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A PROCESS EVALUATION OF THE TEXAS YOUTH COMMISSION'S CHEMICAL DEPENDENCY TREATMENT PROGRAM*

Final Report

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ABSTRACT

Despite the critical importance of process evaluations to enhancing the efficiency and effectiveness of chemical dependency treatment programs, systematic empirical attention to process-related dimensions of treatment programming has been largely neglected. This neglect is unfortunate, not least because successful completion of programs generally is viewed as a necessary precursor to treatment success (e.g., reduced dependency or recidivism). Using data collected on youthful offenders with chemical dependency treatment needs in the Texas Youth Commission (TYC), this report provides a systematic and empirical process evaluation of factors associated with successful program progress in TYC's Chemical Dependency Treatment Program (CDTP). Analyses focus on appropriate program placement and whether and to what extent risk, dynamic/criminogenic need, and treatment amenability factors are related to several key measures of program progress, including completion/expulsion, days to completion, days to expulsion, performance in treatment (e.g., understanding addiction and its impacts), and behavior infractions, as well as to variations in select outcomes across each of five treatment sites. Results indicate both that individual-level risk, need, and amenability factors are largely unrelated to various measures of program progress and that site variation in these measures is considerable. It is recommended that greater attention be given to multi-dimensional assessment of program delivery and progress within and across sites and that ongoing process evaluations be implemented to monitor and improve program delivery and impacts. Additional findings and program, policy, and research implications are discussed.

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INTRODUCTION

When discussing criminal and juvenile justice programs and policies, citizens and policymakers frequently are interested in the "bottom line" – that is, what works? This focus frequently is translated as, "Does this program or policy reduce crime?" The question is without doubt critical to policy evaluation, yet it neglects the fact that for programs or policies to have an effect they must successfully reach and affect a target population. Indeed, for a program to "work," it must effectively select participants who are appropriate for it and then, given that these participants have been selected, successfully "treat" and "graduate" them. Process evaluations are uniquely suited to provide such information (Rossi, Freeman, and Lipsey 1999). In the context of chemical dependency treatment programs, we unfortunately have few systematic empirical or statistical analyses of factors associated with successful program progress and treatment. This situation is unfortunate both because of the well-established link between substance use/abuse and offending (Tonry and Wilson 1990; Crowe 1998) and because of the cost and scarcity of chemical dependency treatment resources. Moreover, if illicit drug use by juveniles continues to increase in the U.S. (Snyder and Sickmund 1999:74), there will be a corresponding increase in the demand for effective drug treatment initiatives. Thus, there is a compelling need to evaluate the efficiency and effectiveness of current chemical dependency treatment programs aimed at youthful offenders (Anglin and Hser 1990; Wilson 1990).

Taking these observations as a point of departure, the primary goal of this process evaluation is to illuminate the "black box" of chemical dependency treatment programs in a state juvenile justice agency by systematically and empirically examining appropriate program placement and whether and to what extent risk, dynamic/criminogenic need, and treatment amenability factors are related to several key measures of program progress. These measures include: completion/expulsion, days to completion, days to expulsion, performance in treatment (e.g., understanding addiction and its impacts), and behavior infractions. Performance here is measured through the use of an exit assessment conducted by program staff (see Appendix A), which essentially provides a report card summarizing each youth's involvement and progress in treatment. Given the potential importance of across-site differences in program implementation as well as program characteristics (Farabee et al. 1999), systematic attention also is given to variation across treatment sites in the process outcomes.

Data for these analyses were obtained from the Texas Youth Commission (TYC), the state corrections agency responsible for serving violent and serious delinquent youth committed to the custody of the state. TYC operates secure institutions, community-based residential half-way house programs, secure community-based residential and non-residential treatment services, and supervises parole releasees. Underlying all of these programs and services is the Resocialization Program, which is the primary programmatic strategy of correctional treatment at TYC. In addition to this focus, however, is a focus on the specialized psychological and emotional needs of youths. Chemical dependency in particular constitutes a core area of concern to TYC, which is reflected in the substantial investment it has made to treatment. Specifically, TYC administers

a Chemical Dependency Treatment Program (CDTP), operative at five sites in 1998 and at three more sites that came on-line in 1999. The CDTP focuses on high-need youths and emphasizes the role of drugs and alcohol in the lives of the youths and of others, including family members and society at large.

By systematically examining the relationship between a wide range of risk, need, and amenability factors and several key measures of program progress, this process evaluation will provide several benefits. First, it will provide information on whether and to what extent the youths placed in treatment are appropriate for chemical dependency services. Second, it will assess the predictive utility of classification and assessment strategies and measures. Third, it will identify a range of offender and site characteristics that are related to successful program progress – that is, it will identify offenders who are more and less appropriate for chemical dependency treatment as currently provided by TYC and it will identify site characteristics that affect program progress. Fourth, it will illustrate the need for greater attention to empirically-based process evaluations that encompass a broad array of process outcomes and that can be linked to longer-term outcome evaluations. These benefits combined provide a systematic, empirical, and statistical basis for enhancing the effective use of scarce treatment resources by enabling TYC to determine which offenders are most appropriate for, and most likely to successfully complete, the CDTP as it is administered in each of five sites, and by identifying potential organizational challenges to administering a treatment program at multiple sites.

It should be emphasized that this process evaluation will be followed by an outcome evaluation (to be completed in 2000) that will systematically examine a wide range of outcomes, including rearrest, reincarceration, parole violations, drug test results, and aftercare treatment participation, and which will employ much of the data and information from the present process evaluation. Both the process and outcome evaluations have been funded through the National Institute of Justice (NIJ) and have involved ongoing collaborative efforts between the Center for Criminology and Criminal Justice Research (CCCJR) and TYC.

This report is organized as follows. First, a brief review of substance abuse treatment in the juvenile justice system is provided. Second, this review is followed by discussion of the importance of process evaluations in assessing programs. Third, the TYC treatment program is discussed in more detail. Fourth, the current study is described. Fifth, the central research questions addressed in this study are outlined. Sixth, the data and methods employed in this report are detailed. Seventh, key findings are presented and discussed, with particular attention given to variation in the usefulness of certain risk and need factors for predicting various process outcomes, as well as to variation across treatment sites. Finally, the central conclusions and recommendations from this study are presented.

SUBSTANCE ABUSE TREATMENT IN THE JUVENILE JUSTICE SYSTEM

Substance abuse has emerged as one of the most prominent and critical issues the juvenile justice system has had to address in recent years (Crowe 1998). Researchers have, for example, demonstrated strong, if frequently complex, links between substance abuse and delinquency (Andrews et al. 1990; Tonry and Wilson 1990; Fabiano et al. 1991; Hawkins et al. 1992; Andrews and Bonta 1994; Bonta 1996; Clements 1996; Gendreau 1996; Harland 1996; Inciardi et al. 1997; Lauen 1997; Farabee et al. 1999; McBride et al. 1999). Research also indicates that substance abuse can impair youth development along many dimensions, including not only delinquent activity but also academic performance, physical and mental health, peer involvement, and family (dys)function (Crowe 1998:1-8). Given recent increases in illicit drug use by juveniles (Snyder and Sickmund 1999:74-76), as well as the juvenile justice system's historical mandate to rehabilitate juveniles (Feld 1998, 1999), these wide-ranging impacts reinforce the importance of taking a broad view of program effectiveness. Indeed, substance abuse programs arguably should be evaluated on the basis of their ability to impact outcomes in each of the aforementioned domains and not simply delinquency. This view in turn suggests the importance that should be given to identifying which youths successfully complete programs and why.

THE IMPORTANCE OF PROCESS EVALUATIONS

One critical means of achieving long-term program success – in the sense of achieving various outcome goals – involves illuminating the "black box" of program operations (Berk and Rossi 1990; Chambers, Wedel, and Rodwell 1992; Wholey, Hatry, and Newcomer 1994; Rossi, Freeman, and Lipsey 1999). Unfortunately, attention rarely is given to this issue and instead too often is given to a narrowly construed "bottom-line" focus on outcomes. The consequence is that a circumscribed understanding of program success, and how that success is achieved, is encouraged (Scheirer 1994). In addition, regardless of the level of success, there is little understanding about whether that success could be significantly improved through relatively little marginal effort or cost. For example, it may be that certain youths could more easily complete substance abuse treatment through minor changes to program operations, resulting in an increased probability that treatment will have the desired effect(s).

As highlighted above, substance abuse treatment increasingly is a pressing need that juvenile justice systems are being called on to address. As the pressure has built, efforts have been made to implement established or new instruments or criteria for classifying who should receive treatment. Nonetheless, it remains the case that limited criteria frequently are used, or, alternatively, that more comprehensive, and potentially better validated instruments are used but without clear understanding about how they should be interpreted or utilized (Howell 1995; Farabee et al. 1999).

Even assuming accurate classification of high needs youths, relatively little is known about which such youths do better in treatment or what program characteristics are linked to program success. In this regard Tonry (1990:3) has written: "Next to nothing is known about criteria for matching drug abusers to the treatment programs most likely to benefit them, and only a little is known about the program characteristics that make one drug-treatment program more successful than another of the same type." Addressing such concerns directly, Farabee et al. (1999) recently identified several critical issues that can severely impact correctional drug treatment outcomes, including: effective client identification, assessment, and referral; recruitment and training of treatment staff; and staff turnover. As critical as such issues may be, they are but part of a range of process-related issues that can affect any program (see, generally, Chambers, Wedel, and Rodwell 1992; Wholey, Hatry, and Newcomer 1994; Rossi, Freeman, and Lipsey 1999). Other types of issues can include how a program is implemented, how it is operated on a day-to-day basis, as well as how various factors impede or facilitate program delivery.

Clearly, one of the most critical aspects of successful programming involves determining whether participants are appropriate for treatment. For substance abuse treatment in the juvenile justice system, there currently are a wide variety of instruments that have been created to identify youths who need treatment (see, e.g., Howell 1995; Cocozza 1997; Inciardi 1997). There remains, however, a need for more research on risk classification and appropriateness or readiness for treatment. As importantly, there is a considerable need for understanding factors associated with successful program progress and impact. For example, upon entering treatment, which youths are likely to complete treatment or complete it quickly? Conversely, which youths are more likely to drop out, be expelled, or to complete the program only after an extended period of time? In addition, which youths evidence the most behavioral problems

during treatment? Which youths not only complete treatment but also evidence the most change or benefit and why? Which youths appear to most benefit from treatment in the sense of fulfilling specific treatment objectives (e.g., understanding the treatment curriculum, acknowledging the impacts of addiction)? Is fulfillment of specific program objectives linked to successful program completion? And, not least, to what extent do programming or organizational differences across treatment sites affect program progress and impact?

Answers to such questions provide an ability to better tailor programs not only to those who might most benefit from them but to those who are most likely to successfully complete them. They also provide the opportunity for a broader, and potentially more appropriate, basis for assessing the impact of a program. Finally, answers to these kinds of questions generate greater understanding into how a program ultimately is linked to longer-term outcomes, such as post-release recidivism. It is for these reasons that the present research project, described in detail below, was undertaken.

TYC'S CHEMICAL DEPENDENCY TREATMENT PROGRAM

The Texas Youth Commission is the corrections agency responsible for incarcerating and addressing the needs of serious and violent delinquent youths ("students") committed to the custody of the state of Texas. TYC's mission includes the following objectives:

- protection – to protect the public and control the commission of unlawful acts by youth committed to the agency by confining them under conditions that focus on their positive development, accountability for their conduct and discipline training;

- productivity – to habilitate youth committed to the agency to become productive and responsible citizens through education and productive work;

- prevention – to study problems of juvenile delinquency, focus public attention on special solutions for problems, and assist in developing, strengthening, and coordinating programs aimed at preventing delinquency;

- rehabilitation – to rehabilitate and re-establish in society youth committed to the agency through a competency-based program of resocialization.

A primary component of TYC's correctional effort is offender rehabilitation. TYC's rehabilitation goal, as described in the TYC 1997-2001 Strategic Plan, is to reduce the delinquent and criminal behavior of youth committed to TYC. The Plan incorporates three strategies for accomplishing the rehabilitation goals of the agency: correctional treatment, specialized correctional treatment, and aftercare services. TYC's Resocialization Program is the key programmatic strategy of correctional treatment. This program is based on TYC's four "cornerstones": correctional therapy, education, discipline training, and work. A central premise of this approach is that effective resocialization ultimately is linked to developing both a desire for change and an understanding of how to change.

Many youths at TYC require specialized treatment that addresses underlying psychological, emotional, personality, or chemical dependency needs (Criminal Justice Policy Council 1999). While TYC's specialized treatment efforts focus on a variety of psychological and emotional needs, of primary concern is chemical dependency. An ever-growing research literature, which has established the link, albeit complex, between chemical dependency and offending (Tonry and Wilson 1990), confirms the need for such an emphasis. Moreover, research has consistently documented the fact that chemical dependency can constitute a substantial barrier to successful rehabilitation (Gendreau 1996; Lauen 1997). TYC thus has developed a Chemical Dependency Treatment Program (CDTP) grounded in a cognitive, social learning-based approach that incorporates the treatment modalities researchers have identified as effective for the treatment of substance abuse/chemical dependency (e.g., Andrews et al. 1990; Fabiano et al. 1991; Hawkins et al. 1992; Andrews and Bonta 1994; Bonta 1996; Gendreau 1996; Harland 1996; Inciardi 1997; Lauen 1997; Farabee et al. 1999). The TYC-CDTP, which is operated through five sites (Giddings State School, Evins Juvenile Facility, Jefferson County, Gainesville, and McFadden Ranch; several others were added in 1999), currently is funded in part through the U.S.

Department of Justice Residential Substance Abuse Treatment (RSAT) program. The capacity of the TYC-CDTP, at the time of this study, was 313.

The TYC-CDTP utilizes standard risk and needs assessments and incorporates some principles of responsivity (Simourd and Andrews 1994; Gendreau 1996; Lauen 1997). A primary emphasis of the CDTP is the Resocialization Program, with a particular focus on the role and impact of alcohol and drugs in the lives of participants. Resocialization Program components include:

- the relationship between low self-esteem and criminal offending
- learning the special needs of other group members via Life Stories
- reviewing their offending behavior (Offense Cycle) with particular emphasis on CD issues
- victim empathy
- family and other significant group relations
- development of cognitive skills (e.g., problem solving)
- developing appropriate modes of expression
- introduction to the 12-Step concept with particular emphasis on steps 1, 2 and 3
- developing a Relapse Prevention Plan
- developing a Criminal Recidivism Plan.

Program characteristics, as described by TYC, include:

- caseworker-to-student ratio of 1:8 to 1:10
- individualized focus on each student's history and needs
- optimal exposure to treatment (eight months, as identified by TYC)
- a focus on the relationship between CD and criminal behavior
- group counseling and peer accountability
- educational curriculum that is experiential and geared to learning abilities of students
- emphasis on relapse prevention and community re-integration
- experienced, licensed treatment staff who model substance-free life styles
- focus on development of cognitive skills
- team effort by dorm and treatment staff.

All youths who enter TYC are initially screened through the Marlin Orientation and Assessment Unit (OAU). The average length of stay during screening is 45 to 60 days (Criminal Justice Policy Council 1999:2). Based on the results of a battery of assessments and tests, a sub-population of youths is determined to have substance use/abuse needs. The chemical dependency (CD) screening is conducted by a licensed Chemical Dependency Counselor. A component of this screening is the application of the Substance Abuse Subtle Screening Inventory (SASSI). A psychologist and/or a psychiatrist then reviews the screening and incorporates the results into a psychological evaluation that in turn is used to determine entry into the chemical dependency treatment program. Additional criteria include the use of a risk index comprised of a juvenile's previous number of felony referrals and adjudications, and an amenability index comprised of number of prior placements, evidence of need-related behavior, readiness to change, and general behavioral and cognitive functioning. High risk and high amenability youths are given priority for treatment. Actual placement decisions are made by the

Central Placement Unit (CPU) and are based on several factors, including: the assessments and treatment recommendations made by OAU; available CD treatment bed space; the youth's appropriateness for a non-secure or secure facility; distance from a youth's hometown and the nearest treatment facility; and site director preferences, especially regarding placement of youths who reside nearby a facility. Additional factors include the remaining length of stay for each youth and phase of resocialization achieved.

Youths who receive treatment average 5.2 months in TYC before admission to the CDTP, and average 3.8 months in TYC after release (Criminal Justice Policy Council 1999:16). Upon admission to CD treatment, a diagnostic summary is used to develop an individual treatment plan. The focus of the individual treatment plan, which is revised throughout treatment, is the student's specialized needs, including consideration of family, social, medical, psychological, legal, educational/school, vocational, sexual, spiritual, and cultural factors. After developing a treatment plan, a program orientation then is conducted that details expectations and standards for treatment progress. This treatment plan occurs within a common daily structure in which all students adhere to a mandated sixteen-hour per day schedule consisting, weekly, of five hours of CD education, five hours of group therapy, and one hour of individual counseling.

Completion of treatment is based upon successfully accomplishing all treatment objectives. Failure to complete CD treatment is reported to typically be a result of significant emotional and/or behavioral problems. Among those who complete treatment, an exit interview is conducted during which students are required to demonstrate the knowledge and skills necessary to remain substance-free. After completing treatment, nearly all CD students receive aftercare services, which may include a halfway house, independent living, and/or contract aftercare services.

As a prelude to the analyses and discussions that follow, it should be emphasized that although TYC has adopted a cognitive, social learning-based approach to chemical dependency treatment, the different sites are reported to exercise considerable discretion in how this approach is implemented. Moreover, site directors are able to affect the composition of their CD treatment population by requesting that youths from certain areas be sent there. For example, the Evins facility focuses primarily on youths from "the Valley" (i.e., the Rio Grande Valley in southern Texas), which is an area predominantly comprised of immigrant and Hispanic populations; not surprisingly, 76% of youths at Evins are Hispanic. By contrast, youths from central Texas, and especially near the Dallas/Fort Worth "Metroplex," tend to be placed at Gainesville, whereas youths from the eastern part of Texas typically are sent to the treatment program at Jefferson. These preferences appear to be driven in part by considerations of location; for instance, it may be preferable to have youths located in treatment facilities near where they live, so as to promote continuity of services upon release (e.g., by continuing to see the same contract treatment counselors). They also appear to be driven by consideration of cultural factors (e.g., a youth's primary language, the part of the state from which he or she comes), which may have direct bearing on treatment programming. However, and as will be discussed at more length below and in the conclusion, it remains unclear at present exactly how TYC individualizes treatment for youths both at the assessment stage and at each of the treatment sites.

THE CURRENT STUDY

As is the case with most if not all juvenile and criminal justice rehabilitative programs, treatment resources are scarce (Crowe 1998). This scarcity is all the more important given the considerable demand for specialized programming. For example, the Texas Youth Commission has estimated – based on assessment data from the Marlin Orientation and Assessment Unit – that its current chemical dependency treatment resources can only serve approximately 40% of those committed youth who are in need of such treatment. For example, in 1998, of the 1,469 released youths who exhibited a need for chemical dependency treatment, only 564 (38%) received any (Criminal Justice Policy Council 1999:12). It is notable, therefore, that even with the expansion of TYC's chemical dependency resources through the use of federal RSAT-CDTP funding, TYC still is only able to provide services to approximately 50% of those currently in need of substance abuse and chemical dependency treatment.

The scarcity and cost of substance abuse/chemical dependency treatment resources requires juvenile and criminal justice agencies to address the question of program effectiveness. Whether money is spent on in-prison therapeutic programs, diversion programs (e.g., drug courts), or treatment while under community supervision, the overriding questions are: What works (which programs or program components)? Under what conditions does it work? For whom does it work? And how can we construct or configure the most efficient and cost-effective treatment programs? It is these questions that this proposed program of research will begin to address with regard to current and enhanced substance abuse/chemical dependency treatment at TYC.

The primary focus of the current research is in assessing the relationship between baseline characteristics/predictors and program progress. The design incorporates a variety of baseline assessment measures (demographic factors, criminal history, dynamic/criminogenic needs, substance abuse/chemical dependency assessments, psychological functioning, amenability to change/treatment, etc.). A subset of these measures are traditional static indicators of risk, used for risk assessment and classification (variations based on the Salient Factor Score and the Wisconsin risk and needs assessment instruments). (The present study relies on assessment instruments currently utilized by TYC; thus, there is no attempt to assess the relative utility of these instruments against those that arguably might be viewed as more appropriate for youths – see, e.g., Howell 1995.) Other measures identify dynamic/criminogenic specialized needs (Hester and Miller 1995; Gendreau 1996; Lauen 1997). Still others are used to assess treatment amenability, motivation, and readiness. These three classes of indicators – risk, dynamic/criminogenic needs, and treatment amenability – are utilized to obtain baseline or pre-intervention measures for use in identifying characteristics of juveniles who are appropriate for treatment and who successfully complete treatment. In this context, it bears noting that TYC currently provides no systematic assessment of how accurately youths' individualized plans reflect their actual needs, or of how well these individualized needs are addressed through treatment programming. Thus, the present study provides a timely attempt to assess this issue, in however preliminary a manner, and to illustrate the importance of such assessments to examining program effectiveness. It does so by providing a systematic and empirical process evaluation of TYC's Chemical Dependency Treatment program and, more specifically, by focusing on youths who received treatment during 1998-1999 at any of TYC's five CDTP sites (Giddings State School, Evins Juvenile Facility, Jefferson, Gainesville, and McFadden Ranch).

Before proceeding, and to provide a comparative context for other state-level studies, a brief description of the youths in the present study is warranted. It should be noted first that youths in Texas who commit delinquent or criminal acts do not come under the jurisdiction of the juvenile justice system unless they are aged 10 through 16; however, youths who are committed to TYC can be incarcerated there until age 21 (Dawson 1996). These jurisdictional boundaries aside, the typical TYC-CDTP participant was a Hispanic youth, aged 17.5, with parents who were either divorced/separated or never married. The vast majority (75%) of youths completed the program. Two-thirds were classified as non-violent offenders and one-third were classified as violent offenders. Most youths were classified as being either of medium (45%) or high (39%) risk. With respect to chemical dependency needs, youths overwhelming were classified as having a drug dependency problem, with an equal proportion having either medium or high amenability to treatment. Finally, youths were unevenly distributed across treatment sites, with a low of 5% (McFadden) and a high of 36% (Gainesville).

RESEARCH QUESTIONS

The broad-based research goal of this study is to provide a systematic and empirical process evaluation of appropriate program placement and whether and to what extent select individual-level factors are related to several key measures of program progress, as well as to variations in several process outcomes across each of five treatment sites. This goal and the attendant research design (discussed below) afford a unique opportunity to systematically and statistically address the following questions.

- What is the relationship between risk assessment and program progress? That is, is there variation in program progress by risk classification? Are there particular risk levels for which program progress is more or less successful and/or appropriate?

- What is the relationship between dynamic/criminogenic needs and program progress? That is, is there variation in program progress by type of need? Are there particular types of needs for which programming is more successful and/or appropriate?

- What is the relationship between treatment amenability and program progress? That is, is there variation in program progress by level of treatment amenability? Are there particular levels of treatment amenability for which program progress are more or less successful and/or appropriate?

- Are there variations in program progress across treatment sites and, if so, why?

DATA

TYC collects a range of information on the risk, needs, and treatment amenability of its youths. These different sources of information are referred to collectively by TYC as the Resocialization Decision Matrix. This information, which will be used in the subsequent analyses, is discussed below. Data for the analyses are for juveniles who entered the CDTP from January through October 1998, and who were discharged by April 1, 1999. The treatment group consists of 406 youths. The control group consists of 456 youths who were eligible for treatment in the CDTP during this same time period but who did not receive it due to limited CDTP bed space. The control group is not used in this process evaluation, but is however a deliverable for this project since it is a fundamental part of the subsequent outcome evaluation. All treatment group analyses involve youths who invariably have a high need for chemical dependency treatment. Thus, because of the consequent lack of variation in the need for chemical dependency treatment, this variable is not included in the predictive analyses presented and discussed below. Also, because many assessment variables (e.g., SASSI) were provided by TYC with classifications already made (i.e., not the raw scores), these classification categories, rather than more detailed item or scale-specific scores, are used in the analyses. In the discussion below, brief descriptions of key variables are provided.

Dependent Variables (Process Outcomes)

There are five core dependent variables that will be used in the following analyses. (An additional process outcome that serves both as a dependent and independent variable is discussed further below.)

Program completion:	Dichotomous outcome for whether the youth completed the program or not.
Program expulsion:	Dichotomous outcome for whether the youth was or was not expelled from the program.
Days to completion:	Number of days from time of program entry to time of successful completion.
Days to expulsion:	Number of days from time of program entry to time of expulsion.
No. behavior infractions:	Number of behavior infractions between time of program entry and time of completion or expulsion.

Dependent and Independent Variable: Performance

An exit assessment was created by the PI to provide a multi-dimensional report card of youth performance in the treatment program (see Appendix A). The primary goal was to measure variation among participants that completed treatment (i.e., some completers likely performed better in treatment than others). Without such a measure, all completers would be considered as equivalent. The assessments were completed by program staff and provide a unique opportunity

to obtain a more textured understanding of short-term impacts as well as how some of these impacts may affect program completion vs. expulsion and days to completion or expulsion. Thus, the assessment serves both as a dependent and independent variable in the subsequent analyses. Principal components analysis (PCA) yielded one component – termed here a "performance index" – for which each of the exit assessment items loaded highly. (Manual creation of a similar index from the composite items yielded a similarly validated index, based on examination of tests of internal reliability, including Cronbach's alpha.)

Overall participation:	Overall level of youth's participation (1=very passive, 5=very active).
Understand curriculum:	Youth's understanding of the CDTP curriculum materials (1=very poor, 5=very good).
Understand addiction:	Youth understood how his behavior, thinking errors, and choices are related to addiction (1=not at all, 4=completely).
Seek help:	Youth attempted to actively seek help while in TYC (1=not at all, 4=strongly).
Acknowledge addiction:	Youth accepted that substance abuse interfered with his life (1=not at all, 4=strongly).
Acknowledge impact:	Youth acknowledged that his substance abuse affects others (1=not at all, 4=completely).
Performance grade:	overall performance ("grade") in CDTP (1=A, 5=F).
Commit to be drug-free:	Youth committed to be drug-free for one year (1=not at all likely, 4=very likely).
Family involvement:	Youth's family's involvement (1=not at all, 4=strong).
Special circumstances:	Special circumstances affecting youth's CDTP performance (1=yes, 0=no), with specific circumstances listed by staff.
Performance index:	A composite scale created using principal components analysis and based on the nine closed-ended exit assessment questions (i.e., excluding the "special circumstances" question). The PCA yielded one factor (eigenvalue 6.54) with an eigenvalue over 1.0. The resulting PCA scores are standardized with a mean of 0.

Demographics

Race:	Black, Hispanic, and non-Hispanic white.

Age:	Age of TYC youth, ranging from 10 to 21.
Parent's marital status:	Never married, married, divorced/separated, and other.
Gender:	Only 5 females entered CD treatment during the time period of this study. Due to this small number, females are omitted from this analysis. It is important to point out however, that this small number of females entering treatment is a source of concern and warrants investigation.

Risk Factors

Classifying offense:	TYC employs the following scheme for classifying youths: violent A or B (serious and violent offenders); controlled substance dealer; chronic serious offender; firearms offender; general offender; and sentenced offender (i.e., youths committed to TYC under determinate sentencing, which can involve any of a wide range of serious and violent offenses, including criminal solicitation and habitual felony conduct). These classifications result in specific minimum lengths-of-stays at TYC, with the general offender category being the shortest (9 months).
Offender class:	TYC also employs a similar but simplified classification scheme: non-violent offender; violent offender; and chronic serious offender.
Risk level:	TYC uses risk level in part to determine priority for CD treatment. It is based on a composite risk score, which is equal to a youth's number of previous referrals (maximum of four) and previous adjudications. Scores of 0-2 = low, 3-4 = medium, and 5+ = high.
No. felony referrals:	Number of previous felony referrals.
No. felony adjudications:	Number of previous felony adjudications.
No. prev. TYC commit.:	Number of previous TYC commitments.
No. parole revocations:	Number of previous parole revocations.

Dynamic Needs

SASSI:	The Substance Abuse Subtle Screening Inventory (SASSI) is TYC's primary substance abuse screening instrument, and is used in assisting clinicians to determine whether CD treatment is needed. It is brief, objective, can be scored by non-professionals,

can accurately classify substance abusers who are resistant to detection (regardless of sex, socioeconomic status, or drug of choice), and has been validated. TYC uses SASSI to classify youths into three categories: non-abuse; dependency; abuse.

DSM-IV CD tx need: TYC uses the Diagnostic Statistical Manual IV to obtain clinical assessments, which then are rank ordered in terms of severity: history of chemical use (low); diagnosis of chemical abuse (medium); diagnosis of chemical dependency disorder (high).

Treatment Amenability

TYC tx amenability score: TYC categorization of treatment amenability into (1) low, (2) medium, and (3) high amenability, is based on combined scores from six areas (prior placements, frequency of delinquent behavior related to specialized need, duration of delinquent behavior pattern related to specialized need, motivation, intellectual and cognitive functioning, and general functioning). For each area, the scoring possibilities range from 0, which corresponds to evidence of a potential lack of amenability, to 2, which corresponds to evidence of a potential amenability to treatment. While the amenability index is not a standardized assessment instrument, it is based on counselor/therapist experience in treating youthful offenders. This variable is used only as an independent variable.

SOCRATES: Stages of Change Readiness and Treatment Eagerness Scale (SOCRATES, version 8) is a readiness/motivation instrument specific to alcohol and drug abuse; it yields scale scores that correspond to the conceptual stages of change developed and described by Prochaska and DiClemente (1982). Psychometric analyses have established the internal consistency and test-/re-test reliability of the instrument (Miller 1994). Version 8 employs a 19-item scale based on factor analyses with previous versions of SOCRATES; it relies on those items from the original 39 items that most strongly marked each factor. There are three factorially-derived scales for both alcohol and drug abuse: Recognition, Ambivalence, and Taking Steps. Pre- and post-tests allow change scores to be created for later analyses (i.e., alcohol Recognition, Ambivalence, and alcohol Steps change scores; drug Recognition, drug Ambivalence, and drug Steps change scores). Guidelines for interpretation of SOCRATES-8 scores come from Miller (1995). Scores provide information about whether a client's scores are "low, average, or high relative to people already seeking treatment for alcohol problems." For Recognition, a score of 7-26 is very low, 27-30 is low, 31-33 is

medium, and 34-35 is high. For Ambivalence, a score of 4-8 is very low, 9-13 is low, 14-15 is medium, 16-17 is high, and 18-20 is very high. For Taking Steps, a score of 8-25 is very low, 26-30 is low, 31-33 is medium, 34-36 is high, and 37-40 is very high. It is important to note that SOCRATES was developed for an adult population, thus there may be important validation issues concerning its use with a juvenile population.

Five CDTP Sites — Giddings State School, Evins Juvenile Facility, Jefferson County, Gainesville, and McFadden Ranch.

Several additional points concerning the data should be mentioned. First, as noted in the interim progress report, the original start date for the TYC-RSAT program was September 1997. However, because of programming delays at TYC, the RSAT program did not begin accepting youths until January 1998. The delay in launching the program in turn delayed completion of this process evaluation by approximately eight months to ensure an adequate sample size. This delay was further extended by additional problems in the creation of the database (see below).

Second, this evaluation encompasses all chemical dependency treatment participants during the period of this study, not just a subset that would correspond to those funded through the RSAT program. In fact, it is impossible to differentiate RSAT from non-RSAT beds at TYC.

Third, and as noted in the interim report, TYC staff constraints, along with a substantial increase in TYC commitments, led to a reassessment of the scope of the project to relieve the burden on TYC while still achieving the broader research goals. This reassessment led to elimination of several measures (see interim report) as well as to an agreement to collect, for both the treatment and control groups, TYC Resocialization Index data, including risk, needs, and amenability, and SOCRATES pre- and post-tests. Unfortunately, TYC was unable to provide systematic pre- or post-testing for treatment and control group youths (see Appendix B), thus limiting our ability to rigorously evaluate the effect of treatment amenability on program progress or the effect of the CDTP on treatment impact (as measured by changes in SOCRATES Recognition, Ambivalence, and Taking Steps scale scores). Repeated attempts on the part of the Center to obtain these data, as well as site-specific data, contributed to the further delay in completion of the final analyses and report. While frustrating, these kinds of delays and disappointments are not uncommon in the course of conducting researcher-practitioner partnership-based research. The good news is that we can learn from past experience and attempt to anticipate and hopefully prevent similar problems in the future.

METHODS

The analyses that constitute the core set of findings for this study are presented as follows. The basic research plan consists of systematically providing relevant descriptive information, and then developing profiles of factors associated with program progress using key risk, need, and amenability measures. Simple linear (ordinary least squares, or OLS) and logistic regression models are estimated to assess the statistical and substantive significance of the different predictors of program progress (Berry and Feldman 1985; Menard 1995). These results permit the creation of offender profiles (i.e., offender characteristics) that are predictive of success in the TYC-CDTP. As importantly, the analyses will explore variation in outcomes by sites to highlight key programmatic and organizational factors that may bear on program progress and impact in the short and long-term.

We begin by providing descriptive statistics for the treatment group (Table 1). We next introduce a series of univariate logistic regression models of program completion/expulsion (Table 2). This approach is appropriate given that the outcome variable is dichotomous in nature (Hosmer and Lemeshow 1989; Menard 1995; Agresti 1996). A survival analysis then is conducted for examining the probability of completion/expulsion over time (Table 3). Following this analysis, OLS regression models are presented of time to completion/expulsion, examined both as a continuous variable (Table 4) and as a dichotomous variable (Table 5) to more closely identify differences among those who complete treatment in a timely manner and those who do not. Program performance is then examined (Table 6), and is measured using a multi-dimensional performance index; a similar analysis is conducted on behavior infractions (Table 7). Systematic attention next is given to across-site variation by examining descriptive statistics for each of the five treatment sites: Giddings State School, Evins Juvenile Facility, Jefferson County, Gainesville, and McFadden Ranch (Table 8). Qualitative observations from TYC program staff and administrators about unique circumstances or factors affecting youth progress in treatment then are outlined (Table 9). Finally, as a point of reference for the follow-up outcome study, comparisons of the treatment and control group are provided (Table 10). All tables are included in the "Tables" section of this document, following the references.

A number of variables were omitted from the regression models because they provided largely redundant information (e.g., number of felony referrals and number of felony adjudications). In addition, because of problems with small or null cells (e.g., when few if any of a particular group were expelled), multivariate modeling including most predictors was not feasible. For that reason, the predictive results presented in this report are based on univariate regression models. It should be emphasized that when multivariate modeling was feasible, comparison of univariate and multivariate models rarely yielded results different from those of the univariate analyses.

FINDINGS AND DISCUSSION

TREATMENT GROUP CHARACTERISTICS

Table 1 provides a descriptive profile of the treatment group sample, including process outcomes, demographics, risk and need factors, amenability, staff evaluations, and distribution across sites. These profiles are summarized below.

- 75% of youths completed treatment, 15% were expelled from treatment, and 9% had to leave treatment for non-behaviorally-related (i.e., administrative) reasons.

- 50% were Hispanic, 29% were black, and 21% white.

- The mean age was 17.5.

- 44% of the youths' parents were divorced or separated, 30% were never married, 16% were married, and for 7% the marital status was unknown.

- 51% of youths were classified by TYC as general offenders, 19% as violent A or B offenders, 14% as determinate sentence offenders, 8% as firearm offenders, 4% as chronic serious offenders, and 3% as controlled substance dealers.

- Using a different TYC classifying scheme, 63% were non-violent offenders, 33% were violent offenders, and 4% were chronic serious offenders.

- 16% were classified by TYC as having low risk, compared with 45% and 39% classified as medium and high risk, respectively.

- Youths in this sample averaged 8.7 prior felony referrals, 2.5 prior felony adjudications, 1.1 prior TYC commitments, and .08 prior parole revocations.

- Based on the Substance Abuse Subtle Screening Inventory (SASSI), 88% of the treatment youths were classified as chemically dependent, 7% as abusers, and 5% as non-abusers.

- Based on TYC clinical assessments, 94% of the treatment youths were diagnosed as having a chemical dependency problem, 5% were diagnosed as having a chemical abuse problem , and 1% were diagnosed as having a history of chemical use.

- 49% of youths were classified as having a medium TYC treatment amenability index score, 49% as having a high amenability score, and 1% as having a low amenability score.

- Analysis of the pre-tests (i.e., pre-treatment administration) of the Stages of Change Readiness and Treatment Eagerness Scale (SOCRATES, version 8) revealed the following (see the discussion under "Data" regarding the guidelines for interpreting SOCRATES-8 scores):

- the mean alcohol and drug Recognition scores were 21 and 26, respectively, indicating very low recognition among youths of having a substance abuse problem,

- the mean alcohol and drug Ambivalence scores were 11 and 14, respectively, indicating low levels of ambivalence among youths toward receiving treatment,

- the mean alcohol and drug Steps scores were 27 and 30, respectively, indicating low levels among youths of taking steps toward addressing their substance problems.

- The results from the exit assessment yielded a composite performance index, which, using principal components analysis, was standardized to have a mean of 0 for the entire sample of youths; this standardization was done to facilitate the subsequent analyses. Inspection of the contributing question items show, however, that the majority of youths were given relatively favorable scores. Mean scores are presented below.

  - Overall participation: 3.3 (1=very passive, 5=very active).
  - Understanding the curriculum: 3.3 (1=very poor, 5=very good).
  - Understanding addiction: 2.9 (1=very poor, 5=very good).
  - Seeking help: 2.8 (1=not at all, 4=strongly).
  - Acknowledging addiction: 2.9 (1=not at all, 4=strongly).
  - Acknowledging impacts of addiction: 2.8 (1=not at all, 4=completely).
  - Performance grade: 3.3 (1=A, 5=F).
  - Commitment to be drug-free: 2.3 (1=not at all likely, 4=very likely).
  - Family involvement: 2.3 (1=not at all, 4=strong).

- 36% of treatment youths were placed at Gainesville, 29% at Jefferson, 17% at Giddings, 14% at Evins, and 5% at McFadden.

In short, the typical TYC CDTP participant was a Hispanic youth, age 17.5, with parents who were either divorced/separated or never married. The vast majority (75%) of youths completed the program. Two-thirds were classified as non-violent offenders and one-third were classified as violent offenders. Not surprisingly, most youths were classified as being either of medium (45%) or high (39%) risk, reflected in part by the fact that the average number of prior felony referrals among youths (8) was considerable. With respect to chemical dependency needs, youths overwhelming were classified as having a drug dependency problem, with an equal proportion having either medium or high amenability to treatment. Most youths evidenced little recognition of having a problem but were relatively unambivalent about receiving treatment, even though few had as yet taken steps to address their problem. Staff evaluations were generally positive, with the exception of level of family involvement and commitment to remaining drug free, which received relatively lower scores. And, finally, youths were unevenly distributed across treatment sites, with a low of 5% (McFadden) and a high of 36% (Gainesville).

PROGRAM COMPLETION/EXPULSION

- Review of Table 2 shows that most factors were not statistically related to program completion/expulsion. There were some exceptions, however.

- Violent offenders were 57% less likely than non-violent offenders to complete treatment (explained variance = .03).

- For every additional behavior infraction committed by a youth, the likelihood of program completion was decreased by 19% (explained variance = .20).

- Performance in treatment also was associated with completion: for a one-unit increase in the performance index (i.e., for a one standard deviation increase), there was close to a 200% increase in the likelihood of completion (explained variance = .40).

- Compared with youths at the Giddings site, which is arguably the most rehabilitation oriented of all the treatment sites (discussed below), youths at other sites were much more likely to complete treatment. Site differences, which will be examined at length below, explained 13% of the variation in completion/expulsion outcomes. Because of the very small number of treatment participants and the dramatic dissimilarity to other sites, McFadden was omitted from the regression models.

These findings are somewhat surprising. We expected that individual-level predictors such as treatment need and amenability would be related to program completion, and yet these factors had no statistical bearing on completion. However, not surprisingly, violent offenders and those who act out were less likely to complete treatment. Conversely, those youths who performed well in treatment were considerably more likely to complete it. (It is important to note that this result should be interpreted with caution as the staff evaluations were conducted at the end of treatment and may simply reflect or measure the outcome – completion or expulsion – of individual participants.) Finally, the differences in completion between Giddings and the other sites raises some questions about site variation generally in chemical dependency programming for youths at TYC. This issue will be addressed in detail below when discussing across-site process outcome and program/administrative variation.

DAYS TO COMPLETION

A survival analysis using both youths who completed treatment and those who were expelled revealed no consistent pattern in time to expulsion (see Table 3). That is, the conditional probability of failure (i.e., expulsion) did not consistently change from one time period to another. Put differently, youths were equally likely to be expelled at any time during treatment and not primarily at one time period (e.g., in the first month). Conditional probabilities after 240 days should be interpreted with caution due to diminished sample size after this point.

Turning to completers only, we now present univariate regression analyses of days to completion. Comparison of univariate results and various multivariate models revealed few differences in the effects of the predictors. Because of the similarity in results, and to avoid problems associated with small cell sizes in a multivariate context, only the univariate results are presented. Similar to the findings for completion/expulsion, the central finding is that few factors were associated with days to completion (see Table 4). The exceptions are identified below.

- Violent offenders took approximately 18 days longer than non-violent offenders to complete treatment (explained variance = .02).

- Youths who performed well in treatment took slightly longer to complete treatment (e.g., for every standard deviation increase in the performance index, youths took 3 days longer to complete treatment) (explained variance = .02).

- Youths at Evins, Jefferson, and Gainesville completed treatment one to three months ahead of youths at Giddings (explained variance = .24).

Time to completion was recoded into a dichotomous outcome ("fast completers" = 1, fewer than 180 days; "slow completers" = 0, 180+ days), to reflect the fact that TYC's chemical dependency treatment program is designed to last 180 days. This variable was designed to assess variation between the categories of timely and delayed completion. The univariate logistic regression analyses yielded relatively little additional information to that obtained from the analyses of the continuous days to completion measure (see Table 5). The one exception was that for an increase of one year in a youth's age, there was a 29% greater likelihood of being a "fast" completer.

Again, it is surprising that most risk, need, and amenability factors were not associated with process outcomes – here, days to completion. The only factors of statistical or substantive significance were parental marital status (youths who took longer to complete treatment came from households where the parents were divorced or separated), offense class (violent offenders took longer than non-violent offenders to complete treatment), and treatment site (youth at Giddings took one to three months longer to complete treatment than youths at other sites).

DAYS TO EXPULSION

On the assumption that the factors associated with time to completion may not necessarily be the same factors associated with time to expulsion, analyses were run separately for days to expulsion. The results were similar in that few factors were associated with days to expulsion, and of those that were, site differences emerged as the most prominent (see Table 4). Significant predictors are listed below.

- Among youth expelled from treatment, those whose parents were never married or were divorced or separated took two to three months longer to be expelled than youths whose parents were married (explained variance = .09).

- Among youth expelled from treatment, those who recognized they had a drug problem took slightly longer to be expelled (explained variance = .19).

- Youths at Evins, Jefferson, and Gainesville took between one and three months less time to be expelled compared with youths expelled from Giddings (explained variance = .21).

The overriding patterns that echo those for the other process outcomes are (a) that few factors were associated with days to expulsion and (b) that site differences are central.

PROGRAM PERFORMANCE

An exit assessment (see Appendix A) was created and administered in order to analyze variation among completers and among those expelled. This assessment was comprised of nine closed-ended questions and one open-ended question. The former addressed issues such as a youth's understanding of chemical dependency, commitment to stay drug free, level of participation, etc., while the latter focused on identification of special circumstances thought by staff to impede a given youth's successful completion of treatment.

Closer examination of the nine closed-ended exit assessment questions (i.e., exclusive of the special circumstances question) revealed a single underlying dimension, what is termed here a "performance index." As review of the questions from the exit assessment suggests, the index reflects general program performance of youths in treatment at the different sites. As such, it clearly represents a more multi-dimensional view of program impact than could be obtained simply from examining program completion. That is, this index provides information about youth progress over and above completion and thus is important not only as a measure of program impact but of the likely long-term impact of treatment (e.g., in reducing recidivism).

Review of Table 6, which provides a univariate analysis of factors associated with better performance evaluations, reveals several interesting findings. However, it should be emphasized that because assessments were conducted after youths completed or were expelled from treatment, performance evaluations may reflect either youths' actual performance throughout treatment or ad hoc accounts by staff of why particular youths performed more or less well in treatment.

- Youths whose parents were married were more likely than youths whose parents were never married or were divorced or separated to receive more favorable performance evaluations (explained variance = .02).

- Youths who committed greater numbers of behavior infractions received less favorable performance evaluations (explained variance = .20).

- Youths at Giddings received less favorable performance evaluations than youths at other sites (Evins, Jefferson, and Gainesville) (explained variance = .06).

Although it is possible that the performance evaluations reflect youths' actual performance, the site differences suggest the alternative possibility that staff at the various program sites uniformly apply different criteria in their assessments of youth performance. For example, at Giddings, the long-standing rehabilitative focus or "culture" may contribute to staff there applying a more rigorous standard than what staff at other facilities may apply. Nonetheless, the other findings suggest that there may be at least some basis for viewing the evaluations as capturing objective performance. Thus, for example, it is to be expected that behavior infractions, as well as coming from less stable family situations, might contribute to poor performance in treatment.

BEHAVIOR INFRACTIONS

Behavior infractions in general were not predicted by any factor or set of factors except across-site variation (explained variance = .05) (see Table 7). Youths at both the Gainesville and Jefferson sites were less likely to commit behavior infractions (or to have behavior infractions recorded) compared with youths at Giddings. The difference may be due either to Giddings staff being more confrontative or differences in the composition of youths at the different sites. This issue will be addressed in more detail below; however, it bears mentioning that the latter explanation appears more likely, given that Giddings has considerably more violent and determinately sentenced offenders than the other sites.

OUTCOME AND PROGRAM/ADMINISTRATIVE VARIATION ACROSS SITES

A. Overview

For many of the process outcomes, there were marked differences across sites (Table 8). The question arises as to whether this variation is due to programming, compositional, organizational, or other differences across sites. In attempting to address this question, several sources are relied upon, including interviews with TYC officials, treatment providers, and analysis of site information and compositional differences across sites. Specific patterns in process outcomes are reviewed for all sites, followed by more in-depth descriptions of each site. Differences across sites, and the potential reasons for them, then are discussed, including a brief review of their implications. (More extended discussion of their implications is provided in the conclusion.)

B. Process Outcomes: Differences Across Sites

The analyses below present statistical differences among sites with respect to a range of process outcome measures (see Table 8). Significant differences refer to differences between a given site and the other sites, excluding McFadden. This site is omitted from these analyses because it is considerably different from the other sites. For example, far fewer youths in the sample come from McFadden (N=19), the program duration is designed to be 10 rather than 6 months, it is a non-secure residential facility, and the youths are entirely non-violent general offenders who come from around the state (i.e., the population at McFadden is more regionally diverse than at other sites). However, because McFadden is one of the treatment sites, systematic attention is given to it after the site comparisons.

- Completion of treatment. For all sites, 75% of youths completed treatment. A much higher completion rate occurred at Jefferson (92%) and Gainesville (84%). The completion rate was lower at Evins (69%) and was much lower at Giddings (35%).

- Expulsion from treatment. For all sites, 15% of youths were expelled from treatment. A lower expulsion rate occurred at Jefferson (6%) and Gainesville (10%). The expulsion rate was higher at Evins (27%) and was much higher at Giddings (37%).

- Days to completion. The average time to completion for youths at all sites was 186 days (s.d. 63). Youths at the following sites took longer to complete treatment: Giddings (231

days, s.d. 85) and Jefferson (204 days, s.d. 48). By contrast, youth at the following sites completed treatment more quickly: Evins (182 days, s.d. 38) and Gainesville (151 days, s.d. 51). The variation at Giddings suggests marked variability in the ability of youths to complete the program or in their responsiveness to programming there, which may reflect compositional differences (see discussion below).

- Days to expulsion. The average time to expulsion for youths at all sites was 127 days. Youths at the following sites took longer to be expelled: Giddings (153 days) and Jefferson (206 days). By contrast, the mean days to expulsion was lower at Evins (93 days) and Gainesville (93 days).

- Performance measures (exit assessment questions). The performance of youths, based on staff evaluations, was highest among those at the Jefferson and the Gainesville facilities; the mean performance index value in both instances was approximately one-half standard deviation above the mean for all sites. Youth at Giddings performed significantly lower than the mean for the other sites. By contrast, performance at Evins was not significantly different from that of the mean of the other sites.

- Number of behavior infractions while in treatment. The mean number of infractions per youth in all treatment sites was 4.5. Youths at Giddings (6.9), Evins (5.3), and Gainesville (4.7) all had higher infraction rates; infraction rates at Jefferson were lower (2.9).

- McFadden. McFadden requires a separate discussion due to the small number of youth at this site (N=19), differences in program length (i.e., 10 months, compared to 6 months for the other sites), and differences in composition (all youths are classified as non-violent "general offenders"). Briefly, the rate of completion was 63%; expulsion was 0% (the remaining 37% of youths were transferred or dropped from programming for a variety of non-behaviorally-related reasons); mean days to completion was 302 days; performance was not statistically lower than the mean for the other sites; and the mean number of behavior infractions was 1.2, which was lower than the mean for each of the other sites.

C. Site-Specific Patterns and Issues

There are several relatively pronounced compositional, process outcome, programming, and juvenile correctional officer (JCO)/caseworker turnover differences across the sites. (It is important to note that the turnover rates are for entire sites, not just the treatment components. At the time this report was written, TYC was unable to provide separate turnover data for the treatment components at each of the five sites examined in this study.) These are outlined below.

- Giddings. Giddings receives primarily violent and determinately sentenced youths (75% of youths at the Giddings site treatment group were violent offenders, and over 50% were determinately sentenced youths). Youths with determinate sentences typically stay at TYC for longer periods of time, including minimum lengths-of-stay, than non-sentenced youths; this is because most determinate sentences involve serious felony offending. In addition, if they do not behave they can be transferred to the adult prison system.

Giddings consequently has a source of leverage in working with these youths that other sites do not have in working with non-determinately sentenced youths. Also, Giddings has the Capital Offender and Sex Offender programs, and has been established for over ten years. One result is that the "culture" at Giddings is more clearly and consistently toward providing comprehensive treatment. As but one example, adjunct support from psychologists is highest at the Giddings site. Also, JCO and caseworker turnover (24% and 29%, respectively) is considerably lower at Giddings than at most other sites. Another result, however, is that the more violent and high risk youths are sent to Giddings, which in turn appears to be linked to its lower completion rate (35%). Another important reason for the lower completion rate is the fact that a large proportion of youths (26%) were transferred from Giddings to another site (San Saba) because one of the two boys' dorms was closed during the period of this study. Although notable, this transfer bears primarily on the interpretation of one measure – percent completing treatment. For the other measures (e.g., days to completion or expulsion), the transferring of youths to San Saba is less relevant given that the analyses center only on those youths who completed treatment or were expelled, not on those who were administratively transferred out of Giddings.

- Evins. Evins is a relatively new facility, has experienced several staff shortages, has expanded rapidly in the last two years, and, perhaps as a consequence, has tended to emphasize administrative over treatment concerns. Although a new program administrator was hired during the period of study (to replace the previous administrator), this transition was by all accounts a smooth one and thus does not appear to have directly affected program operations. Indeed, staff turnover during this time was relatively low compared to other sites (25% turnover among JCOs and 23% turnover among caseworkers at Evins during fiscal year 1999).

  The relatively rapid mean time to completion (182 days) may reflect the fact that over half (56%) of youths at Evins are general offenders. As noted earlier, general offenders typically have nine to twelve-month commitments. Initially, youths serve one to two months at Marlin being screened and assessed. Then, when sent to Evins (or elsewhere), they serve one to two months in orientation. When a CDTP bed space opens, a youth is placed in treatment for the remaining four to six months of their stay. Given the limited time available for providing treatment to these youths, as well as the large influx of youths into TYC in recent years, a generalized expectation or "norm" appears to have developed at Evins that treatment is secondary to administrative needs. Indeed, various sources indicated that administrative concerns typically "trump" treatment concerns.

  Perhaps the most important feature to note about Evins is that it is comprised almost entirely of Hispanic (76%) and black (16%) youth, reflecting, as noted above, the site director's emphasis on serving youths from the Rio Grande Valley. Given that these youths generally come from distinct cultural backgrounds compared with those of youths in other parts of Texas, and that there may be corresponding language differences as well as differences in types of drug use/abuse problems, the attempt to limit the focus of the Evins facility primarily to this population may be appropriate. However, it also may account for the relatively higher infraction rates; there may be distinct difficulties for

these youths in transitioning to TYC facilities and/or there may be distinct difficulties for staff in understanding the specific needs and backgrounds of youths there. In this regard, it is relevant to note that, according to one knowledgeable TYC employee, low risk, high need youths from the Valley who are sent to McFadden – which serves only low risk, high need youths from around the state – invariably have difficulty adjusting and/or performing, and thus eventually are placed at other sites.

- Jefferson. Despite the fact that Jefferson has suffered from considerable caseworker turnover (close to 40% of JCOs and 30% of caseworkers during fiscal year 1999), it has enjoyed ongoing and consistent administrative support. The appearance is of a facility with a consistent, structured, and supportive treatment emphasis, which would help account for the marked level of success (e.g., 92% completion rate, relatively rapid mean time to completion [204 days], and very low infraction rates). Jefferson tends to serve youths who come from east Texas, which may result in placement there of more youths from rural areas than for several of the other sites.

- Gainesville. Gainesville's operations have involved an ongoing tension between administrative and correctional concerns compared to support for treatment. This tension is evident in the need to balance population control and length of treatment, with varying degrees of support given for corrections versus treatment modalities. Compared to most other sites, Gainesville had considerably more JCO turnover (38%) in fiscal year 1999. Nonetheless, youths at Gainesville completed treatment much more quickly than at other sites (average = 151 days), which may reflect the fact that over half (60%) of the youth at Gainesville are general offenders. Thus, as with Evins, after several months at Marlin, and then after several months on orientation at Gainesville, there may be relatively little time left to provide treatment to youths finally placed in the CDTP; this in turn would account for the relatively shorter mean time to program completion at Gainesville as compared with the other sites. Finally, Gainesville tends to serve youths who come from central Texas, especially the Dallas/Fort Worth "Metroplex." These youths thus may tend to come primarily from urban areas, providing potentially more opportunities to extend treatment after release because of the greater numbers of programs in urban areas.

- McFadden. Why do youths at McFadden take longer to complete treatment and have a lower infraction rate? McFadden is a non-secure residential facility that only receives high needs youths classified as non-violent, "general offenders" (TYC's most general and lowest risk classification group). General offenders must serve at least nine months, and most serve somewhat longer than that. For this reason, the McFadden site extends the treatment programming rather than the six-month time period used by the other sites. This is done in part to maintain continuity and because transfer to a more secure facility in essence constitutes a sanction, which in turn requires a hearing. Thus, given the lower risk youth that are received at McFadden, as well as the need to retain youths at this site for between nine months and one year, it is not surprising that youths take longer to complete treatment and have lower infraction rates.

  However, precisely for these reasons, it is surprising that a greater proportion do not complete treatment (63%, which is the lowest completion rate, second only to Giddings)

or have higher performance evaluations. Indeed, the McFadden site is completely devoted to CD treatment and, consequently, has the best-trained staff in this area. However, unlike other sites, McFadden has a regionally diverse population. Also, as with Evins, a new program administrator was hired during the period of study, but this transition reportedly went quite smoothly, with minimal disruption to program operations. Although McFadden's completion rate (63%) is not the highest of the sites, the fact that the infraction rate is the lowest (1.2) likely reflects the non-violent, general offender composition, but also suggests that there may be a more controlled and therapeutic environment than in the other treatment sites. In turn, this environment well may be linked to more successful long-term outcomes (e.g., reduced recidivism), which will be examined in the outcome study.

D. Implications of Site Differences and Related Issues

The composition of youth at the sites clearly differs, with some sites serving lower-risk, more treatment amenable offenders (e.g., McFadden, a non-secure residential facility), others serving higher-risk or more violent offenders (e.g., Giddings), and still others serving specific regional populations (e.g., Evins primarily serves Hispanic youth from the Rio Grande Valley, Jefferson primarily serves youths from east Texas, and Gainesville primarily serves youths from the Dallas/Fort Worth and central Texas area. The extent to which treatment and treatment delivery currently are tailored to take into account these differences in the composition of the treatment populations across sites is unclear. TYC maintains that CD treatment is the same or similar at each site, perhaps best described as a "one size fits all" approach. On the other hand, there does appear to be an attempt, sometimes formally and sometimes informally, to match the needs and diversity of youth to particular programs at particular sites.

Perhaps the most accurate description of the TYC-CDTP is that while the global treatment approach is similar across sites, there are local, site-specific differences in the treatment environment and in how treatment is provided. For example, the fact that exposure to treatment varies considerably across sites (as measured by mean days to completion) and within sites (as measured by standard deviations), indicates that while CD treatment may be standardized, there is significant variation across and within sites. From a policy perspective, it may be appropriate to have different programming across sites if the composition and needs of youths at each site differ. Indeed, this approach would be in keeping with the idea of treatment responsivity that has been found to be a central aspect of successful treatment programming (Gendreau 1996; Lauen 1997; McBride et al. 1999). What is unclear is the extent to which placement decisions exercised by the Central Placement Unit are driven by the principle of responsivity. Our best guess is that there is probably a blending of concerns about matching client needs and program specific characteristics on the one hand, and pragmatic concerns such as availability of bed space and placement in the most proximate facility.

Apart from compositional differences, a key factor in explaining site differences in process outcomes are programming and organizational differences at each site. For example, interviews with staff and administrators at TYC consistently highlighted the notion that the same program may be implemented differently across sites because of such factors as the dramatically different "cultures" at each site, differences in the leadership provided by superintendents or program

directors, individual caseworker styles, and consideration of the composition of the youths at each facility. Giddings, which is comprised primarily of violent youths with lengthy sentences, appears to have a "culture" that embraces a program-wide commitment to treatment, reflected in part by the relatively lengthy average time to program completion there (231 days). The fact that at some sites there is tension between managing population capacity and providing treatment may impact process outcomes. For example, sites that are more clearly treatment oriented, and that attempt to minimize the influence of population capacity, may also impact process outcomes (e.g., the mean time to completion for youths at Giddings was 231 days, which was longer than for all the other sites, excluding McFadden).

Several of the sites (Evins, Jefferson, Gainesville) have experienced staff shortages on an ongoing basis over the last year or two. The typical staff-to-student ratio in a dorm is 1 to 8-9. When a caseworker leaves, it generally takes two to three months to fill. In the interim, the staff-to-student ratio can increase to 1 to 12-13. The effects of these shortages, especially if sustained over long periods, can be profound. There is, on the one hand, the fact of fewer staff to monitor and address student needs. On the other hand, there is the fact that new staff generally require several months or more to transition into the milieu of a new program, especially if that program itself is new. This transition also involves having to manage youths who actively test limits with new staff. A well-structured, supportive, treatment-focused program usually can handle sporadic staff shortages, but over the long-term, programming quality generally will suffer.

Although it is unclear precisely how different the quality of programming was for the youths in this study, the effects of these differences can and will be estimated by examining recidivism patterns of youths released from each site (i.e., the outcome study will attend carefully to the extent to which site differences, net of background factors and exposure to treatment, affect recidivism rates). Indeed, given that the treatment program is reportedly implemented in a significantly different manner at several of the sites, such differences alone could have a far more dramatic impact on youth treatment progress and longer term outcomes (e.g., recidivism) than any individual-level or compositional factor (e.g., risk/needs, gender, race/ethnicity). It is precisely these issues that the outcome study will be able to address indirectly by examining recidivism outcomes among individual youth, controlling for various background factors and then focusing directly on the contribution, if any, of site differences to recidivism.

KEY BARRIERS TO SUCCESSFUL PROGRAM PROGRESS

Using an exit assessment (Appendix A), staff were given an opportunity to describe specific barriers they saw to successful program progress among youths in treatment. The verbatim responses were coded into three themes that emerged in most of the assessments (see Table 9). These themes, presented in order of frequency, included: (a) gang affiliation (e.g., gang leader, preoccupation with gangs, or some other type of gang involvement); (b) family issues (e.g., drug addiction within the family, mental health or other sources of family dysfunction, little or no family involvement, etc.); and (c) learning disability (e.g., little formal education, low educational level for age, relative inability to read or cognitively process treatment materials, etc.). In short, program staff viewed gang affiliation, family issues, and learning disabilities as among the most prominent barriers to successful treatment of youths placed in the TYC-CDTP.

TREATMENT VS. FULL AND RESTRICTED CONTROL GROUP CHARACTERISTICS

The most appropriate control group for the subsequent outcome study consists of committed youth in need of CD treatment who did not receive it because of lack of CDTP capacity. Since pure random assignment was not used to select treatment participants and control participants, the control and treatment groups may differ in terms of background, risk, needs, etc. Thus, it is important to statistically profile the treatment and control groups to assure comparability.

In preparation for the outcome study of TYC's CDTP, systematic profiling of the treatment and control group populations was undertaken (see Table 10). These analyses led to the identification of a potentially important compositional difference between the two groups. Specifically, it was found that while nearly all youths in the treatment group had or were diagnosed with chemical dependency problems (compared to chemical abuse), only half of the control group were so identified (one half of the control group was diagnosed with a dependency problem and one-half with a chemical abuse problem). For this reason, a new control group was created, consisting of only those youths who were identified as having a chemical dependency problem. The outcome study will provide a systematic comparison of whether results using the full or restricted control groups vary.

CONCLUSIONS AND RECOMMENDATIONS

Observing that effective chemical dependency programming is critical to reducing delinquency (Tonry and Wilson 1990; Gendreau 1996; Crowe 1998; McBride et al. 1999), this research set out to provide a systematic and statistical process evaluation of the TYC-CDTP. Analyses focused on appropriate program placement and whether and to what extent risk, dynamic/criminogenic need, and treatment amenability factors were related to various process outcomes, as well as to variations in select outcomes across each of five treatment sites. This focus on process was motivated by the idea that for programs to work, appropriate target populations must be served, and the treatment must be appropriate for and effectively delivered to this population. Although these ideas are grounded in common sense as well as evaluation research literatures, systematic and statistical process evaluations of chemical dependency treatment programs are relatively rare. The inattention is unfortunate in part because undue emphasis on outcome evaluations risks overlooking the fact that the failure of a program to reduce recidivism may have more to do with implementation and delivery than with program design (Farabee et al. 1999; Rossi, Freeman, and Lipsey 1999). Some of this study's more salient findings and issues, as well as their implications, are discussed here.

First, this study identified that most youths placed in the TYC-CDTP are appropriate for chemical dependency treatment – that is, they have identifiable chemical dependency needs. What is less clear is the role that treatment amenability (whether measured in terms of the TYC amenability index or SOCRATES) plays in determining appropriateness for placement among those with high CD treatment need. Our research indicates that statistically, amenability does not matter in terms of predicting various measures of treatment progress. However, that finding may be the result of a number of factors, including poor measurement (i.e., SOCRATES may be an inappropriate measure of amenability for juveniles) or lack of variation in amenability.

Second, it was found that few individual-level factors, or indeed any other factors, consistently or strongly predicted program progress. The one notable exception was variation across sites. These findings suggest that the treatment population is relatively homogenous with respect to risk, need, and amenability factors, thus accounting for their lack of predictive utility in assessing program progress. For example, 87% of youths were classified as medium to high risk, over 90% were diagnosed with a chemical dependency problem, and close to all were assessed as evidencing medium to high amenability to treatment (Table 1). The findings also indicate that the most important factor associated with treatment progress is where a youth is placed. Indeed, this factor is linked strongly to program completion/expulsion, time to completion, time to expulsion, performance, and behavior infractions. When site variation was examined directly, a range of factors emerged to explain the differences, including staff-to-youth ratios, staff turnover, composition of youths at each site, tensions between administrative/correctional versus treatment needs of youths, relatively rapid expansion, and differences in leadership and in the organizational "culture" at each site.

Third, the present study provided a multi-dimensional assessment of program progress. In so doing, it relied on such measures as completion, time to completion, and behavior. It also relied on the equivalent of a "report card," an assessment by staff of each youth's performance in treatment with respect to such dimensions as participating in and understanding treatment,

acknowledging the impacts of drug addiction on others, committing to be drug free, etc. This approach was employed to illustrate the types of information that are needed to make more informed statements about short-term treatment impacts that may bear on longer-term outcomes. To extend the school-based analogy, such an approach is tantamount to measuring performance in math, science, and history, as opposed simply to measuring whether a student completed school. Clearly, a more nuanced approach is needed. The "report card" approach is of some use in this regard, but there are other, potentially better methodologies. For example, staff assessments likely would be somewhat more objective if obtained on a weekly or monthly basis. Alternatively, staff logs of each youth's performance could be accessed and coded, or, perhaps better yet, treatment progress could be assessed through pre- and post-tests of the various domains particular to a given treatment modality.

Fourth, this study did not address the extent to which a youth's previous experience with treatment, or duration of stay in incarceration until treatment, impacted treatment progress. Both of these factors may, however, directly bear on treatment efficacy. For example, it may be that a youth is more likely to successfully complete treatment only after several initial exposures to substance abuse interventions. Similarly, it may be that success in treatment should be operationalized in such a way as to weigh a youth's previous exposure to treatment; from this perspective, "failure" perhaps should be viewed as occurring only after a youth has been exposed to repeated interventions, and, by similar reasoning, "success" perhaps should be viewed as occurring along a continuum, with ever-longer stays in treatment being viewed as reflecting improvement in a youth's ability to address substance abuse problems. It also may be that youths who more quickly are placed in treatment (as opposed to the current average of 5.2 months) may obtain greater benefit from treatment, given the possibility that the earlier an intervention is implemented the greater the potential benefit (Crowe 1998; McBride et al. 1999).

Fifth, although the present study provided an empirically-based process evaluation of the TYC-CDTP, it did not incorporate measures that allowed for systematic identification or explanation of different treatment orientations within and across sites. However, there is an obvious need for not only measuring program progress of youths but also examining factors that affect program delivery. Some avenues along which to proceed include collection of data about the views of program participants and staff concerning program delivery. Such data would, for example, allow researchers to identify whether residents and/or staff have concerns about inconsistency in program services; in turn, program administrators and policymakers would be afforded the opportunity to determine whether modifications to treatment are needed. More generally, by relying on youth and staff perceptions and other measures of program operations, a wide range of qualitative factors bearing on program delivery can be assessed and monitored.

Sixth, the findings concerning site variation suggest an important and potentially critical issue for TYC and other agencies implementing programs at multiple sites: for treatment to be effective, should it be consistently implemented across sites or should it be allowed to vary? Although it is possible that the implementation of the CDTP may be more appropriate or effective at one site than another, it is impossible, as noted above, to assess this possibility without an understanding of how and why program delivery differs across sites and to what effect. This study has identified some general compositional and organizational differences across sites, but there is a need to understand precisely how treatment implementation and

delivery, and their respective impacts, differ, and whether differences are warranted (e.g., on the basis of serving different populations of youths). Attention to these issues would appear to be far more critical than developing or adding to the extensive assessment instruments upon which TYC currently relies when youths are initially screened and assessed (e.g., chemical dependency screening by licensed Chemical Dependency Counselors, use of the Substance Abuse Subtle Screening Inventory, and clinical assessments by psychologists and/or psychiatrists). The fact that TYC has invested time, energy, and resources into examining process-related issues, including factors affecting site variation in process outcomes, suggests a recognition of this possibility. Indeed, given TYC's rapid expansion of its chemical dependency treatment program, the present research suggests that much closer scrutiny to process is needed in the near term. Absent such research, it will be difficult if not impossible to determine what exactly it is about the CDTP, as delivered at various sites, that contributes (or not) to reduced recidivism.

Seventh, and finally, the issue of program delivery raises an intriguing issue that has yet to be addressed adequately by TYC or, indeed, by existing research – namely, how do we measure the extent to which treatment assessments and treatment provision have been "individualized"? For example, TYC's assessment procedures appear to identify accurately youths who have substance use/abuse needs, but to what extent do these procedures accurately assess each youth's full range of needs and which ones merit relatively more attention? More generally, even assuming that such an assessment were made, what process-related measures would be used to determine if treatment had been adequately individualized? The present study did not provide a systematic examination of this issue, but rather documented simply that TYC attempts to individualize treatment by considering a wide range of factors, including any identified through various assessments. Perhaps the best test of whether individualization of treatment produces better outcomes than non-individualized treatment is whether programs premised on the former approach outperform those premised on the latter. However, even were that to occur, we would still know little about exactly how and what parts of the "individualized" plans, including their implementation, "worked." In the case of TYC, there is a further issue: TYC attempts to individualize assessments and treatment plans, as well as to place youths at chemical dependency treatment sites that are proximate to their homes or that can accommodate cultural diversity, yet the programs at each site are, in theory, the same. In essence, then, there is the possibility that the individualization at assessment is canceled out by uniformity of treatment and treatment delivery within and across sites. To what extent this possibility actually occurs remains as yet largely undetermined.

The issue of across-site variation in program implementation and delivery is of direct relevance to assessment of multi-site CD or other treatment programs in other states. The phenomenal increase in concern about and funding for substance use/abuse alone suggests the need to consider carefully process-related issues bearing on the efficacy of treatment (Tonry and Wilson 1990; Howell 1995; Crowe 1998; McBride et al. 1999). Furthermore, considerably more attention has been given in recent years to individualized treatment and, more generally, to focusing on individual pathology (Tonry and Wilson 1990; Crowe 1998). However, the findings here suggest that treatment implementation and delivery may vary dramatically across sites, suggesting a fundamental source of variation in individual-level outcomes in states that operate "similar" treatment programs at different facilities. The results further suggest that adequate assessment of the treatment impact of these programs needs to take into account across-site

variation in treatment implementation and delivery. Indeed, it is quite likely that the largest marginal returns to be obtained from scarce treatment resources is not to be found with increasingly precise classification schemes but with consistent implementation and delivery of treatment – including "individualized" treatment modalities – across various facilities within a state juvenile correctional system. This observation extends, it might be noted, not only to multi-site treatment within the juvenile justice system but to multi-site treatment within other organizational and systemic contexts (e.g., criminal justice, health, or social service agencies).

For researchers, the aforementioned issues are of paramount importance. Existing literature has placed extraordinary emphasis on ever-more precise classification of individuals. However, as Farabee et al. (1999) recently have emphasized, organizational factors may be among the most critical determinants of program success. This idea is doubly reinforced by this study: (1) youths in the TYC-CDTP generally seem homogenous with respect to risk, need, and amenability, suggesting that individual-level factors may not be particularly relevant to program performance or long-term success (e.g., as measured by recidivism); and (2) across-site variation appears to exert much more of an influence on whether, how quickly, and how well youths complete treatment. These results thus raise a flag to other researchers to give considerably more attention to organizational factors and their effect on treatment progress and success. They suggest, for example, the need for multi-dimensional, multi-site process evaluations that can capture precisely the extent to which and how treatment can be or is individualized, as well as whether, to what extent, how, and why treatment differs within and across sites. Indeed, without attention to such issues, policymakers will have little basis for knowing whether or why programs "work" (Rossi, Freeman, and Lipsey 1999). Finally, the results of this study also suggest the importance of linking process and outcome evaluations. It is, for example, only because of the knowledge about both individual and site differences in program progress identified in this process evaluation that systematic assessment of their potential bearing on recidivism can be undertaken.

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TABLES

TABLE 1. Descriptive Statistics for Treatment Group (N = 406)

	Mean	(S.D., N)
Dependent Variables		
Program Outcome		
Completion (1 = yes)	0.75	(.43, 406)
Expulsion (1 = yes)	0.15	(.36, 406)
Other (1 = yes)	0.09	(.29, 406)
Days to Completion	185.55	(62.88, 304)
Days to Expulsion	127.11	(94.41, 62)
No. behavior infractions	4.46	(6.59, 406)
Sociodemographics		
Race		
Black	0.29	(.45, 405)
Hispanic	0.50	(.50, 405)
White	0.21	(.41, 405)
Age	17.51	(1.06, 404)
Par. Marital Status		
Never Married	0.30	(.46, 405)
Married	0.16	(.37, 405)
Divorced/Separated	0.44	(.50, 405)
Other/Unknown	0.07	(.30, 405)
Risk Factors		
Classifying Offense		
Violent A or B	0.19	(.39, 406)
Cont.Sub. Dealer	0.03	(.18, 406)
Chron. Serious Off	0.04	(.19, 406)
Firearm Offender	0.08	(.28, 406)
Gen. Off.	0.51	(.50, 406)
Det. Sent. Offender	0.14	(.35, 406)
Offender Class		
Non-Violent	0.63	(.48, 406)
Violent	0.33	(.47, 406)
Chronic-Serious	0.04	(.19, 406)
Risk level		
Low	0.16	(.37, 399)
Medium	0.45	(.50, 399)
High	0.39	(.49, 399)
No. felony referrals	8.72	(5.57, 406)
No. felony adjudications	2.50	(1.13, 401)
No. previous TYC commit.	1.06	(.24, 398)
No. parole revocations	0.08	(.36, 398)
Need Factors		
SASSI		
Non-Abuse	0.05	(.22, 386)
Dependency	0.88	(.33, 386)
Abuse	0.07	(.26, 386)
DSM CD-tx need		
Chemical dependency	0.94	(.24, 399)
Chemical Abuse	0.05	(.22, 399)
Hx of chemical use	0.01	(.09, 399)

TABLE 1. Descriptive Statistics for Treatment Group (N = 406) (cont.)

	Mean	(S.D., N)
Amenability Factors		
TYC Amenability Index Score		
Low	0.01	(.12, 291)
Medium	0.49	(.50, 291)
High	0.49	(.50, 291)
SOCRATES		
A - Recog. (pre)	20.62	(8.77, 288)
A - Ambiv. (pre)	11.22	(4.87, 288)
A - Steps (pre)	26.54	(9.78, 288)
D - Recog. (pre)	26.03	(8.46, 290)
D - Ambiv. (pre)	13.80	(6.18, 290)
D - Steps (pre)	30.25	(8.92, 290)
Staff Evaluations		
Overall Participation	3.30	(1.26, 328)
Understand curriculum	3.30	(1.17, 329)
Understand addiction	2.89	(.95, 329)
Seek help	2.80	(.99, 329)
Acknowledge addiction	2.87	(.99, 329)
Acknowledge impact	2.83	(.99, 329)
Performance grade	3.26	(1.26, 328)
Commit to be drug free	2.32	(1.00, 326)
Family involvement	2.25	(1.11, 314)
Performance Index Score	0.00	(2.60, 311)
Treatment Sites		
Giddings	0.17	(.37, 406)
Evins	0.14	(.34, 406)
Jefferson County	0.29	(.45, 406)
Gainesville	0.36	(.48, 406)
McFadden	0.05	(.21, 406)

TABLE 2. Logistic Regression Univariate Model of Program Completion/Expulsion on Select Predictors

	Univariate	(S.E., N)	Odds Ratio	Pseudo R^2
Sociodemographics				
Race (ref = white)				
Black	0.04	(.42, 353)	1.05	
Hispanic	-0.14	(.37, 353)	0.87	
Age	-0.12	(.14, 353)	0.89	
Par. Marital Status (ref = married)				0.01
Never Married	-0.93 †	(.49, 353)	0.40	
Divorced/Separated	-0.82 †	(.47, 353)	0.44	
Other/Unknown	-0.61	(.69, 353)	0.54	
Risk Factors				
Offender Class (ref = non-vio)				0.03
Violent	-0.85 **	(.29, 354)	0.43	
Chronic-Serious	0.86	(1.05, 354)	2.37	
No. felony referrals	-0.01	(.02, 354)	0.99	
No. infractions	-0.21 ***	(.03, 354)	0.81	0.20
Need Factors				
SASSI (ref = non-abuse)				
Dependency	-1.20	(1.04, 339)	0.30	
Abuse	-1.32	(1.15, 339)	0.27	
Amenability Factors				
TYC Amenability Score (ref = med)				
High	0.34	(.34, 258)	1.41	
SOCRATES				
Alc. Recog. (pre)	-0.01	(.02, 249)	0.99	
Alc. Ambiv. (pre)	0.01	(.03, 249)	1.01	
Alc. Steps (pre)	-0.001	(.02, 249)	0.99	
Drg. Recog. (pre)	-0.01	(.02, 249)	0.99	
Drg. Ambiv. (pre)	0.01	(.03, 249)	1.01	
Drg. Steps (pre)	0.002	(.02, 249)	1.00	
Staff Evaluations				
Overall Participation	1.30 ***	(.17, 290)	3.65	0.25
Understand curriculum	1.79 ***	(.24, 290)	6.00	0.30
Understand addiction	2.41 ***	(.31, 290)	11.08	0.34
Seek help	2.10 ***	(.28, 290)	8.18	0.30
Acknowledge addiction	2.16 ***	(.28, 290)	8.70	0.32
Acknowledge impact	2.29 ***	(.30, 290)	9.88	0.33
Performance grade	2.15 ***	(.28, 290)	8.57	0.37
Commit to be drug free	3.35 ***	(.49, 288)	28.46	0.36
Family involvement	1.52 ***	(.27, 277)	4.57	0.18
Performance Index	1.09 ***	(.15, 274)	2.98	0.40
Sites (ref = GID)				0.13
Evins	0.97 *	(.42, 354)	2.64	
Jefferson County	2.78 ***	(.48, 354)	16.07	
Gainesville	2.14 ***	(.40, 354)	8.47	

† < .10; * < .05; ** < .01; *** < .001

1 = completion, 0 = expulsion

TABLE 3. Survival Analysis (Event = Expulsion)

Interval In Days	Number Failed	Number Censored	Effective Sample Size	Probability of Failure
0 - 30	8	3	364.50	0.0219
31 - 60	10	2	354.00	0.0282
61 - 90	8	2	342.00	0.0234
91 - 120	11	32	317.00	0.0347
121 - 150	5	58	261.00	0.0192
151 - 180	4	52	201.00	0.0199
181 - 210	6	61	140.50	0.0427
211 - 240	1	34	87.00	0.0115
241 - 270	4	35	51.50	0.0777
271 - 300	1	11	24.50	0.0408
301 - 330	2	9	13.50	0.1481
331 - 360	0	1	6.50	0.0000
361 - 390	1	2	5.00	0.2000
391 - 420	0	1	2.50	0.0000
421 +	1	1	1.50	0.6667
Total N	62	304		

TABLE 4. OLS Regression Univariate Models of Days to Completion and Days to Expulsion on Select Predictors

	Completion (N = 304)			Expulsion (N = 62)		
	Univariate	(S.E., N)	R^2	Univariate	(S.E., N)	R^2
Sociodemographics						
Race (ref = white)						
Black	0.05	(9.90, 292)		-11.27	(36.92, 61)	
Hispanic	-6.83	(8.99, 292)		-10.80	(32.59, 61)	
Age	-3.47	(3.26, 292)		-12.23	(12.11, 61)	
Par. Marital Status (ref = married)			0.01			0.09
Never Married	6.40	(10.05, 291)		74.58 †	(42.65, 62)	
Divorced/Separated	17.34 †	(9.32, 291)		92.00 *	(41.41, 62)	
Other/Unknown	12.90	(14.99, 291)		43.42	(59.78, 62)	
Risk Factors						
Offender Class (ref = non-vio)			0.02			
Violent	17.77 *	(7.72, 292)		17.00	(23.20, 61)	
Chronic-Serious	21.66	(15.66, 292)		---	---	
No. felony referrals	0.30	(.64, 292)		1.73	(1.72, 62)	
No. behavior infractions	0.39	(.83, 292)		-0.07	(1.17, 62)	
Need Factors						
SASSI (ref = non-abuse)						
Dependency	-8.53	(15.64, 279)		-84.39	(96.77, 60)	
Abuse	0.05	(20.08, 279)		-59.80	(105.04, 60)	
Amenability Factors						
TYC Amenability Score (ref = med)						
High	10.93	(8.28, 216)		-9.07	(29.75, 42)	
SOCRATES						
Alc. Recog. (pre)	-0.03	(.47, 209)		2.62	(1.59, 40)	
Alc. Ambiv. (pre)	-0.15	(.82, 209)		3.80	(3.40, 40)	
Alc. Steps (pre)	-0.09	(.43, 209)		2.12	(1.34, 40)	
Drg. Recog. (pre)	-0.32	(.49, 209)		4.57 **	(1.51, 40)	0.19
Drg. Ambiv. (pre)	-0.02	(.63, 209)		3.77	(3.11, 40)	
Drg. Steps (pre)	-0.60	(.47, 209)		3.00 †	(1.62, 40)	0.08
Staff Evaluations						
Overall Participation	7.40 *	(3.62, 241)	0.02	17.81	(11.29, 49)	
Understand curriculum	5.57	(3.97, 242)		10.60	(13.94, 49)	
Understand addiction	7.02	(5.26, 242)		0.86	(16.74, 49)	
Seek help	4.17	(4.62, 242)		0.68	(17.91, 49)	
Acknowledge addiction	1.86	(4.74, 242)		0.98	(18.01, 49)	
Acknowledge impact	1.62	(4.84, 242)		-0.08	(17.76, 49)	
Performance grade	3.18	(3.82, 241)		-7.32	(15.17, 49)	
Commit to be drug free	5.17	(4.29, 239)		-6.43	(39.51, 49)	
Family involvement	6.06 †	(3.50, 230)	0.01	22.08	(19.81, 47)	
Performance Index	3.46 *	(1.59, 227)	0.02	1.81	(5.20, 47)	
Sites (ref = GID)			0.24			0.21
Evins	-52.57 ***	(13.42, 292)		-61.23 *	(28.18, 62)	
Jefferson County	-31.09 **	(11.61, 292)		51.61	(36.90, 62)	
Gainesville	-85.27 ***	(11.49, 292)		-73.83 **	(28.18, 62)	

† < .10; * < .05; ** < .01; *** < .001

TABLE 5. Logistic Regression Univariate Model of Slow/Fast Completion on Select Predictors

	Univariate	(S.E., N)	Odds Ratio	Pseudo R^2
Sociodemographics				
Race (ref = white)				
Black	-0.12	(.34, 292)	0.89	
Hispanic	-0.04	(.31, 292)	0.96	
Age	0.25 *	(.11, 292)	1.29	0.02
Par. Marital Status (ref = married)				0.02
Never Married	-0.49	(.35, 292)	0.61	
Divorced/Separated	-0.71 *	(.33, 292)	0.49	
Other/Unknown	-0.01	(.52, 292)	0.99	
Risk Factors				
Offender Class (ref = non-vio)				
Violent	-0.13	(.26, 292)	0.88	
Chronic-Serious	-0.51	(.55, 292)	0.60	
No. felony referrals	-0.01	(.02, 292)	0.99	
No. behavior infractions	-0.01	(.03, 292)	1.00	
Need Factors				
SASSI (ref = non-abuse)				
Dependency	0.50	(.54, 279)	1.66	
Abuse	0.41	(.69, 279)	1.50	
Amenability Factors				
TYC Amenability Score (ref = med)				
High	-0.44	(.27, 216)	0.64	
SOCRATES				
Alc. Recog. (pre)	0.001	(.02, 209)	1.00	
Alc. Ambiv. (pre)	0.01	(.03, 209)	1.00	
Alc. Steps (pre)	0.01	(.01, 209)	1.01	
Drg. Recog. (pre)	0.02	(.02, 209)	1.02	
Drg. Ambiv. (pre)	0.01	(.02, 209)	1.00	
Drg. Steps (pre)	0.03 †	(.02, 209)	1.03	0.01
Staff Evaluations				
Overall Participation	-0.17	(.13, 241)	0.84	
Understand curriculum	0.00	(.14, 242)	1.00	
Understand addiction	-0.07	(.18, 242)	0.93	
Seek help	-0.01	(.16, 242)	0.99	
Acknowledge addiction	0.00	(.16, 242)	1.00	
Acknowledge impact	-0.01	(.17, 242)	0.99	
Performance grade	0.03	(.13, 241)	1.03	
Commit to be drug free	-0.17	(.15, 239)	0.84	
Family involvement	-0.26 *	(.12, 230)	0.77	0.02
Performance Index	-0.07	(.06, 227)	0.94	
Sites (ref = GID)				0.21
Evins	1.21 *	(.56, 292)	3.34	
Jefferson County	-0.21	(.50, 292)	0.81	
Gainesville	2.05 ***	(.50, 292)	7.79	

† < .10; * < .05; ** < .01; *** < .001
1 = fast completion, 0 = slow completion

TABLE 6. OLS Regression Univariate Models of Program Performance Index on Select Predictors

	Univariate	(S.E., N)	R^2
Sociodemographics			
Race (ref = white)			
Black	-0.53	(.46, 273)	
Hispanic	-0.61	(.41, 273)	
Age	0.28 †	(.16, 273)	0.01
Par. Marital Status (ref = married)			0.02
Never Married	-1.01 *	(.45, 273)	
Divorced/Separated	-0.87 *	(.43, 273)	
Other/Unknown	-1.18 †	(.66, 273)	
Risk Factors			
Offender Class (ref = non-vio)			
Violent	-0.48	(.35, 274)	
Chronic-Serious	-0.20	(.77, 274)	
No. felony referrals	-0.03	(.03, 274)	
No. behavior infractions	-0.19 ***	(.02, 274)	0.20
Need Factors			
SASSI (ref = non-abuse)			
Dependency	-0.88	(.76, 263)	
Abuse	-0.59	(.95, 263)	
Amenability Factors			
TYC Amenability Score (ref = med)			
High	0.56	(.36, 201)	
SOCRATES			
Alc. Recog. (pre)	0.01	(.02, 198)	
Alc. Ambiv. (pre)	0.03	(.04, 198)	
Alc. Steps (pre)	0.01	(.02, 198)	
Drg. Recog. (pre)	0.02	(.02, 198)	
Drg. Ambiv. (pre)	0.03	(.04, 198)	
Drg. Steps (pre)	0.003	(.02, 198)	
Sites (ref = GID)			0.06
Evins	0.96 †	(.53, 274)	
Jefferson County	1.78 ***	(.46, 274)	
Gainesville	1.68 ***	(.46, 274)	

† < .10; * < .05; ** < .01; *** < .001

TABLE 7. OLS Regression Univariate Models of Number of Behavior Infractions on Select Predictors

	Univariate	(S.E., N)	R^2
Sociodemographics			
Race (ref = white)	-0.47	(1.01, 353)	
Black	0.58	(.92, 353)	
Hispanic	-0.53	(.33, 353)	
Age			
Par. Marital Status (ref = married)	1.33	(1.05, 353)	
Never Married	0.84	(.99, 353)	
Divorced/Separated	-0.04	(1.57, 353)	
Other/Unknown			
Risk Factors			
Offender Class (ref = non-vio)	1.17	(.77, 354)	
Violent	-0.31	(1.71, 354)	
Chronic-Serious	-0.03	(.06, 354)	
No. felony referrals			
Need Factors			
SASSI (ref = non-abuse)	3.32 †	(1.72, 339)	0.01
Dependency	3.73 †	(2.14, 339)	
Abuse			
Amenability Factors			
TYC Amenability Score (ref = med)			
High	-1.38 †	(.81, 258)	0.01
SOCRATES			
Alc. Recog. (pre)	-0.05	(.05, 249)	
Alc. Ambiv. (pre)	-0.14	(.08, 249)	
Alc. Steps (pre)	-0.06	(.04, 249)	
Drg. Recog. (pre)	-0.02	(.05, 249)	
Drg. Ambiv. (pre)	-0.04	(.07, 249)	
Drg. Steps (pre)	0.00	(.05, 249)	
Sites (ref = GID)			0.05
Evins	-2.01	(1.29, 354)	
Jefferson County	-4.40 ***	(1.11, 354)	
Gainesville	-2.89 **	(1.08, 354)	

† < .10; * < .05; ** < .01; *** < .001

TABLE 8. Descriptive and Comparison Statistics for the Five Treatment Sites

	Giddings (N=68)		Evins (N=55)		Jefferson Co. (N=118)		Gainesville (N=146)		McFadden (N=19)	
	Mean	(S.D., N)	Mean	(S.D., N)	Mean	(S.D., N)	Mean	(S.D., N)	Mean	(S.D., N)
Dependent Variables										
Program Outcome										
Completion (1 = yes)	0.35 ***	(.48, 68)	0.69	(.47, 55)	0.92 ***	(.28, 118)	0.84 **	(.37, 146)	0.63 [b]	(.50, 19)
Expulsion (1 = yes)	0.37 ***	(.49, 68)	0.27 **	(.45, 55)	0.06 ***	(.24, 118)	0.10 *	(.30, 146)	0.00 †[b]	(0.00, 19)
Other (1 = yes)	0.26 ***	(.44, 68)	0.04 [b]	(.19, 55)	0.03 **	(.16, 118)	0.05	(.23, 146)	0.37 ***[b]	(.50, 19)
Days to Completion	230.64 **	(84.54, 25)	182.18	(37.95, 38)	203.66 ***	(47.90, 108)	150.59 ***	(51.33, 123)	301.67 ***	(43.50, 12)
Days to Expulsion	153.12 †	(106.22, 26)	92.73 †	(62.38, 15)	205.57 •	(98.03, 7)	93.06 †	(72.18, 16)	0.00	(0.00, 19)
No. behavior infractions	6.88 **	(6.30, 68)	5.25	(7.28, 55)	2.93 ***	(5.40, 118)	4.70	(7.15, 146)	1.16 **	(4.34, 19)
Sociodemographics										
Race										
Black	0.35	(.48, 66)	0.16 •	(.37, 55)	0.31	(.46, 118)	0.28	(.45, 146)	0.37	(.50, 19)
Hispanic	0.44	(.50, 66)	0.76 ***	(.43, 55)	0.42 *	(.50, 118)	0.51	(.50, 146)	0.42	(.51, 19)
White	0.21	(.41, 66)	0.07 **	(.26, 55)	0.27 †	(.45, 118)	0.21	(.41, 146)	0.21 [b]	(.42, 19)
Age	17.69	(1.15, 66)	17.55	(.96, 55)	17.45	(1.06, 118)	17.43	(1.08, 146)	17.66	(.92, 19)
Par. Marital Status										
Never Married	0.32	(.47, 68)	0.22	(.42, 55)	0.31	(.47, 118)	0.32	(.47, 145)	0.21	(.42, 19)
Married	0.13	(.34, 68)	0.27 **	(.45, 55)	0.10 *	(.30, 118)	0.18	(.38, 145)	0.16 [b]	(.37, 19)
Divorced/Separated	0.46	(.50, 68)	0.42	(.50, 55)	0.52 †	(.50, 118)	0.39 †	(.49, 145)	0.47	(.51, 19)
Other	0.07 [b]	(.26, 68)	0.07 [b]	(.26, 55)	0.05	(.22, 118)	0.08	(.27, 145)	0.11 [b]	(.32, 19)
Risk Factors										
Classifying Offense										
Violent A or B	0.26	(.44, 68)	0.16	(.37, 55)	0.20	(.40, 118)	0.18	(.39, 146)	0.00 *[b]	(0.00, 19)
Cont.Sub. Dealer	0.01 [b]	(.12, 68)	0.02 [b]	(.13, 55)	0.05 [b]	(.22, 118)	0.03 [b]	(.18, 146)	0.00 [b]	(0.00, 19)
Chron. Serious Off	0.01 [b]	(.12, 68)	0.02 [b]	(.13, 55)	0.07 †	(.25, 118)	0.04	(.20, 146)	0.00 [b]	(0.00, 19)
Firearm Offender	0.06	(.24, 68)	0.15 †	(.36, 55)	0.09	(.29, 118)	0.08	(.26, 146)	0.00 [b]	(0.00, 19)
Gen. Off.	0.16 ***	(.37, 68)	0.56	(.50, 55)	0.52	(.50, 118)	0.60 ***	(.49, 146)	1.00 ***	(0.00, 19)
Det. Sent. Offender	0.49 ***	(.50, 68)	0.09	(.29, 55)	0.07 **	(.25, 118)	0.07 ***	(.25, 146)	0.00 †[b]	(0.00, 19)
Offender Class										
Non-Violent	0.24 ***	(.43, 68)	0.73 †	(.45, 55)	0.66	(.48, 118)	0.71 **	(.46, 146)	1.00 ***	(0.00, 19)
Violent	0.75 ***	(.44, 68)	0.25	(.44, 55)	0.27 •	(.45, 118)	0.25 **	(.44, 146)	0.00 **	(0.00, 19)
Chronic-Serious	0.01 [b]	(.12, 68)	0.02 [b]	(.13, 55)	0.07 †	(.25, 118)	0.04	(.20, 146)	0.00 [b]	(0.00, 19)
Risk level										
Low	0.16	(.37, 68)	0.09	(.29, 55)	0.16	(.37, 114)	0.14	(.35, 146)	0.69 ***[b]	(.48, 16)
Medium	0.50	(.50, 68)	0.47	(.50, 55)	0.41	(.49, 114)	0.48	(.50, 146)	0.19 •	(.40, 16)
High	0.34	(.48, 68)	0.44	(.50, 55)	0.43	(.50, 114)	0.38	(.49, 146)	0.13 *	(.34, 16)
No. felony referrals	7.54 •	(6.34, 68)	10.78 *	(7.71, 55)	8.81	(4.46, 118)	8.62	(5.07, 146)	7.16 †	(3.48, 19)

TABLE 8. Descriptive and Comparison Statistics for the Five Treatment Sites (cont.)

	Giddings (N=68)		Evins (N=55)		Jefferson Co. (N=118)		Gainesville (N=146)		McFadden (N=19)	
	Mean	(S.D., N)	Mean	(S.D., N)	Mean	(S.D., N)	Mean	(S.D., N)	Mean	(S.D., N)
No. felony adjud.	2.26 *	(1.30, 66)	2.33	(1.02, 55)	2.61	(1.05, 116)	2.63	(1.17, 146)	2.26	(.73, 19)
No. TYC commit.	1.08	(.27, 65)	1.02 •	(.14, 54)	1.04	(.20, 117)	1.10 †	(.30, 144)	1.00	(0.00, 18)
No. parole revocations	0.02 **	(.12, 65)	0.13	(.52, 54)	0.04	(.24, 117)	0.12	(.43, 144)	0.06	(.24, 18)
Need Factors										
SASSI										
Non-Abuse	0.06 [b]	(.24, 64)	0.02 [b]	(.14, 52)	0.08 †	(.27, 111)	0.03	(.18, 143)	0.06 [b]	(.25, 16)
Dependency	0.84	(.37, 64)	0.87	(.34, 52)	0.86	(.35, 117)	0.91	(.29, 143)	0.94 [b]	(.25, 16)
Abuse	0.09 [b]	(.29, 64)	0.12 [b]	(.32, 52)	0.06	(.24, 117)	0.06	(.23, 143)	0.00 [b]	(0.00, 16)
DSM CD-tx need										
Chemical dependency	0.93	(.26, 68)	0.82 ***	(.39, 55)	0.96	(.20, 115)	0.97 •	(.16, 145)	1.00 [b]	(0.00, 16)
Chemical Abuse	0.06 [b]	(.24, 68)	0.18 ***	(.39, 55)	0.03	(.18, 115)	0.02 *	(.14, 145)	0.00 [b]	(0.00, 16)
Hx of chemical use	0.01 [b]	(.12, 68)	0.00 [b]	(0.00, 55)	0.01 [b]	(.09, 115)	0.04 [b]	(.08, 145)	0.00 [b]	(0.00, 16)
Amenability Factors										
TYC Amenability Index Score										
Low	0.07 ***	(.26, 41)	0.00 [b]	(.00, 37)	0.01 [b]	(.11, 89)	0.00 †	(.00, 114)	0.00 [b]	(.00, 10)
Medium	0.44	(.50, 41)	0.51	(.51, 37)	0.47	(.50, 89)	0.54	(.50, 114)	0.40 [b]	(.52, 10)
High	0.49	(.51, 41)	0.49	(.51, 37)	0.52	(.50, 89)	0.46	(.50, 114)	0.60 [b]	(.52, 10)
SOCRATES										
A - Recog. (pre)	23.43 •	(8.64, 49)	20.06	(8.07, 48)	19.39	(9.36, 56)	20.72	(8.85, 118)	17.47	(7.04, 17)
A - Ambiv. (pre)	11.98	(4.47, 49)	11.38	(4.69, 48)	11.05	(5.55, 56)	11.04	(4.90, 118)	10.29	(4.06, 17)
A - Steps (pre)	28.57 †	(9.46, 49)	25.65	(9.41, 48)	24.41 †	(10.11, 56)	26.86	(9.70, 118)	27.94	(10.64, 17)
D - Recog. (pre)	28.69 •	(7.92, 49)	26.47	(7.88, 47)	25.23	(9.88, 56)	25.09 †	(7.89, 120)	26.39	(9.48, 18)
D - Ambiv. (pre)	13.65	(5.17, 49)	13.91	(4.20, 47)	13.18	(5.60, 56)	13.59	(4.35, 120)	13.67	(5.05, 18)
D - Steps (pre)	31.76	(8.68, 49)	30.47	(7.12, 47)	27.30 *	(10.21, 56)	30.74	(7.69, 120)	29.61	(10.35, 18)
Staff Evaluations										
Overall Participation	2.89 •	(1.59, 65)	3.22	(1.28, 50)	3.61 **	(1.01, 103)	3.38	(1.05, 92)	2.83	(1.72, 18)
Understand curriculum	2.85 **	(1.52, 65)	3.24	(1.19, 50)	3.48 •	(.90, 104)	3.48 †	(.99, 92)	3.11	(1.57, 18)
Understand addiction	2.49 **	(1.21, 65)	2.86	(.97, 50)	3.05 *	(.72, 104)	3.04 †	(.78, 92)	2.78	(1.35, 18)
Seek help	2.37 ***	(1.17, 65)	2.84	(1.00, 50)	2.87	(.80, 104)	3.04 **	(.89, 92)	2.67	(1.28, 18)
Acknowledge addiction	2.45 ***	(1.13, 65)	2.90	(1.02, 50)	2.94	(.83, 104)	3.12 **	(.89, 92)	2.61	(1.24, 18)
Acknowledge impact	2.42 ***	(1.16, 65)	2.86	(.99, 50)	2.89	(.77, 104)	3.05 **	(.93, 92)	2.67	1.28, 18)
Performance grade	2.66 ***	(1.57, 65)	3.38	(1.18, 50)	3.34	(1.06, 104)	3.57 **	(1.09, 91)	3.00	(1.50, 18)
Commit to be drug free	1.98 **	(1.12, 65)	2.12	(.96, 50)	2.47 †	(.90, 102)	2.52 *	(.96, 91)	2.22	(1.06, 18)
Family Involvement	1.98 •	(1.05, 60)	1.48 ***	(.79, 50)	2.79 ***	(.96, 96)	2.32	(1.15, 90)	2.06	(1.21, 18)
Performance Index	-1.12 **	(3.41, 60)	-0.22	(2.66, 50)	0.51 •	(1.79, 95)	0.45 †	(2.23, 88)	-0.59	(3.49, 18)

a. Comparison statistics are represented by asterisks († < .10, * < .05, ** < .01, *** < .001), indicating that the mean for a particular treatment site differs statistically from the mean of the remaining three treatment sites combined (McFadden excluded).

b. Indicates that at least 25% of the cells have expected counts of less than 5.

TABLE 9. Key Barriers to Successful Program Progress Identified by Staff

- Gang affiliation (N = 80) -- e.g., gang leader, preoccupied with gangs, or in some way or another gang involved.
- Family issues (N = 36) -- e.g., drug addiction within the family, mental health and other sources of family dysfunction, little or no family involvement, etc.
- Learning disability (N = 18) -- e.g., little formal education, low educational level for age, relative inability to read or cognitively process treatment materials, etc.

TABLE 10. Descriptive Statistics for Treatment vs. Full and Restricted Control Groups

	Treatment Group (N = 406)		Control Group (N = 451)		Control Group (N = 220)	
	Mean	(S.D., N)	Mean	(S.D., N)	Mean	(S.D., N)
Dependent Variables						
Program Outcome						
Completion (1 = yes)	0.75	(.43, 406)	---	---	---	---
Expulsion (1 = yes)	0.15	(.36, 406)	---	---	---	---
Other (1 = yes)	0.09	(.29, 406)	---	---	---	---
Days to Completion	185.55	(62.88, 304)	---	---	---	---
Days to Expulsion	127.11	(94.41, 62)	---	---	---	---
No. behavior infractions	4.46	(6.59, 406)	6.26 ***	(8.96, 451)	7.68 ***	(10.49, 220)
Sociodemographics						
Race						
Black	0.29	(.45, 405)	0.35 *	(.48, 450)	0.35 †	(.48, 219)
Hispanic	0.50	(.50, 405)	0.47	(.50, 450)	0.48	(.50, 219)
White	0.21	(.41, 405)	0.17	(.38, 450)	0.16	(.37, 219)
Age	17.51	(1.06, 404)	17.52	(1.17, 450)	17.40	(1.10, 219)
Par. Marital Status						
Never Married	0.30	(.46, 405)	0.34	(.47, 406)	0.29	(.45, 198)
Married	0.16	(.37, 405)	0.17	(.38, 406)	0.16	(.36, 198)
Divorced/Separated	0.44	(.50, 405)	0.38 •	(.49, 406)	0.43	(.50, 198)
Other/Unknown	0.07	(.30, 405)	0.07	(.26, 406)	0.08	(.27, 198)
Risk Factors						
Classifying Offense						
Violent A or B	0.19	(.39, 406)	0.20	(.40, 451)	0.15	(.36, 220)
Cont.Sub. Dealer	0.03	(.18, 406)	0.04	(.19, 451)	0.05	(.21, 220)
Chron. Serious Off	0.04	(.19, 406)	0.00 ***	(0.00, 451)	0.00 **	(0.00, 220)
Firearm Offender	0.08	(.28, 406)	0.06	(.24, 451)	0.04 •	(.20, 220)
Gen. Off.	0.51	(.50, 406)	0.58 •	(.49, 451)	0.68 ***	(.47, 220)
Det. Sent. Offender	0.14	(.35, 406)	0.06 ***	(.25, 451)	0.04 ***	(.20, 220)
Offender Class						
Non-Violent	0.63	(.48, 406)	0.68 •	(.47, 451)	0.77 ***	(.42, 220)
Violent	0.33	(.47, 406)	0.26	(.44, 451)	0.19 ***	(.39, 220)
Chronic-Serious	0.04	(.19, 406)	0.06	(.23, 451)	0.04	(.20, 220)
Risk level						
Low	0.16	(.37, 399)	0.00 ***	(0.00, 416)	0.00 ***	(0.00, 208)
Medium	0.45	(.50, 399)	0.51 †	(.50, 416)	0.54 *	(.50, 208)
High	0.39	(.49, 399)	0.49 **	(.50, 416)	0.46 †	(.50, 208)
No. felony referrals	8.72	(5.57, 406)	8.72	(5.11, 450)	9.30	(5.54, 219)
No. felony adjudications	2.50	(1.13, 401)	2.57	(1.16, 447)	2.60	(1.09, 216)
No. previous TYC commit.	1.06	(.24, 398)	1.09	(.33, 443)	1.07	(.30, 216)
No. parole revocations	0.08	(.36, 398)	0.11	(.36, 443)	0.10	(.33, 216)
Need Factors						
SASSI						
Non-Abuse	0.05	(.22, 386)	0.16 ***	(.37, 422)	0.07	(.25, 212)
Dependency	0.88	(.33, 386)	0.68 ***	(.47, 422)	0.90	(.31, 212)
Abuse	0.07	(.26, 386)	0.16 ***	(.36, 422)	0.04	(.19, 212)
DSM CD-tx need						
Chemical dependency	0.94	(.24, 399)	0.49 ***	(.50, 451)	1.00 ***	(0.00, 220)
Chemical Abuse	0.05	(.22, 399)	0.51 ***	(.50, 451)	0.00 ***	(0.00, 220)
Hx of chemical use	0.01	(.09, 399)	0.00 †	(0.00, 451)	0.00	(0.00, 220)

TABLE 10. Descriptive Statistics for Treatment vs. Full and Restricted Control Groups (cont.)

	Treatment Group (N = 406)		Control Group (N = 451)		Control Group (N = 220)	
	Mean	(S.D., N)	Mean	(S.D., N)	Mean	(S.D., N)
Amenability Factors						
TYC Amenability Index Score						
Low	0.01	(.12, 291)	0.00 [b]	(0.00, 219)	0.00 [b]	(0.00, 180)
Medium	0.49	(.50, 291)	0.56	(.50, 219)	0.52	(.50, 180)
High	0.49	(.50, 291)	0.44	(.50, 219)	0.48	(.50, 180)
SOCRATES						
A - Recog. (pre)	20.62	(8.77, 288)	17.56 ***	(8.59, 149)	19.43	(9.06, 100)
A - Ambiv. (pre)	11.22	(4.87, 288)	10.35 †	(4.79, 149)	11.10	(5.02, 100)
A - Steps (pre)	26.54	(9.78, 288)	24.56 •	(10.46, 149)	25.04	(10.35, 100)
D - Recog. (pre)	26.03	(8.46, 290)	21.99 ***	(9.42, 149)	24.99	(8.90, 100)
D - Ambiv. (pre)	13.80	(6.18, 290)	12.03 **	(4.97, 149)	13.25	(4.48, 100)
D - Steps (pre)	30.25	(8.92, 290)	27.84 •	(10.12, 148)	29.49	(9.21, 99)
Staff Evaluations						
Overall Participation	3.30	(1.26, 328)	---	---	---	---
Understand curriculum	3.30	(1.17, 329)	---	---	---	---
Understand addiction	2.89	(.95, 329)	---	---	---	---
Seek help	2.80	(.99, 329)	---	---	---	---
Acknowledge addiction	2.87	(.99, 329)	---	---	---	---
Acknowledge impact	2.83	(.99, 329)	---	---	---	---
Performance grade	3.26	(1.26, 328)	---	---	---	---
Commit to be drug free	2.32	(1.00, 326)	---	---	---	---
Family involvement	2.25	(1.11, 314)				
Performance Index	0.00	(2.60, 311)				
Treatment Sites						
Giddings	0.17	(.37, 406)	---	---	---	---
Evins	0.14	(.34, 406)	---	---	---	---
Jefferson County	0.29	(.45, 406)	---	---	---	---
Gainesville	0.36	(.48, 406)	---	---	---	---
McFadden	0.05	(.21, 406)	---	---	---	---

a. Contrast statistics are represented by asterisks († < .10, • < .05, ** < .01, *** < .001), indicating that the mean for a particular control group differs statistically from the mean for the treatment group.
b. Indicates that at least 25% of the cells have expected counts of less than 5.

APPENDIX A: Texas Youth Commission
Chemical Dependency Treatment Program – Exit Assessment

Student's TYC #: _____ Circle Reason for D/C: SC, POPM, Fail, MaxBen, Died, Other

Student's Name: _____ Date of Discharge: _____

Date Form Completed: _____

Please circle the rating under each question that best describes this student. Complete this worksheet for all students leaving the CDTP, regardless of status of discharge. Retain the original copy in one, centrally kept, "RSAT Evaluation file" on your campus.

(1) **What was the student's overall level of participation in the CDTP?**

1=very passive	2=moderately passive	3=neither active nor passive	4=moderately active	5=very active

(2) **Please rate the student's understanding of the CD Education Curriculum materials.**

1=very poor 2=poor 3=average 4=good 5=very good

(3) **To what extent did the student understand that behavior, thinking errors and choices are related to their addiction?**

1=not at all 2=only slightly 3=moderately 4=completely

(4) **How actively did the youth seek help? (For example, request individual counseling, attend voluntary support group meetings, express that he or she needs outside help?)**

1=not at all 2=only slightly 3=moderately 4=strongly

(5) **Did the student accept that their substance dependence interfered with their goals?**

1=not at all 2=only slightly 3=moderately 4=strongly

(6) **To what extent did the student acknowledge that their substance dependence affected others (e.g., that there were victims of their addiction)?**

1=not at all 2=only slightly 3=moderately 4=completely

(7) **In terms of overall performance in the treatment program, what grade (equivalent to a letter grade in school) would you give the student?**

A B C D F

(8) **What is your assessment of the youth's commitment to remaining free of mood-altering chemicals for one year?**

1=not at all likely 2=somewhat likely 3=moderately likely 4=very likely

(9) **Does the student have any special circumstances or challenges that affected his/her performance in the CDTP?** _____ Yes _____ No

If yes, please explain as many as apply (e.g., learning disabilities, death in the family, gang involvement, etc.). _____

(10) **How involved was the youth's family (significant others) in the youth's treatment?**

1=not at all 2=only slightly 3=moderately 4=strongly

Signed: _____ **Completed by:** PSW assigned, other PSW, PA, CDS, sec., other _____

APPENDIX B: TREATMENT VS. CONTROL GROUP PRE/POST/CHANGE SOCRATES SCORES

APPENDIX B. Treatment vs. Control Group Pre/Post/Change SOCRATES Scores

	Treatment Group (N = 406)		Control Group (N = 451)		Control Group (N = 220)	
	Mean	(S.D., N)	Mean	(S.D., N)	Mean	(S.D., N)
SOCRATES						
A - Recog. (pre)	20.62	(8.77, 288)	17.56 ***	(8.59, 149)	19.43	(9.06, 100)
A - Ambiv. (pre)	11.22	(4.87, 288)	10.35 †	(4.79, 149)	11.10	(5.02, 100)
A - Steps (pre)	26.54	(9.78, 288)	24.56 †	(10.46, 149)	25.04	(10.35, 100)
D - Recog. (pre)	26.03	(8.46, 290)	22.05 ***	(9.49, 149)	24.99	(8.90, 100)
D - Ambiv. (pre)	13.80	(6.18, 290)	11.98 ***	(4.89, 149)	13.25	(4.48, 100)
D - Steps (pre)	30.25	(8.92, 290)	27.81 **	(10.10, 148)	29.49	(9.21, 99)
A - Recog. (post)	27.33	(8.28, 99)	18.02 ***	(7.78, 42)	18.78 ***	(7.73, 37)
A - Ambiv. (post)	13.66	(4.47, 99)	10.45 ***	(4.19, 42)	10.78 ***	(4.18, 37)
A - Steps (post)	33.03	(8.85, 99)	23.98 ***	(9.14, 42)	23.86 ***	(8.76, 37)
D - Recog. (post)	30.66	(6.41, 104)	23.34 ***	(8.39, 44)	23.72 ***	(8.08, 39)
D - Ambiv. (post)	15.40	(3.90, 104)	12.52 ***	(4.77, 44)	12.82 ***	(4.59, 39)
D - Steps (post)	35.13	(6.68, 104)	30.23 ***	7.98, 44)	30.10 ***	(7.32, 39)
A - Recog. (cng.)	-7.81	(10.73, 87)	-0.25 **	(12.61, 32)	-1.26 **	(12.79, 27)
A - Ambiv. (cng.)	-1.72	(5.76, 92)	0.09	(4.66, 34)	-0.24	(4.63, 29)
A - Steps (cng.)	-5.33	(11.36, 92)	-3.06	(10.81, 34)	-1.83	(9.92, 29)
D - Recog. (cng.)	-4.35	(9.43, 92)	-0.88 †	(10.19, 34)	-1.00	(9.83, 29)
D - Ambiv. (cng.)	-1.72	(5.76, 92)	0.09 †	(4.66, 34)	-0.24	(4.63, 29)
D - Steps (cng.)	-5.33	(11.36, 92)	-3.06	(10.81, 34)	-1.83	(9.92, 29)

a. Contrast statistics are represented by asterisks († < .10, * < .05, ** < .01, *** < .001), indicating that the mean for a particular control group differs statistically from the mean for the treatment group.