Improving the Operation of Juvenile Justice Systems by Taking a New Approach on Evidence-Based Practice

Bridging the Gap Between Research and Practice

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Overview

- Comprehensive Strategy framework
- Evidence-based practice
  - What does it mean?
- Knowledge base
  - Meta-analysis
  - Research summary
- Standard Program Evaluation Protocol (SPEP)
  - Operationalization
  - Validation
Developmental pathways to serious and violent behavior

**AGE OF ONSET:**
- **LATE**
- **EARLY**

**%BOYS/GIRLS:**
- **FEW**
- **MANY**

**OVERT PATHWAY**

- **MINOR AGGRESSION** (bullying, annoying others)
- **PHYSICAL FIGHTING** (physical fighting, gang fighting)
- **VIOLENCE** (rape, attack, strong-arm, homicide)

**COVERT PATHWAY**

- **MINOR COVERT BEHAVIOR** (shoplifting, frequent lying)
- **PROPERTY DAMAGE** (vandalism, fire-setting)
- **MODERATELY SERIOUS DELINQUENCY** (fraud, pick-pocketing)
- **SERIOUS DELINQUENCY** (auto theft, burglary)

**AUTHORITY CONFLICT PATHWAY**

- **Stubborn Behavior**
- **Defiance/Disobedience**
- **Authority Avoidance** (truancy, running away, staying out late)

**Source:** Loeber
Prevention and Intervention Windows of Opportunity

Risk and Protective Factors

- **Family**
- **School**
- **Peer Group**
- **Individual Characteristics**
- **Community**

<table>
<thead>
<tr>
<th>Age 3</th>
<th>Age 6</th>
<th>Age 9</th>
<th>Age 12</th>
<th>Age 15</th>
<th>Age 18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conduct Problems</td>
<td>Elementary School Failure</td>
<td>Child Delinquency</td>
<td>Gang Member</td>
<td>Serious and Violent Delinquency</td>
<td></td>
</tr>
</tbody>
</table>

- **Prevention**
- **Early Intervention**
- **Treatment & Sanctions**

Child delinquents: Onset of delinquency and first felony court contact
(Pittsburgh Youth Study)

<table>
<thead>
<tr>
<th>Minor Problem Behavior</th>
<th>Moderately Serious Problem Behavior</th>
<th>Serious Problem Behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age: 7.0</td>
<td>9.5</td>
<td>11.9</td>
</tr>
</tbody>
</table>

First Court Contact for an Index Offense: 14.5
Comprehensive Strategy for Serious, Violent, and Chronic Juvenile Offenders

Prevention
Target Population: At-Risk Youth

Programs for All Youth > Programs for Youth at Greatest Risk > Immediate Intervention

Preventing youth from becoming delinquent by focusing prevention programs on at-risk youth

Intervention & Graduated Sanctions
Target Population: Delinquent Youth

Intermediate Sanctions > Community Confinement > Training Schools > Aftercare

Improving the juvenile justice system response to delinquent offenders within a continuum of treatment options and system of graduated sanctions

Bridging the Gap
Few evidence-based programs are actually used in JJ systems

Why?

- There are relatively few programs certified as evidence-based under the prevailing definition
- These programs present organizational challenges:
  - Cost
  - The ability of providers to implement them “by the book”
The prevailing definition of EBP

The P part: A ‘brand name’ program, e.g.,
- Functional Family Therapy (FFT)
- Multisystemic Therapy (MST)
- Big Brothers/Big Sisters mentoring
- Aggression Replacement Training (ART)

The EB part: Credible research supporting that specific program certified by, e.g.,
- Blueprints for Violence Prevention
- OJJDP Model Programs Guide
- National Registry of Evidence-based Programs and Practices (NREPP)
An alternative perspective on the P in EBP: Generic program “types”

- Interventions with research on effectiveness can be described by the *types* of programs they represent rather than their brand names, e.g.,
  - family therapy
  - mentoring
  - cognitive behavioral therapy

- These types include the brand name programs, but also many ‘home grown’ programs as well

- Viewed this way, there are many evidence-based programs of types familiar to local practitioners
Meta-Analysis of a comprehensive collection of existing studies of interventions for juvenile offenders

- Over 600 experimental and quasi-experimental studies with latest update
- Juveniles aged 12-21 in programs aimed at reducing delinquency
- Focus on the programs’ effects on recidivism (reoffending)
- 1950s to 2010
Database of existing studies of interventions for juvenile offenders
Effect sizes assumed to be a function of study and program characteristics

- **Study methods**
  - e.g., design, measurement

- **Sample characteristics**
  - e.g., age, gender, ethnicity, risk

- **Juvenile justice control**
  - e.g., diversion, probation, incarceration

- **Type of program**
  - e.g., intervention philosophy, treatment type

- **Program implementation**
  - e.g., amount of treatment, completion rates, quality of implementation

Effect sizes for recidivism outcomes
Evidence based practice

Using evidence from existing studies in our meta-analytic database to determine what generic programs and practices are effective.
Program “philosophies” (Group 1)

- **Discipline**: e.g., paramilitary regimens in boot camps
- **Deterrence**: e.g., prison visitation (Scared Straight)
- **Surveillance**: e.g., intensive probation or parole.
Program “philosophies” (Group 2)

- **Restorative**: e.g., restitution, mediation
- **Skill-building**: behavioral, CBT, social skills, challenge, academic, & vocational
- **Counseling**: individual, mentoring, family, family crisis, group, peer, mixed counseling, mixed with supplementary referral
- **Multiple coordinated services**: case management, service broker, multimodal regimen.
Program types sorted by general approach: Average recidivism effect

- Multiple services
- Counseling
- Skill building
- Restorative
- Surveillance
- Deterrence
- Discipline

% Recidivism Reduction from .50 Baseline
Further sorting by intervention type within, e.g., counseling approaches

% Recidivism Reduction from .50 Baseline
Further sorting by intervention type within, e.g., skill-building approaches.
Many types of therapeutic interventions thus have evidence of effectiveness … but there’s a catch:

Though their average effects on recidivism are positive, larger and smaller effects are distributed around that average.

This means that some variants of the intervention show large positive effects, but others show negligible or even negative effects.
Example: Recidivism effects from 29 studies of family interventions

Family Interventions
Covariate-Adjusted Recidivism Effect Sizes (N=29)

Average recidivism reduction of 13%
Where are the brand name model programs in this distribution?

Family Interventions
Covariate-Adjusted Recidivism Effect Sizes (N=29)

Effect Size (zPhi coefficient)
Some characteristics of the juveniles matter

- On average, larger positive effects on recidivism with higher risk juveniles

- Little difference in effects for juveniles of different age, gender, and ethnicity
JJ supervision doesn’t matter much

For juveniles with similar risk for recidivism, intervention effects are similar at all levels of juvenile justice supervision:

- No supervision
- Diversion
- Probation/parole
- Incarceration
Service amount and quality matters

For each type of intervention …

- Positive outcomes are associated with the average duration and total hours of service
- Positive outcomes are strongly associated with the quality with which the intervention is implemented
To have good effects, interventions must be implemented to match the ‘best practice’ found in the research

- **Program type**: Therapeutic approaches are the more effective intervention types
- **Risk**: Larger effects with high risk juveniles
- **Dose**: Amount of service that at least matches the average in the supporting research
- High quality **implementation**: Treatment protocol and monitoring for adherence
Standardized Program Evaluation Protocol (SPEP)

Apply this knowledge base to assess how well current program practice matches evidence for effectiveness

- A rating scheme for each program type within the therapeutic philosophies
- Applied to individual programs based on data about the services actually provided to participating juveniles
- Validated with juvenile justice programs in Arizona and North Carolina
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<thead>
<tr>
<th></th>
<th>Possible Points</th>
<th>Received Points</th>
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<tbody>
<tr>
<td><strong>Primary Service:</strong></td>
<td></td>
<td></td>
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<tr>
<td>High average effect service (35 points)</td>
<td>35</td>
<td></td>
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<tr>
<td>Moderate average effect service (25 points)</td>
<td></td>
<td></td>
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<tr>
<td>Low average effect service (15 points)</td>
<td></td>
<td></td>
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<tr>
<td><strong>Supplemental Service:</strong></td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Qualifying supplemental service used (5 points)</td>
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<td></td>
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<tr>
<td><strong>Treatment Amount:</strong></td>
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<td></td>
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<tr>
<td><strong>Duration:</strong></td>
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<td>10</td>
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<tr>
<td>% of youth that received target number of weeks of service or more:</td>
<td></td>
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<tr>
<td>0% (0 points)</td>
<td>0</td>
<td>60% (6 points)</td>
</tr>
<tr>
<td>20% (2 points)</td>
<td>80% (8 points)</td>
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<tr>
<td>40% (4 points)</td>
<td>100% (10 points)</td>
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<tr>
<td><strong>Contact Hours:</strong></td>
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<td>15</td>
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<tr>
<td>% of youth that received target hours of service or more:</td>
<td></td>
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</tr>
<tr>
<td>0% (0 points)</td>
<td>0</td>
<td>60% (9 points)</td>
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<tr>
<td>20% (3 points)</td>
<td>80% (12 points)</td>
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<tr>
<td>40% (6 points)</td>
<td>100% (15 points)</td>
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<tr>
<td><strong>Treatment Quality:</strong></td>
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<td>15</td>
</tr>
<tr>
<td>Rated quality of services delivered:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low (5 points)</td>
<td></td>
<td>Medium (10 points)</td>
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<tr>
<td>High (15 points)</td>
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<td></td>
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<tr>
<td><strong>Youth Risk Level:</strong></td>
<td></td>
<td>20</td>
</tr>
<tr>
<td>% of youth with the target risk score or higher:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25% (5 points)</td>
<td></td>
<td>75% (15 points)</td>
</tr>
<tr>
<td>50% (10 points)</td>
<td></td>
<td>99% (20 points)</td>
</tr>
<tr>
<td><strong>Provider’s Total SPEP Score:</strong></td>
<td>100</td>
<td></td>
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</table>

Points assigned proportionate to the contribution of each factor to recidivism reduction

Target values from the meta-analysis (generic) OR program manual (manualized)
Evidence based practice

- With adequate specification of the nature of a particular program or service taking place, we can match it with research that provides evidence for the effectiveness of that practice.
Actual vs. predicted recidivism for providers with scores ≥ 50 and < 50

6-mo recidivism difference: High score

12-mo recidivism difference: High score

6-mo recidivism difference: Low score

12-mo recidivism difference: Low score
Model Usage

Statewide reform in:

- North Carolina
- Arizona
- Tennessee

Soon to be operationalized at pilot sites in:

- Florida
- Pennsylvania
- Connecticut
Summary

- There is a great deal of evidence on the effectiveness of interventions for juvenile offenders *beyond that for brand name model programs*.

- Model programs may be the best choice when a new program is to be implemented.

- But evidence-based ‘best practice’ guidance can support the *effectiveness of ‘home grown’ programs already in place* without replacing them with model programs.
Creating an Evidence Based Operating Platform

- There is a need for a research based operating platform to ensure that each element of a juvenile justice system is part of a cohesive whole.

- Risk Assessment
  - Level of Supervision Options
  - Needs Assessment
  - Effective Program Options

- Reoffense Rate, Incarceration Rate, Mental Health outcomes, etc.

- Achieving desired outcomes? **Done**
- Unsatisfactory outcomes? **Program and System Improvement**
Role of Advocacy

- Advance the messages that underpin this work, such as:
  - States needlessly spend billions of dollars a year incarcerating nonviolent youth.
  - Imprisoning youth can have severe detrimental effects on youth, their long-term economic productivity and economic health of communities.
  - Community-based programs increase public safety.
  - Community-based programs for youth are more cost-effective than incarceration.

Role of Advocacy (continued)

- The role of reinvestment strategies in supporting realignment
  - RECLAIM Ohio
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