Implementing evidence-based practices: Are we falling down on the job?

Dean L. Fixsen, Karen A. Blase, Michelle A. Duda, Allison J. Metz, Sandra F. Naoom, Melissa K. Van Dyke

National Implementation Research Network
Frank Porter Graham Child Development Institute
University of North Carolina-Chapel Hill
O Canada

A society for all ages

Values

- Dignity
- Independence
- Participation
- Fairness
- Security
Challenges: Canada

- Growing population of older adults
  - 13% in 2005; 25% in 2035; 2.2 to 5 million
- Urban = 78%; rural = 20%
- Diverse cultures and languages
- Needs increase with age (65-74; 74-85; 85+)
- Falls are the leading cause of injury
- Lack of mobility highly related to dissatisfaction with life

Turcotte & Schellenberg, Statistics Canada (2007)
Effective Services

- Exercises to increase strength and balance
- Improved vision – glasses, lighting
- Medication management
- Reduce hazards in living environment
- Stephen Lord: A rapidly growing data base, approaching 1,000 new research articles each year
  - Evidence-based Falls Prevention approaches

Centers for Disease Control and Prevention; Gillespie (BMJ; 2004)
Science “to” Service
The Challenge

- Even **when we adopt** good science to help others

Implementation Gap

- What is adopted is not used with **fidelity** and good outcomes
- What is used with fidelity is not **sustained** for a useful period of time
- What is used with fidelity is not used on a **scale** sufficient to impact social problems
Improving Outcomes

Four important things for you to know (and do) to improve falls prevention outcomes

- Use implementation science
- Support implementation practices
- Change organizations/ systems
- Be adaptive
#1: Implementation Science

Use implementation science

Implementation science is universal (like physics, chemistry)
Implementation Research: A Synthesis of the Literature


Download all or part of the monograph at:
http://www.fpg.unc.edu/~nirn/resources/detail.cfm?resourceID=31
Implementation Science

3 year review and synthesis of the implementation evaluation literature

- Multi-disciplinary
- Multi-sector
- Multi-national
Best Data Show These Methods, When Used Alone, Do Not Result In Uses of Innovations As Intended:

- Diffusion/ Dissemination of information
- Training
- Passing laws/ mandates/ regulations
- Providing funding/ incentives
- Organization change/ reorganization
Implementation Science

Data Show These Methods, When Used Alone, Do Not Result In Uses of Innovations As Intended

We know a lot about ineffective methods because they are the ones we use!

Implementation science will improve when implementation practices improve (create a better “laboratory”)

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What Works

Implementation Drivers

Common features of successful supports to help make full and effective uses of a wide variety of innovations
Reliable Benefits
Consistent uses of Innovations

Performance Assessment (Fidelity)

Coaching
Systems Intervention
Facilitative Administration
Decision Support Data System

Integrated & Compensatory

Leadership

Technical
Adaptive

Staff Competence
Selection
Training

Implementation Drivers
Staff Training

Percent of TI Components Demonstrated

PRE vs. POST

## Staff Coaching

### OUTCOMES
(% of Participants who Demonstrate Knowledge, Demonstrate new Skills in a Training Setting, and Use new Skills in the Classroom)

<table>
<thead>
<tr>
<th>TRAINING COMPONENTS</th>
<th>Knowledge</th>
<th>Skill Demonstration</th>
<th>Use in the Classroom</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theory and Discussion</td>
<td>10%</td>
<td>5%</td>
<td>0%</td>
</tr>
<tr>
<td>..+ Demonstration in Training</td>
<td>30%</td>
<td>20%</td>
<td>0%</td>
</tr>
<tr>
<td>...+ Practice &amp; Feedback in Training</td>
<td>60%</td>
<td>60%</td>
<td>5%</td>
</tr>
<tr>
<td>...+ Coaching in Classroom</td>
<td>95%</td>
<td>95%</td>
<td>95%</td>
</tr>
</tbody>
</table>

Joyce and Showers, 2002; Rogers, Wellens, & Conner, 2002
Bedlington, et al. (1988)

Delinquency (Outcome)

Teaching (Fidelity)

\[ r_s = -0.94 \]

Couples

Mean Self Reported Delinquency Ratings

Percent Parental-Teaching With Youths

Staff Performance Assessment

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Implementation Takes Time

Stages of Implementation

• Exploration (Sustainability)
• Installation (Sustainability)
• Initial Implementation
• Full Implementation (Sustainability/ Effectiveness)

Fixsen, Naoom, Blase, Friedman, & Wallace, 2005
#2: Support Implementation

People cannot benefit from interventions they do not experience
What Works

Effective intervention practices

+ 

Effective implementation practices

= 

Good outcomes/ public health
<table>
<thead>
<tr>
<th>Implementation</th>
<th>Effective</th>
<th>NOT Effective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effective</td>
<td>Actual Benefits</td>
<td>Inconsistent; Not Sustainable; Poor outcomes</td>
</tr>
<tr>
<td>NOT Effective</td>
<td>Poor outcomes</td>
<td>Poor outcomes; Sometimes harmful</td>
</tr>
</tbody>
</table>

An intervention is one thing
Implementation is something else altogether
Implementation Science

- Letting it happen
  - Recipients are accountable
- Helping it happen
  - Recipients are accountable

Making it happen

- **Implementation Teams** are accountable: THEY DO THE WORK

Based on Greenhalgh, Robert, MacFarlane, Bate, & Kyriakidou, 2004
Implementation Team

Simultaneous, Multi-Level Interventions

- Practitioner Competence
- Provider Agency Supports
- Management (leadership, policy)
- Administration (HR, structure)
- Supervision (nature, content)
- Regional Authority Supports
- Provincial and Community Supports

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## Implementation Science

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Implementation Team</th>
<th>No Implementation Team</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effective</td>
<td>80%, 3 Yrs</td>
<td>14%, 17 Yrs</td>
</tr>
<tr>
<td>Effective use of Implementation Science &amp; Practice</td>
<td>Fixsen, Blase, Timbers, &amp; Wolf, 2001</td>
<td>Balas &amp; Boren, 2000</td>
</tr>
</tbody>
</table>
Building Capacity

Invest in competent Implementation Teams

This year’s success pays for next years increase in capacity

Barber & Fullan (2005)
Costs and Savings

Implementation Costs & Savings (Inflation Adjusted)

Change in Budget (Percent)

1 Yr Pre | During | Post Year 1 | Post Year 2 | Post Year 3

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#3: Change Systems

We need to:

- Turn policy into effective practice
- Turn effective practice into policy

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System Change

- Innovative practices do not fare well in existing organizational structures and systems.

- Organizational and system changes are essential to successful use of innovations.
  
  Expect it
  
  Plan for it
System Change

EXISTING SYSTEM

EXISTING SYSTEM IS CHANGED TO SUPPORT THE EFFECTIVENESS OF THE INNOVATION

EFFECTIVE INNOVATIONS ARE CHANGED TO FIT THE SYSTEM

EFFECTIVE INNOVATION
“External” System Change Support

Management Team

Policy Enabled Practice (PEP)

System Change

Practice Informed Policy (PIP)

Implementation Team

Adaptive Challenges
- RFP methods
- IHE curricula
- Salaries
- Funding
- Credentialing
- Licensing
- Time/ scheduling
- Union contracts
- Duplication
- Fragmentation
- Hiring criteria
- Federal/ State laws

Practitioners

Innovations

Consumers
SYSTEM ALIGNMENT

ALIGNMENT

Federal Departments

Provincial Department

Regional Authorities

Agencies

Practitioners/Staff

Effective Practices

FORM SUPPORTS FUNCTION
#4: Be Adaptive

Real life interferes with good intentions
Kinds of problems

Tame Problems

- Often complicated (e.g. safety of nuclear generators, air traffic control)

Wicked Problems

- They are messy, devious, and fight back when you try to “solve” them

Rittel & Webber, 1973
Tame and Wicked

Stacey (1996); Heifetz & Laurie (1997)

Complex (Adaptive/Leadership)

Complicated (Technical/Management)
Evidence-based Practices

- Increase **certainty** (the data show that …)
- Increase **agreement** (this program/innovation could help us fulfill our need to …)
- Help move from the zone of complexity to **more manageable solutions**
The End in Mind

Using implementation science, we can:

- Make province-wide use of evidence-based falls prevention programs and other innovations…
- To produce increasingly effective outcomes…
- For the next 50 years.
Integrate the science, practice, policy of implementation, organization change, and system transformation.
Do you know of an organization/coalition currently implementing an evidence based practice in their local community?

Is the implementation of this program/innovation producing beneficial outcomes to the community?

Are they a role model for moving the evidence-based practice from science to service?

If you answered “YES” to all of the above, check out: http://www.samhsa.gov/scienceandservice

Nominate your own organization or someone you know!!
For More Information

State Implementation and Scaling up of Evidence-based Practices (SISEP)
Dean Fixsen, Karen Blase, Rob Horner, George Sugai

www.scalingup.org

“Resources” Tab
- Concept paper
- Annotated bibliography
- Data on scaling up
- Scaling up Briefs
Evidence-based Implementation Research: A Synthesis of the Literature


*Download all or part of the monograph at:*

http://www.fpg.unc.edu/~nirn/resources/detail.cfm?resourceID=31
Thank You for your Support

- Annie E. Casey Foundation (EBPs and cultural competence)
- William T. Grant Foundation (implementation literature review)
- Substance Abuse and Mental Health Services Administration (implementation strategies grants; national implementation awards)
- Centers for Disease Control & Prevention (implementation research)
- National Institute of Mental Health (research and training grants)
- Juvenile Justice and Delinquency Prevention (program development and evaluation grants)
- Office of Special Education Programs (Scaling up Capacity Development Center)
- Administration for Children and Families (Child Welfare Leadership Development)
- Duke Endowment (Child Welfare Reform)