The Impact on Drug Use and Other Psychosocial Outcomes: Results from NIJ’s Multi-Site Adult Drug Court Evaluation, Part 1

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About the Study

- **Research Partnership:** The Urban Institute, Center for Court Innovation, & Research Triangle Institute, with funding from the National Institute of Justice (NIJ)

- **Drug Court vs. Comparison Sites:**
  - Drug Court: 23 sites in 7 geographic clusters (n = 1156)
  - Comparison: 6 sites in 4 geographic clusters (n = 625)

- **Repeated Measures:** baseline and multiple follow-ups:
  - Interviews at baseline, 6 months, 18 months
  - Oral fluids drug test at 18 months
  - Official recidivism records up to 24 months
# Nature of the Intervention: Drug Court vs. Comparison Sites

## Interventions Received in Six Months After Baseline

<table>
<thead>
<tr>
<th></th>
<th>Drug Court (n = 1,009)</th>
<th>Comparison (n = 524)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent of offenders with any treatment</td>
<td>83%***</td>
<td>36%</td>
</tr>
<tr>
<td>Average days in treatment</td>
<td>59***</td>
<td>23</td>
</tr>
<tr>
<td>Percent with any judicial status hearings</td>
<td>93%***</td>
<td>14%</td>
</tr>
<tr>
<td>Average number of status hearings</td>
<td>10.3***</td>
<td>1.2</td>
</tr>
<tr>
<td>Percent with supervision officer contact</td>
<td>96%**</td>
<td>71%</td>
</tr>
<tr>
<td>Average number of contacts</td>
<td>17.2***</td>
<td>6.4</td>
</tr>
<tr>
<td>Percent with any drug test</td>
<td>95%***</td>
<td>61%</td>
</tr>
<tr>
<td>Average number of drug tests</td>
<td>30.9***</td>
<td>4.3</td>
</tr>
<tr>
<td>Percent receiving any judicial sanction</td>
<td>50%***</td>
<td>15%</td>
</tr>
<tr>
<td>Percent receiving praise from the judge</td>
<td>76%***</td>
<td>10%</td>
</tr>
</tbody>
</table>

+p<.10, *p<.05, **p<.01, ***p<.001.
Baseline Sample Characteristics (N = 1,781)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>33.8</td>
</tr>
<tr>
<td>Male</td>
<td>69%</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>54%</td>
</tr>
<tr>
<td>Black/African-American</td>
<td>34%</td>
</tr>
<tr>
<td>HS degree/GED or higher</td>
<td>59%</td>
</tr>
<tr>
<td>Currently employed</td>
<td>36%</td>
</tr>
<tr>
<td>Average # criminal acts: six months pre-baseline</td>
<td>21.2</td>
</tr>
<tr>
<td>Mental Health</td>
<td></td>
</tr>
<tr>
<td>Depression (multi-item instrument)</td>
<td>39%</td>
</tr>
<tr>
<td>Anti-social personality (multi-item instrument)</td>
<td>43%</td>
</tr>
<tr>
<td>Narcissistic personality (multi-item instrument)</td>
<td>50%</td>
</tr>
</tbody>
</table>
## Offender Background - #2

### Baseline Drug Use (N = 1,781)

<table>
<thead>
<tr>
<th>Primary drug of choice</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>14%</td>
</tr>
<tr>
<td>Marijuana/hashish</td>
<td>22%</td>
</tr>
<tr>
<td>Powder cocaine</td>
<td>10%</td>
</tr>
<tr>
<td>Crack</td>
<td>26%</td>
</tr>
<tr>
<td>Heroin</td>
<td>5%</td>
</tr>
<tr>
<td>Hallucinogens</td>
<td>0%</td>
</tr>
<tr>
<td>Amphetamines</td>
<td>9%</td>
</tr>
<tr>
<td>Prescription drugs</td>
<td>4%</td>
</tr>
<tr>
<td>Methadone</td>
<td>0%</td>
</tr>
<tr>
<td>Multiple Drugs</td>
<td>2%</td>
</tr>
</tbody>
</table>

| Age of first drug use                          | 13.53  |

<table>
<thead>
<tr>
<th>Ever used by drug:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>98%</td>
</tr>
<tr>
<td>Marijuana</td>
<td>94%</td>
</tr>
<tr>
<td>Powder cocaine</td>
<td>40%</td>
</tr>
<tr>
<td>Crack</td>
<td>37%</td>
</tr>
<tr>
<td>Heroin</td>
<td>30%</td>
</tr>
<tr>
<td>Hallucinogens</td>
<td>57%</td>
</tr>
<tr>
<td>Amphetamines</td>
<td>5%</td>
</tr>
<tr>
<td>Prescription drugs</td>
<td>35%</td>
</tr>
<tr>
<td>Methadone</td>
<td>12%</td>
</tr>
</tbody>
</table>

| Drug use (six months pre-baseline)             | 84%    |
| Days of drug use/mth (six months pre-baseline) | 13.2   |
Low Stress Methodology Review

- **Attrition:** Follow-Up Contact Rates at 18 Months:
  - Drug Court: 82% (follow-up N = 951)
  - Comparison Offenders: 84% (follow-up N = 523)

- **Baseline Drug Court vs. Comparison Group Differences:**
  Significant differences on 37 of 61 baseline characteristics (spanning demographics, community ties, mental and physical health, drug use history, treatment history, and criminal history)

- **Statistical Adjustment:** All results are statistically adjusted to compensate for differences at baseline (“propensity score adjustments” and “super weighting”)
Core Research Questions

1. Do drug courts work? (Do they reduce drug use, criminal behavior, and other associated problems?)

2. Do drug courts influence offender attitudes and perceptions, and do those changes make drug courts more effective?

3. Which policies and practices make drug courts more or less effective in achieving their desired outcomes?

4. Do drug courts generate cost savings for the criminal justice system or other public institutions?
Part 1. Do Drug Courts Work?

A. Criminal Behavior
B. Incarceration
C. Drug Use
D. Socioeconomic Status (education, employment, income)
E. Mental Health
F. Family Support
G. Homelessness
H. Program Retention Rates
Part 2. Do Drug Courts Work?

A. Criminal Behavior
B. Incarceration
C. Drug Use
D. Socioeconomic Status (education, employment, income)
E. Mental Health
F. Family Support
G. Homelessness
H. Program Retention Rates
Drug Use: Literature to Date


- **BUT extremely few prior studies that focus on substance use:**
  - **Brooklyn and Baltimore:** Participants less likely to use drugs one year after entry (<em>Brooklyn</em>: Harrell et al. 2001; <em>Baltimore</em>: Gottfredson et al. 2003)
  - **Maricopa Co., Arizona, and Washington, D.C.** Participants less likely to use “serious” drugs (heroin or cocaine); no positive effect on marijuana use (<em>Maricopa</em>: Deschenes et al. 1995; <em>D.C.</em>: Harrell et al. 1998)
  - **Chester County (PA):** Participants had significant lower rates of positive drug tests when participants were actively in the program & comparison were supervised by probation (Brewster 2001)
Baseline Drug Use:
Days of Use Per Month

Days of Drug Use/Mth

Drug Court (n = 921)
Comparison (n = 523)

- Alcohol
- Heavy Alcohol (4-6+ drinks per day)
- Marijuana***
- Cocaine*
- Heroin
- Hallucinogens*
- Amphetamines
- Prescription Drugs
- Methadone-illegal use
The Trajectory of Recovery: Percent Used Drugs in Previous Six Months

- **Baseline**
  - Drug Court (N = 877): 84%
  - Comparison Group (N = 472): 82%

- **Six-Month**
  - Drug Court: 62%
  - Comparison Group: 42%*

- **18-Month**
  - Drug Court: 46%**
  - Comparison Group: 68%

*p < .10, *p < .05, **p < .01, ***p < .001.
MADCE Results: Drug Test Results at 18 Months

- Any Drug: Drug Court (46%) vs. Comparison Group (29%)
- Any Serious Drug: Drug Court (27%) vs. Comparison Group (20%)
- Marijuana: Drug Court (21%) vs. Comparison Group (12%)
- Cocaine: Drug Court (21%) vs. Comparison Group (15%)
- Opiates: Drug Court (6%) vs. Comparison Group (7%)
- Amphetamines: Drug Court (1%) vs. Comparison Group (2%)
- PCP: Drug Court (0%) vs. Comparison Group (2%)

+ p < .10, * p < .05, ** p < .01, *** p < .001.
Predictors of Drug Use at 18 Months

- Female or black defendants
- Not homeless at baseline
- Primary drug of cocaine at baseline
- Drug use at baseline
- Depression or Antisocial Personality Disorder
- Lack of drug court participation
For Whom Drug Courts Work: Predicting Future Drug Use

(\text{Drug use} = \text{Average \# Days of Drug Use/Month in the year preceding 18 month})

- More serious drug users responded better to the drug court model
  - Offenders who used drugs more before the baseline benefitted more from the intervention
  - Conversely, offenders whose primary drug was marijuana benefitted less

- Offenders who had co-occurring (depression & narcissism) disorders at baseline benefited less
MADCE Results:
Socioeconomic Status #1

Employment and School Status at 18 Months

- **Employed**:
  - Drug Court (n = 951): 61%
  - Comparison (n = 523): 55%

- **In School**:
  - Drug Court (n = 951): 11%
  - Comparison (n = 523): 10%

Statistical significance:
- * p < .05
- ** p < .01
- *** p < .001
MADCE Results:
Socioeconomic Status #2

Annual Income at 18 Months

- Drug Court (n = 951)
- Comparison (n = 523)

+ p < .10   * p < .05   ** p < .01   *** p < .001
MADCE Results: Mental Health

Mental Health at 18 Months

- Mental Health "Very Good" or "Excellent" (4-5 on 5-pt. scale)
  - Drug Court (n = 951): 56%
  - Comparison (n = 523): 58%
- Depressed (based on multi-item instrument)
  - Drug Court (n = 951): 27%
  - Comparison (n = 523): 29%

+ p < .10   * p < .05   ** p < .01   *** p < .001
MADCE Results: Family Support

Family Relationships at 18 Months (1-5 Scales)

- Family Conflict (3-item index)
  - Drug Court (n = 951): 2.24*
  - Comparison (n = 523): 2.44

- Family Emotional Support (5-item index)
  - Drug Court: 4.27+
  - Comparison: 4.12

- Family Instrumental Support (7-item index)
  - Drug Court: 4.04
  - Comparison: 3.96

+ p < .10  * p < .05  ** p < .01  *** p < .001
MADCE Results: Homelessness

Homeless in Past Year

- Drug Court (n = 951): 4%
- Comparison (n = 523): 5%
Predictors of Positive Psychosocial Outcomes at 18 Months

- Female defendants
- High school degree or GED
- Homeless defendants
- Less depressed defendants

- *Drug court participation reduced criminal activity and drug use but weakly influenced psychosocial outcomes.*
MADCE Results:
18 Month Outcomes Summary

- **Drug Use**: significant reduction in likelihood and frequency of drug use
- **Socioeconomic Status**: possible modest effect (NS)
- **Mental Health**: no effect
- **Family Ties**: significant reduction in family conflict; possible modest increase in emotional support (p < .10)
- **Homelessness**: no effect
- **Criminal Activity & Incarceration**: Attend MADCE Session #2 next to find out!
Importance of drug court retention rates:

- Measures program’s success in sustaining participation
- Important interim predictor of positive long-term outcomes, such as reduced recidivism and drug use (e.g., see Anglin, Brecht, and Maddahian 1989; DeLeon 1988; Taxman 1998)
More Retention

- Most commonly cited national one-year retention rate = 60% (Belenko 1998)
  - More recent studies have found higher rates (Rempel et al. 2003)

- All agree that drug courts are significantly more effective at retaining participants than voluntary treatment options (Condelli and DeLeon 1993; Simpson, Joe, and Brown 1997; Lewis and Ross 1994)

- So what is a reasonable and accurate national estimate?
MADCE Results: A National Retention Rate

18-Month Retention Rates at 23 Adult Drug Courts

The average 18M retention rate is 71% across all 951 participants.
# Why Do Individuals Leave the Drug Court?

**23 Drug Courts, 18 Months after Baseline**

<table>
<thead>
<tr>
<th>Total Participants</th>
<th>951</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Currently in Drug Court</strong></td>
<td>28%</td>
</tr>
<tr>
<td><strong>Why no longer in drug court?</strong> (N=674)</td>
<td></td>
</tr>
<tr>
<td>Graduated</td>
<td>59%</td>
</tr>
<tr>
<td>Involuntary Failure¹</td>
<td>26%</td>
</tr>
<tr>
<td>Voluntary Failure</td>
<td>15%</td>
</tr>
<tr>
<td><strong>If voluntary failure, why?</strong> (N=89)</td>
<td></td>
</tr>
<tr>
<td>too many restrictions on lifestyle</td>
<td>22%</td>
</tr>
<tr>
<td>not satisfied with services received</td>
<td>12%</td>
</tr>
<tr>
<td>drug court conflicted with work/child care responsibilities</td>
<td>9%</td>
</tr>
<tr>
<td>drug court involved too much work</td>
<td>6%</td>
</tr>
<tr>
<td>did not think drug court fair</td>
<td>5%</td>
</tr>
<tr>
<td>drug court too hard or expensive to get to</td>
<td>3%</td>
</tr>
<tr>
<td>did not think needed services being offered through drug court</td>
<td>3%</td>
</tr>
<tr>
<td>drug court costs too much</td>
<td>2%</td>
</tr>
<tr>
<td>did not get along with people running drug court</td>
<td>1%</td>
</tr>
<tr>
<td>other reason</td>
<td>36%</td>
</tr>
<tr>
<td><strong>What was the sentence for failure?</strong> (N=270)</td>
<td></td>
</tr>
<tr>
<td>jail/prison</td>
<td>74%</td>
</tr>
<tr>
<td>probation</td>
<td>14%</td>
</tr>
<tr>
<td>something else</td>
<td>5%</td>
</tr>
<tr>
<td>nothing yet</td>
<td>7%</td>
</tr>
</tbody>
</table>

¹ Involuntary failure includes "kicked out" and "put in jail" as reasons for exiting the drug court.  
² Respondents were only asked this question if voluntary failure (i.e., they dropped out of the drug court themselves.)
Predictors of 18-Month Retention

- Older age
- Employed or in school at baseline
- Have a primary drug of choice that is not marijuana
- Have less criminal activity in the months before baseline
- Suffer less from depression at baseline
- Have a less narcissistic personality
MADCE Results:
Drug Court Retention As Indicator of Positive Long-Term Outcomes

Simple 18-Month Outcomes by Retention Status at 18 Months

- Retained at 18M (N=666)
- Not Retained at 18M (N=271)

- Any Drug Use (Prior Year): 50% vs. 78%
- Positive Oral Specimen*: 28% vs. 52%
- Any Criminal Behavior (Prior Year): 32% vs. 66%
- Not In School or Employed: 29% vs. 53%
- Depression: 23% vs. 38%

Note: Respondents were required to consent to provide an oral specimen at the 18-month interview. There were 752 drug court participants who consented: 590 who were retained and 162 who were not retained at 18 months.
MADCE Results: In Summary and Looking Forward

- Drug Court Participation reduces drug use, less obvious positive impacts on socioeconomic status and family support; no effect on mental health or homelessness

- Drug Court Retention is an important indicator of long-term positive outcomes, including reduced drug use, recidivism, and depression, and more employment and school involvement

- MADCE Results Part #2 coming up next – drug court impact on criminal behavior and participant attitudes