



**THE IOWA
CONSORTIUM**
FOR SUBSTANCE ABUSE RESEARCH AND EVALUATION

— JAIL-BASED SUBSTANCE ABUSE — TREATMENT PROGRAM

ANALYSIS OF CRIMINAL THINKING DATA

PREPARED BY:

IOWA CONSORTIUM FOR SUBSTANCE ABUSE RESEARCH AND EVALUATION
UNIVERSITY OF IOWA, IOWA CITY, IOWA 52242-5000

WITH FUNDS PROVIDED BY:

IOWA DEPARTMENT OF PUBLIC HEALTH, DIVISION OF BEHAVIORAL HEALTH AND PROFESSIONAL LICENSURE;
U.S. DEPARTMENT OF JUSTICE, OFFICE OF JUSTICE PROGRAMS, BUREAU OF JUSTICE ASSISTANCE

Citation of references related to this report is appreciated. Suggested citation:

Hedden, S., Barber, K., & Arndt, S. (2006). Jail Based Substance Abuse Treatment Program: Analysis of Criminal Thinking Data (Iowa Department of Public Health, Contract No. 5887JT04). Iowa City, IA: Iowa Consortium for Substance Abuse Research and Evaluation. <http://iconsortium.subst-abuse.uiowa.edu/>



**THE IOWA
CONSORTIUM**
FOR SUBSTANCE ABUSE RESEARCH AND EVALUATION

— **JAIL-BASED SUBSTANCE ABUSE** —
TREATMENT PROGRAM

**ANALYSIS OF
CRIMINAL THINKING DATA**

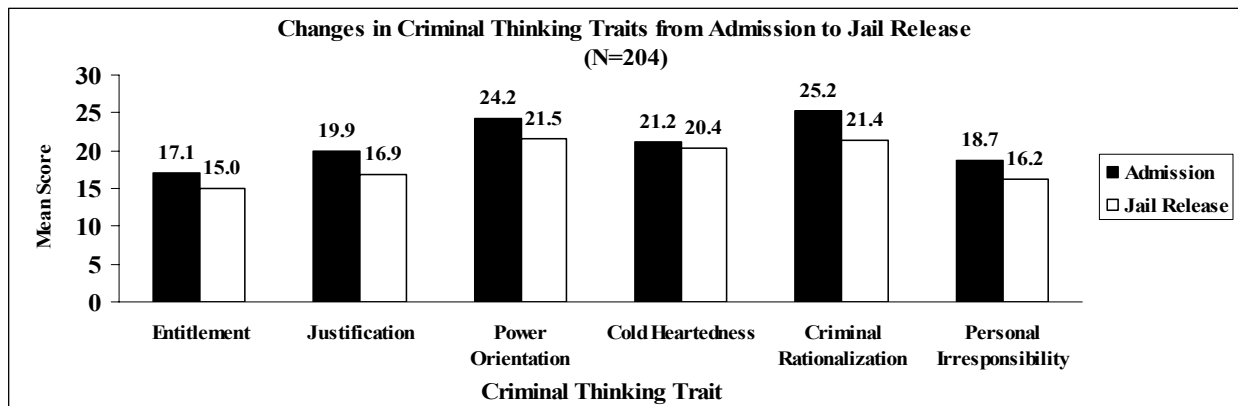
PREPARED BY:
SUZY HEDDEN, BS, PROGRAM EVALUATION COORDINATOR
KRISTINA BARBER, MSM, ASSOCIATE DIRECTOR
STEPHAN ARNDT, PHD, DIRECTOR

Overview

The Iowa Consortium for Substance Abuse Research and Evaluation (Consortium) conducted an analysis of criminal thinking data collected from clients participating in the Jail-Based Substance Abuse Treatment Program in Iowa. The purpose of this study was to determine if participation in the Jail Treatment Program changes client criminal thinking patterns. Data were collected from clients at 3 points in time: admission, jail release, and 3 months post-jail release. The data were analyzed to determine if differences existed between any of the 3 survey points.

The Jail-Based Treatment Program curriculum uses New Direction, a research-based curriculum developed by Hazelden. This cognitive-behavioral curriculum is designed to help chemically dependent offenders challenge their own thinking patterns, which in turn results in a change in criminal and addictive behavior patterns. The Criminal Thinking Scales developed by Texas Christian University, Institute of Behavioral Research is used to measure criminal thinking. The two-page instrument contains 37 items that yield 6 criminal thinking scales: entitlement, justification, personal irresponsibility, power orientation, cold heartedness, and criminal rationalization. Three hundred eighty-seven Jail Treatment clients completed the criminal thinking survey at admission, 260 clients completed the survey at jail release, and 82 clients completed the survey 3 months post-jail release.

Two hundred four clients completed the survey at both admission and jail release. When comparing admission and jail release scores, the mean scores for the 6 scales decreased at jail release indicating improvement in criminal thinking. Significant differences were found on 5 of the 6 criminal thinking traits: entitlement, justification, power orientation, criminal rationalization, and personal irresponsibility (Wilcoxon Rank Sum Test, all p values <0.0001).



Eighty-two clients completed the survey at both jail release and 3 months post-jail release. The mean scores decreased for the criminal rationalization scale at 3 months post-jail release indicating improvement in criminal thinking on that scale. The mean score increased slightly for the remaining 5 scales: entitlement, justification, power orientation, cold heartedness, and personal irresponsibility; but remained lower than mean admission scores. No significant difference was found on these measures.

Fifty-eight clients completed the criminal thinking survey at admission and 3 months post-jail release. The mean scores for all 6 scales are lower at 3 months post-jail release compared to admission, indicating these 58 clients were less criminally oriented in their thinking. Significant differences were found on two measures: power orientation and criminal rationalization (Wilcoxon Rank Sum Test, $p < 0.01$).

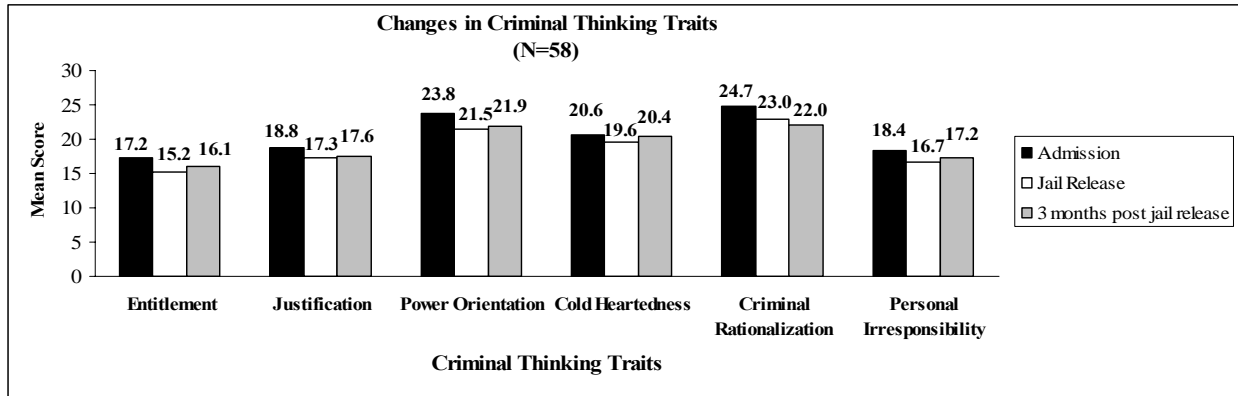


Table of Contents

1. Introduction.....	1
2. Method.....	1
Program.....	1
Measures	1
3. Results.....	2
Table 1. Number of Surveys by County	2
Table 2. Gender Percents and Number by County	3
Table 3. Age.....	3
Table 4. Criminal Thinking Scales	4
Table 5. Changes in Criminal Thinking Scales	5
Figure 1. Changes in Criminal Thinking Traits from Admission to Jail Release.....	5
Figure 2. Changes in Criminal Thinking from Jail Release to 3 Months Post-Jail Release..	6
Table 6. Mean Scores at Admission, Jail Release, and 3 Months Post-Jail Release	6
Figure 3. Changes in Criminal Thinking Traits.....	7
4. Discussion.....	7
Figure 4. Outcomes for Clients Completing Criminal Thinking Survey at Admission and 3 Months Post Admission	8

The Iowa Jail-Based Substance Abuse Treatment Program: Analysis of Criminal Thinking Data

An enhancement of the Jail-Based Substance Abuse Treatment Program Follow-up Evaluation

1. Introduction

The Iowa Consortium for Substance Abuse Research and Evaluation (Consortium) conducted an analysis of criminal thinking data collected from clients participating in the Jail-Based Substance Abuse Treatment Program in Iowa. The purpose of this study was to determine if participation in the Jail Treatment Program changes client criminal thinking patterns. Data were collected from clients at 3 points in time: admission, jail release, and 3 months post-jail release. The data were analyzed to determine if differences existed between any of the 3 survey points.

2. Method

Program

The Jail-Based Substance Abuse Treatment program was established to deliver substance abuse treatment services to clients during incarceration and after release from jail. Three treatment agencies in Iowa are involved in this program: United Community Services, Inc. (UCS), a Des Moines-based agency delivering treatment to clients at the Polk County Jail; Center for Alcohol and Drug Services, Inc. (CADS), an agency located in Davenport, Iowa delivering treatment to clients at the Scott County Jail; and Jackson Recovery Centers based in Sioux City, Iowa delivering treatment to clients in Woodbury County Jail.

The Jail-Based Treatment Program uses New Direction, a research-based curriculum developed by Hazelden.¹ This cognitive-behavioral curriculum is designed to help chemically dependent offenders challenge their own thinking patterns, which in turn results in a change in criminal and addictive behavior patterns. The New Direction curriculum consists of 6 core modules: Intake and Orientation, Criminal and Addictive Thinking, Drug and Alcohol Education, Socialization, Relapse Prevention, and Release and Reintegration. Each module features client workbooks, videos, and facilitator guides.

Measures

The Consortium, with input from the 3 agencies, assisted the Iowa Department of Public Health (IDPH) in selecting a criminal thinking instrument that agency staff administer to clients at admission, jail release, and 3 months post-jail release. The instrument selected, the Criminal Thinking Scales was developed by Texas Christian University (TCU), Institute of Behavioral Research.²

¹ <http://www.hazelden.org/servlet/hazelden/go/home>

² (Simpson, D. D. & Hiller, M. [1999]. TCU data collection forms for correctional outpatient treatment. Fort Worth: Texas Christian University, Institute of Behavioral Research. [On-line]. Available: www.ibr.tcu.edu.) Agency staff began administering the survey in October 2005.

The two-page instrument contains 37 items that yield 6 criminal thinking scales: entitlement, justification, personal irresponsibility, power orientation, cold heartedness, and criminal rationalization. Scores are obtained by averaging the ratings on items that make up each scale (after reversing scores on reflected items), and then multiplying this mean score by 10 in order to produce final scores that range from 10 to 50 — higher scores are stronger indications of the corresponding personality trait. The Consortium developed a software application to score the instrument. Each of the criminal thinking scales is described below (Knight, et al., 2006).³

Entitlement conveys a sense of ownership and privilege, and misidentifies wants as needs. Offenders who score high on the entitlement scale believe that the world “owes them” and they deserve special consideration.

Justification reflects a thinking pattern characterized by the offender minimizing the seriousness of antisocial acts and by justifying actions based on external circumstances. High scores on this scale suggest that antisocial acts are justified because of perceived social injustice.

Power Orientation is a measure of need for power and control. Offenders who score high on this scale typically show an outward display of aggression in an attempt to control their external environment and they try to achieve a sense of power by manipulating others.

Cold Heartedness addresses callousness and high scores on this scale reflect a lack of emotional involvement in relationships with others.

Criminal Rationalization displays a generally negative attitude toward the law and authority figures. Offenders who score high on this scale view their behaviors as being no different than the criminal acts they believe are committed every day by authority figures.

Personal Irresponsibility assesses the degree to which an offender is willing to accept ownership for criminal actions. High scores suggest an offender’s unwillingness to accept responsibility and are associated with the offender casting blame on others.

Based on internal consistency reliability estimates (Cronbach’s Coefficient Alpha), cold heartedness was the weakest of the scales (alpha=0.55). Entitlement, justification, power orientation, criminal rationalization had good internal consistency reliability (i.e. alpha>0.75).

3. Results

Three hundred eighty-seven clients completed the criminal thinking survey at admission, 260 clients completed the survey at jail release, and 82 clients completed the survey 3 months post-jail release. Table 1 on the following page shows the number of surveys received from each county at the 3 survey points.

³ Knight, K., Garner, B.R., Simpson, D.D., Morey, J.T., Flynn, P.M. (2006). An Assessment for Criminal Thinking. *Crime & Delinquency*, 52(1): 159-177.

Table 1. Number of Surveys by County

Survey Point	Polk County	Scott County	Woodbury County
Admission	141	157	89
Jail Release	68	124	68
3 months post-jail release	24	32	26

Table 2 shows the percent and number of male and female clients by county.

Table 2. Gender Percents and Number by County

Survey Point	Gender	TOTAL	Polk County	Scott County	Woodbury County
Admission % N=387	Male	74.4 (288)	73.8 (104)	75.8 (119)	73.0 (65)
	Female	25.6 (99)	26.2 (37)	24.2 (38)	27.0 (24)
Jail Release % N=260	Male	81.9 (213)	97.1 (66)	73.4 (91)	82.4 (56)
	Female	18.1 (47)	2.9 (2)	26.6 (33)	17.6 (12)
3 months post-jail release % N=82	Male	79.3 (65)	91.7 (22)	59.4 (19)	92.3 (24)
	Female	20.7 (17)	8.3 (2)	40.6 (13)	7.7 (2)

Table 3 shows the age range and median age by county at the 3 survey points.

Table 3. Age

Survey Point	TOTAL			Polk County			Scott County			Woodbury County		
	Min	Max	Median	Min	Max	Median	Min	Max	Median	Min	Max	Median
Admission N= 387	18	59	31	18	57	30	18	56	31	18	59	34
Jail Release N=260	18	56	31	18	53	29	18	56	31	19	55	33
3 months post-jail release N=82	18	53	31	18	53	27	18	50	34	21	49	33

Table 4 on the following page shows the mean score for each of the 6 criminal thinking scales at the 3 survey points. The highest mean scores at all 3 data collection points were on the criminal rationalization scale with clients scoring a mean score of 25.1 at admission, 21.7 at jail release, and 23.2 at 3 months post-jail release. The lowest mean score was the entitlement scale, which averaged 17.1 at admission, 15.3 at jail release, and 16.6 at 3 months post-jail release.

Table 4. Criminal Thinking Scales

Criminal Thinking Scale	Mean Score for All Clients at Admission (N=387)	Mean Score for All Clients at Jail Release (N=260)	Mean Score for All Clients at 3 Months Post-Jail Release (N=82)
Entitlement	17.1	15.3	16.6
Justification	19.8	17.2	18.2
Power Orientation	24.2	21.6	22.2
Cold Heartedness	21.3	20.7	20.4
Criminal Rationalization	25.1	21.7	23.2
Personal Irresponsibility	18.6	16.3	17.9

†Higher scores are stronger indications of the corresponding personality trait.

Table 5 shows the comparison of the mean scores for the 6 criminal thinking scales. Comparisons of mean scores are made between admission and jail release on those clients who had a response at *both* admission and jail release, as well as jail release and 3 months post-jail release for clients who had a response at *both* jail release and 3 months post-jail release. The first column lists the criminal thinking scale. The second and third columns describe the mean scores of clients who completed the survey both at admission and at jail release — a group of 204 clients. The fourth column indicates the change in the mean percentage point from admission to jail release, negative change indicates improvement in criminal thinking. The fifth and sixth columns describe the mean scores for clients that answered the particular item both at jail release and at 3 months post-jail release — a group of 82 clients. The last column indicates the change in the mean percentage point from jail release to 3 months post-jail release with a positive change indicating an increase in criminal thinking and a negative change indicating improvement in criminal thinking.

The mean scores for the 6 scales decreased at jail release indicating improvement in criminal thinking. Criminal rationalization had the largest decrease (3.8). When comparing admission and jail release scores, significant differences were found on the following measures: entitlement, justification, power orientation, criminal rationalization, and personal irresponsibility (see Table 5). Additional analyses show there are statistically significant changes in mean scores from admission to subsequent survey points for all scales, except cold heartedness (Friedman Test, $p < .0001$).

Eighty-two clients completed the survey at both jail release and 3 months post-jail release. The mean scores decreased for the criminal rationalization scale at 3 months post-jail release, however, no significant difference was found on this measure. The mean score increased slightly for the remaining 5 scales: entitlement, justification, power orientation, cold heartedness, and personal irresponsibility.

Table 5. Changes in Criminal Thinking Scales

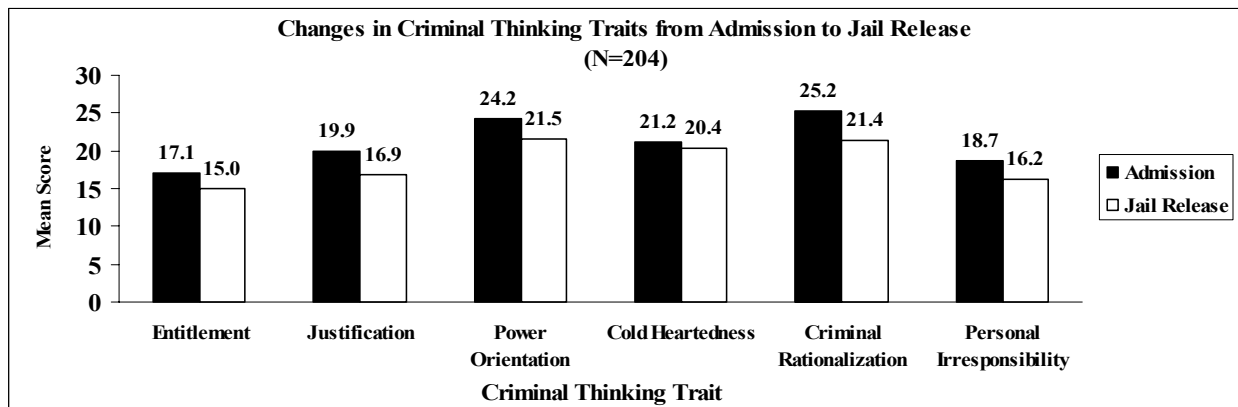
Criminal Thinking Scale	Clients with Criminal Thinking Survey Completed at Admission and Jail Release (N=204)			Clients with Criminal Thinking Survey Completed at Jail Release and 3 Months Post-Jail Release (N=82)		
	Mean Score for Clients at Admission	Mean Score for Clients at Jail Release	Change	Mean Score for Clients at Jail Release	Mean Score for Clients at 3 Months Post-Jail Release	Change
Entitlement	17.1	15.0	-2.1*	15.7	16.6	+0.9
Justification	19.9	16.9	-3.0*	17.7	18.2	+0.5
Power Orientation	24.2	21.5	-2.7*	21.8	22.2	+0.4
Cold Heartedness	21.2	20.4	-0.8	20.2	20.4	+0.2
Criminal Rationalization	25.2	21.4	-3.8*	23.4	23.2	-0.2
Personal Irresponsibility	18.7	16.2	-2.5*	16.8	17.9	+1.1

† Negative change indicates improvement.

*Statistically significant (Wilcoxon Rank Sum Test, $p < 0.0001$).

Figure 1 displays the change for each of the criminal thinking traits from admission to jail release.

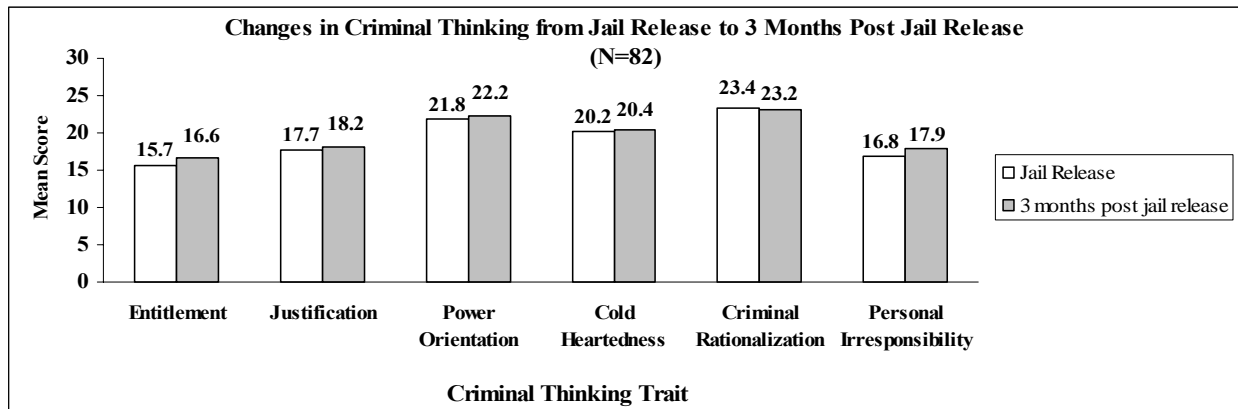
Figure 1. Changes in Criminal Thinking Traits from Admission to Jail Release



† Negative change indicates improvement.

Figure 2 displays the change for each of the criminal thinking traits from jail release to 3 months post-jail release.

Figure 2. Changes in Criminal Thinking from Jail Release to 3 Months Post-Jail Release



† Negative change indicates improvement.

Fifty-eight clients completed the criminal thinking survey at the 3 survey points: admission, jail release, and 3 months post-jail release. Table 6 shows the comparison of the mean scores for the 6 criminal thinking scales. The mean scores for all 6 scales are lower at 3 months post-jail release compared to admission, indicating these 58 clients are becoming less criminally oriented in their thinking. When comparing admission and 3 month post-jail release scores for the 58 clients, significant differences were found on two measures: power orientation and criminal rationalization (Wilcoxon Rank Sum Test, $p < 0.01$).

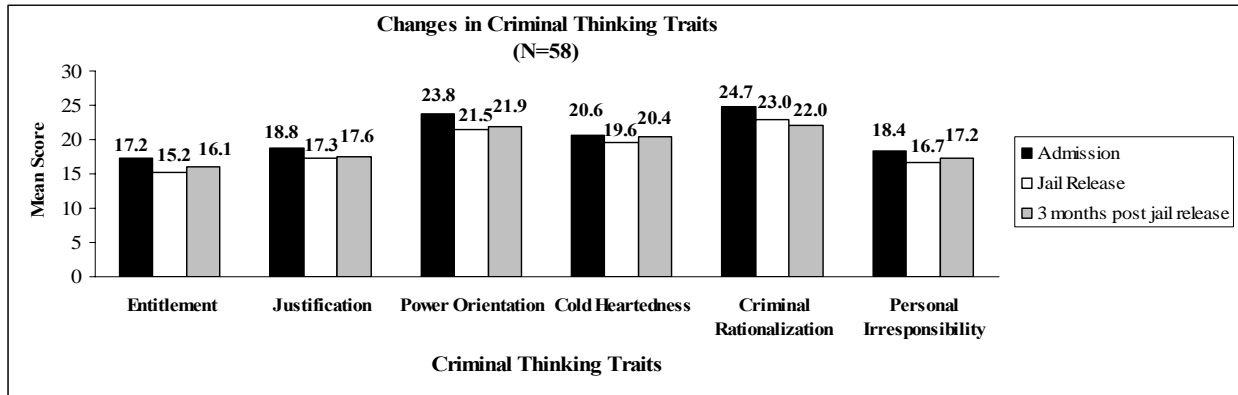
Table 6. Mean Scores at Admission, Jail Release, and 3 Months Post-Jail Release

Criminal Thinking Trait	Clients with Criminal Thinking Survey Completed at Admission and Jail Release (N=58)		
	Mean Score for Clients at Admission	Mean Score for Clients at Jail Release	Mean Score for Clients at 3 Months Post-Jail Release
Entitlement	17.2	15.2	16.1
Justification	18.8	17.3	17.6
Power Orientation	23.8	21.5	21.9
Cold Heartedness	20.6	19.6	20.4
Criminal Rationalization	24.7	23.0	22.0
Personal Irresponsibility	18.4	16.7	17.2

† Higher scores are stronger indications of the corresponding personality trait.

Figure 3 shows the changes in the criminal thinking traits for the 58 clients who have completed the survey at the 3 survey points.

Figure 3. Changes in Criminal Thinking Traits



† Negative change indicates improvement.

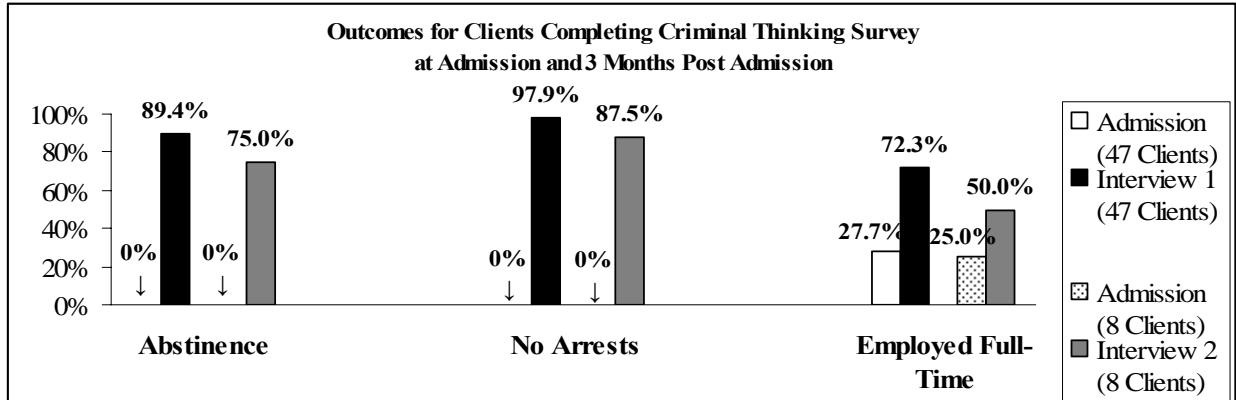
4. Discussion

In addition to treating substance abuse issues, there is a need to address co-occurring disorders, such as criminal thinking to minimize potential for recidivism. The study results show that criminal thinking was altered during incarceration. When comparing admission and jail release scores, significant differences were found on 5 of the 6 criminal thinking traits: entitlement, justification, power orientation, criminal rationalization, and personal irresponsibility (Wilcoxon Rank Sum Test, $p < 0.0001$). Cold heartedness, which did not show a significant change, may be more resilient to programming efforts. However, the negative result here may have been caused by the scale's weaker measurement properties.

Several criminal thinking traits tend to increase back up slightly from jail release to 3 months post-jail release after the client has spent 3 months in the community. However, this increase is not statistically significant. Fifty-eight clients completed the criminal thinking survey at admission and 3 months post-jail release. The mean scores for all 6 scales are lower at 3 months post-jail release compared to admission, indicating these 58 clients were less criminally oriented in their thinking. Significant differences were found on two measures: power orientation and criminal rationalization (Wilcoxon Rank Sum Test, $p < 0.01$).

Outcome data are collected from clients approximately 6 and 12 months after admission to the treatment program. Outcome data was examined for the 58 clients who completed the survey at the 3 survey points. Forty-seven of the 58 clients have completed a 6 month follow-up interview and 8 clients have completed a 12 month follow-up interview. Figure 4 shows outcomes for the clients who have completed interviews. Six months post admission, 89.4% of the interviewed clients are abstinent; 97.9% are arrest-free in the previous 6 months; and 72.3% are employed full-time. Of the 8 clients completed the 12 month post admission interview: 75% of the clients are abstinent, 87.5% have not been arrested, and 50% are employed full-time.

Figure 4. Outcomes for Clients Completing Criminal Thinking Survey at Admission and 3 Months Post Admission



Identifying the criminal risk of clients by administering the Criminal Thinking Scale survey can assist treatment agency staff in developing guidelines for treating and educating Jail Treatment clients. Further analysis would help determine if there is an association between criminal thinking and outcomes and to determine if a reduction in criminal thinking is predictive of desirable outcomes — lower recidivism and relapse, as well as successful program completion.