean age at 30.5 years. These sample differences in criminal severity across studies provide empirical support for the generality of conclusions concerning the effectiveness of prison TC treatment plus aftercare.

One of the reasons the Amity program performed so well may be the high-risk level of the population it served and its focus on antisocial behavior. Andrews and his colleagues (Andrew & Bonta, 1994; Andrews, Bonta, & Hodge, 1990) have developed the “risk/need/responsivity theory” which states that effective treatment needs to be responsive to “criminogenic needs” -- antisocial attitudes and behaviors in the areas of authority, interpersonal relationships, peers, leisure activities, substance abuse, and work. The “risk principle” states that intensive treatment will primarily benefit offenders at higher risk (e.g., more severe antisocial backgrounds).

With respect to client predictors of reincarceration, the present multivariate results show limited effects of the variables that have consistently been found to relate to recidivism among non-treatment inmate populations (Gendreau, et al., 1996). In part, this may reflect differences in client samples studied. For example, inmates with self identified drug use problems who volunteer for Prison TC treatment may not be representative of inmate populations in general. For these drug-abusing inmates treatment involvement appears to be the main predictor of recidivism, although dynamic client factors are not unimportant.

### Limitations and Caveats

Several limitations in the present study bear on the interpretation of findings. The study design did not randomly assign inmates to the aftercare TC and regular parole conditions. Although the California Department of Corrections did allow random assignment to the prison TC (intent-to-treat group) and regular prison conditions (no-treatment control group), they felt strongly that all program completers should have an opportunity to go to the aftercare TC. Thus, client selection factors may have influenced entry into and/ or completion of the Vista aftercare program.

The self-selection question awaits clarification from a study in progress assessing motivational factors as client predictors of the various treatment conditions. However, preliminary findings showed that higher motivational scores were significantly correlated with choosing any post release treatment, compared to those who did not elect post prison treatments; and, those who chose TC aftercare (Vista) showed small but significantly higher motivational levels than the clients who chose non-TC treatments post prison. Reincarceration rates were lower for the clients in the control and intent-to- treat groups who did enter post release treatments suggesting a general positive effect of post release treatments. However, reductions for Vista completers were nearly 3 times greater than clients in non-Vista treatments.

The motivational findings provide evidence for self-selection across all conditions, controls and the intent-to-treat group. Although Vista clients showed the highest motivation, self selection did not appear to be a major contributor to the large differential effects obtained between Vista and the other study groups. (See De Leon, 1998 and De Leon, Inciardi, & Martin, 1995 for an informative discussion on the role of self selection factors such as motivation in interpreting treatment effectiveness.)

Another limitation is the way in which reincarceration outcomes are drawn from files. Specifically, clients in local jails (not prison) during the post release period would not appear in the reincarceration file data reflecting a possible “time at risk” artifact in the group differences. This question was addressed in the self-reported data, which corroborated the present file results. Total days in jail and/ or prison during the post release period decreased linearly across the study groups.

More generally, although highly important, reincarceration findings are only a part of the Donovan TC evaluation results. Later evaluation reports will describe client psychological and behavioral changes during treatment and their relationship to outcomes. Analyses of outcomes will be expanded to include self-reported crime, substance abuse, employment and other social adjustment outcomes. Special studies will also be reported, such as systematic analyses of motivation and treatment retention.

Notwithstanding these limitations, the Amity-Donovan reincarceration findings are consistent with developing research documenting the effectiveness of prison TC programs for substance abusers. The present studies focus on different levels of treatment involvement underscores the conclusion that prison TC treatment followed by TC oriented community aftercare treatment produces the greatest positive impacts.

#### Implications for Policy and Research

The finding that reincarceration rates decreased and days until first incarceration increased with greater time spent in program is consistent with the well known finding in TC literature that the greater time spent in TC programs (or treatment duration) is related to better outcomes. These findings provide clear support for a comprehensive approach that includes prison TC drug treatment along with integrated community TC aftercare facilities for prison inmates with histories of substance abuse. Both reincarceration and days until first incarceration have important cost avoidance implications that will be provided in future reports.

The replication of highly positive outcome findings related to the combination of prison TC and aftercare TC treatment raises empirical questions concerning the relative impacts of treatment placement and of treatment duration. The next research steps need to systematically vary the length and type of both in prison and aftercare treatment to identify which combinations are the most effective and cost effective for specific groups of offenders.

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Table 1  
Background Characteristics of Intent-to-Treat and No-Treatment Control Groups

Variable Name	Total Sample (N=715) %	All Prison TC Admissions (n=425) %	Control Group (n=290) %	p Value*
Age (Mean/SD)	30.9 (7.4)	31.2 (7.7)	30.5 (7.1)	n.s.
Ethnicity				
African-American	22.4	22.9	21.6	n.s.
White	37.8	39.5	35.3	
Hispanic	30.1	28.4	32.5	
Other	9.7	9.2	10.6	
Education				
<HS Diploma	42.2	42.8	41.4	.03
HS Diploma Only	53.0	54.1	51.4	
> HS Diploma	4.8	3.0	7.2	
Marital Status				
Married/Living Partner	39.2	37.6	41.4	n.s.
Separated/Divorced/Widowed	20.6	21.3	19.9	
Never Married	40.3	41.1	38.7	
Employment				
Last Twelve Mo. 34.5	34.0	35.3	n.s.	
Criminality in Lifetime				
Lifetime Arrests	26.7 (61)	27.2 (57.9)	25.7 (65.5)	n.s.
Lifetime Mo. Incarcerated	80.0 (64.1)	82.7 (65.2)	77.1 (63)	n.s.
Lifetime Drugs/Alcohol				
Illegal Use	100.0	100.0	100.0	n.s.
Lifetime AIDS Risk				
Injected Drugs	57.3	54.0	55.7	n.s.
>50% Unsafe Sex 97.1	96.3	98.3		
Psychiatric Diagnoses				
Anti-Social Personality	51.5	51.6	51.3	n.s.
Phobias	17.2	17.5	16.8	n.s.
Post Traumatic Stress	14.5	14.7	14.0	n.s.
Depression	10.1	9.2	11.2	n.s.
Dysthymia	6.9	5.7	8.5	n.s.

\* p value refers to chi square for percentages and t-test mean differences.

Table 2

## Days Until Reincarceration at 12 and 24 Months Post Release

Comparison Groups	N	Mean Days	SD
<b>12 Months at Risk</b>			
No-treatment	144	171.88	88.63
Prison TC Drop Outs	44	173.05	79.31
Prison TC Completers	78	190.36	88.79
Aftercare Drop Outs	14	211.29	89.12
Aftercare Completers	8	274.25	68.62
Statistic	$F=3.437$		
Significance	$p<.01$		
<b>24 Months at Risk</b>			
No-treatment	57	216.44	138.21
Prison TC Drop Outs	23	234.39	172.56
Prison TC Completers	39	253.74	155.13
Aftercare Drop Outs	9	333.33	188.00
Aftercare Completers	6	391.17	206.61
Statistic	$F=2.575$		
Significance	$p<.05$		

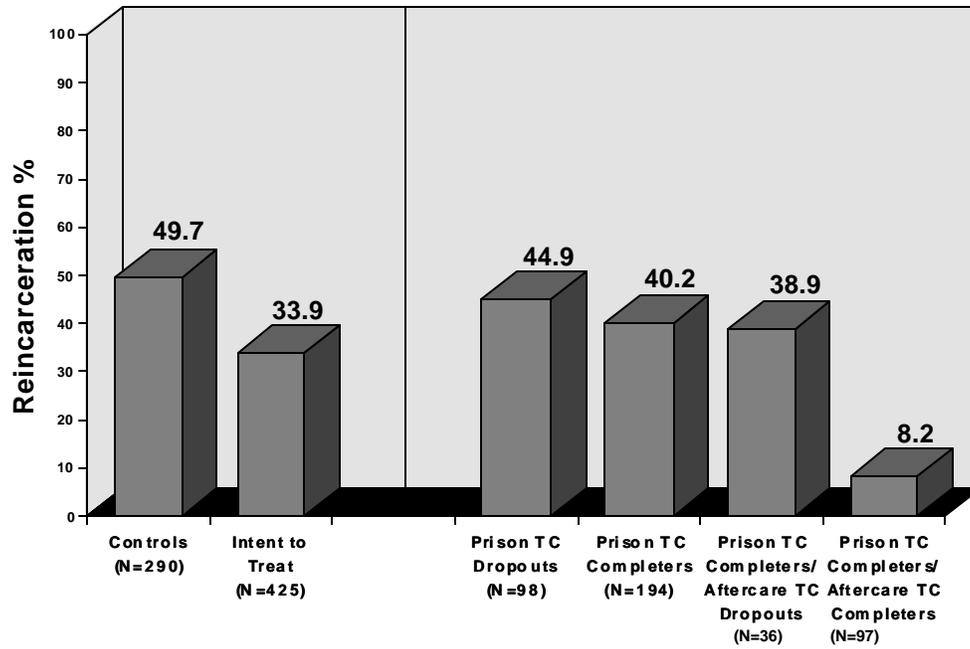
Table 3

## Simple Correlations Between Static and Dynamic Variables with Recidivism

Predictors	Incarceration at 12 Months (N=715) <u>r</u>	Incarceration at 24 Months (n=263) <u>r</u>	Days Until Incarceration at 12 Months (n=288) <u>r</u>
Static Variables			
Age	-.16**	-.16**	.10*
Ethnicity	.00	.05	.03
Criminal History	.08*	.04	-.09
IQ	.09*	-.07	.08
Childhood Problems	.07	.10*	.05
Dynamic Variables			
Antisocial Personality	.04	.00	-.13**
Personal Distress	.02	.00	.11*
Social Achievement	-.02	.06	-.15*

\* $p < .05$ . \*\* $p < .01$ .

**Figure 1**  
**Outcomes at 12 Months:**  
**Reincarceration (N=715)**



**Figure 2**  
**Outcomes at 24 Months:**  
**Reincarceration (N=263)**

