How to Improve and Sustain Quality over the Life Cycle of Programs

Lily Gleicher, M.S., ABD
Research Analyst
Center for Justice Research and Evaluation
Illinois Criminal Justice Information Authority
Objectives

- Defining EBPs and relation to logic models
- Implementation science & quality
- Program adaptation and modification
IDENTIFYING AND DEFINING EVIDENCE-BASED PRACTICES
What is evidence-based?

- **2 key elements:**
  - Causal evidence
  - Acquired through **high quality process and outcome evaluations**
    - Ruling out alternative explanations

- **Rigorous evaluation**
  - Objective
  - Replicable
  - Generalizable

- **Correlation does not equal causation!**
<table>
<thead>
<tr>
<th>Overall Effect</th>
<th>Requirements</th>
<th>Terminology</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Effect/Unknown Effect</td>
<td>There is <strong>little or no evidence</strong>, through the use of reliable, rigorous, replicable, and generalizable research, indicating the programs achieve what they are intended to achieve.</td>
<td>Anecdote</td>
</tr>
<tr>
<td>Promising</td>
<td>There is <strong>some evidence</strong>, through the use of reliable, rigorous, replicable, and generalizable research, indicating the programs achieve what they are set out to achieve.</td>
<td>Evidence-Informed</td>
</tr>
<tr>
<td>Effective</td>
<td>There is <strong>strong evidence</strong>, through use of reliable, rigorous, replicable, and generalizable research, indicating programs achieve what they are set out to achieve.</td>
<td>Evidence-Based</td>
</tr>
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IMPLEMENTATION SCIENCE
Program vs. Practice

- **Practice**: skills, techniques, strategies used when interacting with the consumer/client; core intervention components or principles; an approach or framework based on research
  - **Examples**:
    - Cognitive mapping
    - Structured skill building
    - Cognitive restructuring
    - Motivational interviewing
    - Risk/needs assessment (e.g. LSI-R)

- **Program**: Structured, multi-faceted interventions created to serve consumers/clients with complex problems; comprised of a set of coordinated services (or practices)
  - **Examples**:
    - Hawaii’s Opportunity Probation with Enforcement (HOPE)
    - Drug Court
    - Mental Health Court

Fixsen et al., 2005; JRSA, 2015
Logic or Program Models: “Roadmaps”

• **Coordination** of activities within a program or practice.
• Action plan.

• Can help:
  – Organize, explain, and reflect/analyze a program or practice
  – Generate knowledge of a program or practice
  – Method for program management and assessment
  – Identify how and why program will produce desired outcomes
“I think you should be more explicit here in step two.”
Logic or Program Model

What is invested.

What is done.

What are the results.

INPUTS or RESOURCES: raw materials used by the program
BARRIERS to program objectives

ACTIVITIES: what the program does with the resource
direct the course of change

OUTPUTS: direct evidence of the activities

EFFECTS or results, consequences, outcomes, impacts of having taken
short-term
mid-term
longer-term

PURPOSE or MISSION of your program, effort, or initiative
CONTEXT or CONDITIONS of your work

“The ideas embodied in innovative social programs are not self-executing. Instead, what is needed is an implementation perspective on innovation—an approach that views post-adoption events as crucial and focuses on the actions of those who convert it into practice as the key to success or failure.” (Petersilia, 1990, p. 129)
What is Implementation Science?

- The study of methods to **understand and promote the integration of research (evidence) into complex, real-world settings; not based solely on experience**
  - Bridge gap between research and real-world
  - Conceptual framework and guide for implementation
  - Accounting for complexity of human interactions
  - Constantly changing systems
Implementing EBPs

• **Implementation fidelity**—”fidelity to the model”
  – How well real-world implementation aligns with prescribed model

• Significant and strong empirical evidence indicates an effective program implemented poorly can:
  – Produce outcomes that are **inconsistent**
  – Produce outcomes that are **unsustainable**
  – Produce **poor** outcomes
  – Potentially **harmful** outcomes
Figure 2: 12-Month Felony Recidivism Rate for Youth Assigned to Individual FFT Therapists

The 25 FFT Therapists Grouped by Therapist Competency Rating

C=Control Group, M=Therapist Group Mean
Precursors to Implementation

• **Organizational readiness**
  – Climate and culture
  – Resource availability
  – Organizational commitment and fairness
  – Attitudes towards change; perceptions of leadership
  – Staff and administrative emphasis on quality of services
  – Work environment

• **Needs assessment to identify appropriate or change in EBPs**
Precursors/Ongoing Components of Implementation

• **Implementation team**
  – Cross-sectional cut of organization

• **Logic Model**
  – Clarifies what the program is, essential program functions, operationalization of those functions, and quality assurance process to assess fidelity

• Create **policies and processes** that support effective implementation and monitoring
  – Implementation standards; Embed into contracts
  – Align administrative policies and processes to support effective implementation

• Create **systems to monitor** program or practice **implementation and performance improvement**
Implementation Science

“Implementation is a process, not an event.”
Functional Stages of Implementation

**Exploration**
- Assess organization and client needs
- Identify and examine intervention components
- Consider implementation drivers
- Assess fit

**Installation**
- Obtain resources for program/practice
- Prepare organization and staff
- Prepare implementation drivers

**Initial Implementation**
- Assess and adjust implementation drivers
- Manage change
- Deploy and use data systems
- Start improvement cycles

**Full Implementation & Sustainability**
- Monitor, manage, and assess implementation drivers
- Achieve fidelity and outcome benchmarks
- Improve fidelity and outcomes

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Competency Drivers

- Coaching
- Training
- Selection

Performance Assessment (fidelity)
- Systems Intervention
- Facilitative Administration
- Decision Support Data System

Integrated & Compensatory

Technical
Adaptive

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Multilevel Factors Related to Successful Implementation

Organizational components:
Selection, Program Evaluation, Admin, Systems Intervention

Influence factors:
Social, Economic, Political

Core Implementation Components:
Training, Coaching, Performance Measurement
Multilevel Factors Related to Successful Implementation

• **Implementation drivers** necessary for fidelity and good outcomes

• **Organizational components** necessary to enable and support implementation drivers over the long-term

• Must occur within the context of **influence factors**
  – changes in governments, leadership, funding priorities, economic boom-bust cycles, shifting social priorities, etc...

• **Implementation teams** help initiative, improve, sustain EBP at each level
  – Importance of a logic model to help guide these changes around effective EBP components
What are some common barriers to implementation within your agencies?
## Common Implementation Barriers

<table>
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<th>Barrier</th>
<th>Closer Look at Barrier</th>
<th>Implementation Challenge</th>
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| Ineffective or resistant leadership, supervisors; lack of stakeholder support | • No one person responsible for managing change process  
• Reluctant to change  
• Lack of supervisor buy-in, staff accountability, coaching/support  
• Lack of CQI process                                                                                                                                                             | • Incomplete program  
• Minimum adherence to program model.  
• Lack of training support  
• Loss of financial support; necessary resources  
• Emphasis on outcomes before complete implementation                                                                                                    |
| Lack of staff input on program changes       | • Lack of representation from all staff positions on committees  
• Implementation process not shared with staff                                                                                                                                                                                      | • Changes made cannot be sustained  
• Committee frustration  
• Implementation process slows                                                                                                                                                                                                               |
| Staff attitude                               | • Punishment oriented  
• Fear change; concern it will not last  
• Prefer their own way                                                                                                                                                                                                                   | • Do not develop skills & competencies  
• Interventions sabotaged  
• Do not use CCPs                                                                                                                                                                                                                      |
| Lack of dedicated resources                  | • Inadequate staffing allocation  
• Inadequate financial resources  
• Internal capacity not developed                                                                                                                                                                                                            | • No time to coach, provide support  
• Become overwhelmed with responsibilities  
• Lack of internal coaches and trainers                                                                                                                                                                                                     |

Latessa et al., 2016
Approaching these Barriers

• **Educate stakeholders** and understand their interests
• Ensure that supervisors **support** the new approach
• **Train and coach everyone**: do not underestimate the importance of frontline staff
• Acknowledge **agency culture** and **remove barriers**
• Obtain **union buy-in**
• **Invest in fidelity** to support **long-term** success
• **Evaluate!**
PROGRAM ADAPTATION AND MODIFICATION
Adaptation and Modification

• **MUST** be structured around *essential functions* of program or practice
  – Prevent compromising effectiveness of program or practice

• **Program drift** ➔ no longer evidence-based.

• Adaptation is appropriate and may be necessary, **but only up to a certain point**
Program Drift

• When modifications or adaptations to a program or practice misalign or move away from essential functions of the program or practice

• When many adaptations are imposed, sustainability suffers

• Adaptations should be done in an objective manner based on
  – technical;
  – theoretical; and
  – rigorous evidence of such adaptations

• Not based on subjective stances or individual beliefs
Research: Adaptation and Modification

Common types of adaptations

• Program content
• Program format
• Program delivery context
• Providing additional information/resources
• Change target population
• Change incentive structure
• Modify training or evaluation process

Common reasons

• Disagreement with content; philosophical issues
• Clarification or emphasis on specific content
• Deletion of components due to lack of time
• Technical difficulties
• Changing delivery styles because they believed different format/process would be better

Issues

• 53% of programs negatively aligned (Moore et al., 2013)
• 63% negatively adapted (Dusenbury et al., 2005)
• 71% of deletions reactive; 82% of component deletions negatively aligned (Rhoades Cooper et al., 2016)
Adaptation Considerations

• Are the modifications/adaptations necessary? What is the reason for the adaptation?

• What are the essential program/practice functions? How does the proposed adaptation impact essential functions?

• How could policy or procedure be modified or adapted to make implementation more successful (with or without adaptations/modifications)?

• How will you evaluate the adaptation and its impact on process and outcomes?
Summary

• Understanding EBPs
• Purpose of logic models
• Importance of fidelity
• Implementation process and planning
• Understanding adaptation and program drift
Resources

- National Implementation Research Network (NIRN)
  - www.nirn.fpg.unc.edu

- PEW Charitable Trusts, MacArthur Foundation
  - Evidence-Based Policymaking Series
    - http://www.pewtrusts.org/~/media/assets/2015/06/resultsfirstprograminventorybrief.pdf?la=en

- Justice Research and Statistics Association (JRSA)
  - www.jrsa.org

- Example of EBP and implementation science in Colorado law
  - https://cdpsdocs.state.co.us/epic/EpicWebsite/HomePage/HB13-1129.pdf
References


