

PROGRAM RETENTION AND PERCEIVED COERCION IN THREE MODELS OF MANDATORY DRUG TREATMENT

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Despite the proliferation of drug courts and other mandatory treatment models, few studies have compared the impact of different program features comprising these models. This study compared three groups of clients (N = 330) mandated to the same long-term residential treatment facilities. Study participants were referred from two highly structured programs or from more conventional legal sources, such as probation or parole agents. Analyses showed that these clients varied substantially in their perceptions of legal pressure, and these perceptions generally corresponded to the programs' different coercive policies and practices. Retention analyses confirmed that the odds of staying in treatment for six months or more was nearly three times greater for clients in the most coercive program compared to clients in the third group. Results support the use of structured protocols for informing clients about legal contingencies of participation and how that participation will be monitored, and developing the capacity to enforce threatened consequences for failure.

INTRODUCTION

Compelled to respond to rising jail and prison costs and high rates of recidivism, public officials have increasingly turned to alternative means of dealing with nonviolent offenders with drug problems. Drug courts, facilitated by substantial federal support, are the most ubiquitous models of justice-based treatment in the

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community, operating in all 50 states and numbering over 500 (USDOJ, 2000). TASC programs, which provide case management services for clients mandated to treatment by courts and corrections agencies, have grown to 300 sites since they were initiated in the 1970s (Anglin et al., 1996).¹ Other, emerging justice-based treatment models that have been replicated in multiple sites include Breaking the Cycle (BTC) and Drug Treatment Alternative to Prison (DTAP) programs. A federal initiative that takes a jurisdiction-wide approach to testing, treating, and managing drug-using offenders, BTC now operates in several states and localities nationally (Harrell, Hirst, & Mitchell, 2000). DTAP, a prosecutorial-based program operating in five jurisdictions in New York, is the subject of recent federal legislation that supports its expansion nationwide (Dynia & Sung, 2000). While these are the more common and well known programs, a number of similar, locally-developed models exist that aim to divert drug-abusing offenders from traditional criminal justice sanctioning and employ legal coercion to increase treatment use and effectiveness.

Evaluations of these community-based treatment alternatives have appeared more frequently in recent years. Again, drug courts (Belenko, 1998, 2000) and TASC programs (Anglin, Longshore, & Turner, 1999; Hubbard, Collins, Rachal, & Cavanaugh, 1988) are the most common subjects of research, but other models have also been studied (e.g., Hiller, Knight, & Simpson, 1999). As the number of programs and evaluations grow, policy makers and researchers will demand to know not just whether these programs work, but how they work, and how they can be replicated and improved. Increasingly, reviewers of the substance abuse treatment literature have called for a greater focus on the unexplored "black box" of treatment (e.g., Simpson, Joe, Rowan-Szal, & Greener, 1997; Taxman, 2000). As evaluations of mandatory treatment programs become more common, this research should also become more sophisticated, comparing and contrasting program models and identifying factors that make them more or less effective. This paper describes research that examined three different models of legally mandated treatment in New York City. The study assessed the coercive policies and program features of the three models and, through the use of an exploratory measure administered at admission, participants' perceptions of these program components. Analyses compared client retention in the models and examined the role of coercive and other program factors, as well as dynamic and static client characteristics on retention.

RELATED LITERATURE

Although legally mandated treatment programs have become more prevalent, their numbers and capacity still fall far short of meeting the substance abuse treatment needs of offenders (Belenko & Peugh, 1998; Wilson, 2000). Advocates for full-

scale expansion of drug treatment alternatives are countered by those who view treatment as “soft” or as an ineffective, revolving door response to drug-involved offenders. The general treatment literature suggests this latter view is half-right. Rates of attrition in drug treatment are high, ranging from 40% to 90%, but studies also show that persons who remain in treatment for a sufficient duration show reduced criminal recidivism and other favorable outcomes (French, Zarkin, Hubbard, & Rachal, 1993; Lewis & Ross, 1994; Simpson, Joe, & Brown, 1997).

Treatment retention has come to be viewed as a critical outcome measure, and one of the best predictors of a client’s long-term success (Gerstein & Harwood, 1990; Hubbard, Craddock, Flynn, Anderson, & Etheridge, 1997; Simpson, Joe, Rowan-Szal, & Greener, 1997). Research that identifies elements that enhance retention, or conversely identifies risk factors for dropout, can be used by practitioners to improve existing programs and develop new, more effective treatment models. To this end, an extensive literature has examined the effects of client characteristics and program elements on retention. This literature has evolved considerably in recent years, as attention has shifted to the practical implications of how client and program factors interact (Lang & Belenko, 2000). Several studies, for example, are assessing how programs can be altered to respond to such risk factors as comorbid mental health and substance abuse problems (Ravndal & Vaglum, 1997; Sacks, Sacks, & De Leon, 1999). Research has also increasingly explored the role of dynamic client factors, such as motivation or readiness for treatment (Condelli, 1994; Joe, Simpson, & Broome, 1998), or a lack of problem solving and coping strategies (Lloerente del Pozo, Gomez, Fraile, & Perez, 2000) that can be modified through directive interventions. Grounded in empirically derived theories of behavior change (e.g., De Leon, 1996; Miller & Rollnick, 1991; Prochaska, DiClemente, & Norcross, 1992), this line of inquiry has yielded structured program components that can be employed as adjuncts to extant treatment to increase retention and completion rates (Blankenship, Dansereau, & Simpson, 1999).

The coercive components of justice-based treatment programs are widely regarded as effective in increasing mandated clients’ motivation to enter and remain in treatment. In this context, legal coercion is regarded as one form of extrinsic pressure that, like other extrinsic (family, employers) and intrinsic factors, can enhance motivation and induce behavior change. Generally, legal pressure is viewed as working as a precursor to internalized desire to change or in combination with some minimal level of internalized commitment to treatment (De Leon, 1988; Wild, Newton-Taylor, & Alletto, 1998). Researchers have universally acknowledged the need for more studies in this area because “so little is known about the impact of legal pressures on the therapeutic process and how it may be become ‘transformed’ or motivationally internalized” (Knight, Hiller, Broome, & Simpson, 2000, p. 104;

Farabee, Prendergast, & Anglin, 2000; Marlowe, Merikle, Kirby, Festinger, & McLellan, 2001).

Predictably, the progression of studies on coerced treatment has paralleled that of treatment research in general. Initial studies simply compared retention and other outcomes of legally involved clients and those entering treatment voluntarily (Salmon & Salmon, 1983; Pompei & Resnick, 1987; Siddall & Conway, 1988). Subsequent studies assessed outcomes for clients under different types of legal supervision (Anglin, 1988) and under varying levels of supervision (Anglin, Brecht, & Maddahian, 1989; Brecht, Anglin, & Wang, 1993). More recent studies and research reviews have begun to examine the effects of specific coercive program elements and client perceptions of pressure on motivation and retention.

Clients' responses to open-ended questions about the reasons for entering treatment indicate they have complex and multidimensional views of extrinsic and intrinsic pressure that may covary with demographic variables (Marlowe et al., 2001). Clients rarely cite a single, driving force behind their decision to enter treatment and in one study, legal pressures were reflected in only 3% of the reasons given for entering treatment, despite the fact that 25 percent of the sample were referred from criminal justice sources (Marlowe et al., 1996).

In two studies of retention, Hiller, Knight, and colleagues examined a mix of client and program factors relating to legal pressure (client legal status, reported legal reasons for treatment entry, program's use of drug testing, percentage of clients under legal supervision), along with more traditional, non-legal variables (treatment readiness and engagement, demographics) (Hiller, Knight, Broome, & Simpson, 1998; Knight, Hiller, Broome, & Simpson, 2000). In both investigations, clients with greater legal pressure were retained at higher rates. One study indicated that treatment readiness was also predictive of retention, independent of legal pressure, and that readiness and not legal pressure predicted engagement (Knight et al., 2000). Findings from both studies suggested that coordination and cooperation among treatment staff and criminal justice agents could maximize retention.

The most detailed consideration of coercive program factors can be found in discussions of specific sanctioning practices and their effects on compliance (i.e., retention and negative drug screens) in drug courts and other justice-based treatment programs. In advancing the notion of procedural justice as a framework for employing and understanding the impacts of sanctions, Taxman and colleagues (Taxman, Soule, & Gelb, 1999) cite research that supports the use of behavioral contracts, swift and timely responses to violations, and structured sanction menus. They also underscore the importance of discretion and problems with limiting the power of legal agents to impose graduated sanctions.

MODELS OF MANDATORY DRUG TREATMENT

Other reviewers have emphasized behavioral psychology principles, noting, for example, that the incentives structure of many mandatory programs is based on negative reinforcement rather than the potentially more powerful use of rewards (Marlowe & Kirby, 1999). In applying the lessons of contemporary behavioral research, these authors offer a number of recommendations about the need for swift, consistent, carefully tailored sanctions, and more generally about the value of contingency management treatment models (Higgins and Petry, 1999; Higgins, Wong, & Badger, 2000). Evaluators of the Washington, D.C. Superior Court Program have taken a related approach, borrowing tenets of deterrence theory in discussing the impacts of policies and practices on program clients (Harrell & Cavanagh, 1995; Harrell, 1998). Ongoing research at the Urban Institute is attempting to quantify the certainty, celerity, and severity of sanctions in several mandatory treatment programs nationwide (Harrell, Roman, Mitchell, & Marlowe, 2000).

METHOD

MANDATORY TREATMENT MODELS

In the current research, we explored policies and practices of two highly structured and coercive programs, Kings County (Brooklyn) DTAP and a large TASC program operating in and around New York City, and a third set of programs that represented more conventional mandatory treatment. The Brooklyn DTAP program targeted repeat, non-violent felony drug defendants; selected defendants were given the option of long-term residential drug treatment in lieu of a prison term that typically lasts one and one-half to three years (Hynes, 1999). If the offender opted in and completed treatment, charges were dropped. Those who entered DTAP and failed faced prosecution and a prison term under the state's mandatory sentencing statutes for repeat felony offenders. In part to approximate the prison sentence faced by the diverted defendant, DTAP uses 14 to 24-month residential therapeutic communities (TCs) exclusively. Clients in the other two study groups were recruited for the research upon their admission to the same four TCs used by DTAP, so treatment setting and modality were held constant in the research design.

Operated by a local non-profit agency, the TASC program served as a liaison between the courts and the treatment system, providing assessment, referral, and case management services. Most TASC clients in this research were also repeat felony defendants, typically on probation or parole from an earlier offense and facing a new charge. Compared to DTAP, TASC worked with a broader array of defendants, including defendants with violent charges and some first-time felons. The third study group, which served as the comparison sample, included probationers, parolees, and other legally-mandated clients, most of whom were

referred to treatment directly from the courts (but not drug courts, which had not yet been implemented in New York when data collection took place). While most in the comparison group were diverted at court due to new charges, several reported being mandated in lieu of a technical violation of the conditions of their release (typically positive drug tests).

Apart from these basic structural variations, DTAP, TASC, and the comparison group of programs showed important differences in policies and practices that were designed to increase legal pressure to stay in treatment. We assessed the coercive practices of the programs qualitatively by reviewing program literature and conducting interviews and discussions with clients and program and treatment personnel, and through an exploratory quantitative measure administered to clients at admission that assessed their perceptions of legal pressure (PLP) in the programs. Results from both assessments were categorized along four dimensions of coercion: information provided to the client about the treatment mandate and consequences for failure; monitoring; enforcement; and severity of the consequence for failing. Analyses explored the relationship between the programs' coercive strategies and retention in the TCs. More specifically, we tested the hypothesis that DTAP and TASC clients would show greater retention than those in the comparison group. Other factors affecting retention were also studied in multivariate models.

SAMPLE

Treatment staff informed researchers working at the program sites whenever a DTAP, TASC, or other client referred from criminal justice sources had been admitted to the TC. All DTAP and TASC clients were eligible to take part in the study; other legally referred clients took part in a brief screening interview. To be eligible for the research, these clients had to report that they had been told or believed that there would be some legal consequence and that someone in the justice system would be informed if they failed in treatment. Once confirmed as eligible, these clients and DTAP and TASC participants were recruited using a standard informed consent protocol; all but three clients agreed to take part in the study. These were administered an intake interview as soon as possible, typically within the first two weeks of their admission to the TC (all were completed within a month of admission). A small number of clients referred by DTAP, TASC, or other legal sources dropped out of treatment within a few days of admission, before they could be recruited for the study. Study participants included 130 DTAP clients, 124 TASC clients, and 76 clients in the "treatment as usual" comparison group.

Background characteristics of the samples are shown in Table 1. Typical of residential drug treatment clients in New York, the study participants were predominantly male, African-American or Hispanic, and averaged 33 years old.

TABLE 1
SAMPLE DESCRIPTION

Variable Description	DTAP (N=130)	TASC (N=124)	Other CJ Referrals (N=76)
<i><u>Demographics, SES</u></i>			
Age	33.1	32.7	33.5
% Male	88.7	88.0	90.1
<i>Race/Ethnicity**</i>			
% Hispanic	62	50.8	42.1
% African-American	32.7	47.6	56.6
% White	5.3	1.6	1.3
% High school diploma or GED	26	19.4	27.6
% Married	50	44.7	55.3
Weeks worked in past year	14.9	13.5	11.3
Employment income in dollars, prior month	450.9	333.7	309.1
<i><u>Medical, Psychiatric Problems</u></i>			
% Reports chronic medical problem(s)	16.7	21	11.9
% Significant need for medical treatment*	15.3	32.2	27.6
% Psychiatric hospitalization, lifetime	6	6.5	7.9
% Serious depression, lifetime	48.7	43.6	27.6
<i><u>Substance Abuse, Criminal History</u></i>			
% > 1 prior admissions to drug treatment*	37.4	45.1	59.2
Years regular use of heroin	6.9	7.1	6
Years regular use of crack cocaine**	3.4	5.4	4.6
Years regular use of cocaine**	4.1	7.6	8.4
% Significant need for drug treatment	87.3	84.5	93.3
% Ever charged with robbery**	12.7	21.8	31.6
Felony drug convictions**	3.9	3.1	2.3

*p<.05; **p<.01

They had extensive drug and criminal histories, poor employment and educational histories, and a relatively high incidence of medical and psychological problems. The overall sample averaged just under seven years of regular heroin use and about six years of regular use of cocaine. Less than a quarter of the study subjects had graduated from high school or obtained a GED. On most background items the three groups were similar. DTAP had proportionately more Hispanic clients (62%) than TASC (50.8%) and the comparison group (42.1%). While the groups were similar in regard to past heroin use, TASC and comparison group clients reported more extensive use of crack cocaine and, especially, powdered cocaine. Predictably, DTAP clients averaged more drug convictions and fewer arrests for violent offenses, reflecting the programs' different admissions policies. These differences were controlled statistically in testing for group differences in multivariate analyses.

MEASURES

Client history and status information was gathered on the Addiction Severity Index (ASI; McLellan, Luborsky, Cacciola, & Griffith, 1985; McLellan, Alterman, Cacciola, Metzger, & O'Brien, 1992), a widely-used, standardized measure which assesses individuals' family and social background, employment and education, substance abuse, criminal/legal, medical, and psychiatric status and history. The ASI questions were supplemented with several more detailed items we created covering employment history and self-reported criminal behavior. Official criminal history data were obtained from the New York State Division of Criminal Justice Services.

The Perception of Legal Pressure questionnaire, also administered in the intake interview, combines different response formats, including Likert-type items, rankings, numeric scales, forced choice items, and a few open-ended interview questions. The questionnaire is designed to be read aloud to the respondent and filled out by the interviewer. Responses to the measure were analyzed and scored to create a 47-item summated rating scale, with higher scores indicating greater perceived legal pressure. Based on item analyses of the initial scale, eight of the items were removed, primarily due to their poor association with the overall measure. The final 39-item measure had respectable reliability, with a standardized internal consistency coefficient (Cronbach's α) of .80. Scores on this overall PLP measure ranged from 32 to 73 with a mean of 52.4 ($sd=8.9$).

Policies and practices of DTAP, TASC, and the other mandatory treatment models that were included in the study were surveyed through reviews of program documents and structured interviews and informal discussions with clients, treatment program staff, and criminal justice referral and supervision agents. Structured interviews aimed at gathering qualitative data on clients' experience of coercion

MODELS OF MANDATORY DRUG TREATMENT

and the practices of the criminal justice agents and treatment staff were held with 45 study participants upon their admission to the reentry phase of treatment (when they are encouraged to obtain employment and interact with family in the community while still residing at the TC facility) or upon completion of the program. Thirty-six qualitative interviews were held with criminal justice agents and treatment staff.

Results from these interviews, document reviews, and ongoing discussions with program administrators were used to identify the principal coercive policies and practices of the programs within each of the four areas represented in the PLC (information, monitoring, enforcement, and severity). To supplement the narrative account of this information, a simple scoring scheme was created to indicate the presence or absence of each policy/practice within DTAP, TASC, and comparison group models: A score of zero meant that the policy did not exist or was articulated on paper but rarely or never implemented in practice, a score of one indicated that the policy existed but was inconsistently implemented, and a score of two meant the policy both existed and appeared to be fully implemented.

TREATMENT AND RETENTION

The four treatment sites were all long-standing, traditional therapeutic communities operated by large, well-established non-profit agencies. TCs are highly structured residential treatment programs for substance abusers that are designed to promote prosocial behavior and drug abstinence. Communal living provides the context for continuous learning where individual change in conduct, attitudes, and emotions is monitored and mutually reinforced in the day-to-day routine. Residents must earn their way through a series of treatment stages that bring additional status, responsibility, and independence. Typically, the initial orientation phase is two weeks, followed by a 12-month middle phase that is usually spent on a relatively remote program campus in upper New York State. In the final residential phase of reentry, clients return to New York City, where they are encouraged to obtain and hold jobs and to save money for independent living in the community.

We used retention in the TC at one year post-admission as the primary criterion measure in analyses. DTAP, TASC, and the comparison group programs employed somewhat different criteria for successful completion, as did the TCs in granting graduation status to clients. A few clients in this research completed the program in 14 months, while others remained in treatment and had their court case outstanding for two and even three years. Using the one-year retention criterion avoided the subjectivity that can sometimes come into play in completion decisions. Moreover, the vast majority of those who remained for at least a year ended up staying in the program long enough to have their charges dropped or reduced. The retention criterion we used applied to a single treatment program—a client who failed in one

TC and was placed in a second TC was counted as a drop out after s/he left the first program. Second referrals were very rare in DTAP, while more common in TASC and the other programs. We used the more conservative criterion of retention in a single TC because we could not track subsequent treatment referrals in the comparison group.

ANALYSIS PLAN

Analyses progressed in three phases. Initial analyses focused on differences among the study groups, the PLP measure, and bivariate tests to select variables for inclusion in subsequent multivariate analyses of retention. One way ANOVAs and chi-square tests were conducted to test the equivalence of the three groups and to identify variables that needed to be controlled in multivariate tests of the grouping factor. Individual PLP items were then assessed by study group through ANOVA and multiple comparison tests (Scheffe), to examine the correspondence between the coercive policies and practices of the programs and the clients' perceptions of legal pressure. Bivariate analyses (t-tests and chi-square statistics) were done to identify factors from the ASI and the official criminal record that were minimally related to retention ($p < .2$) and to assess multicollinearity of the predictor variables.

Variables emerging from this data reduction process were used to build multivariate models. Logistic regressions were conducted involving the one-year criterion and, for comparison purposes, retention at six months post-admission. Predictors were entered in the models using the forward selection method (tests using backward likelihood ratio elimination yielded virtually the same results). The grouping variable, dummy coded with the comparison group serving as the reference category, was forced into the model in the final step, to assess its independent effects on the retention outcome. In the final analysis phase, bivariate exploratory analyses assessed the relationship between individual PLP items and retention. Here, we were interested in any patterns that suggested that certain domains of items (in the areas of information, monitoring, enforcement, or severity) were more or less predictive of retention.

RESULTS

THREE MODELS OF MANDATORY RESIDENTIAL TREATMENT IN THE COMMUNITY

The major coercive policies and practices employed by one or more of the three programs are shown along with the PLP results in Tables 2, 3, 4, and 5. The tables show results for each of the four categories noted earlier—information given to the offender about the treatment mandate, monitoring of the mandate, enforcement, and severity of consequence for failure. Results from the qualitative policy reviews are shown first, with scores indicating the presence or absence of the policy in each

MODELS OF MANDATORY DRUG TREATMENT

of the programs. Related PLP items in each category are then listed with the means for each study group and results from ANOVAs and multiple comparison tests of the PLP item. As is evident from the policy review, both DTAP and TASC had more coercive policies in place than the comparison programs in all four areas. Scores on the overall PLP measure followed the anticipated pattern with DTAP participants scoring highest (mean=57.19), TASC second (53.01), and the

TABLE 2
INFORMATION POLICIES, PRACTICES, AND PLP SCORES FOR THREE MODELS

Information Items	DTAP	TASC	Other CJ
<i><u>Policies and Practices</u></i> ¹			
Written policy on treatment rules, reasons for expulsion, length of stay	2	1	1
Written policy on legal conditions of treatment mandate and consequences of success/failure	2	2	1
Client must sign agreements specifying conditions, consequences, compliance	2	2	1
Conditions, consequences known to all criminal justice agents (CJAs) involved in referring and monitoring; agents required to communicate these to client	2	2	1
Treatment staff is informed of client's legal conditions and consequences of noncompliance, and must communicate these to client	2	2	1
<i><u>PLP Items</u></i>			
Number, type of CJAs who explained program rules, length of treatment to client [score range is 0- 4.5] [‡]	1.58 (+)	1.43 (+)	1.08 (-)
Number, type of CJAs who explained consequences of failure to client [0-2.5] [‡]	1.98 (+)	2.03 (+)	1.36 (-)
Number, type (verbal or written) of promises made by client to complete treatment program [0-2.5] [‡]	1.92 (+)	1.31 (o)	.66 (-)
Number of treatment staff who explained consequences of failure to client [0-2] [‡]	1.05 (+)	.81 (-)	.68 (-)
Client signed participation agreements to follow rules and complete the treatment program [0-2] [‡]	1.18 (+)	.63 (-)	.49 (-)
CJAs are consistent in explaining consequences of treatment failure to the client [0-2] [‡]	1.59	1.71 (+)	1.49 (-)
CJA and treatment staff give the same message on consequences of failure [0-2] [*]	1.45 (+)	1.34	1.28 (-)

¹ Policy and practice ratings: 0 = has no policy in this area or rarely implements existing policy; 1= policy not clear or limited implementation of policy; 2 = policy exists and is fully implemented

^{*} p<.05; [‡] p<.01; (+) higher than mean indicated with (o) or (-) based on post-hoc comparison test (Scheffe); (o) lower than (+) mean and higher than (-) mean

comparison group a more distant third (43.26); ($F=90.06$ [2,327], $p<.0001$). Individual item scores generally corresponded with the different policies and practices of the programs, although there were some notable departures.

INFORMATION

DTAP had explicit, well-implemented protocols for informing the client and defense attorney about the legal contingencies of participation, consequences of failure, and rules and expectations of the treatment program. An assistant district attorney assigned to the program carried out the protocols, which included requiring the defendant to sign a written agreement that included this information. The agreement was also reviewed verbally in open court by a judge—the program worked with a small number of judges who were familiar with the program—and entered into the court record. DTAP also had formal agreements with the TCs it used. These specified the obligations of the treatment staff to reiterate the rules of the program and the consequences of failure upon the client's admission to the TC.

TASC had similar protocols regarding verbally informing program clients and signing written agreements about legal contingencies; these were implemented by case managers, not prosecutors. TASC differed somewhat from DTAP in that it worked with many more judges, some of whom were less informed or engaged in discussing the program with the defendant. TASC also had less formal agreements and protocols with the TCs, however TASC administrators and case managers had longstanding relationships with treatment staff who were knowledgeable about the program and would learn about individual client's legal circumstances. The judges, probation, and parole officers who were involved in the comparison group cases were more variable in providing information to mandated clients and treatment staff reported that they (the staff) were less likely to know the contingencies or consequences faced by these clients.

On PLP items that addressed the quantity and consistency of information that clients had received about treatment and the consequences of failure, comparison group clients had consistently lower scores than the other two groups. TASC clients had high scores on a question about consistency, while DTAP's protocols on client participation agreements and reinforcing messages about legal consequences through treatment staff were clearly reflected in this group's high scores on these items.

MONITORING

Both DTAP and TASC had agreements with the TCs that obligated treatment staff to provide monthly progress reports and to inform the program when a client had left treatment or was to be terminated. TASC, however, put greater emphasis on its case management function and had more frequent contact with treatment

TABLE 3
MONITORING POLICIES, PRACTICES, AND PLP SCORES FOR THREE MODELS

Monitoring Items	DTAP	TASC	Other CJ
<i>Policies and Practices</i>			
Mandating agency has clearly stated policy on monitoring of treatment compliance and fully implements policy	2	2	1
CJ agent has resources, capacity to conduct regular monitoring, including frequent contact with treatment staff and client; implements monitoring	1	2	1
Treatment program has clearly stated policies on monitoring of compliance (attendance, drug testing, etc.) and implements policy	1	1	1
Treatment staff routinely informs CJ agent of progress and promptly informs agent about risk of failure, non-compliance	1	2	0
Program uses failed cases to demonstrate monitoring practices	2	2	1
<i>PLP Items</i>			
Number, type of CJAs referring the client and monitoring her/his attendance in treatment program [0-4.5] [‡]	3.40 (+)	3.19(+)	2.38 (-)
Number, type of CJAs who would learn if the client absconds from the program [0-3.5] [‡]	2.68 (+)	2.17(o)	1.27 (-)
Treatment program would find out if client was using drugs while in treatment [0-2] [‡]	1.76 (+)	1.53 (-)	1.51 (-)
Client must report to court frequently [0-2] [‡]	.98 (+)	1.1 (+)	.38 (-)
CJA closely monitors the client and could bring her/him into custody quickly upon failure in the program [0-2] *	1.58	1.59 (+)	1.41 (-)

* p<.05; † p<.01; (+) higher than mean indicated with (o) or (-) based on post-hoc comparison test (Scheffe); (o) lower than (+) mean and higher than (-) mean

staff, both through telephone calls and periodic visits to TC sites. TASC also arranged with judges to require monthly and then quarterly appearances in court to assess progress; DTAP did this annually. Additionally, because DTAP used deferred prosecution and its participants were not formally convicted of the offense that triggered the DTAP offer, there were legal limitations to their staff contacting participants directly. TASC, which preferred that participants who faced new charges enter a guilty plea before deferring the sentence, had no such constraints. Thus, for example, if monthly progress reports suggested that a client was at risk of failing, TASC case managers could talk directly with the client to reiterate the consequences of failure, while DTAP staff would first have to contact his or her defense attorney.

As in the information area, the programs represented in the third group were highly variable in their monitoring policies and capacities. In general, they did less monitoring. While the local probation and parole agencies had detailed agreements and protocols for working with outpatient modalities, at the time of this research, they had no such agreements with any of the four TCs involved in the study. The treatment programs thus supplied progress reports only if the judge or individual officer requested it; this occurred with some frequency among court and parole-referred clients, but rarely among probationers on caseloads that numbered 150 or more. Treatment staff also contrasted the ease of reaching TASC and DTAP staff with the frustration of leaving messages for other supervisory agents (probation and parole officers, court representatives or attorneys), should the client fail or be at risk of failing in treatment.

With regard to monitoring items on the PLP, the comparison group again had significantly lower scores (see Table 3). Contrary to expectations, however, TASC scores were not consistently higher than DTAP's on these items, despite the TASC program's emphasis on case management. TASC and DTAP clients had similar scores on items about making periodic court appearances, for example, even though TASC requires many more appearances than DTAP. The most notable finding in the monitoring area was the absence of group differences on several of these items. Two items about the frequency of communication between the monitoring agent and treatment staff showed no differences, nor did the groups differ in responding to several queries about whether the monitoring agent would learn if the client was doing poorly or using drugs while in treatment.

ENFORCEMENT

DTAP emphasized enforcement. In documenting and discussing the program, DTAP administrators stressed the value of the program's specialized warrant enforcement squad—former law enforcement officers who were responsible for

TABLE 4
 ENFORCEMENT POLICIES, PRACTICES, AND PLP SCORES FOR THREE MODELS

Enforcement Items	DTAP	TASC	Other CJ
<i><u>Policies and Practices</u></i>			
Plea taken, sentence/consequence specified before diversion to treatment	0	2	1
Sentence/legal consequence of failure is mandated by law	2	1	1
Arrest/event that triggers program mandate is tightly linked to admission	2	2	1
Strict policy of apprehending non-complying offenders; has capacity to find and apprehend absconders quickly	2	0	0
Provides no second-chance referrals; does not negotiate and reduce original consequence upon failure	2	1	1
Speedy case processing, sentences imposed on failed cases	1	1	0
Uses failed cases to demonstrate enforcement practices	2	2	1
<i><u>PLP Items</u></i>			
Client would quickly be returned to custody if s/he absconded from the treatment program [0-2] [‡]	1.10 (+)	.79 (-)	.87
Client would be returned to custody in a month or less of leaving treatment [0-2] [‡]	1.25 (+)	.89 (-)	.89 (-)
The only way to avoid jail or prison right now is to stay in treatment [0-2] *	1.83 (+)	1.80	1.71 (-)
Consequence/sentence for failure is mandated by law [0-2] [‡]	1.04 (o)	1.44 (+)	.87 (-)
Warrant is issued if the client absconds from the program [0-1] [‡]	.89 (+)	.44 (-)	.36 (-)
Special warrant squad searches for the client if warrant is issued due to absconding from treatment [0-1] [‡]	.73 (+)	.19 (-)	.13 (-)

* p<.05; † p<.01; (+) higher than mean indicated with (o) or (-) based on post-hoc comparison test (Scheffe); (o) lower than (+) mean and higher than (-) mean

gathering community contact information on all participants, and pursuing and apprehending anyone who absconded from treatment. In contrast, both TASC and the comparison group had to rely on standard police, probation, or parole warrant squads, which routinely assigned violent absconders a greater priority than drug offenders.

DTAP also differed from TASC and the comparison group of programs in enforcing a strict policy of denying participants another chance if they failed once in treatment. DTAP administrators felt strongly that if clients who had failed in one TC were allowed to attend another treatment program, other clients would see this as diminishing DTAP's coercive power, and ultimately this would lead to lower retention rates. While TASC case managers delivered stern messages and threats to clients about the severe legal consequences of failure, if the failed client did not abscond and had shown some progress in one TC, a second (and sometimes a third) referral would be made. We were unable to assess the extent to which programs represented in the comparison group made second chance referrals, but according to treatment staff, many judges, parole and probation agents, like TASC case managers, tolerated one or two relapses and made multiple treatment referrals before enforcing any legal consequences for failure.

As noted earlier, one enforcement policy employed by TASC but not DTAP was the practice of taking guilty pleas and stipulating the sentence, but then deferring its enforcement, before diverting the defendant to treatment (upon completion, the plea would be withdrawn and reduced to a misdemeanor). TASC administrators felt that entering the plea and the sentence in court made an important, coercive impression on participants. Court-referred clients in the comparison group had also typically entered pleas and were diverted at sentencing. DTAP's reasons for choosing deferred prosecution were complex. The policy stemmed from an agreement with the local indigent defense bar and involved balancing the rights of defendants with the program's goal of moving them quickly into treatment and reducing jail time between arrest and entry to the TC.

Enforcement results from the PLP conformed closely to actual program practice, with DTAP clients showing higher scores than both groups, and TASC scoring as low as the comparison group on all but one of these items (Table 4). On two items about warrants and warrant squads, the DTAP average was at least twice that of either of the other groups, and DTAP had higher scores on items about being able to apprehend absconders. The one exception to the pattern was a question about whether the client faced a mandatory sentence in the event of failure. TASC clients had the highest score on this item, apparently reflecting the program's practice of requiring guilty pleas in contrast to DTAP's policy of deferring prosecution.

TABLE 5
SEVERITY POLICIES, PRACTICES, AND PLP SCORES FOR THREE MODELS

Severity Items	DTAP	TASC	Other CJ
<i><u>Policies and Practices</u></i>			
Long period in custody as consequence for infractions, failure	2	2	1
Consequence more severe than sanction faced before opting for treatment	0	2	0
Multiple cases and CJ agents involved in imposing consequences	2	2	0
<i><u>PLP Items</u></i>			
CJA has told the client s/he will serve severe penalty for absconding or failing in the treatment program [0-3] †	2.18 (o)	2.86 (+)	1.79 (-)
Expected consequence for failure would be at least as severe as the threatened consequence [0-2] †	1.39 (+)	1.50 (+)	1.14 (-)
Client would likely have to serve prison sentence if s/he absconded or failed in treatment program [0-2] †	.97 (+)	.47 (-)	.53 (-)
Length of time client expects to serve in jail or prison for failure in program [0-2] †	1.36 (+)	1.36 (+)	.91 (-)

* p<.05; † p<.01; (+) higher than mean indicated with (o) or (-) based on post-hoc comparison test (Scheffe); (o) lower than (+) mean and higher than (-) mean

SEVERITY

DTAP and TASC clients faced more severe sentences than members of the comparison group, which included more first-time felons and offenders facing violations of parole and probation. As repeat felony defendants, all DTAP participants and most TASC participants faced minimum prison sentences of two to four years. TASC and DTAP differed in one important respect in the severity category. DTAP administrators firmly believed that defendants who opted into the program and failed should receive the same sentence they would receive if the DTAP offer had not been made. TASC, on the other hand, encouraged judges to increase the stipulated sentence over the standard offer, as a means of motivating participants to stay in treatment. In practice, this meant DTAP participants faced

indeterminate terms of two to four years while repeat felony defendants in TASC faced terms of three to six or three and a half to seven years. As noted earlier, while DTAP was exclusively targeted to repeat felony cases, TASC did include some first-time felons who were facing minimum terms of a year or less.

Responses on the PLP severity items also followed policy and practice, with low comparison group scores and TASC and DTAP showing higher scores on different items (Table 5). TASC clients showed the highest scores on an item about the severity of the *threatened* consequence, while DTAP clients scored highest on an item that mixed severity and certainty, where the client indicated their agreement with a statement about serving prison time in the event of failure. There were no group differences on two items that assessed the degree to which the client judged having to serve a prison sentence as aversive or difficult.

RETENTION IN TREATMENT

At six months after admission, 76.4 percent of the 330 clients were still in treatment and 61.5 percent remained in treatment for a year or more. Figures 1 and 2 show one year retention plotted as survival curves for the two main variables of interest, study group and PLP. The group curves indicate that DTAP clients were retained at higher rates beginning early in treatment. TASC and the comparison group showed similar rates through about 150 days post-admission, when the comparison group's retention rate began to diverge and decrease. At one year, 70 percent of the DTAP clients, 60.5 percent of TASC clients, and 48.7 percent of the comparison group were still in treatment.

To better display the relationship between retention and overall PLP score, the continuous PLP scale was recoded into low, moderate, or high PLP, with roughly one-third of the total sample falling into each of three scoring categories. As is evident in the survival plot, clients with moderate and high scores on the PLP are retained at similar rates throughout the year, while those with low scores terminate at higher rates soon after admission and show retention rates 15 to 20 percent below the other two groups from six months through the end of the first year. PLP score is significantly associated with retention at both six months and one year post-admission.

The effect of study group was tested along with other predictors that emerged from the bivariate data reduction process in logistic regression models involving these same two dependent measures (retention at six and twelve months after admission). Using stepwise solutions with the study group variable forced into the model in the final step, the six-month model yielded nine independent variables and the one-year logistic model had seven predictors; both models were statistically significant (see Table 6). The difference between DTAP and the comparison group

FIGURE 1
TREATMENT RETENTION BY GROUP

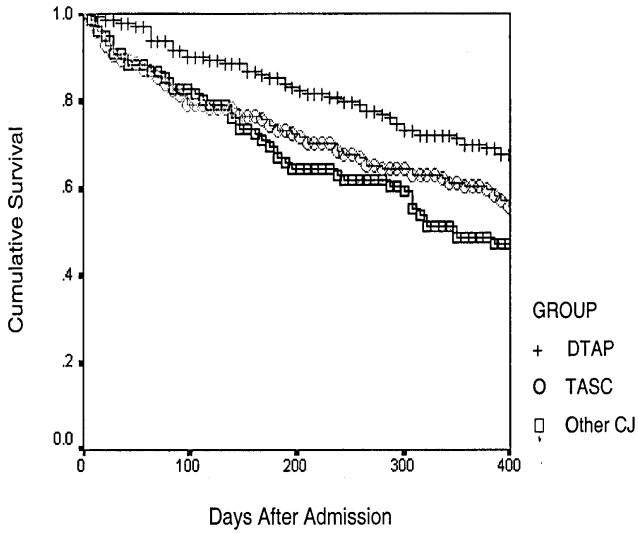
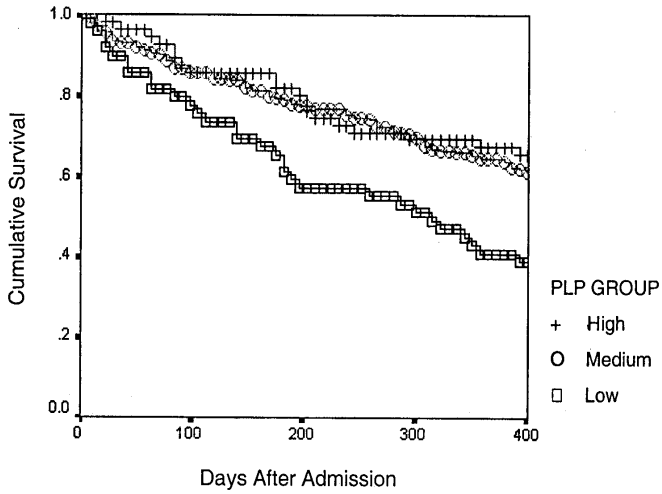


FIGURE 2
TREATMENT RETENTION BY PLP



was upheld as significant in the six-month model and marginally significant in the one-year analysis. No differences were evident between TASC and the comparison group at either six or twelve months in the multivariate retention models. The odds ratio for the DTAP variable in the six-month model indicates that the odds of still being in treatment at six months is 2.85 times greater for DTAP clients than for comparison group clients. At one year post-admission, the odds of still being in treatment are nearly twice (1.9) as great for DTAP clients as for comparison clients. At both periods, the odds of TASC clients being retained are 1.4 times those of the comparison group – a non-significant difference.

With regard to other independent variables, two demographic factors, age and gender, were found in the multivariate models to be related to retention at six months but not at the one year point. Clients retained at six months were more likely to be older and male. The only socioeconomic factor that emerged in the models was length at longest held fulltime job; those with long stays in one job were also more likely to remain in treatment for a year or more. Other variables predictive of retention included having previously lived with someone who had a drug problem, or having a family member with a drug problem (marginally predictive of retention at 12 months) or having a family member with a psychological problem (at six months). This set of findings is all in the same direction – perhaps suggesting that treatment serves as a refuge from family or peer problems in the community.

Three different criminal history items were related to early termination in the logistic models. Having a longer history, as indicated by more juvenile arrests and more total months incarcerated, was associated with being terminated within six months. The only criminal record factor associated with termination at 12 months was having a history of weapons charges. Clients who reported that they were troubled by psychological problems were somewhat more likely to be out of treatment at both the six and 12-months points (these were marginal effects with p values of .08), and having a history of psychological treatment was also associated with termination within 12 months.

Given the wide differences among the study groups on the PLP items and their associated differences in retention, exploratory bivariate analyses were done to assess the association between PLP items and one-year retention. Of the ten items that addressed the information area, two were significantly correlated and three more were marginally related to retention (see Table 7). Two of the six enforcement items and two of seven severity items were correlated with retention. Only two of the 16 items that addressed monitoring were related to retention. Of these 11 items that were found to be correlated with retention, nine were items on which DTAP or TASC clients (or both) had higher scores than the comparison group, illustrating the mediating role that PLP appears to play in these groups' higher retention rates.

TABLE 6
LOGISTIC REGRESSION RESULTS: RETENTION AT SIX MONTHS AND ONE YEAR POST-ADMISSION

Predictor Variables	Six Months		One Year	
	β (p)	odds ratio	β (p)	odds ratio
Age at admission	.06 (.02)	1.1	-	-
Gender (0=male, 1=female)	-.82 (.03)	.44	-	-
Years at longest-held fulltime job	-	-	.13 (.00)	1.1
Years in most recent living arrangement	.05 (.12)	1.1	-	-
Cohabitant(s) had drug problems	1.6 (.04)	5.1	1.2 (.02)	3.3
Other family member(s) has drug problem	-	-	.53 (.08)	1.7
Troubled by psychological problems	-.15 (.08)	.86	-.14 (.08)	.87
Prior treatment for psychological problem	-	-	-.61 (.08)	.55
Other family member(s) has psychological problems	1.7 (.03)	5.3	-	-
Arrests prior to age 16	-.25 (.02)	.78	-	-
Prior weapons charge arrests	-	-	-.60 (.01)	.55
Months incarcerated, lifetime	-.01 (.05)	.99	-	-
Study group				
DTAP vs. Comparison	1.05 (.01)	2.85	.64 (.06)	1.9
TASC vs. Comparison	.35 (.32)	1.42	.35 (.28)	1.4
Model Statistics	χ^2	62.07 (p<.001)	55.71 (p<.001)	
	df / N	9 / 330	7 / 327	
	-2 Log L	294.5	381.2	
	Cases correctly classified	79.5%	68.2%	

- = variable not selected for entry

TABLE 7
PLP ITEMS CORRELATED WITH RETENTION AT ONE YEAR

Category and Item Description	r (p)
<i><u>Information (10 items)</u></i>	
Client signed participation agreements to follow rules and complete the treatment program	.09 (.09)
Number of criminal justice agents (CJAs) who explained rules, length of treatment program	.11 (.05)
Number of CJAs who explained consequences of failure to client	.13 (.02)
Number of times client made verbal or written promises to CJAs to complete treatment	.11 (.04)
CJA made sure client understood consequences of failure	.10 (.06)
<i><u>Monitoring (16 items)</u></i>	
CJA would learn within a week if client absconded from program	.12 (.03)
Number of CJAs who would learn if client absconded from the program	.16 (.00)
<i><u>Enforcement (6 items)</u></i>	
Warrant is issued if the client absconds from the program	.14 (.01)
Client would be returned to custody in a month or less of leaving treatment	.16 (.03)
<i><u>Severity (7 items)</u></i>	
CJA has told client s/he will serve severe penalty for absconding or failing in the treatment program	.11 (.05)
Length of time client expects to serve in jail or prison for failure in program	.14 (.01)

DISCUSSION

As the number and size of drug courts and other legally mandated treatment programs increase nationally, so does the need to understand what makes them work and how to make them more effective. Evaluations of drug courts, TASC programs, and other justice-based treatment models now appear more frequently in the literature, as do discussions of how to use sanctions and other coercive program elements to achieve better outcomes. The current study was designed to extend this earlier work, by using an exploratory measure of perceived legal pressure to quantify coercive program elements of different mandatory treatment models. We further tested whether the retention rates of these models differed along lines that would be predicted from their differential use of coercion.

Assessments of the DTAP, TASC, and comparison group programs illustrate how mandatory treatment models can and do employ very different policies and practices in attempting to pressure clients to stay in treatment. Mandated clients' perceptions of legal pressure generally corresponded to policies and practices, and multivariate analyses confirmed that clients in the most coercive program, DTAP, had higher retention rates than the low scoring comparison group at six months, and marginally so at 12 months post-admission. Compared to these clients referred from other criminal justice sources, the odds of DTAP clients being in treatment at six months were almost three times greater than the comparison group's odds; at one year post-admission, DTAP clients had almost twice the odds of being retained. Retention rates for the TASC group were also higher than the comparison groups, but these differences were not significant.

The evidence from this research offered support for the DTAP model and to a lesser extent the policies and practices of the TASC program we studied. Compared to conventional approaches used by local courts and probation and parole officers, DTAP and TASC had more structured protocols for informing clients about the contingencies of their participation and the legal consequences of failing treatment. Based on client self-report on the PLP measure, DTAP stood out from the other programs in its use of behavioral contracts and in the number of criminal justice agents – prosecutors, judges, defense attorneys, warrant investigators – it engaged to inform and monitor clients. Findings also supported DTAP's policy of developing formal agreements with the treatment programs it used, and requiring treatment staff to reinforce messages about treatment contingencies and consequences.

As in the information area, DTAP and TASC's more structured and consistent approach to enforcement and to a lesser extent, monitoring, were reflected in higher PLP scores and likely contributed to these groups' higher retention rates relative to the comparison group. Analyses further revealed notable differences between DTAP and TASC in these areas. Our review of program practices suggested that TASC

was strong on monitoring but had a limited enforcement capacity compared to DTAP. PLP scores confirmed that clients were well aware of DTAP's relative advantage in the enforcement area but had less developed perceptions about monitoring.

Compared to the other areas, there were fewer group differences on monitoring items and a relatively small number of these items were related to retention. Results suggested clients in all three groups had not been very well informed about the programs' monitoring policies. This would explain why several PLP items that addressed drug testing and criminal justice agents learning about drug use while in treatment were not related to retention and did not elicit different responses from the three groups. There were similarly undifferentiated responses on a number of PLP queries about the type and frequency of contact between the monitoring agent and the treatment program. TASC made efforts to engage judges in monitoring and scheduled regular court appearances to track progress, but their clients had the same scores as those in DTAP – which only required annual court hearings – on these items. Our findings in the information area suggest that the TASC program and, in general, mandatory programs with similarly strong case management components, would benefit from providing clients with more information about their monitoring practices.

In contrast to these results, clients' views about enforcement and severity were more articulated and accurately reflected program practices. During the admissions process, TASC case managers gave stern messages to defendants about the consequences of failure and whenever possible, required guilty pleas and sentences entered in the court record before diverting offenders to treatment. It was evident from their PLP responses that TASC clients readily distinguished the enforcement and severity components of these policies, giving high scores to some severity items on the PLP while scoring most enforcement items at the same low level as the comparison group. Close correspondence between program practice and clients' views were also evident in responses on items about warrants and warrant squads, where the DTAP group had much higher scores, and related items about the program's capacity to return absconding clients to custody.

The findings from this research are similar to those from an earlier study involving the PLP measure that tracked smaller groups of DTAP and other mandated clients over a shorter follow-up period (Young, 2002). In both studies, DTAP had the highest PLP scores and PLP was related to retention, and bivariate analyses underscored the role of information and enforcement. Unlike the earlier study, however, in this research two severity items were also found to be related to retention. This difference may be related to the fact that the present sample included proportionately many more TASC and DTAP clients – more participants of programs

that were more coercive in other respects. It may be that severity only comes into play in programs that use some minimal coercive structures such as contracts with clients and agreements with treatment programs that enforce regular contact and progress reports to supervision agents. This is akin to the notion that perceived severity of sanctions can have a deterrent effect only if there is certainty about them. In any event, these inconsistent findings, together with the potentially costly net-widening impacts of relying on severe sanctions, call for more targeted research in this area.

While the results of this research largely replicate those obtained on another sample and were consistent with our hypotheses, conclusions regarding different areas or dimensions of the PLP scale must be considered speculative until it can be reduced to a series of Likert items using the same response scale and subjected to more extensive psychometric tests. Developed initially to test the coercive impact of DTAP and other mandatory programs that use long-term residential treatment, it is not surprising that DTAP clients score higher on the measure than other groups. The utility and validity of the PLP is tied to its association with retention and the close correspondence between objective program practices and subjective client scores on the measure. To generalize beyond this residential environment, the measure must undergo modification for use in drug courts and other models that rely on outpatient modalities. Conclusions about the independent effects of PLP and retention are also limited by the measures that were available for this study. Other measures of motivation, in particular, would have been useful to explore the possible interaction of PLP and treatment readiness or other intrinsic pressures (Knight et al., 2000; Farabee et al., 2000).

To summarize, the results indicate that mandatory programs should routinely inform clients about the contingencies of treatment participation, and about how participation will be monitored by legal agents. Mandated clients can make relatively sophisticated judgments about programs' capacities to enforce threatened consequences; the findings further suggest that dedicated warrant squads or other effective enforcement mechanisms may help boost retention rates. Apart from their support for the DTAP and TASC models, the results appear to provide clear evidence of the effectiveness of a procedural justice approach to supervision and sanctioning. Higher retention and higher PLP scores were associated with a number of procedural justice principles cited by Taxman et al. (1999), including proactively engaging offenders in understanding the contingencies of program participation, consistent messages among multiple criminal justice agents and treatment staff, the use of behavioral contracts and judicial orders, and swift returns to custody upon failure. Unfortunately, the PLP did not include any direct measures of other key elements of the procedural justice model – due process and upholding the

dignity of the offender. It would be useful to know, in this regard, whether DTAP's policies of respecting defendants' discovery rights and not taking pleas, and not inflating penalties for failure contributed in any way to this group's high retention rates.

Regardless of their particular strengths and weaknesses, tools like the PLP are useful as a means of engaging practitioners and policy makers who support the development and operations of mandatory treatment programs in a thoughtful and systematic analysis of program policies and practices, and how they can most efficiently achieve the goals of coerced treatment. Consistent with much previous research, this study provides empirical support for these programs, while underscoring the need for both better research and more focused attention to the elements that make them effective.

NOTES

- ¹ When TASC programs were first developed in the 1970s, the acronym stood for Treatment Alternatives to Street Crime. With the expansion of the TASC model to many jurisdictions in the 1990s, several TASC programs and a new national TASC office elected to change the acronym to mean Treatment Accountability for Safer Communities. As one of the original programs, the New York-based TASC program studied in this research has kept the original wording.

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YOUNG, BELENKO

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