Pathways to Desistance Study: Implications for Program Improvement

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SPEP Workshop
Mechanicsburg, Pennsylvania
July 15, 2013
The Pathways to Desistance Study
Project Background
MacArthur Research Network on Adolescent Development and Juvenile Justice

- Interdisciplinary group of researchers and practitioners (1997)
- Goal: Develop research agenda to inform and improve juvenile justice processes
- Major topics: competence/culpability, risk of offending, and amenability
- Pathways to Desistance study addresses the last two topics
Supported by

- Office of Juvenile Justice & Delinquency Prevention
- National Institute of Justice
- John D. & Catherine T. MacArthur Foundation
- National Institute on Drug Abuse
- Pennsylvania Commission on Crime & Delinquency
- Arizona Governor’s Justice Commission
- Robert Wood Johnson Foundation
- William Penn Foundation
- William T. Grant Foundation
Working Group Members

- Edward Mulvey
- Laurence Steinberg
- Elizabeth Cauffman
- Laurie Chassin
- George Knight
- Carol Schubert
- Sandra Losoya
- Robert Brame
- Jeffrey Fagan
- Alex Piquero
Unintentional Drownings

Population-adjusted rate per 100,000 individuals

Age

“Incorrigibility is inconsistent with youth.”

- Miller majority opinion
Reasons for the study

- Richer information about serious adolescent offenders
- Picture of the desistance process
  - Individual maturation
  - Life changes
  - Systems involvement
- Improved practice and policy in juvenile justice
  - Risk assessment
  - Targeted interventions and sanctions
Study design

- Two sites: Philadelphia and Phoenix
- Enroll serious adolescent offenders
  - 1,354 felony offenders, aged 14 - 18
  - Females and adult transfer cases
- Regular interviews over seven years
  - Initial interviews
  - Time point interviews (background characteristics, psychological mediators, family context, relationships, community context, life changes)
  - Release interviews
- Other sources of information
  - Collateral interviews
  - Official records
What we look at

Background Characteristics
- Personal characteristics (e.g. family, marital relationships)
- Academic achievement and commitment
- Routine activities
- Offense history
- Alcohol and drug use/abuse
- Exposure to violence
- Psychopathy
- Emotional reactivity
- Acculturation
- Personality

Psychological Mediators
- Psychological development
- Mental health symptoms/threat control
- Head injury
- Use of social services
- Perceptions of opportunity
- Perceptions of procedural justice
- Perceived thrill of doing crime
- Moral disengagement
- Religious orientation
- Costs and rewards of offending

Family Context
- Parental Monitoring
- Parental Relationships
- Parent orientation

Personal Relationships
- Relationships with romantic partner & friends
- Peer delinquency and gang involvement
- Contact with caring adult

Community Context
- Neighborhood conditions
- Community involvement
- Personal capital and social ties

Life Changes
Monthly data available regarding:
- Living arrangements
- School involvement
- Legal involvement
- Work
- Romantic relationships
- Social service involvement/sanctions
## Living situation calendar

<table>
<thead>
<tr>
<th>Subject</th>
<th>Month 1</th>
<th>Month 2</th>
<th>Month 3</th>
<th>Month 4</th>
<th>Month 5</th>
<th>Month 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject 1</td>
<td>900 West Huntington</td>
<td>St Gabe’s Hall</td>
<td>900 West Huntington</td>
<td>St Gabe’s Hall</td>
<td>Vision Quest</td>
<td>Youth Forestry Camp</td>
</tr>
<tr>
<td>Subject 2</td>
<td>2429 W. Augusta</td>
<td>Madison Street Jail</td>
<td>1808 S. Wilmot</td>
<td>1808 S. Wilmot</td>
<td>1808 S. Wilmot</td>
<td>Tucson Prison</td>
</tr>
<tr>
<td>Subject 3</td>
<td>5050 Master Norris</td>
<td>4th and Norris</td>
<td>4th and Norris</td>
<td>4th and Norris</td>
<td>House of Corrections</td>
<td>House of Corrections</td>
</tr>
</tbody>
</table>
Progress so far

- Average of 90% of interviews completed at each time point
- Over 21,000 interviews completed
- Current efforts primarily on analysis and dissemination
  - bulletins/blogs/presentations to practitioners
  - academic papers; book in progress
  - marketing of the data sets to academics and applied researchers in juvenile justice
Examples of topics being investigated

• Procedural justice
• Perceptions of risk/benefit of crime
• Psychosocial maturity and criminal offending
• Effects of substance use treatment
• Acculturation/enculturation
• Family functioning
• Perceptions of opportunities
• Neighborhood effects
• Service Provision/Institutional Care
The Sample
Who are these adolescents?

- At Enrollment
  - 16 years old on average
  - Sample is 86% male
  - Average of two prior court appearances, but 32% had no prior petitions to court
- Ethnically diverse
Most Serious Adjudicated Charge – Study Index Petition

Philadelphia vs. Phoenix

- Aggravated assault
- Drug (delivery, possess)
- Robbery/attempt Robbery
- Weapons/possession
- Sex offenses/rape/indecent assault
- Other
- Murder/homicide
- Theft/stolen property
- Threatening/intimidating/influencing
- Kidnapping
- Arson
- Felony Conspiracy
Officially Reported Re-arrests

Rate of Re-arrest

- 74% of the sample were arrested again within the 7-year follow-up period
- Average of 4 arrests (among those rearrested)
Prevalence of Arrest by Year
(% of sample with an arrest)

Percent

y1  y2  y3  y4  y5  y6  y7

20
22
24
26
28
30
32
Number of arrests per days in the community. Ex: 1 arrest in 121 days in community = 0.008, 1 arrest in 65 days in the community = 0.015, 3 arrests in 183 days in community = 0.016
Median Severity Ranking for Arrests across time (within month)

1 = status offense, 2 = misdemeanor, 3 = possession of narcotics (excluding glue and marijuana), 4 = felony, not part 1, 5 = major property felonies, 6 = burglary, 7 = drug felony, 2nd degree sex offense, 8 = felonious assault, felony w/ weapon, 9 = murder, rape, arson
Patterns of Self-Reported Offending


Self-reported Offending

• **22 items**
  
  - destroyed/damaged property
  - entered building to steal
  - received/sold stolen property
  - stolen car/motorcycle
  - Sold other illegal drugs
  - drove drunk or high
  - forced someone to have sex
  - shot someone (where bullet hit)
  - took by force using weapon
  - beat someone-doctor needed
  - beaten up someone (gang)
  - set fire to house/building/car
  - shoppedlifted
  - used checks/credit card illegally
  - sold marijuana
  - carjacked someone
  - was paid to have sex
  - killed someone
  - shot at someone (pulled trigger)
  - took by force no weapon
  - been in fight
  - carried a gun

• Calculate a “variety” score for each recall period
Self-reported offending

7 year follow-up period – only males – controlling for time on street

High stable 10%
Drop-off 21%
Lowest 26%
Low rising 12%
Low stable 31%
Proportion of each offending pattern group in each crime group

- Violent Crime
- Property Crime
- Weapons Charge
- Drug Charge
- Other

Legend:
- Persisters
- Late Onset
- Desisters
- Mid stable
- Low stable
Average number of risk markers above the sample mean by trajectory group

Range 1-7
Conclusions #1

• Desistance does occur

• Considerable variability
  – Within group
  – Over time

• Presenting offense is a poor predictor; risk matters
Institutional Placement
Effect of Placement on Re-offending

Probation vs. placement

Unadjusted comparison of re-arrest rate

Mean Yearly Rate of Re-Arrest, by Placement Status

- Probation: 0.63
- Placement: 1.20

Graph shows the mean yearly rate of re-arrest for probation vs. placement.
Propensity score matching

- Two step process:
  - A propensity score is calculated for each case. It is the predicted probability that you get placed given all of the background characteristics considered.
  - Take each placed case and match it to one or more probation case with similar propensity score.

- We then can look to see if the placed group looks similar to the matched probation group on a variety of characteristics that might affect the outcome.

- If the groups look alike, we can attribute any difference in the outcomes to the fact that they were placed.
Treatment effect of placement

Matched groups

Mean Yearly Rate of Re-Arrest, by Placement Status After Matching

<table>
<thead>
<tr>
<th>Placement Status</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Probation</td>
<td>1.06</td>
</tr>
<tr>
<td>Placement</td>
<td>1.20</td>
</tr>
</tbody>
</table>

No significant differences between groups in rate of re-arrest
Do longer institutional stays reduce re-arrest?

**Approach**

- Length of stay is broken up into discrete “doses”
- Methods to get similar cases across different levels of the “dose”
  
  - 65 of 66 variables show no difference among the groups, meaning we can rule them out as causes of differences in outcomes

- *Response Curve* is estimated
Dose-response curve
3 month intervals as doses

Expected Rate of Re-Arrest, by 3 mo. Dose Category

rate
0.0 0.5 1.0 1.5 2.0 2.5 3.0

0-3 3-6 6-9 9-12 > 12
Findings

- Overall, *no effect* of placement on rate of re-arrest (if anything, it may increase re-arrest)

- For intermediate lengths of stay (i.e., 3-13 months), there appears to be *little or no marginal benefit* for longer lengths of stay
Do these adolescents get appropriate services?


Approach

- Identified two “treatable” types of problems
  - Mood/anxiety problems
    - mental health-related treatment: individual sessions or treatment on a mental health unit
  - Substance use problems
    - drug and alcohol services
- Focus on four most common settings
- Tested findings with controls for site, gender, ethnicity, days in setting
Increase in likelihood of receiving mental health treatment for those with a mood/anxiety problem compared to those without a mood/anxiety problem.

- Detention: 3.4 times
- Jail/Prison: No Difference
- YDC/ADJC: 4.2 times
- Contracted Res: No Difference
Increase in likelihood of receiving substance use treatment for those with a substance use problem compared to those without a substance use problem.

- Detention: 5.4 times
- Jail/prison: 2.6 times
- YDC/ADJC: 4.8 times
- Contracted Res: No difference
Are these adolescents getting substance use services?

Looking at those adolescents with a diagnosed substance use problem*

<table>
<thead>
<tr>
<th></th>
<th>Adult Setting</th>
<th>Juvenile Setting</th>
<th>Community</th>
</tr>
</thead>
<tbody>
<tr>
<td>% with service</td>
<td>55%</td>
<td>61%</td>
<td>30%</td>
</tr>
<tr>
<td>Average intensity of</td>
<td>1 every 13 days</td>
<td>1 every 3 days</td>
<td>1 every 47 days</td>
</tr>
<tr>
<td>sessions</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Diagnosed at baseline as present in the past year
Does substance use treatment work if given to these adolescents?

**Approach:**
- Within individual, does treatment involvement in one time period affect substance use and offending in the next time period?
- Test of treatment as actually provided
- Controlling for “street time”, drug testing, and characteristics predicting who gets treatment

**Findings:**
- Significant short term (6-month) effects of treatment on
  - Marijuana use
  - Offending
  - Alcohol reductions
- Family involvement and duration of treatment needed to get effect
- Not a one-shot “inoculation”
Aftercare

- Greater intensity of aftercare services (more frequent contact) significantly reduced the odds of an arrest or return to an institutional setting during the six-month aftercare period
  - Each additional month of services reduced the odds for these outcomes by 12 percent.
  - Holds even after controlling for level of risk.
- The duration of probation/parole supervision (higher proportion of months where the PO met regularly with the adolescent) reduced the odds of arrest or return to an institution as well as self-reported delinquent behavior.
- Greater intensity of the probation/parole supervision (more frequent contact) increased the odds of positive engagement (working or going to school).
  - Holds with social context variables included
Conclusions #2

• For the sake of efficiency, reduce the rate and duration of placement:
  80,000 adolescents X $180 per day
  = $14,400,000 daily cost

• Institutional environments matter, but there is no guarantee of individualization.

• Supervision matters and continuity of care matters.
Institutional Environments

Do institutional environments matter?

**Approach**

- Examine release interviews
- **Data:**
  - Adolescent reports about a particular institutional experience
  - \( n = 1,158 \) interviews
- **Calculate eight dimensions of the institutional stay**
  - Safety
  - Institutional Order
  - Harshness
  - Caring Adult
  - Fairness
  - Antisocial Peers
  - Services
  - Re-entry planning
- Assess if differences in these dimensions relate to subsequent community outcomes in year after release
  - System involvement
  - Self reported antisocial activity
- Control for risk factors related to offending
Do institutional environments matter?

**Findings**

- **Certain dimensions matter for certain outcomes**
  - Services and re-entry planning significantly reduce the chances of later systems involvement.
  - Low harshness, fewer antisocial peers, and high institutional order decrease the probability of self-reported antisocial activity

- **These relationships don’t differ by facility type**
Is a generally more positive institutional experience related to better outcomes?

Even after controlling for background characteristics, there is a 35%-49% reduction in the probability of system involvement in the next year.
Points to remember

- *This is a sample of serious adolescent offenders.* Results aren’t applicable across the whole juvenile justice system.

- *Outcome measures rely on self reports,* but arrests and official records support the results so far.

- *The study was conducted in only two cities.* While there is considerable variability across cities, the outcomes regarding development over time appear consistent in each site.
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