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Outcomes in a Sample of Opioid-Dependent Clients Treated Under California's Proposition 36

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Abstract

This study evaluated treatment outcomes for the reduction of criminal justice involvement and substance use among opioid dependent clients in a therapeutic community setting under California's Proposition 36. We compared treatment outcomes between those mandated to treatment under Proposition 36 ($n = 24$) and those on probation but not involved in Proposition 36 ($n = 61$) over 12 months. Over time, both groups showed significant improvement on drug use and employment measures, were more likely to be involved in job training and less likely to be engaged in work activity, and had similar retention in treatment. There was no evidence that treatment outcomes were different between the two groups. These findings may be helpful in guiding policy makers and clinicians in states where similar initiatives are under consideration.

Introduction

The end of the 20th century witnessed a dramatic increase in the number of persons incarcerated for drug-related offenses in California. Between 1980 and 1998, drug arrests in California doubled from 131,000 to 265,000 (Macallair, Males, Rois, & Vargas, 2000). The California Department of Alcohol and Drug Programs (DADP) reported in 1998 that 39% of all arrests in California were associated with drug (264,964) and/or alcohol use (349,076) (California Department of Alcohol and Drug Programs [DADP], 2000). The number of felony arrests of drug offenders also increased from 133,437 to 150,305 between 1999 and 2004 in California (Criminal Justice Statistics Center [CJSC], 2005), and the incarceration rate for drug-related crimes per 100,000 people in California multiplied more than 10 times from 4.4 in 1980 to 47.9 in 2003 (CJSC, 2004).

In November 2000, and partly as an alternative to increasing incarceration rates, California voters approved the Substance Abuse and Crime Prevention Act, also known as Proposition

36. This act mandated adults convicted of nonviolent drug possession or drug use to receive community based substance abuse treatment instead of incarceration or probation without the likelihood of receiving treatment. Proposition 36 also expanded the opportunity to succeed in treatment. If a person violated a first or a second drug related condition of probation, such as receiving a new arrest for drug possession, treatment failure, or dropout, the offender qualified for modified or intensified treatment rather than facing incarceration. However, upon the third violation, the offender could be considered “unamenable to drug treatment” and be incarcerated (Klein, Miller, Noble, & Speiglmán, 2004; Marlowe, Elwork, Festinger, & McLellan, 2003).

Arizona preceded California in implementing voter initiated policy reform in this area by passing the Drug Medicalization, Prevention and Control Act of 1996, also known as Proposition 200. Its goal was to place nonviolent drug offenders on probation and increase drug treatment and education services for this population (Administrative Office of the Courts, 1999). In the 1998 fiscal year, 2,622 probationers began drug treatment under the new law, 21% of whom were mandated to receive treatment in Arizona (Center for Substance Abuse Research, 2001). When California’s Proposition 36 was announced, it was suggested that this may mark a turning point in state approaches to criminal justice and drug abuse treatment in the United States (Hser et al., 2003; Klein et al., 2004) and offer a model for other states (Drug Policy Alliance, 2004). In 2002 and 2003, voters or legislators in the District of Columbia, Hawaii, and Texas passed similar initiatives (Marlow et al., 2003; Speiglmán, Klein, Miller, & Noble, 2003).

Following the implementation of Proposition 36, from 2000 to 2001 California’s rate of incarceration for drug offenders dropped from 130 to 110 per 100,000 people (Males, Macallair, & Jamison, 2002). During the first year in which Proposition 36 went into effect (July of 2001 through June of 2002), a total of 44,043 offenders were referred for substance abuse treatment under the provisions of Proposition 36 and 69% of those referred actually entered treatment (Longshore et al., 2003). Under Proposition 36, 50,335 offenders were referred to treatment in its second year (July of 2002 through June of 2003), and approximately 71% of eligible offenders received treatment (Longshore et al., 2004). During the third year (July of 2003 through June of 2004), 51,033 offenders were referred to treatment, and 73% entered treatment. Across all three years, about 70% of offenders who were referred by the courts entered treatment (Longshore et al., 2005).

Although mandated treatment in lieu of incarceration for drug offenders has become more prevalent and has received more public support, concern has been expressed about the effectiveness of such initiatives and the quality of treatment provided (Riley, Ebener, Chiesa, Turner, & Ringel, 2000; Young & Belenko, 2002). To date, we have found five published reports on the effectiveness of Proposition 36 in terms of client level treatment outcomes (Longshore et al, 2003, 2004, 2005; Farabee, Hser, Anglin, & Huang, 2004; Hser et al., 2003).

Longshore et al. (2005) compared the 12-month outcomes, including reoffending, drug use, and employment across three groups of the Proposition 36 participants: those who were referred but did not enter treatment, those who entered treatment but did not complete it, and those who completed treatment. Offenders who completed treatment showed a significant decline in drug use and greater improvement in employment than those in the other two groups. However, there were few group differences in reoffending. Hser et al. (2003) compared drug use patterns and criminal justice involvement between Proposition 36 participants and nonparticipants at treatment admission and at a 12-month follow-up. Compared to the non-Proposition 36 group, Proposition 36 participants had a lower severity of heroin use, were less likely to use drugs by injection, were less likely to receive

methadone treatment, and were more likely to be on probation. Farabee et al. (2004) examined treatment modality and rearrest among three groups in community treatment programs over 12 months: (a) Proposition 36 clients, (b) other clients referred through the criminal justice system, and (c) clients without a current criminal justice status. Proposition 36 clients had longer retention in outpatient treatment compared to other clients involved in the criminal justice system; however, groups involved in the system (Proposition 36 and others) had significantly longer retention in residential treatment than did clients not involved in the system. They also found that Proposition 36 clients were more likely to be rearrested for a drug involved crime than other groups.

The aim of Proposition 36 was to reduce criminal activities and reincarceration (California Campaign for New Drug Policies, 2005), while allowing for the provision of services in employment and training (Riley et al., 2000). One of the earlier concerns with Proposition 36 was the client's lack of engagement in treatment participation (Klein et al., 2004; Speigman et al., 2003). Using data collected in the course of a larger treatment outcome study (Andrews, Sorensen, Gudyish, Delucchi, & Greenberg, 2005), this paper reports substance abuse, criminal justice and employment outcomes, and retention in treatment for a sample of residential therapeutic community (TC) participants referred through California's Proposition 36.

Methods

Study Context

Although Proposition 36 is a California statewide mandate, implementation is at the county level and can vary between counties. In San Francisco City and County, where this study was conducted, a centralized treatment access program (TAP) performs initial assessment for all those referred to treatment under Proposition 36. After receiving a court order, a probation or parole officer will refer a client and arrange an appointment with TAP, where the client assessment is completed within 30 days. Based on the assessment, TAP staff make a placement decision and refer the client to community based treatment. Available treatment options include basic drug abuse education, mentoring and alternative life skills training, outpatient services, intensive outpatient and day treatment, residential treatment, and methadone maintenance. TAP and the treatment provider are responsible for monitoring treatment progress. TAP staff report on client progress quarterly to probation officers, and these officers report client progress, outcomes, and any new violations to the Court (San Francisco Department of Public Health [SFDPH], 2005).

Data for this study came from a larger project designed to evaluate the effectiveness of therapeutic community (TC) treatment for persons receiving opioid replacement therapy (ORT). The parent study used a two group longitudinal follow-up design to compare outcomes for TC participants who had a history of opioid use and who did or did not receive ORT in the context of TC treatment (Andrews et al., 2005). Participants in the parent study included opioid-dependent individuals who were enrolled both in a residential TC and in a county methadone maintenance program. A mobile methadone van (a specially fitted recreational vehicle) visited the TC parking lot on a regular schedule and provided methadone maintenance services to those clients enrolled in both (TC and methadone) programs.

All participants were (a) 18 years of age or older, (b) qualified for methadone maintenance treatment, and (c) screened for research within seven days of admission to the TC. The parent study included 231 opioid users who either were receiving ($n = 125$) or were not receiving ($n = 106$) methadone maintenance upon admission to the TC.

Participants

At the time of intake by agency staff, the criminal justice status was recorded for each person. Those who reported that they were involved in Proposition 36 were placed in the Proposition 36 group. Those who reported that they were currently on probation, but not under Proposition 36, were placed in the comparison group. Among participants in the parent study we identified those mandated to treatment under Proposition 36 ($n = 24$), and those on probation but not involved in Proposition 36 ($n = 61$). The clients on probation were considered as a comparison group because they were drug involved offenders entering the same treatment program but not involved in Proposition 36. Participants had a mean age of 38.5 years ($SD = 9.2$). Approximately 36% were women, and most (75%) had completed high school. About half (54%) were White and the rest included African Americans (27%), Latinos (8%), or persons of other ethnicities (11%). Over 60% reported opiates as the primary drug of choice, and 33% reported poly-drug use. More than half (55%) had received methadone treatment when admitted to the study, and many (30%) had been incarcerated in the 30 days preceding baseline.

Data Collection Measures and Procedures

Clients were interviewed using the Addiction Severity Index (ASI) (McLellan et al., 1992) at treatment entry and at 6- and 12-month follow-up. The circumstance, motivation and readiness scale (CMR), a measure of the circumstances surrounding a resident's treatment, treatment readiness, and general commitment to change (De Leon, Melnick, Kressel, & Jainchill, 1994), was administered at baseline only.

The Addiction Severity Index (ASI)—The ASI is a commonly used tool for screening clients, assessing treatment needs, and measuring outcomes in both clinical and research settings. ASI composite scores measure problem severity for the past 30 days in each of seven areas: alcohol use, drug use, employment, legal, medical, psychiatric status, and family-social functioning (McLellan et al., 1992). Composite scores, computed as a value ranging from 0 to 1, are derived from questions in each area using formulas to weight the items (McGahan, Griffith, & McLellan, 1986) and have been shown to be sensitive to treatment effects (McLellan et al., 1992). Because approximately 60% of participants in the present study were receiving methadone, and because any drug use (including methadone use) is reflected in the ASI drug composite score, we used a modified version of the ASI drug composite score that excluded methadone use. This follows procedures used by Sees and colleagues (2000), who studied treatment outcomes using ASI composite scores among participants in methadone treatment.

Circumstance, Motivation and Readiness scale (CMR)—The CMR is an 18-item scale designed to predict retention in TC settings using four subscales: circumstance 1 (“pressure to enter treatment”), circumstance 2 (“pressure to leave treatment”), motivation (“internal pressures”), and readiness (“perceived need for treatment”). Items assess circumstances surrounding a resident's treatment, readiness to enter the TC, and general commitment to change (De Leon et al., 1994).

Criminal Justice Involvement, Employment, Job Training, and Treatment—We included in our study the following dichotomized variables from the ASI: whether or not participants had been arrested, incarcerated, employed, or enrolled in job training or in substance abuse treatment in the 30 days preceding each interview.

Retention in Treatment—Retention was calculated as the number of days a client remained continuously in treatment from admission to discharge, including time in the residential setting and time in step-down residential post-treatment settings operated by the

same agency. Admission and discharge dates for each participant were extracted from agency administrative datasets and confirmed by research records. As some clients dropped out of treatment and then returned, we regarded treatment as continuous until a client remained out of treatment for 14 days, a criterion used previously in this setting (Guydish, Werdegar, Sorensen, & Clark, 1998). For clients who did not return within this window, retention was calculated to the last day of treatment.

Participants were reimbursed \$15 for baseline and \$25 for each follow-up interview. All study procedures were approved by the Institutional Review Board at the University of California, San Francisco.

Data Analysis

The analysis plan included four steps. First, the two groups (Proposition 36 versus probation) were compared on demographic characteristics (age, gender, ethnicity, and education), major problem drug, and CMR at baseline. In addition, baseline comparisons between groups were conducted using ASI composite scores and by comparing the proportion of participants in each group who had been arrested, incarcerated, employed, enrolled in job training, or enrolled in substance abuse treatment in the 30 days preceding baseline. Based on these comparisons, significantly different variables ($p < .05$) at baseline were controlled in later outcome analyses.

Second, to assess changes in outcomes over time and differences in changes between groups, we applied mixed effects regression analyses (Littell, Milliken, Stroup, & Wolfinger, 1996) for each ASI composite score, including factors for group (Proposition 36 and probation), time (baseline, six, and 12 months), and group-by-time interaction. Time was treated as a linear effect. We applied bootstrapping procedures (Efron & Tibshirani, 1993), which estimate standard errors of coefficients with nonnormal distributions. The bootstrapping approach is recommended for use with ASI composite score data, which often have heavily skewed distributions and an abundance of zero values (Delucchi & Bostrom, 2004). As the parent study was originally designed to compare methadone users and non-methadone users, use of methadone at admission was controlled in the analysis. Because history of incarceration in the past 30 days was significantly different between groups at baseline, this was also included as a control variable.

The third step was to assess changes in additional dichotomous outcomes (yes/no) over time and differences in changes between groups using the generalized estimating equation (GEE) (Liang & Zeger, 1986). Additional outcome variables were whether the participant had been arrested, incarcerated, employed, enrolled in job training, or enrolled in substance abuse treatment in the past 30 days. Mixed effects regression models using the maximum likelihood approach and GEE models using quasi-likelihood estimates, were applied to all available data. There was not data imputation of missing values in these analyses.

Finally, study groups were compared on retention in treatment using survival analysis (Kaplan & Meier, 1958). Because retention data were extracted at 12 months post-admission, those participants still in treatment at 12 months were treated as censored observations, reflecting that their time in treatment was unknown for the purposes of survival analysis.

Results

Comparison of Study Groups at Baseline

Comparisons between groups at baseline for key demographic and outcome variables are shown in Table 1. Proposition 36 and probation participants showed no differences in age,

gender, ethnicity, education, primary drug of choice, history of arrest, being paid for work, being in a job training, history of substance abuse treatment, or treatment readiness as measured by the CMR. However, more clients in the Proposition 36 group (79%) were receiving methadone treatment at baseline than those in the probation group (46%). Also, clients in the probation group were more likely to have been incarcerated in the 30 days preceding the baseline interview (36% vs. 13%, respectively). Bootstrapped t-test procedures used to compare mean ASI composite scores between groups also showed no significant differences between groups at baseline (see Table 2).

Outcome Analyses

For both groups combined, six- and 12-month follow-up rates were 97% and 92%, respectively. The six month follow-up rate was 100% in the Proposition 36 group and 95% for the probation group, and the 12-month follow-up rate for each of these groups was 92%. Follow-up rates did not differ significantly between groups at either time point.

ASI Composite Scores—Analyses of ASI outcome measures, including group, time, and group-by-time interaction effects are summarized in Table 3. No significant group-by-time interactions were found, suggesting that the rate of change over time did not differ significantly by group. A group effect was found for the ASI legal composite ($p = .048$), such that the Proposition 36 group reported higher legal problem severity for the average over all times as compared to the probation group (see Table 3). Time effects were observed for both ASI Drug and Employment composite scores, reflecting decreased drug and employment problems in both groups across time.

The methadone treatment condition at baseline and history of incarceration in the past 30 days were controlled in the regression model. No significant effect was found in either clients who received or did not receive methadone treatment at baseline for the seven ASI composites. History of incarceration in the past 30 days exerted a statistically significant effect on the ASI alcohol and legal composites. Clients who were incarcerated in the past 30 days were estimated to be 0.052 lower on the ASI alcohol score than those who were not incarcerated. They were also estimated to be 0.177 higher on legal ASI composites scores than their counterparts who were not incarcerated.

Criminal Justice Involvement, Employment, Job Training, and Treatment—Measures of incarceration, arrest, paid work, job training, and substance abuse treatment history are summarized in Table 4. As in the analysis of ASI composite score measures, no group-by-time interaction effects were observed. The significant group effect for incarceration in the past 30 days indicates that the odds were 76% lower for the Proposition 36 group to be incarcerated on average over all times as compared to the probation group ($OR=0.24$, 95% $CI=0.08, 0.75$). There was also a significant time effect such that in each ongoing month, the odds of being paid for work decreased by approximately 13% ($OR=0.87$, 95% $CI = 0.81, 0.93$). This means that, by the 12-month follow-up, and in both groups combined, participants were 1.15 times less likely to have been paid for work than they were at baseline. While paid employment decreased in both groups, the likelihood of job training increased. Clients had a significant increase in the odds for training of 34% in each ongoing month ($OR=1.34$, 95% $CI = 1.14, 1.57$).

Retention in Treatment—Retention was compared between groups at 12-months post-admission using survival analysis, treating participants who were still in treatment at that time in the Proposition 36 ($n=4$) or probation group ($n=6$) as censored observations. The mean time in treatment was 189.6 days ($SE = 27.05$) in the Proposition 36 group and 181.7 days ($SE = 15.77$) in the probation group, and this difference was not significant.

Discussion

California Proposition 36, approved by voters in November 2000, was designed to divert adults convicted of nonviolent drug possession or illegal drug use away from incarceration and into treatment. In the context of a larger study, we identified and compared drug-involved offenders enrolled in residential treatment who were or were not mandated to treatment under Proposition 36. The two groups were similar at baseline in terms of demographic characteristics, measures of arrest, employment, and treatment motivation, and problem severity in seven areas as measured by ASI composite scores. Proposition 36 participants were less likely than probation controls to be incarcerated in the 30 days immediately preceding treatment. This difference may reflect that Proposition 36 participants were, as envisioned in the proposition, sent directly to treatment in lieu of incarceration. Other possible explanations are that the probation control participants were ineligible for Proposition 36 because they had previously served a sentence for a felony or a misdemeanor related to physical injury or the threat of injury in the past five years or had been convicted of a misdemeanor not including the use of drugs or any felony with nonviolent drug possession. In cases involving the use of a firearm, offenders are not eligible for Proposition 36, although they may have been convicted of a nonviolent drug possession offense. Also, if an offender was on probation in November 2000 when the proposition was enacted, the offender was not eligible for Proposition 36. Our data are insufficient to explore each possibility. However, it seems likely that the probation control participants may have differed in that their specific and recent charges excluded them from Proposition 36, or that the Proposition 36 group was less likely to have recent incarceration as a direct effect of the proposition.

Proposition 36 participants were also more likely to be co-enrolled in methadone treatment at baseline, and one possible explanation may be the differences in how these samples are referred to treatment. In San Francisco, Proposition 36 clients are evaluated in a centralized assessment and referral center and referred on to treatment based on this assessment. Participants seeking treatment but not involved in Proposition 36 would not generally receive this centralized assessment service but would approach treatment programs on their own or by referral from their probation officer. If centralized assessment staff were more likely to refer opiate users to methadone treatment, this may account for the difference observed.

In outcome analyses controlling for baseline differences observed in methadone treatment and recent incarceration, Proposition 36 clients were four times less likely to be incarcerated than the probation control participants, across all time points. A comparison of lifetime number of arrests related to weapon, assault, rape, and homicide charges showed no significant differences between groups, suggesting that lifetime criminal history was not responsible for group differences in incarceration. It may be that Proposition 36 participants were more likely to be sent back to treatment, in the case of probation violations, as intended under the proposition, while the probationers were more likely to have their probation revoked and to be sent to jail. However, our data cannot directly assess this point.

Proposition 36 participants reported more severe legal problems than did probation participants. To explore the higher scores of the Proposition 36 clients compared to the probation clients, we compared each item in the ASI legal composite at baseline, and 6- and 12-month follow-up. More clients in the Proposition 36 group were involved with illegal activities for profit in the past 30 days, at baseline, than those in the probation group and this difference was statistically significant. There was also a significant difference between groups at the six-month follow-up, such that legal counseling was more important to the Proposition 36 clients compared to the probation clients. Due to these differences, the

Proposition 36 clients had higher average ASI Legal composite scores than the probation clients over all time points.

Both the Proposition 36 and the probation groups showed a decrease in drug and employment problem severity over the 12-month follow-up period. This is similar to findings reported by Longshore et al. (2005), which showed less drug use and more employment over time among Proposition 36 participants. Both groups showed an increase in job training over all time points, along with a decrease in the likelihood of being paid for work. This may reflect that the circumstances surrounding admission to residential TC treatment, especially criminal involvement and substance abuse, resulted in job loss at or near the time of program admission. However, participation in treatment was associated with increased participation in job training or return to the workforce. In this context, a decrease in the likelihood of being paid for work may not be a negative outcome, and this is supported by the decrease of the ASI employment severity over time. Importantly, group-by-time interactions were not observed, suggesting that decreases seen in drug and employment problem severity were not differential by group or that, stated another way, Proposition 36 participants in this study experienced treatment outcomes similar to those experienced by drug-involved offenders who were on probation but not mandated to treatment under Proposition 36. This study found no improvement in either group for measures of medical, psychiatric, and family/social problems, suggesting that additional targeted interventions in these areas may be required to produce gains in these areas.

A period of 90 days is commonly recommended in order to achieve treatment-related gains (Hubbard, Craddock, Flynn, Anderson, & Etheridge, 1997; Simpson, Joe, & Broome, 2002). Longshore et al. (2005) reported a median length of stay of 90 days for Proposition 36 clients in residential treatment. By comparison, Proposition 36 clients in this study remained twice as long in the program (mean = 189.6 days). The greater length of stay in the program might be related to positive outcomes in both groups in this study and also suggests that Proposition 36 participants were no more likely to drop out of treatment than were other drug-involved criminal offenders.

The findings reported here have limited generalizability because the sample included only opioid dependent persons who actually entered both a specific type of residential (TC) treatment and methadone treatment in San Francisco. Approximately 10% of all Proposition 36 clients statewide are opiate users and, among those, only 13% received methadone detoxification or maintenance (Longshore et al., 2005). Hser and colleagues (2003) also found limited methadone treatment available under Proposition 36, although our study suggests that methadone treatment is available to some Proposition 36 clients. According to California statutory law, detainees who receive methadone treatment at the time they are arrested are eligible to continue receiving methadone treatment in county jail while awaiting adjudication. San Francisco complies with this law (San Francisco Department of Public Health [SFDPH], 1999), and, moreover, referrals to methadone treatment are made by the San Francisco Treatment Access Program, which is responsible for assessment and referral of all Proposition 36 cases in the city and county. Although we have not studied use of methadone as a treatment modality for Proposition 36 cases throughout the state, San Francisco may be more liberal in its use of methadone treatment compared with other counties in California. As this study concerned residential TC treatment only, it does not address other approaches, such as the social model residential treatment, intensive outpatient or standard outpatient treatment. In addition, this study was conducted in San Francisco City and County and each county has different treatment systems and programs. Therefore, study findings may not generalize to other counties in California. The study is also limited by the use of a nonrandomized comparison group design, and two observed group differences at baseline, although these were controlled in subsequent analyses. The modest sample size of

the Proposition 36 group may have prevented some of the effects tested from reaching statistical significance due to experiment-wise power.

While these limitations are important in framing any interpretation or conclusion, this study examined client-level treatment outcomes for opioid-dependent participants enrolled in Proposition 36 over a one-year follow-up period and in relation to a suitable comparison group. Early concerns expressed about Proposition 36 related to the effectiveness of treatment and the quality of treatment provided (Riley et al., 2000; Young & Belenko, 2002). Another concern was that Proposition 36 clients would be less engaged in treatment because they were there by external mandate rather than by internal motivation, and so they would have shorter stays in treatment and poorer outcomes (Klein et al., 2004; Speigman et al., 2003). This study found no evidence that treatment outcomes were different between the two groups. The findings reported here, while limited, suggest that drug abuse treatment provided under Proposition 36 and for this study sample was as effective as drug abuse treatment provided to drug-involved probationers who were not involved in Proposition 36. This finding may be helpful to other states or jurisdictions considering similar treatment mandates for drug involved offenders.

Additional research using larger samples and more rigorous designs are needed to inform the policy debate concerning Proposition 36 and similar initiatives. As a larger body of research is developing, policy initiatives currently under consideration will be decided based on available data. We found that Proposition 36 participants remained in treatment as long as, and showed treatment outcomes similar to, probation clients who were not involved in Proposition 36. We also found that, while Proposition 36 clients showed significant improvement on drug use and employment outcomes, improvement on other standard treatment outcome measures (medical, psychiatric, social, legal) was not observed in either group, so that additional treatment emphasis in these areas may deserve consideration.

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Table 1

Participant Characteristics at Baseline (N=85)

	Prop. 36 (n = 24)	Probation (n = 61)	P value
Age (Mean, SD)	40(11.1)	38 (8.4)	.530
Gender (% , n)			.706
Male	67 (16)	62 (38)	
Female	33(8)	38 (23)	
Ethnicity (% , n)			.326
White	46 (11)	57 (35)	
African American	42 (10)	21 (13)	
Latina	8 (2)	8 (5)	
Other	4 (1)	13 (8)	
Education (% , n)			.710
Less than or some high school	21 (5)	26 (16)	
Completed high school/GED	54 (13)	44 (27)	
Some or completed college	25 (6)	30 (18)	
Primary Drug (% , n)			.546
Opiates	75 (18)	57 (35)	
Polydrug	25 (6)	36 (22)	
Non-crack cocaine	0	3 (2)	
Crack	0	2 (1)	
Other	0	2 (1)	
Current methadone treatment, Yes (% , n)	79 (19)	46 (28)	<.001 *
History of incarceration in past 30 days, Yes (% , n)	13 (3)	36 (22)	.032 *
History of arrest in past 30 days, Yes (% , n)	0	0	
Paid for work in past 30 days, Yes (% , n)	13 (3)	5 (3)	.219
In training in past 30 days, Yes (% , n)	33 (8)	31 (19)	.846
In treatment in past 30 days, Yes (% , n)	67 (16)	53 (32)	.234
CMR-Circumstance1	3.7 (0.9)	3.5 (0.9)	.376
CMR-Circumstance2	4.0 (0.7)	3.9 (0.6)	.563
CMR-Motivation (Mean, SD)	4.5 (0.6)	4.5 (0.5)	.908
CMR-Readiness (Mean, SD)	4.2 (0.7)	4.4 (0.5)	.106

* statistically significant difference.

Table 2

Comparison of ASI Measures at Baseline (N=85)

Score	Prop.36 (n = 24)		Probation (n= 61)		T value	P-Value
	Mean	SD	Mean	SD		
Alcohol	0.112	0.195	0.115	0.224	0.05	0.981
Drug	0.222	0.142	0.172	0.140	-1.49	0.139
Employment	0.957	0.088	0.904	0.185	-1.75	0.067
Legal	0.334	0.261	0.241	0.211	-1.72	0.087
Medical	0.297	0.368	0.320	0.372	0.27	0.795

Table 3
Analysis of Group Differences and Group-by-Time Interactions for ASI Composites (N=85)

ASI Composite	Group Effect			Time Effect			Group × Time Effect		
	Parameter Estimate	95% C.I.	P Value	Parameter Estimate	95% C.I.	P Value	Parameter Estimate	95% C.I.	P Value
Alcohol	-0.029	-0.13 0.09	0.596	-0.010	-0.02 0.00	0.088	0.006	-0.02 0.03	0.602
Drug	0.038	-0.04 0.12	0.313	-0.012	-0.02 0.00	0.010*	-0.007	-0.02 0.01	0.370
Employment	0.053	-0.03 0.13	0.186	-0.028	-0.04 -0.02	0.000*	0.005	-0.02 0.03	0.635
Legal	0.136	0.00 0.28	0.048*	-0.007	-0.02 0.01	0.323	-0.011	-0.04 0.02	0.504
Medical	-0.073	-0.28 0.12	0.442	-0.008	-0.03 0.02	0.529	0.005	-0.04 0.05	0.816
Psychiatric	-0.107	-0.20 0.01	0.066	0.007	-0.01 0.02	0.274	0.018	-0.01 0.04	0.142
Family/Social	-0.035	-0.12 0.05	0.406	-0.008	-0.02 0.00	0.162	0.007	-0.01 0.03	0.491

* statistically significant difference.

