Do Adult Drug Courts Work?
Drugs, Crime and Other Psychosocial Outcomes

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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 = 1,156)
  - 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
Drug Court and Comparison Sites
Attrition and Selection

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

- **Potential Selection Bias Problem:** Significant differences on 37 of 61 baseline characteristics (spanning demographics, community ties, mental and physical health, drug use history, treatment history, and criminal history) at baseline for drug court vs. comparison group

- **Statistical Adjustment:** All results are statistically adjusted to compensate for differences at baseline
“Superweighting” Strategy

- Weight cases based on propensity to be in drug court vs. comparison sample and propensity for survey retention at follow-up (See Rempel, 2009).

- Compensates for initial differences – higher weights to under-represented and lower weights to over-represented categories of offenders.
Additional Threat to Validity: Site Level Bias?

- **Answer** = Yes.

- **Procedure**: For Major Outcomes:
  - Partition the variance into the portions resulting from site-level differences (inter-site) and individual differences (intra-site).
  - Examine whether inter-site variance is statistically significant:
    - *Yes at p < .001 for nearly all outcomes*

- **Solution**: Multi-Level Modeling
  - Incorporate site-level variance (n=29 sites) not merely individual-level variance (n=1,781 individuals).
  - Participation status = site-level (Level 2) variable.
Core Research Questions

1. Do drug courts reduce drug use, criminal behavior, and other associated problems?

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

3. Do drug courts generate cost savings for the criminal justice system or other public institutions?
Research Question 1: Do Drug Courts Work?

- Drug Use
- Criminal Behavior
- Incarceration
- Other Psychosocial Outcomes:
  - Socioeconomic Status (education, employment, income)
  - Mental Health
  - Family Support (conflict, instrumental support, emotional support)
  - Homelessness
Drug Use: Literature to Date

- Barely any prior research, but findings imply drug courts can have an impact on reduced drug use of participants

- Low sample size or other design flaws in all prior studies
Drug Use:
Year Prior to 18-Month Interview

Percent Used Drugs:
One Year Prior to 18-Month Interview

- Any Drug
  - Drug Court (n = 951): 56%**
  - Comparison (n = 523): 58%
- Any Serious Drug
  - Drug Court (n = 951): 41%**
  - Comparison (n = 523): 58%

Note: Measures are reported use of eight drugs: alcohol, marijuana, cocaine, heroin, amphetamines, hallucinogens, prescription drugs (illegal use), and methadone (illegal use). “Serious” drugs omit marijuana and light alcohol use (less than four drinks per day for women and less than five for men).

+ p < .10  * p < .05  ** p < .01  *** p < .001
Drug Use:
Year Prior to 18-Month Interview

Days of Drug Use Per Month:
One Year Prior to 18-Month Interview

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Drug Court (n = 951)</th>
<th>Comparison (n = 523)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any Drug</td>
<td>4.8</td>
<td>2.3</td>
</tr>
<tr>
<td>Any Serious Drug</td>
<td>2.1***</td>
<td>1.1***</td>
</tr>
</tbody>
</table>

Note: Measures are reported use of eight drugs: alcohol, marijuana, cocaine, heroin, amphetamines, hallucinogens, prescription drugs (illegal use), and methadone (illegal use). "Serious" drugs omit marijuana and light alcohol use (less than four drinks per day for women and less than five for men).
Drug Use: Drug Test Results at 18 Months

Drug Test Results at 18 Months

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

+ p < .10   * p < .05   ** p < .01   *** p < .001

Note: Serious drug use is defined to include any of the listed drugs except marijuana.
Drug Use: Trajectory of Change #1

The Trajectory of Recovery:
Percent Used Drugs in Prior Six Months

Baseline | Six-Month | 18-Month
---|---|---
Drug Court (N = 877): 84% | Comparison Group (N = 472): 82% | 68%
41%* | 62% | 46%**

+ p < .10, * p < .05, ** p < .01, *** p < .001.
## Drug Use: Trajectory of Change #2

<table>
<thead>
<tr>
<th>Timing of Relapse</th>
<th>Drug Court Participants N=877</th>
<th>Comparison Group N=472</th>
</tr>
</thead>
<tbody>
<tr>
<td>No relapse</td>
<td>34%***</td>
<td>22%</td>
</tr>
<tr>
<td>First relapse in Months 1-6</td>
<td>37%***</td>
<td>47%</td>
</tr>
<tr>
<td>First relapse in Months 7-12</td>
<td>15%</td>
<td>17%</td>
</tr>
<tr>
<td>First relapse in Months 13-18</td>
<td>13%</td>
<td>10%</td>
</tr>
<tr>
<td>Continued Use Since Baseline</td>
<td>0.01***</td>
<td>4%</td>
</tr>
</tbody>
</table>

*** p < .001
Criminal Behavior: Literature to Date

- Growing body of literature on **official recidivism** – consensus is that drug courts reduce recidivism among participants
  - Forty-eight (48) of 55 drug courts produced lower re-arrest or re-conviction rates than their comparison groups (Wilson et al. 2006)
  - Average recidivism reduction relative to comparison group = 26% (Aos et al. 2001; Shaffer 2006; Wilson et al. 2006)
  - Magnitude of impact varies widely by site

- Little research about the incidence of **criminal behavior** (whether or not officially detected)
Official Recidivism: Re-Arrests Over 24 Months

Percent with Re-Arrest:
24 Months Post-Enrollment

Re-Arrested within 24 Months

- Drug Court (n = 1,022)
- Comparison (n = 512)

+ p < .10   * p < .05   ** p < .01   *** p < .001
Criminal Behavior: Year Prior to 18-Month Interview

Percent with Criminal Activity:
One Year Prior to 18-Month Interview

<table>
<thead>
<tr>
<th>Criminal Activity</th>
<th>Drug Court (n = 951)</th>
<th>Comparison (n = 523)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0%</td>
<td>50%</td>
<td>53%</td>
</tr>
<tr>
<td>20%</td>
<td>40%*</td>
<td></td>
</tr>
<tr>
<td>40%</td>
<td>53%</td>
<td></td>
</tr>
<tr>
<td>60%</td>
<td></td>
<td>50%</td>
</tr>
<tr>
<td>80%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>100%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

+ p < .10  * p < .05  ** p < .01  *** p < .001

Drug-Related Activity

+ p < .10  * p < .05  ** p < .01  *** p < .001
Criminal Behavior: Year Prior to 18-Month Interview

Number of Criminal Acts: One Year Prior to 18-Month Interview

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

+ p < .10   * p < .05   ** p < .01   *** p < .001
### Criminal Behavior: Year Prior to 18-Month Survey

<table>
<thead>
<tr>
<th>Outcome Measure</th>
<th>Drug Court</th>
<th>Comparison Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Any drug use or possession</td>
<td>34%**</td>
<td>50%</td>
</tr>
<tr>
<td>2) Any drug sales</td>
<td>9%*</td>
<td>16%</td>
</tr>
<tr>
<td>3) Any other drug crimes (manufacturing, trafficking, etc.)</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>4) Any DWI/DUI</td>
<td>13%*</td>
<td>20%</td>
</tr>
<tr>
<td>5) Any violent crime/crime against people</td>
<td>4%</td>
<td>3%</td>
</tr>
<tr>
<td>6) Any weapons possession</td>
<td>7%</td>
<td>8%</td>
</tr>
<tr>
<td>7) Any property crimes</td>
<td>3%*</td>
<td>6%</td>
</tr>
<tr>
<td>8) Any public order crimes (e.g., prostitution, vagrancy)</td>
<td>1%</td>
<td>1%</td>
</tr>
</tbody>
</table>

+p<.10, *p<.05, **p<.01, ***p<.001.
Criminal Behavior: Trajectory of Behavior Change

Criminal Activity in Prior Six Months: Baseline vs. Six-Month vs. 18-Month Interviews

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Six-Month</th>
<th>18-Month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drug Court (n = 877)</td>
<td>75%</td>
<td>41%*</td>
<td>31%**</td>
</tr>
<tr>
<td>Comparison (n = 472)</td>
<td>75%</td>
<td>29%*</td>
<td>43%</td>
</tr>
</tbody>
</table>

+ p < .10  * p < .05  ** p < .01  *** p < .001
Drug Court Impact on Sentence Length
(Based on Administrative Data Records)

Days Sentenced on Initial Offense
(n = 1,403)

Days Sentenced on Any Offense
over 24 Months (n = 1,458)

Drug Court
Comparison

+ p < .10   * p < .05   ** p < .01   *** p < .001
Other Psychosocial Outcomes: Literature to Date

- **Mixed Results – but with Barely Any Prior Research:**
  - **Brooklyn (NY):** fewer reported health or social relationship problems over one year – but effects not statistically significant (Harrell et al. 2001)
  - **Baltimore (MD):** no difference in employment, physical or mental health, and social relationships over three years (Gottfredson et al. 2003)
  - **Santa Barbara (CA):** fewer health or family-related problems over one year (Cosden et al. 2000)

- **Low sample size or other design flaws in all prior studies**
Other Psychosocial Outcomes: Socioeconomic Status #1

Employment and School Status at 18 Months

- Employed: 61% (Drug Court) vs. 55% (Comparison)
- In School: 11% (Drug Court) vs. 10% (Comparison)

+ p < .10   * p < .05   ** p < .01   *** p < .001
Other Psychosocial Outcomes: Socioeconomic Status #2

Annual Income at 18 Months

- All Sources: $17,172
- Employment: $14,304
- Friends & Family: $12,746
- Public Assistance: $10,532

Drug Court (n = 951) vs. Comparison (n = 523)

+ p < .10   * p < .05   ** p < .01   *** p < .001
Other Psychosocial Outcomes: 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
Other Psychosocial Outcomes: 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 (n = 951): 4.27+
  - Comparison (n = 523): 4.12

- Family Instrumental Support (7-item index)
  - Drug Court (n = 951): 4.04
  - Comparison (n = 523): 3.96

Legend:
+ p < .10   * p < .05   ** p < .01   *** p < .001
Other Psychosocial Outcomes: Homelessness

Homelessness: Homeless at Any Time in Prior Year

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

Any Homelessness

+ p < .10  * p < .05  ** p < .01  *** p < .001
Drug Use: YES

Criminal Behavior: YES (partly by reducing drug use)

Incarceration: No on initial case; YES including recidivism cases

Other Psychosocial Outcomes: MIXED

- Socioeconomic Status: Modest effect (most measures non-significant)
- Mental Health/Depression: NO
- Family Ties: MIXED: Significant reduction in family conflict; little or no effect on family instrumental or emotional support
- Homelessness: NO