Improving Outcomes for Children and Families: Bridging the Gap Between Knowledge and Practice

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Statistics

- Up to 20% of youth experience diagnosable behavioral health problems;
- About 30% with needs actually receive clinical treatment
- About 2-3% receive evidence-based treatment that has been proven to work

- Many youth rely on hospitals and Emergency Departments. Between 2006 and 2011:
  - 50% increase in behavioral health hospitalizations for 10 to 14 year olds
  - 21% increase in ED visits for behavioral health
  - 102% increase in inpatient visits for suicidal behavior (Torio et al., 2015)

- 1 in 14 high school students attempted suicide in the last 12 months

- Most children experience a significant traumatic event before they reach the age of 18.

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RISK FACTORS: Characteristics in the individual, family, school, community that increase the chances of a particular developmental event occurring.

PROTECTIVE FACTORS: Characteristics in the individual, family, school, community that decrease the chances of a particular developmental event occurring in the presence of risk.

RESILIENCE: Normal or enhanced development despite the presence of risk.
Risk Factors

RISK FACTORS: Characteristics in the individual, family, school, or community that increase the chances of a particular developmental outcome.

Risk factors can be:

• Individual
• Family
• Community/school
• Peer group
• VIP
• Genetics/Biology

(Beam, Gil-Rivas, Greenberger & Chen, 2002)

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Protective Factors

PROTECTIVE FACTORS: Characteristics of the individual, family, school, or community that decrease the chances of a particular developmental event occurring in the presence of risk.

- Protective factors counteract risk factors
- Similar to risk factors, protective factors also can be at multiple levels

Question: How do we build protective factors and resiliency in our children?
Examples of Risk & Protective Factors for Mental Health Problems

**Risk Factors**
- Family Structure
- Parent Education & Employment
- Disrupted Families
- Poverty
- Stressful Life Events
- Exposure to Violence or Conflict
- Exposure to Trauma or Loss
- Depressed Parents or Family Members
- Peer Difficulties
- Individual History of Mental Health Issues
- Family History of Mental Health Issues

**Protective Factors**
- Early Identification and Intervention
- Supportive Caregivers & Adults
- Supportive, Pro-social Peers
- Loving, Warm Environment
- Moderate Levels of Stress
- Distance from Family
- Adaptive Coping Skills
- Involvement in Athletics and Extracurricular Activities
- Pro-social Community Involvement
- Religious Involvement
Individual Factors that Impact Resilience
(National Resilience Resource Center)

- Self-esteem
- Academic achievement
- Coping resources
- Religious identity and involvement
- Orientation toward future
- Participation in work and extracurricular activities
- Sexuality
- Physical appearance
Family Factors that Promote Resilience

(National Resilience Resource Center)

- Parent and family connectedness
- Parent/adolescent shared activities
- Parental presence in the child’s life
- Parental school expectations
- Parents involvement and awareness of sexual behaviors
- Limiting access to substances and weapons
- Limiting exposure to trauma

- Knowing child and identifying concerns and seeking help early
- Seeking help for parental and familial problems/concerns
- Seeking support from other parents
- Knowing community resources
School Factors that Impact Resilience
(National Resilience Resource Center)

- School connectedness
- Positive school climate
- School attendance and low dropout
- Active parent-teacher organizations
- Level of teacher education
- Proportion of students who are college-bound
- School policies governing violence, cigarette use and drugs (focus on policies that keep kids in schools)
How do we improve the quality of care by improving our systems that serve children?

- Collaboration among stakeholders and across systems
- Role of leadership and champions
- Funding mechanisms and silos
- Investment of resources in quality not just “more of the same”
- Building the necessary infrastructure and capacity
- Fidelity, outcomes, and sustainability
- The role of state agencies and local providers
- Making the connection between quality care and long-term cost savings
- Sustainability
How do we improve the quality of care at the practice level?

- Promoting evidence-based practices
- Workforce development
- Incentivizing change
- Funding
- The role of implementation science
- Lessons learned from over a decade of practice change initiatives
- Local context
- The role of data and capacity building
- Sustainability

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Evidence-based practices

• Why do EBPs matter and why should we care?
• How have EBPs evolved and do they work in the real world?
• How do we change practices and make it stick?
• What are the barriers to change and how do we overcome them?
• Focusing on what matters most:
  Outcomes for children and families
Rationale for Using Evidence-based Practices

- Evidence-based practices (EBPs) allow for treatment to be standardized while still allowing for the “art” of psychotherapy and individual differences of providers.

- EBPs have strong science/research support and have been proven to work with a wide range of kids in multiple real world settings.

- EBPs are clinically responsive and individualized for the child and family. They can be appropriately adapted to the situation and context.

- EBPs are structured approaches that provide a “clinical map” that guide practice leading to good outcomes.

- EBPs demystify treatment for parents and caregivers and engage them in the treatment process so that gains made in treatment can be sustained at home.

- EBPs collect ongoing outcome data so we know they are working.
Biases about Evidence-based Practices

“They are too rigid and cookbook”

“Doesn’t apply to real world kids with real world, multi-problem histories”

“Developed in some lab”

“Cost too much”

“Overly simplistic”

“Too difficult to implement in community setting”

“Just a band-aid and doesn’t address underlying issues and concerns”

“Another passing fad”

“My training and expertise are not valued”
Economic Barriers to Implementation of EBPs

- Little financial support for implementation
- Community-based and independent providers “barely getting by”
- No mechanism for supporting supervision and training necessary for implementing EBPs in a fee-for-service environment
- State agencies and provider organizations do not always see that up-front investment will yield longer-term gains
- Turnover is high
- Medicaid and managed care do not routinely reimburse or create incentives to deliver EBPs
Workforce Barriers to Implementation

• Some clinicians may not share theoretical perspective and see EBPs as incompatible with their worldview
• Neophyte clinicians may not receive adequate training and are not sufficiently prepared exiting graduate programs
• Turnover is high and clinicians feel underpaid and undervalued
• EBPs may require different skill sets
• Difficulty finding appropriate supervision
• Lack of incentives or support to change practice and sustain
Typical challenges and barriers to practice change

- Time
- Competing mandates
- Bureaucracy
- Political agendas
- History
- Limited resources
- Overburdened workforce
- Operating in crisis mode
- Leadership
- Buy-in
- Value and utility
Types of Evidence-based Practices

Outpatient Services/Community-based Services
Treatments for substance abuse, anxiety disorders, conduct disorders, depression and trauma related disorders such as MATCH and TF-CBT

Early Childhood Services
Early identification and treatment of young children and their caregivers such as PCIT and CPP

School-based services
Treatment in a school-based setting such as Cognitive Behavioral Intervention for Trauma in Schools (CBITS)

In-home Family-focused Services
In home treatment for family, conduct and substance abuse problems such as Multisystemic Therapy (MST), Functional Family Therapy (FFT) and others

Foster Care Programs
— Therapeutic foster care programs such as Multidimensional Treatment Foster Care (MTFC)

Residential or Inpatient Services
Structured, trauma-informed residential models such as the Sanctuary Model for complex behavioral problems and substance abuse
Examples of EBPs that target common behavioral health challenges

<table>
<thead>
<tr>
<th>Problem</th>
<th>Examples of Evidence-based Treatments (EBTs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anxiety</td>
<td>Coping Cat</td>
</tr>
<tr>
<td>Depression</td>
<td>Primary and Secondary Control Enhancement Training (PASCET)</td>
</tr>
<tr>
<td>Traumatic Stress/PTSD</td>
<td>Trauma-focused Cognitive Behavior Therapy (TF-CBT), Dialectical Behavioral Therapy (DBT)</td>
</tr>
<tr>
<td>Behavior/Conduct Problems</td>
<td>Parent Management Training (PMT), Multisystemic Therapy (MST), Functional Family Therapy (FFT), Multidimensional Family Therapy (MDFT)</td>
</tr>
<tr>
<td>Substance Abuse</td>
<td>Motivational Interviewing, Multisystemic Therapy (MST), Functional Family Therapy, Multidimensional Family Therapy (MDFT)</td>
</tr>
<tr>
<td>Multiple Problems/Modular</td>
<td>Modular Approach to Treatment for Children for Anxiety, Depression, Trauma &amp; Conduct (MATCH)</td>
</tr>
<tr>
<td>Low Self-esteem/Negative Thinking</td>
<td>Cognitive Behavioral Therapy (CBT)</td>
</tr>
</tbody>
</table>
Bridging the gap between knowledge and practice
Bridging the Gap

• Difficult to bridge the gap between knowledge and practice

• Many challenges and barriers exist

• Strained systems cannot direct the appropriate resources identify needs, develop effective strategies, and implement and sustain practice change.
Implementation Frameworks

• A structure or process for “bridging the gap”
• Identified a set of key factors to consider and provides a road map for achieving outcomes
• Many different implementation frameworks
• Example: The National Implementation Research Network (NIRN) developed a set of frameworks that are helpful for organizing and understanding the implementation process
A note of thanks to the National Implementation Research Network (NIRN)

NIRN’s Website: nirn.fpg.unc.edu
ACTIVE IMPLEMENTATION FRAMEWORKS (NIRN)

Innovations | Stages | Drivers | Teams | Improvement Cycles

Role of Implementation Science

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Core components should be fully operationalized and defined.

Need, fit, capacity, and readiness should drive the selection of the innovation and/or practice change.
Need: Selecting Appropriate Treatments

- Needs of the population
- Risk factors of the population
- Best and evidence-based practices to treat these needs
- Do providers have the capacity to learn and implement these practices
- Considerations for practice implementation
- Therapist/client factors that need to be considered
- Necessary adaptations
Organizational Readiness

• Implementation models identify readiness assessment as a critical step \(^1,^2\)

• There are various interpretations of the definition of readiness \(^3\)

• There are more than 40 organizational readiness measures \(^4\)

• Organizational readiness is not a static construct

\(^1\) Meyers, Durlak, & Wandersman, 2012
\(^2\) Weiner, 2009
\(^3\) Scaccia et al., 2015
\(^4\) Weiner et al., 2008
ORGANIZATIONAL READINESS

Motivation
General Capacity
Innovation-Specific Capacity

READINESS

Scaccia et al., 2015
READINESS HEURISTIC: $R = MC^2$

Readiness = Motivation x General Capacity x Innovation-Specific Capacity

Scaccia et al., 2015; Wandersman et al., 2008
Readiness: Is the provider organization or clinician ready to implement the new practice?

Does the provider have the **capacity** to learn and implement a new practice?

Is the provider sufficiently **qualified** and do they have the basic knowledge, skills and awareness necessary to work with the identified population?

Does the provider have the sufficient **motivation**, **general capacity** and innovation **specific capacity*** to implement practices for the identified population?
## MOTIVATION

<table>
<thead>
<tr>
<th>Relative Advantage</th>
<th>Degree to which a particular innovation is perceived as being better than what it is being compared against</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compatibility/Alignment</td>
<td>Degree to which an innovation is perceived at being consistent with existing values, cultural norms, experiences, and needs of potential users</td>
</tr>
<tr>
<td>Complexity</td>
<td>Degree to which an innovation is perceived as relatively difficult to understand and use</td>
</tr>
<tr>
<td>Trialability</td>
<td>Degree to which an innovation can be experimented with or practiced</td>
</tr>
<tr>
<td>Observability</td>
<td>Degree to which the outcomes from the innovation are visible to others.</td>
</tr>
<tr>
<td>Priority</td>
<td>Degree to which the innovation is considered important to an organization.</td>
</tr>
</tbody>
</table>

Scaccia et al., 2015
### GENERAL CAPACITY

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Culture</td>
<td>Expectations about how things are done in an organization; how the organization functions</td>
</tr>
<tr>
<td>Climate</td>
<td>How employees collectively perceive, appraise, and feel about their current working environment</td>
</tr>
<tr>
<td>Organizational Innovativeness</td>
<td>General receptiveness toward change (i.e., an organizational learning environment)</td>
</tr>
<tr>
<td>Resource Utilization</td>
<td>How discretionary and uncommitted resources are devoted to innovations</td>
</tr>
<tr>
<td>Leadership</td>
<td>Whether power authorities articulate and support organizational activities</td>
</tr>
<tr>
<td>Structure</td>
<td>Processes that affect how well an organization functions on a day-to-day basis</td>
</tr>
<tr>
<td>Staff Capacity</td>
<td>General skills, education, and expertise that the staff possesses</td>
</tr>
<tr>
<td>Process Capacity</td>
<td>Organizational ability to strategize, implement, evaluate, and improve</td>
</tr>
</tbody>
</table>
## INNOVATION-SPECIFIC CAPACITY

<table>
<thead>
<tr>
<th>Innovation-specific KSAs</th>
<th>Knowledge, skills, and abilities needs for the innovation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Champion</td>
<td>Individual(s) who put charismatic support behind an innovation through connections, expertise, and social influence</td>
</tr>
<tr>
<td>Implementation climate supports</td>
<td>Extent to which the innovation is supported; presence of strong, convincing, informed, and demonstrable management support</td>
</tr>
<tr>
<td>Interorganizational Relationship</td>
<td>Relationships between providers &amp; supports systems and between different providers organizations that are used to facilitate implementation</td>
</tr>
<tr>
<td>Structure</td>
<td>Processes that affect how well an organization functions on a day-to-day basis specific to the innovation</td>
</tr>
<tr>
<td>Resource Utilization</td>
<td>How discretionary and uncommitted resources are devoted to the specific innovation</td>
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<td>Whether power authorities articulate and support organizational activities specific to the innovation</td>
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</table>
IMPLEMENTATION STAGES

- Implementation doesn’t happen overnight
- Need to work methodically over time
- Specific activities at each stage

Role of Implementation Science

Innovations
Stages
Drivers
Teams
Improvement Cycles
CO-CREATION

- Co-creation: “development of a shared body of usable knowledge” across scientific, governance, and local practice boundaries (Metz, 2015)"
Co-Creation

Work with community to identify needs

Work together to develop a comprehensive implementation strategy that is tailored to the needs of the community

Determine if there is sufficient capacity, resources and skills to implement identified strategies

Identify strategies and best practices for addressing needs

Solutions should be driven by the community
# Implementation Stages

## Installation
- Provide structure, tools, knowledge and supports
- Provide “scaffolding” that can be used in a variety of settings
- Coordinate and provide trainings
- Provide consultation & technical assistance

## Initial Implementation
- Attend to organizational drivers
- Build the necessary infrastructure and supports
- Promote a structured data-informed process
- Monitor and adjust implementation
- Provide coaching, consultation, & technical assistance

## Full Implementation & Sustainability
- Establish systems and supports
- Provide continuous quality improvement
- Monitor and promote fidelity
- Provide coaching, consultation, & technical assistance, as needed

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Implementation drivers are the essential infrastructure components

- Competency
  - Organization
  - Leadership
NIRN’S IMPLEMENTATION DRIVERS

Implementation Drivers

- Reliable Benefits
- Consistent Uses of Innovations
  - Performance Assessment (fidelity)
- Coaching
- Systems Intervention
- Facilitative Administration
- Decision Support Data System
- Integrated & Compensatory

Leadership Drivers
- Technical
- Adaptive

Competency Drivers
- Training
- Selection

Organization Drivers

National Implementation Research Network; Implementation Drivers

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Competency & Organizational Drivers

Enhanced Implementation
- Consultation
- Affinity Groups
- Continuous Quality Improvement
- Use of Data

Traditional Training
- Limited Interaction or Support
- No data or CQI

Institute for Healthcare Improvement, 2003
Implementation Drivers

- Build competencies by helping to identify needs, work with stakeholders to select the appropriate best practice, and develop mechanisms and criteria to select participants in the initiative.
- Develop training curricula, coordinate and provide training.
- Utilize multimodal strategies, apply adult learning principles and promote acquisition of new skills.
- Monitor and analyze implementation outcomes, and provide ongoing coaching and technical assistance as needed.
Implementation Drivers

**ORGANIZATION DRIVERS**

- Provide a “neutral” facilitation of the implementation process (intermediaries are often not funders, providers, or government organizations)
- Implementation support is provided at multiple levels focusing on diverse roles and responsibilities within the organization
- Can provide opportunities for group problem solving and create new pathways of communication
- Can help build the necessary infrastructure and data systems to sustain organizational change
Implementation Drivers

LEADERSHIP DRIVERS

– Work with leadership at multiple levels to gain buy in, identify barriers, develop tools and implement strategies to promote data informed decision making

– Provide objective observation and identification of barriers to implementation

– Work with stakeholders to create strategies for implementation tailored to the local community

– Provide the necessary scaffolding to create sustainable changes in leadership and facilitate a positive climate for practice change
IMPLEMENTATION TEAMS

1. Who makes change happen on the ground?
2. Team-based strategies to change
3. Need to develop buy-in and ownership
4. Statewide and local implementation teams

**Role of Implementation Science**

- Innovations
- Stages
- Drivers
- Teams
- Improvement Cycles

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Implementation Teams

Create and support teams that drive the implementation process

Work at multiple levels, & with different stakeholders to create local and system level teams

Provide infrastructure, tools, and mechanisms to support the development of teams

Provide continuous monitoring of teams and use data to drive decision making

Policy makers, state agencies, providers, leadership, consumers
Affinity Groups to Develop Teams

- Supervisors
- Clinicians
- Senior Leaders
- Organizational Systems
- Community Systems
IMPROVEMENT CYCLES

- Data informed decision-making
- Structured approach to continuous quality improvement
- Use of Plan-Do-Study-Act Cycles

Innovations, Stages, Drivers, Teams, Improvement Cycles

Role of Implementation Science

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IMPROVEMENT CYCLES

• Provide continuous quality improvement to promote efficient adoption of practice change and sustainable outcomes

• Work with stakeholders to collect, analyze and use data to inform and improve practices

• Train stakeholders on quality improvement principles

• Apply plan, do, study, act cycles to address and overcome challenges
Continuous Quality Improvement

Plan-Do-Study-Act (PDSA) Worksheet

<table>
<thead>
<tr>
<th>Desired Change</th>
<th>Describe desired change (e.g., improve family engagement in MATCH).</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Inform other staff members about MATCH to increase internal referrals</td>
</tr>
</tbody>
</table>

**PLAN**

**WHAT are we going to do?**
- Do brief presentations of MATCH modules

**WHEN will it be done?**
- During weekly staff meetings

**WHO will do it?**
- Each MATCH trained clinician will take a turn

**HOW will we do it?**
- Provide staff with a brief summary of module and how the skills are applied.

**DO**

**WHEN was the test done?**
- During meetings from October to December

**DID we collect data?**
- Number of internal referrals before, starting presentations and after

**WAS test done as planned?**
- Some difficulty getting time during staff meetings

**STUDY**

**WAS there an improvement?**
- Slight increase in number of internal referrals to MATCH

**WHAT feedback did we receive?**
- Though staff felt MATCH could be useful, unsure of how to talk to their clients about MATCH

**WHAT were the lessons learned?**
- Staff need support to initiate conversations about MATCH with families

**ACT**

<table>
<thead>
<tr>
<th>ABANDON</th>
<th>STOP</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADOPT</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>ADAPT</th>
<th>Scale up</th>
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</table>

Describe adaptation or scale up (e.g., 2 people to whole team):
1. MATCH clinicians will present on how to talk about MATCH with families in next staff meeting.
2. MATCH clinicians will offer to meet with families to answer questions when available.

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Plan-Do-Study-Act

**PLAN**
- Determine objective, questions, & predictions
- Create plan to test idea (who, what, where, when, how?)

**DO**
- Carry out the plan
- Document problems and unexpected results
- Begin analysis of data

**STUDY**
- Complete analysis of data
- Compare data to predictions
- Summarize what was learned

**ACT**
- Make adjustments
- Ensure that the next cycle reflects the learning

Adapted from © 2001 Institute for Healthcare Improvement
Expanded Quality Improvement Process

1. Create objectives
2. Select performance indicators
3. Conduct performance assessment
4. Carryout small tests of change (PDSA)
5. Measure impact & spread

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Consultation and Technical Assistance

- Clinical Consultation
- Senior Leader Consultation
- System Consultation
- Training and Technical Assistance
- Quality Improvement Consultation
- Implementation Consultation
How Does it all Tie Together

- Use of Data & Metrics
- Quality Improvement
- Consultation & Technical Assistance
Developing an Action Plan
Summary

• Evidence-based practices are key to improving outcomes for children and youth
• Must identify barriers and develop effective strategies to implement and sustain practice change
• Practice change requires structured implementation strategies and sufficient resources to support sustainable change
• Must promote effective training and workforce development within our systems of care to improve the quality of care
Contact Information

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