INVOLUNTARY TREATMENT WITHIN A PRISON SETTING

Impact on Psychosocial Change During Treatment

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Given the high proportion of criminal justice treatment clients in the United States, a major policy and program issue in drug treatment is the appropriateness and effectiveness of coercing offenders to enter and remain in treatment. As part of a comprehensive evaluation of a large treatment facility in California, the authors conducted an analysis of during-treatment psychosocial changes of inmates admitted voluntarily and those admitted involuntarily. The main focus was on psychological functioning (self-esteem, depression, anxiety, decision making, and self-efficacy) and social functioning (hostility, risk taking, and social conformity). Regardless of voluntary or involuntary admission status, treatment participants exhibited significant during-treatment change on most measures of psychosocial functioning, although significant change was more likely on measures of psychological than on social functioning. In addition, similar percentages of both groups were paroled from treatment (as opposed to being discharged from the program prior to parole) and agreed to attend community treatment.

The number of drug abusers within the criminal justice system has increased significantly over the past 15 years (Dorsey & Zawitz, 2000). According to various estimates, the criminal justice system is

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responsible for 40% to 50% of referrals to community-based treatment programs (Maxwell, 1996; Price & D'Aunno, 1992; Weisner, 1987). Moreover, during 1997, approximately one third of state prison inmates and one quarter of federal prison inmates reported participation in some form of substance abuse treatment since admission (Bureau of Justice Statistics, 1999). Given the high proportion of criminal justice treatment clients in the United States, a major policy and program issue in drug treatment is the appropriateness and effectiveness of coercing offenders to enter and remain in treatment.

Coercive treatment approaches for drug addiction have been used throughout the 20th century, beginning with the morphine maintenance clinics that operated in some cities in the early 1920s until they were shut down by the Treasury Department. Beginning in the 1930s, many of the nation's opiate addicts spent time at the federal narcotics treatment facilities operated by the Public Health Service in Lexington, Kentucky, and Fort Worth, Texas. During the 1960s, broad-based civil commitment procedures to treatment for all types of addicts were implemented in the federal system as well as in New York and California. The system of treating substance-abusing offenders today relies less on formal civil commitment procedures and instead emphasizes community-based treatment as an alternative to incarceration or as a condition of probation or parole. Treatment programs provided to substance-abusing inmates also rely on coercion. The following is a brief review of coerced treatment studies in the United States; more comprehensive historical reviews of coerced treatment can be found elsewhere (Anglin & Hser, 1991; Inciardi, 1988; Musto, 1987).

There have been several reviews of research on coerced treatment (Anglin & Hser, 1990, 1991; Farabee, Prendergast, & Anglin, 1998; Miller & Flaherty, 2000; Petersen, 1974; Rotgers, 1992; Webster, 1986; Weisner, 1990). Farabee et al. (1998) summarized the findings of studies of coerced treatment and provided a critique of the methodological and conceptual gaps in the literature. The authors identified 11 published studies of coerced treatment (10 focused on illicit drugs

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and 1 on alcohol) published between 1976 and 1996 and covering a variety of treatment settings. In 5 of the studies, clients under criminal justice referral or pressure had better outcomes than clients who were under no legal pressure or who entered treatment voluntarily; in 4 studies, outcomes of the two groups did not differ; and in 2 studies, coerced clients had poorer outcomes than voluntary clients. Overall, the evidence supports the claim that coerced clients do at least as well as voluntary clients (or clients under low levels of legal pressure). But the authors also observed that a number of features in the literature on coerced treatment should lead to caution in interpreting the results and in applying them in real-world settings. Numerous conceptual issues need to be addressed to design meaningful empirical studies or to interpret existing studies appropriately. Three issues of particular importance are the terminology used to characterize coerced treatment, the interaction of coercion (external pressure) and motivation (internal pressure), and the lack of studies of coerced treatment in prison-based treatment programs.

INCONSISTENT TERMINOLOGY

Authors use a variety of terms to describe the process by which offenders with drug abuse problems are pressured or forced into treatment by some agency of the criminal justice system. (The situation is further complicated by studies of pressure from employers, welfare agencies, and families, but these sources of pressure are not considered here.) The terms *coerced, compulsory, mandated, involuntary, legal pressure*, and *criminal justice referral* are all used in the literature. Sometimes, these terms are used interchangeably within the same article. This would not be a problem if these terms were synonymous. But *coercion* (or one of its variants) is not a single well-defined procedure; rather, it represents a range of degrees of force used across the various stages of criminal justice processing. *Coercion* can be used to refer to such actions as a probation officer's recommendation to enter treatment, a drug court judge's offer of a choice between treatment or jail, a judge's requirement that the offender enter treatment as a condition of probation, or a correctional policy of sending inmates involuntarily to a prison treatment program. In other cases, a treatment client's mere involvement with the criminal justice system (e.g., being

under probation or parole supervision) is sufficient for him to be brought under the umbrella of *coercion*. Thus, not only is the terminology signifying coerced treatment inconsistent, but the concept covers a variety of formal and informal degrees of legal pressure. It is by no means obvious, for example, that findings on treatment programs involving pre-plea diversion apply to treatment at other (more coercive) stages of criminal justice processing. Our intention in this article is not to resolve this terminological ambiguity but to use a standard set of terms in discussing the design and findings of the analysis. Hence, we define *coercion* in the realm of criminal justice substance abuse treatment as correctional policies in which inmates are identified and referred to a treatment program without regard for the wishes of the inmates. Those inmates who enter treatment in this manner are called *involuntary* participants; those inmates who agree to enter treatment are called *voluntary.*

MOTIVATION FOR TREATMENT

A further complication is client perception of the conditions of referral to treatment. In psychiatric populations, many patients report having entered treatment voluntarily when in fact they were under court mandate (Gilboy & Schmidt, 1971; Hoge et al., 1997). Conversely, in another study, about 50% of patients who were admitted to psychiatric treatment under involuntary conditions reported that they would have entered voluntarily if given a choice (Toews, el-Guebaly, Leckie, & Harper, 1984). None of the studies reviewed by Farabee and colleagues (1998) included a measure of the internal motivation of clients at admission. Neither did any of the studies examine changes in motivation over time. (A recent study by Knight, Hiller, Broome, and Simpson, 2000, did examine the combined impact of legal pressure and motivation—defined as treatment readiness—and found them to be independent predictors of retention.) Motivation is not a static condition; it changes in response to both internal and external events (Miller, 1985). One clinical argument for coerced treatment is that it keeps clients in treatment long enough for them to become engaged in the treatment process and for their motivation to shift from resistance to commitment (e.g., Brecht, Anglin, & Wang, 1993; De Leon, 1988). It may also be the case that offenders who want treatment and would

seek it voluntarily resent being forced into a particular program. Their resentment may lead to recalcitrance and undermine their initial desire to enter treatment.

In a related perspective on the individual's subjective experience of coercion, Wild, Newton-Taylor, and Alletto (1998) argued that a mandate to enter substance abuse treatment should be distinguished from "perceived coercion" (that is, how the person experiences the pressures to enter treatment). They found that 35% of clients who were legally mandated to a substance abuse treatment program did not report any level of perceived coercion, whereas 35% of clients who said they were self-referred did report some level of external pressure to enter treatment. In their conclusion, Wild and colleagues hypothesized that treatment participation is determined more by perceived coercion than by referral source, with higher levels of perceived coercion (regardless of referral source) expected to be associated with lower levels of motivation and engagement and thus with poorer outcomes.

COERCION IN PRISON TREATMENT

Although a number of evaluations of prison-based substance abuse treatment programs have been published, all of the programs evaluated involved voluntary clients as subjects (Inciardi, Martin, Butzin, Hooper, & Harrison, 1997; Knight, Simpson, Chatham, & Camacho, 1997; Prendergast, Wellisch, & Wong, 1996; Simpson, Wexler, & Inciardi, 1999; Wexler, De Leon, Thomas, Kressel, & Peters, 1999). That is, despite the generally coercive environment of the prison, in such research studies, inmates with substance abuse problems are informed of the availability of treatment and decide whether to participate in it (as well as whether to participate in the research study of the treatment). In recent years, some states have initiated prison-based treatment programs in which inmates are identified as needing substance abuse treatment and are then mandated to participate in the program. Notable among these are the substance abuse programs currently operating in 17 of the 33 state prisons of the California Department of Corrections.

The outcomes of these involuntary prison treatment programs may not be similar to the outcomes found in the community-based treat-

ments summarized earlier or to the outcomes of the voluntary prison-based programs. Entering treatment under coerced conditions in prison is not the same procedurally or psychologically as entering a community treatment program. In prison, there is less concern for procedural justice, in that inmates may be given little or no information about why they are being sent to treatment or what the treatment entails, much less given the opportunity to choose an alternative, however unattractive (i.e., remaining in the general prison population). In addition, upon being sent to treatment, inmates may lose privileges and preferred living conditions, which only adds to the resentment of being forced into treatment. It is also often much more difficult to drop out of (or be discharged from) a prison-based program than a community-based program. One may be skeptical about the effectiveness of coerced treatment in prison settings based solely on findings from community-based programs that accept court-referred clients who, unlike many in-prison treatment inmates, are informed about their treatment options, have some degree of choice in the decision, and may receive some benefit from selecting treatment (e.g., a place to stay).

In summary, the studies reviewed by Farabee and colleagues (1998) apply only to treatment provided within community-based settings, not prison-based treatment. In addition, all published studies of prison-based treatment are based on subjects who have volunteered for treatment. Thus, it is by no means clear that findings on coerced treatment conducted in community programs or prisons can be generalized to prison-based treatment in which many or most of the clients are mandated to treatment.

This article attempts to address the following question: What is the impact of involuntary (compared with voluntary) admission to a prison-based substance abuse treatment program on psychosocial changes measured during treatment participation?

DESCRIPTION OF THE CALIFORNIA SUBSTANCE ABUSE TREATMENT FACILITY

The California Substance Abuse Treatment Facility (SATF) and State Prison at Corcoran, which opened in September 1997, has a total housing capacity of 6,013. The two self-contained substance abuse

treatment units at the institution were specifically designed to provide housing and residential treatment for 1,056 minimum (Level I) and moderate (Level II) security risk offenders (1,478 with 40% overcrowding). The California Department of Corrections is responsible for custodial operations at the facility, and treatment services are provided under contract with two California treatment organizations (Phoenix House and Walden House).

The admission criteria for a classification assignment to treatment at SATF, which need to be considered in interpreting some of the findings of this study, are as follows:

- A history of drug and/or alcohol abuse: the history can be established through either self-report or review of documents such as probation reports, criminal history, or reports of in-custody behaviors
- An offender classification score between 0 and 27 (Level I and II inmates within the California correctional system)
- No less than 6 months and no more than 18 months left to serve at the time of the classification committee review for placement at the SATF
- No placement in a secured housing unit during the past year for violence or weapons charges
- Not a member of a prison gang
- No active or potential felony or U.S. Immigration and Naturalization Service holds, which could possibly lengthen the inmate's sentence or result in his deportation

The SATF treatment program involves a residential in-prison phase followed by a voluntary community treatment phase. Aside from some minor differences, both the Walden House and Phoenix House programs adhere to the basic therapeutic community philosophy and structure. The in-prison treatment lasts from 6 to 18 months based on the aforementioned criteria. The inmate's length of time to serve at the time of the program admission classification hearing determines the actual length of time in treatment for any single inmate. Programs are highly structured and include a minimum of 20 hours per week of substance abuse treatment as well as 10 or more hours of structured optional activities. In the second year of operation, to address program instability caused by the constant inflow of new, involuntary, and resistant inmates into the general treatment population, both Walden

House and Phoenix House implemented induction units where newly admitted inmates to SATF receive an intensive (7.5 hours a day) orientation to the program for up to 1 month.

The therapeutic community model of treatment used at SATF regards substance abuse as a disorder of the whole person. Rather than being construed as a disease in itself, drug dependence is perceived as a symptom of a larger disorder that affects the person's values, cognition, social skills, and general behavior. A therapeutic community provides a total environment in which transformations in drug users' conduct, attitudes, and emotions are fostered, monitored, and mutually reinforced by the daily regimen. The thrust of treatment is not to change the inmate's addictive behavior as such but to change the inmate (for a detailed discussion of the therapeutic philosophy and processes, see De Leon, 2000).

As part of a comprehensive evaluation of the SATF program, we are conducting an outcome study of the during- and posttreatment performance of inmates who have participated in treatment at SATF. The present analysis is based on data collected at baseline and just prior to release to parole. The following sections describe the study design, including subject selection, instruments, and assessment schedule, and our analytic approach to addressing the relationships among coercion, motivation, and outcomes.

METHOD

STUDY DESIGN AND PARTICIPANTS

Between June 1999 and February 2000, extensive baseline, prerelease, and posttreatment interviews (using an instrument adapted from one developed by the Institute of Behavioral Research at Texas Christian University) were conducted with 404 newly admitted SATF treatment inmates as well as a nontreatment sample (the results for the nontreatment sample are not included in this study). Interviewers solicited study participation from SATF inmates within the first 10 days of their arrival in the program. The 404 SATF inmates in the total treatment sample represent 92.4% of the 437 inmates approached.

The data for this analysis were derived from participants on whom the included measures had been collected at two points in time. The subjects used in this analysis were not a random sample of the full treatment sample of the SATF outcome study but were those for whom information on admission status was available and who completed the Self-Rating Form at baseline and prerelease.

The baseline interview form was administered as a face-to-face interview within the first 10 days of admission. This waiting period allows the inmate to acclimate to his new environment and focus on the issues that brought him there. The interview instrument is comprehensive and includes sections on sociodemographic background, family and peer relations, health and psychological status, criminal involvement, in-depth drug use history, an AIDS risk assessment, and motivation for treatment. Of particular relevance to this analysis is the inclusion in the interview of selected items from the Self-Rating Form (Simpson & Knight, 1998), which assesses the participant's psychological functioning in five domains (self-esteem, depression, anxiety, decision making, and self-efficacy) and social functioning in three domains (hostility, risk taking, and social conformity). The Self-Rating Form was administered on two occasions: at baseline (shortly after inmates entered the program) and just before their release to parole. The time between administrations of the Self-Rating Form varied from participant to participant but averaged about 8 months.

Admission status was determined from a separate questionnaire administered by Walden House as part of its intake process. The instrument was administered about 2 weeks after admission while clients were participating in the induction unit. The question was "When you first arrived on the unit, had you volunteered to be here?" The possible responses were *not at all*, *slightly*, *moderately*, *considerably*, and *extremely*. Because only Walden House asked this question, the present analysis is limited to those subjects in the outcome study who were enrolled in the Walden House program at SATF.

DEPENDENT VARIABLES

The dependent or outcomes variables examined were the eight domains included on the Self-Rating Form (as described earlier). Two

additional outcome variables were discharge status (whether the inmate paroled from the program or was discharged from the program before parole) and aftercare referral (whether the inmate agreed to enter a community-based program following release to parole).

INDEPENDENT VARIABLES

The main independent variable of interest was admission status. Subjects who responded *not at all* or *slightly* to the aforementioned Walden House question about volunteering for treatment were defined as *involuntary* participants ($n = 40$), and those who responded *considerably* or *extremely* were defined as *voluntary* ($n = 60$). Subjects who responded *moderately* ($n = 7$) were not included in the analysis.

How an inmate entered the program is not the same as whether he believed that he had a substance abuse problem or whether he was motivated to receive treatment. Thus, we used the following three measures of motivation from the baseline instrument in which the responses consisted of a 5-point scale ranging from 0 (*disagree strongly*) to 4 (*agree strongly*):

- "You believe your drug or alcohol use is a serious problem" (alcohol and other drug problem recognition).
- "You believe you don't need treatment. You can stop using if you want" (desire for help).
- "You believe you would like to receive drug/alcohol treatment while in prison" (readiness for treatment).

Finally, we included a number of demographic and background variables to characterize the sample and to control for possible differences between the voluntary and involuntary groups. Continuous variables were current age, years of education, lifetime arrests, lifetime incarceration (months), and time in program (months). Categorical variables were ethnicity, marital status, employment in the 6 months before prison, non-prison-gang membership, sex offense history, any illicit drug use during the past 6 months, prior participation in treatment, and prior participation in self-help groups.

DATA ANALYSIS

We began by comparing the voluntary group and the involuntary group on the demographic and background variables using *t* tests for continuous variables and chi-square tests for categorical variables. We then examined whether significant change over time occurred on the Self-Rating Form variables and whether there were between-group differences on these variables.

To determine the impact of admission status on outcomes while controlling for possible psychosocial and motivational factors, multiple regression models were conducted for each of the outcome variables (the eight self-rating scales, discharge status, and referral to aftercare). Categorical variables were coded dichotomously.

RESULTS

According to the voluntary-status question described earlier, 60% of the study subjects were categorized as involuntary admissions. As seen in Table 1, the only demographic and background characteristics on which the voluntary and involuntary groups differed significantly were education and readiness for treatment. The voluntary group had completed nearly 12 years of schooling, whereas the involuntary group had completed nearly 11 years. With regard to motivation, inmates in the voluntary group were more likely than those in the involuntary group to state that they would like to receive drug/alcohol treatment while in prison, although the actual difference in level of response was not significant. Both groups were about equally likely to indicate that they had a serious drug or alcohol problem. They also tended to disagree to the same extent about needing treatment (desire for help). In short, the fact that inmates in the involuntary group were forced into treatment did not mean that they were markedly different in their acknowledgment of drug problems or their general motivation for treatment relative to those inmates who had volunteered for treatment.

On the self-rating scales of psychological functioning (self-esteem, depression, anxiety, decision making, and self-efficacy) and social

TABLE 1: Background/Demographic Characteristics of Inmates Who Entered Treatment Voluntarily and Involuntarily

	Voluntary Group (n = 40)	*Involuntary Group (n = 60)*
Age		
M	38.6	36.0
SD	8.4	9.8
Ethnicity (%)		
Black	50.0	38.3
Hispanic	17.5	25.0
White	27.5	31.7
Other	5.0	5.0
Marital status (%)		
Never married	30.0	43.3
Legally married	20.0	13.3
Living as married	12.5	16.7
Separated	10.0	8.3
Divorced	27.5	18.3
Education*		
M	11.8	10.8
SD	1.8	2.0
Employment status (%)		
Not in the labor force	15.0	20.0
Could not find a job	20.0	15.0
Employed, odd jobs	20.0	13.3
Employed, part time	5.0	6.7
Employed, full time	40.0	45.0
Drug use in past six months (%)	39.3	60.7
Prior treatment (%)	37.2	62.8
Previous participation in self-help (%)	65.0	65.0
Time in program in months		
M	7.6	8.2
SD	2.7	2.5
Sex offender (%)	17.5	8.3
Gang membership (preprison) (%)	25.0	26.7
Lifetime number of arrests		
M	14.6	22.1
SD	16.2	26.2
Months spent incarcerated		
M	82.8	104.2
SD	66.2	96.6
Motivation[a]		
Alcohol or other drug problem recognition		
M	3.1	3.0
SD	1.6	1.6

TABLE 1: Continued

	Voluntary Group (n = 40)	*Involuntary Group (n = 60)*
Desire for help		
M	2.3	2.2
SD	2.0	1.8
Readiness for treatment*		
M	3.9	3.4
SD	0.7	1.1

a. Based on a 5-point Likert-type scale (0 = *disagree strongly*, 4 = *agree strongly*).
*$p < .01$.

functioning (hostility, risk taking, and social conformity), both groups exhibited change (in the expected direction) on most of the scales from baseline assessment (soon after entry to the program) to prerelease assessment (just prior to release to parole) (see Table 2). Significant change (using paired *t* tests), however, was more likely to occur for the psychological functioning measures than for the social functioning measures. Among the voluntary group, four of the five psychological functioning measures showed significant change, whereas none of the results from the three social functioning measures were significant. Inmates in the involuntary group showed significant change on all but one of the psychological measures and on one of the social measures. Furthermore, although all but one of the measures on the magnitude of the change score were greater for the involuntary than for the voluntary group, a two-way ANOVA of time by group did not show any significant group effects. With respect to the other two outcome variables, 47.5% of the voluntary group were successfully paroled compared with 56.7% of the involuntary group, and 76.3% of the voluntary group were referred to aftercare compared with 71% of the involuntary group. Neither of these outcomes differed significantly by group.

Table 3 shows the results for the multiple regression models, in which admission status (voluntary or involuntary) was used to predict the change score on each of the psychological and social functioning scales of the Self-Rating Form, controlling for motivation measures and selected demographic and criminal history characteristics. Admission status did not predict any of the self-rating scales change scores. Only one of the other independent variables (readiness for

TABLE 2: Comparison of Scores at Baseline and Prerelease on Self-Rating Scales for Inmates Who Entered Treatment Voluntarily and Involuntarily

	Baseline		*Prerelease*			*Change Prerelease – Baseline*
	M	SD	M	SD	p	
Voluntary participants (n = 40)						
Self-esteem	44.5	8.7	48.6	8.4	.02	4.1
Depression	28.1	10.1	24.2	11.7	.01	–3.9
Anxiety	33.1	11.7	28.7	14.5	.03	–4.4
Decision making	52.1	7.6	54.4	10.1	.11	2.3
Self-efficacy	51.8	10.9	56.0	10.9	.05	4.2
Hostility	28.4	12.3	26.2	11.9	.21	–2.2
Risk taking	37.5	11.9	37.5	12.4	.99	0.0
Social conformity	53.4	9.4	53.5	9.5	.94	0.1
Involuntary participants (n = 60)						
Self-esteem	44.4	9.1	52.1	8.1	.00*	7.7
Depression	28.9	9.6	24.0	12.4	.01	–4.9
Anxiety	35.7	13.3	27.9	14.1	.00*	–7.8
Decision making	48.7	9.8	54.1	10.2	.00*	5.4
Self-efficacy	51.0	11.5	54.5	13.1	.06	3.5
Hostility	30.5	13.3	27.3	13.4	.10	–3.2
Risk taking	38.0	11.5	37.0	11.4	.53	–1.0
Social conformity	51.8	7.7	55.2	10.1	.02	3.4

NOTE: Higher scores on self-esteem, decision making, self-efficacy, and social conformity are better. Lower scores on depression, anxiety, hostility, and risk taking are better.
*p < .001.

treatment) was predictive of change in one of the scales (anxiety). In short, inmates who involuntarily entered the SATF program exhibited as much change in the measured psychological and social functioning variables as did those who entered voluntarily, even after controlling for other possible predictor variables.

DISCUSSION

This examination of coerced treatment differs from previous studies of the issue in several ways. First, the treatment occurred in a prison rather than in the community. More important, the nature of coercion in this prison setting differed from that which typically occurs in community-based criminal justice treatment programs.

TABLE 3: Regression Analysis for Eight Self-Rating Scale Change Score and Other Outcomes

	Self-Rated Change Scores																			
	Self-Esteem		*Depression*		*Anxiety*		*Decision Making*		*Self-Efficacy*		*Hostility*		*Risk Taking*		*Social Conformity*		*Paroled*		*Aftercare Referral*	
	b	SE	b	SE	b	SE	b	SE	b	SE	b	SE	b	SE	b	SE	b	SE	b	SE
Admission status	–3.48	2.35	0.53	2.96	0.46	3.37	–2.14	2.23	1.30	3.25	0.07	3.14	0.49	2.75	–1.59	2.38	–0.08	0.11	0.05	0.11
Age	0.01	0.14	0.23	0.21	0.06	0.20	0.05	0.13	–0.03	0.20	0.39	0.19	0.00	0.17	0.05	0.14	–0.01	0.01	–0.01	0.01
Marital status	2.75	2.47	–3.06	3.11	–6.01	3.55	–0.71	2.35	–2.67	3.44	–0.67	3.31	1.96	2.89	–1.78	2.51	0.11	0.12	–0.01	0.11
Education	–0.16	0.58	–0.92	0.77	0.11	0.82	0.15	0.55	0.44	0.83	–0.84	0.77	–1.31	0.67	0.18	0.58	–0.04	0.03	0.00	0.03
Sex offender	–3.19	3.56	–6.61	4.48	–2.66	5.11	–5.38	3.38	0.64	4.91	0.72	4.76	1.20	4.16	–2.51	3.61	0.27	0.17	–0.03	0.17
Lifetime arrests	0.04	0.06	–0.14	0.07	–0.21	0.08*	0.04	0.05	–0.01	0.08	–0.11	0.08	–0.16	0.07	0.01	0.06	0.00	0.00	0.00	0.00
Alcohol or other drug problem recognition	1.24	3.32	–5.31	4.18	–8.70	4.76	–2.31	3.15	0.97	4.57	–2.90	4.44	5.70	3.88	–0.31	3.67	0.13	0.16	–0.10	0.15
Desire for help	–1.19	2.76	2.06	3.48	2.97	3.96	–3.65	2.62	2.31	3.82	1.94	3.69	1.91	3.23	0.04	2.80	0.17	0.13	0.14	0.13
Readiness for treatment	5.62	5.38	1.12	6.76	8.09	7.71	0.63	5.10	–0.32	7.40	–1.13	7.19	0.58	6.28	–7.89	5.45	0.13	0.26	0.13	0.24
F (adjusted R^2)	0.74 (–0.03)		1.43 (0.04)		2.17 (0.20)		1.01 (0.00)		0.25 (–0.09)		0.48 (–0.06)		1.72 (0.07)		0.57 (–0.05)		1.57 (0.05)		0.76 (–0.03)	
p value	0.67		0.19		0.03		0.44		0.99		0.88		0.10		0.82		0.14		0.65	

Many inmates were provided with little or no information about the treatment they were being forced into, and they had no real choice in what was an administrative decision (e.g., unlike in drug courts, where the defendant can choose between jail or treatment). Also unlike previous studies, we included measures of motivation to try to separate the formal referral to treatment from perceptions of treatment need and desire for treatment. Finally, whereas the outcomes of previous studies were usually measures of drug use and/or crime at some point following treatment, this study included more proximal self-report measures of changes in psychological and social functioning over the course of treatment.

The main finding from the study was that inmates, regardless of voluntary or involuntary admission status, exhibited significant change on most of the scales of the Self-Rating Form, although significant change was more likely on measures of psychological than on social functioning. Furthermore, the outcomes did not differ by group whether analyzed in a time-by-group ANOVA or in a multiple regression model controlling for background variables and motivation. Neither were significant group differences found for the other two outcome variables (parole from program and referral to aftercare). As noted in the Results section, similar percentages of both groups (a) were paroled from treatment (as opposed to being discharged from the program prior to parole) and (b) agreed to attend community treatment. In short, for the outcome measures used in this study, it did not seem to matter whether an inmate entered treatment under voluntary or involuntary conditions. This finding is in agreement with most previous studies of coercion in criminal justice treatment, albeit in a different setting and with a different type of coercion.

Another finding of this study was that an involuntary referral status did not mean an absence of motivation for treatment on the part of the inmate. At admission to treatment, involuntary inmates were just as likely as voluntary inmates to agree that they had an alcohol/drug problem and to express a desire for help. On the measure of readiness for treatment, although the involuntary inmates scored significantly lower than the voluntary inmates, they were more likely than not to express a desire to receive treatment in prison despite the coercive manner in which they entered treatment. It should be noted, however, that although involuntary inmates might have wanted to receive treat-

ment while in prison, they may still have objected strongly to how they arrived at the SATF program. The measures of motivation were not sensitive enough to capture their attitudes and perceptions of the coercive manner of their admission to treatment.

The findings need to be interpreted in light of several features of the study design and measurement issues. The number of subjects available for analysis was small, which could have prevented us from detecting small differences between the groups. Still, it is doubtful that small differences in outcomes between involuntary and voluntary treatment participants, even if significant, would have practical implications for policy and programming purposes.

Another limitation was that the question about admission status (voluntary or involuntary) was based on self-report and asked whether the person had volunteered to be in the program, measured on a 5-point scale from *not at all* to *extremely*. A better measure of admission status would have been to rely on official institutional records, but for the sample used in this analysis, this information was not available.

The measures of motivation on the baseline interview (problem recognition, desire for help, and readiness for treatment) were each based on a single question. Using multiple questions (statements) resulting in a scaled score would likely result in a more reliable assessment of these different dimensions of motivation. Also, in addition to the more generic measures of motivation, it would have been desirable to include measures of perceived coercion and feelings about involuntary referral to treatment.

At the time of this analysis, the 12-month follow-up interviews were being conducted, and thus, the impact of coercion on posttreatment outcomes could not be determined. Although it might be argued that the main outcomes of interest are those related to drug use and crime after the person has left treatment, such outcomes are partly mediated by changes that occur during treatment. If during-treatment change cannot be demonstrated, then it is unlikely that posttreatment change will occur. Still, the question remains as to whether the comparable performance of voluntary and involuntary inmates found in this study will in fact hold up at the 12-month follow-up in regard to drug use and crime as well as other psychosocial behaviors. We plan to repeat this analysis once the follow-up data are available.

Finally, as stated previously, the subjects used in this analysis were not a random sample of the full treatment sample of the SATF outcome study but rather were those for whom information on admission status was available and who completed the Self-Rating Form at baseline and prerelease. Thus, the findings may not be generalizable to the full SATF study sample or to other prison treatment programs with different treatment participant characteristics.

CONCLUSION

One of the strongest predictors of successful treatment is retention—length of time spent in treatment (Hubbard et al., 1989; Simpson, Joe, & Brown, 1997; Simpson & Sells, 1982). Thus, whatever increases retention is likely, although not certainly, to improve treatment outcomes. External pressure—typically from the criminal justice system but also from an employer or a family member—is likely to keep people in treatment longer than if they did not have such pressure. In particular, for drug-involved offenders, the various types of legal pressures and sanctions available to the criminal justice system can be used to "force" people into treatment and to keep them in treatment. But the effectiveness of such coercive approaches largely depends on how they are designed and implemented—as suggested by the success of the California Civil Addict Program in the 1960s (McGlothlin, Anglin, & Wilson, 1977), the failure of the New York civil commitment program at about the same time (Inciardi, 1988), and the mixed success of treatment under the federal Narcotic Addict Rehabilitation Act (Kane, 1973).

Although this study found that both voluntary and involuntary admissions to a prison-based treatment program exhibited equivalent outcomes (at least when measured near the end of prison treatment), it should be emphasized that coercion per se does not lead to successful treatment. Coercion can get drug-using offenders into treatment and keep them there for a relatively long period of time. However, it is not the external pressure itself that brings about commitment to change and recovery but, rather, changes in internal pressure or motivation and in thinking, behaviors, and emotions that come from engagement in a therapeutic process. Involuntary clients change not because they

are coerced into treatment but because as a result of coercion they remain in treatment long enough to become engaged in various treatment activities that help facilitate change.

Accepting the findings of this and other studies on coerced treatment, it remains true that not everybody coerced into treatment does well (any more than everybody who volunteers for treatment does well). A certain percentage of coerced clients not only shows little or no improvement, but while in treatment they are often recalcitrant, hostile, and disruptive—in general, they can make life difficult for the other clients and the counseling staff. They consume a disproportionate amount of time and resources, and their behavior may reduce the impact of the program on other clients. "Coerced treatment works" should not be an excuse for imposing unrealistic expectations on providers. If a criminal justice agency decides to implement a treatment program that includes mandating offenders into treatment, there should be some provision for discharging clients who, after a reasonable period in the program and upon agreement by both treatment and correctional staff, disrupt treatment activities to the point of interfering with the progress or safety of others.

Treatment providers, particularly those with a large percentage of coerced clients, should not assume that they can necessarily rely on their usual treatment methods and techniques. To maintain their historical level of success and to minimize the disruption of treatment, providers will likely need to modify their program to take into account the high levels of resistance of many coerced clients. These modifications could include special orientation units or motivational techniques (Farabee, Simpson, Dansereau, & Knight, 1995; Miller & Rollnick, 1991). In addition, the treatment programs and the criminal justice agencies with which they are associated should try to identify and eliminate (or at least mitigate) disincentives to treatment participation and engagement. In other terms, treatment should not be more punitive than normal prison time.

In summary, the findings from this analysis of data from a prison-based substance abuse treatment program, in combination with other studies on coerced treatment, should allay some of the concerns of those who ask whether treatment works for drug-using inmates who enter treatment involuntarily. A number of questions remain to be answered in future research, however. Do voluntary and involuntary

participants in prison-based treatment do equally well when assessed 12 months following treatment, after the sanctions associated with coercion have been lifted? What is the impact of large numbers of involuntary participants on the day-to-day activities of treatment programs and on the clinical progress of other clients? Using more refined measures than were included in this analysis, in what ways do motivation and perceptions about coercion interact with formal admission status to influence outcomes? Beyond these empirical questions regarding coerced treatment, policy makers and treatment providers need to address ethical and procedural issues involved in coercing offenders into treatment. These would include attention to ensuring that due process is followed, that offenders are provided with adequate information about treatment and any options they may have, that the treatment modality to which the offender is mandated is appropriate to his or her needs, and that voluntary clients have priority for treatment slots over involuntary clients.

REFERENCES

Anglin, M. D., & Hser, Y. (1990). Legal coercion and drug abuse treatment: Research findings and social policy implications. In J. Inciardi (Ed.), *Handbook of drug control in the United States* (pp. 151-176). Westport, CT: Greenwood.

Anglin, M. D., & Hser, Y. (1991). Criminal justice and the drug-abusing offender: Policy issues of coerced treatment. *Behavioral Sciences and the Law*, *9*, 243-267.

Brecht, M., Anglin, M. D., & Wang, J. C. (1993). Treatment effectiveness for legally coerced versus voluntary methadone maintenance clients. *American Journal of Drug and Alcohol Abuse*, *19*, 89-106.

Bureau of Justice Statistics. (1999). *Substance abuse and treatment, state and federal prisoners, 1997*. Washington, DC: Department of Justice.

De Leon, G. (1988). Legal pressure in therapeutic communities. In C. G. Leukefeld & F. M. Tims (Eds.), *Compulsory treatment of drug abuse: Research and clinical practice* (NIDA Research Monograph 86, pp. 236-249). Rockville, MD: National Institute on Drug Abuse.

De Leon, G. (2000). *The therapeutic community: Theory, model, and method*. New York: Springer.

Dorsey, T. L., & Zawitz, M. W. (2000). *Drugs and crime facts* (NCJ 165148). Washington, DC: Department of Justice, Bureau of Justice Statistics.

Farabee, D., Prendergast, M., & Anglin, M. D. (1998). The effectiveness of coerced treatment for drug-abusing offenders. *Federal Probation*, *62*, 3-10.

Farabee, D., Simpson, D., Dansereau, D., & Knight, K. (1995). Cognitive inductions into treatment among probated drug users. *Journal of Drug Issues*, *25*, 669-682.

Gilboy, J., & Schmidt, J. (1971). "Voluntary" hospitalization of the mentally ill. *Northwestern University Law Review*, *66*, 429-453.

Hoge, S., Lidz, C., Eisenberg, M., Gardner, W., Monahan, J., Mulvey, E., Roth, L., & Bennett, N. (1997). Perceptions of coercion in the admission of voluntary and involuntary psychiatric patients. *International Journal of Law and Psychiatry*, *20*, 167-181.

Hubbard, R. L., Marsden, M. E., Rachal, J. V., Harwood, H. J., Cavanaugh, E. R., & Ginzburg, H. M. (1989). *Drug abuse treatment: A national study of effectiveness*. Chapel Hill: University of North Carolina Press.

Inciardi, J. A. (1988). Compulsory treatment in New York: A brief narrative history of misjudgment, mismanagement, and misrepresentation. *Journal of Drug Issues*, *18*, 547-560.

Inciardi, J. A., Martin, S. S., Butzin, C. A., Hooper, R. M., & Harrison, L. D. (1997). An effective model of prison-based treatment for drug-involved offenders. *Journal of Drug Issues*, *27*, 261-278.

Kane, J. A. (1973). A legal history of the Narcotic Addict Rehabilitation Act of 1966. In *Drug use in America: Problem in perspective* (Appendix, Vol. IV, pp. 485-515). Washington, DC: Government Printing Office.

Knight, K., Hiller, M. L., Broome, K. M., & Simpson, D. D. (2000). Legal pressure, treatment readiness, and engagement in long-term residential programs. *Journal of Offender Rehabilitation*, *31*, 101-115.

Knight, K., Simpson, D. D., Chatham, L. R., & Camacho, L. M. (1997). An assessment of prison-based drug treatment: Texas' in-prison therapeutic community program. *Journal of Offender Rehabilitation*, *24*, 75-100.

Maxwell, J. C. (1996). *Substance abuse trends in Texas, December 1995* (TCADA Research Briefs). Austin: Texas Commission on Drug and Alcohol Abuse.

McGlothlin, W. H., Anglin, M. D., & Wilson, B. D. (1977). *An evaluation of the California Civil Addict Program* (National Institute on Drug Abuse Research Monograph Series, DHEW Pub. No. ADM 78-558). Washington, DC: Government Printing Office.

Miller, N. S., & Flaherty, J. A. (2000). Effectiveness of coerced addiction treatment (alternative consequences): A review of the clinical research. *Journal of Substance Abuse Treatment*, *18*, 9-16.

Miller, W. R. (1985). Motivation for treatment: A review, the special emphasis on alcoholism. *Psychological Bulletin*, *98*, 84-107.

Miller, W. R., & Rollnick, S. (1991). *Motivational interviewing: Preparing people to change addictive behavior.* New York: Guilford.

Musto, D. (1987). *The American disease: Origins of narcotic control* (Expanded ed.). New York: Oxford University Press.

Petersen, D. M. (1974). Some reflections on compulsory treatment of addiction. In J. A. Inciardi & C. D. Chambers (Eds.), *Drugs and the criminal justice system* (pp. 143-169). Beverly Hills, CA: Sage.

Prendergast, M., Wellisch, J., & Wong, M. (1996). Residential treatment for women parolees following prison drug treatment: Treatment experiences, needs and services, outcomes. *The Prison Journal*, *76*, 253-274.

Price, R. H., & D'Aunno, T. (1992). *NIDA III Respondent Report Drug Abuse Treatment System Survey: A national study of the outpatient drug-free and methadone treatment system, 1988-1990 results*. Ann Arbor: University of Michigan, Institute for Social Research.

Rotgers, F. (1992). Coercion in addiction treatment. In *Annual review of addiction research and treatment* (pp. 403-416). New York: Pergamon.

Simpson, D. D., Joe, G. W., & Brown, B. S. (1997). Treatment retention and follow-up outcomes in the Drug Abuse Treatment Outcome Study (DATOS). *Psychology of Addictive Behaviors*, *11*, 294-307.

Simpson, D. D., & Knight, K. (1998). *TCU data collection forms for correctional residential treatment*. Fort Worth: Texas Christian University, Institute of Behavioral Research.

Simpson, D. D., & Sells, S. B. (1982). Effectiveness of treatment for drug abuse: An overview of the DARP research program. *Advances in Alcohol and Substance Abuse*, *2*, 7-29.

Simpson, D. D., Wexler, H. K., & Inciardi, J. A. (Eds.). (1999). Drug treatment outcomes for correctional settings, Part 1. *The Prison Journal*, *79*, 291-368.

Toews, J., el-Guebaly, N., Leckie, A., & Harper, D. (1984). Patients' attitudes at the time of their commitment. *Canadian Journal of Psychiatry*, *29*, 590-595.

Webster, C. D. (1986). Compulsory treatment of narcotic addiction. *International Journal of Law and Psychiatry*, *8*, 133-159.

Weisner, C. (1990). Coercion in alcohol treatment. In *Broadening the base of alcoholism treatment* (pp. 579-609). Washington, DC: National Academy Press.

Weisner, C. M. (1987). The social ecology of alcohol treatment in the United States. *Recent Developments in Alcoholism*, *5*, 203-243.

Wexler, H. K., De Leon, G., Thomas, G., Kressel, D., & Peters, J. (1999). The Amity prison TC evaluation: Reincarceration outcomes. *Criminal Justice and Behavior*, *26*, 147-167.

Wild, T. C., Newton-Taylor, B., & Alletto, R. (1998). Perceived coercion among clients entering substance abuse treatment: Structural and psychological determinants. *Addictive Behaviors*, *23*, 81-95.