ADVANCING FROM THE “WHAT WORKS” TO “HOW TO MAKE IT WORK”: APPLICATIONS OF IMPLEMENTATION SCIENCE TO JUSTICE SUPERVISION

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- 4 primary states
- 12 network states

Assisted by a “national resource bank” of technical assistance centers

National Youth Screening & Assessment Project (NYSAP)
Risk Assessment Instruments in Juvenile Justice

Terrific idea! But is adoption of risk instruments actually leading to any change in the way youth are handled?
Outline

■ What is Implementation Science?

■ How Can This Apply to Our Work and Our Research in Forensic Settings?
  – Example: Risk Assessment & Risk-Need-Responsivity in Juvenile Probation Studies

■ Three Key Recommendations for Researchers
WHAT IS IMPLEMENTATION SCIENCE?
What is Implementation Science?

- **Implementation** = a specified set of activities designed to put into practice an activity or program of known dimensions (Fixsen et al., 2005)

- **Implementation science** = research that supports the use of innovations; studies of how well a new practice or activity was implemented. Examples (Proctor et al., 2011):
  - *Implementation outcomes* – acceptability, feasibility, implementation & intervention/instrument fidelity, costs, & sustainability
  - *Service outcomes* (efficacy or impact) – effectiveness, efficiency, equity
  - *Client outcomes* (efficacy or impact) – functioning, symptoms, satisfaction

Implementation Frameworks: Many exist

Active Implementation Frameworks
Fixsen, Blasé, & Van Dyke (2019)
Foundational Issues

- It requires about **2 to 4 full years** for adoption of a new practice to become fully operational and have an impact on the recipient of services (e.g., Barrett, Bradshaw, & Lewis-Palmer, 2008; Fixsen et al., 2005; Goldstein, 2011)

- Training is necessary, but alone is insufficient. It increases knowledge but, in isolation, it does nothing to change practice.

- Decades of evidence from studies in human service areas shows that only about 5-15% of attempts to use new innovations (or EBPs) will succeed in the absence of purposeful implementation supports.
Active Implementation Frameworks

© Fixsen & Blase, 2008

Evidence-Based Practices [Quality, Sustainability]

Implementation Outcomes = Provider Outcomes

Performance Assessment (Fidelity)

Coaching

Systems Intervention

Facilitative Administration

Decision Support Data System

Leadership

Adaptive Technical

Competency Drivers

Training

Selection

Organization Drivers

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HOW DO WE APPLY IT TO OUR WORK?

Example from Juvenile Justice Reform: Implementation of Risk/Needs Assessment and Risk-Need-Responsivity
Use structured risk and need assessment instruments to identify low-risk youths who can be handled less formally in community-based settings, to match youths with specialized treatment, and to target more intensive and expensive interventions toward high-risk youths.
Risk Assessment Must be Paired With Practices that Promote Risk-Needs-Responsivity (RNR)

The "Who" Risk Principle
Match the intensity of the intervention with one’s level of risk for re-offending

The "What" Need Principle
Target dynamic or changeable risk factors and only those factors (criminogenic needs)

The "How" Responsivity Principle
Match the mode & strategies of services with the individual

‘How much to do’

“What to do”

‘How to do it’
Evidence-Based Practice: RNR Effect Sizes $k > 370$

Recidivism from Human Service Programs for Probation Samples

- # of studies ($k$) = 374 ; ES = .56

(Andrews & Bonta, 2010)
IMPORTANCE OF QUALITY IMPLEMENTATION

8 Steps to Implementation
1. Getting ready
2. Establish buy-in
3. Select tool
4. Develop policies
5. Training
6. Pilot test
7. Full implementation
8. Sustainability/Data

Vincent, Guy, & Grisso (2012) Funded by MacArthur Foundation
Four Studies
5 States & 12 “Experimental” Jurisdictions

- **Risk/Needs Assessment in Juvenile Probation: Implementation Study (PI: Vincent, Guy, & Grisso) – LA & PA; Pre-post quasi-experimental design**

**Guide Validation Studies**

- Risk Assessment and Mental health Screening Among Youth (RAMSAY; MacArthur & OJJDP) - MS; *Matched control group design*
  - Guy, Perrault, Grisso, & Vincent (2015)

- Risk Assessment and Behavioral health Screening (RABS; MacArthur & OJJDP) – AR & RI; Pre-post quasi-experimental design
  - Vincent, Perrault, & Grisso (2018)

**Sustainability over 7-years**

- Risk-Need-Responsivity Long-Term Sustainability and Cost-Effectiveness Study – PA & LA; Pre-post quasi-experimental design (OJJDP)
  - Vincent, Drawbridge, & Perrault (2020)
Policies & Procedures for Administration Integration into Electronic System

RNR-related Policies for Use in Disposition Recommendations & Case Planning

Staff Training on instrument, policy & procedures

Training in RNR & Case Planning Service Matrix

What was implemented?

RNR-Based policies & case planning

Implementation Process

Disposition recs template

Case plan aligned
General Designs: Pre-Post Quasi-Experimental Design
multiple probation offices per state, staggered start
Propensity-matched

1 site in each state was selected based on having relatively low placement rates

Probation officer & administrator interviews
IMPLEMENTATION LEVEL OUTCOMES

Providing Data from Risk-Needs Assessment in Juvenile Probation Study (1st Study; Vincent et al., 2016)
Useability: Use of Risk Assessment in Decisions

Vincent, Paiva-Salisbury, Cook, Guy, & Perrault (2012)
Adherence – Do They Follow RNR Procedures With Fidelity?

“What Information Best Informs Your Service Referrals?”

Areas of Greatest Change (Qualitative)

Vincent, Paiva-Salisbury, Cook, Guy, & Perrault (2012)
Change in Probation Officer Perceptions of Youth: What Percentage of Youth on Your Caseload do You Think Will Reoffend?

Note. Cohen’s $d$: .2 = small, .5 = medium, .8 = large.

Vincent, Paiva-Salisbury, Cook, Guy, & Perrault (2012)
SAVRYs in the Field - ICC$_1$ (n = 80 youth)

Cox Regressions:
- Any petition: $\text{Exp}(B) = 1.83^{***}$
- Violent petitions: $\text{Exp}(B) = 1.96^{**}$

Vincent, Fusco, Guy, & Gershenson, 2012

Predictive Validity over 602 days:
- Low (n=194)
- Moderate (n=188)
- High (n=73)

$p < .001$

(Vincent, Fusco, Guy, & Gershenson, 2012)
### Adherence to Administering the Risk Assessment

<table>
<thead>
<tr>
<th>LA</th>
<th>N Youth</th>
<th>RNA Completed</th>
<th>RNA Completed At Right Time</th>
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<tbody>
<tr>
<td>Site 1</td>
<td>217</td>
<td>90.0%</td>
<td>82.5%</td>
</tr>
<tr>
<td>Site 2</td>
<td>105</td>
<td>82.6%</td>
<td>57.3%</td>
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<tr>
<td>Site 3</td>
<td>130</td>
<td>95.4%</td>
<td>80.0%</td>
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</table>

<table>
<thead>
<tr>
<th>PA</th>
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</thead>
<tbody>
<tr>
<td>Site 1</td>
<td>232</td>
<td>86.0%</td>
<td>68.8%</td>
</tr>
<tr>
<td>Site 2</td>
<td>116</td>
<td>NA*</td>
<td>NA</td>
</tr>
<tr>
<td>Site 3</td>
<td>231</td>
<td>37.0%</td>
<td>28.7%</td>
</tr>
</tbody>
</table>

*Partial implementation – YLS conducted with subset of youth

**Conclusion:**
Need an adherence rate of at least 85% for strong intervention-level outcomes

(Vincent, Guy, Perrault, & Gershenson, 2016)

Really poor
IMPACTS: CHANGES IN SYSTEM & YOUTH OUTCOMES AFTER 1.5 YEARS

- Disposition
- Out-of-home placement
- Supervision level
- Service allocation
- Recidivism

Guy et al., 2015, Vincent et al., 2016; Vincent & Perrault, 2018
What Impacts Should We See?

**System Outcomes**
- Decreased rates of formal processing: Yes, but depends
- Improved resource allocation for supervision & services: Yes
- Less youth in out-of-home placements: Depends
- Matching services to needs (individualized case planning): Still working on it

**Youth Outcomes**
- Protecting public safety (e.g., recidivism): Inconsistent

(Viljoen, Cochrane, & Johnson, 2018; Vincent, Sullivan, et al., 2018)
Were There Reductions in Rates of Severe Dispositions?

Every jurisdiction with good adherence to administration policy & other implementation-outcomes had a significant reduction in severity of dispositions (7 out of 12) (Guy et al., 2015, Vincent et al., 2016; Vincent & Perrault, 2018)
Were There Reductions in Use of Out-of-Home Placements?

Significant reductions in only 2 out of 12 offices but decisions significantly related to risk.

2 offices with initially low rated (around 20%) increased.

Conclusion: Rate does not seem to get below 30% even when implementation was strong but LOS reduces.

(Guy et al., 2015, Vincent et al., 2016; Vincent & Perrault, 2018)
Was There Improved Resource Allocation: Services?

# of services referred or received significantly related to risk level in all offices with good implementation (10 out of 13)

(Guy et al., 2015, Vincent et al., 2016; Vincent & Perrault, 2018)
Improved Resource Allocation: Amount of Supervision?

Reductions in the average amount of supervision contacts is a consistent result (Guy et al., 2015, Vincent et al., 2016; Vincent & Perrault, 2018)
Recidivism Reduction (*New Petitions*) in Only 2 Out of 12 Jurisdictions

NO jurisdiction had an increase in recidivism

**Secrets to Success in first 1.5 years:**
- Strong court engagement
- Top-notch leadership & supervision
- Well resourced

**Hypothesis:** It takes up to 3 years for these outcomes to be realized (Flores et al., 2006); requires strong matching, supervision, and quality services

(Guy et al., 2015, Vincent et al., 2016; Vincent & Perrault, 2018)
Conclusions About Implementation of RNAs & RNR

- Over the course of approximately 1.5 years:
  - Good implementers had at least 3 significant & positive system impacts
  - Poor implementers (4 sites) had little to no change
  - Significant recidivism reduction - only happened this quickly for exceptional implementers

- On average, what was the impact of implementing a risk assessment system?
  - More youth stayed in the community with less supervision, less resources were being used, and there was no increased risk to public safety
  - The nature of the impact depends on ....
    - Implementation quality
    - Site practices at baseline
Biggest Barriers to Achieving Strong Implementation & Later Positive Impacts

- Lack of Buy-in from Key Stakeholders (Judges)-
  - Completion of RNA Pre-disposition is essential in many jurisdictions in the U.S.

- Poor implementation & Lack of Feasibility
  - Do not train staff on the risk assessment prior to creating an ‘enabling’ context for RNR (e.g., appropriate P&Ps, templates)
  - Alignment with data management systems essential
  - Systemic obstacles

- Must have strong supervisors and a coaching model

- Impacts to recidivism require more time & effective services
THREE SUGGESTIONS FOR RESEARCHERS
Researcher-Engaged Implementation Over ‘Passive-Observer’

Bridging Research and Practice

Samantha Harvell, Teresa Derrick-Mills, Chloe Warnberg, Megan Russo, Constance Hull, Andreea Matei
With Mary K. Winkler, Hanna Love, Janeen Buck Willison, Akiva Liberman

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Always Assess or Report the Implementation Approach Prior to Evaluating Impact

- Rather than say ‘it doesn’t work’, ask ‘why’ and ‘where’ it doesn’t work
  - Remember minimum 3 years from implementation to impact
LOTS of Research on Effective Implementation of Risk Assessment is Needed!!!