Bridge over Troubled Water: Using implementation science to improve outcomes for children and families

Robyn Mildon, PhD
Director of Knowledge Exchange and Implementation
Parenting Research Centre

rmildon@parentingrc.org.au
The Parenting Research Centre is a non-government organisation who’s goal is to help parents raise happy and healthy children.
Why are we in business (researchers, policy makers and service providers)?

The ultimate goal of services and supports for children, young people and their families is to build on an/or improve their physical, cognitive, social and emotional wellbeing.
To date, this has been done through the identification and cataloguing of evidence base programs (EBP) and practices and attempts to disseminate these widely and effectively.

Despite these efforts, policy, programs and practices found to be effective fail to translate into meaningful outcomes across a number service settings.
Evidence to service gap

Often, what is known is not what is adopted to help children, families and caregivers.

Implementation: a way to bridge that gap

There are no clear pathways for effective implementation.

Often, what is adopted is not used with fidelity and good effect.

What is implemented often disappears with time and staff turnover.

(Fixsen et al, 2005)
“Evidence” on effectiveness helps you select what to implement for whom

“Evidence” on these outcomes does not help you implement the program or practice

Fixsen & Blase (2008)
To maximise the full benefits of programs and practices we need to pay attention to:

The What:

Evidence based and/or promising programs and practices

The How:

Effective implementation frameworks (e.g. strategies to change and maintain behaviour of practitioners and create hospitable organisational systems)

The Context within which the programs and practice will be delivered
The What:
Evidence based programs and practice

The competent and high fidelity implementation of programs and practices that have been demonstrated to be safe and effective (Chaffin & Fredrick, 2004)
The How: Implementation

...the planned and intentional use of strategies to put into practice EIP’s within real-world settings (Fixsen et al. 2005; Mitchell, 2011).

Implementation is a process, not an event, and should be distinguished from adoption, which is defined as the formal decision to use an EIP in practice (Mitchell, 2011).
Increasing the adoption and implementation of effective programs and practice

Pay attention to the “implementability” of EBPs

Use methods from Implementation Science to bridges the gap between Science and Policy and Service
The What
Evidence-based practice and programs

Practices

• skills, techniques, and strategies that can be used by a practitioner.

• common elements (Chorpita et al) / kernels (Embry, 2004)

Programs

• collections of practices that are done within known parameters (philosophy, values, service delivery structure, and treatment components)
Where we are looking to achieve change outcomes with a particular target group, and a manualised EBP has been shown to achieve this, we should strive to effectively implement that EBP with high fidelity.

This will often mean changing the service setting in which the program will be implemented (staff skill, supervision, organisational systems and structures, service frameworks)
Limitations of Programs

Difficulties in accessing adequate training in a variety of EBPs

Many EBPs have limited effectiveness, modest effect sizes, issues with scalability, limited generalisation, and difficulties with maintaining or sustaining the program without adaptation to the service setting

(Embry & Biglan, 2008)
The promise of the kernel (common elements approach)

*Common elements* refer to the individual treatment practices that reflect specific content (e.g., psycho-education, exposure, and rewards) that comprise an intervention.

Treatment elements are selected to match particular child and family characteristics, allowing for practitioners to establish therapeutic alliances, utilize clinical judgment, and still follow evidence-based practice protocols.
Implementation matters
## Implementation Matters (from Fixsen et al., 2005)

<table>
<thead>
<tr>
<th>Intervention – The What</th>
<th>Implementation: The How</th>
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<tbody>
<tr>
<td>Effective</td>
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<td></td>
<td>Actual benefits</td>
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<td>Not Effective</td>
<td>Not Effective</td>
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<td>Inconsistent; not sustainable; poor outcomes</td>
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<td>Poor outcomes</td>
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<td>Poor outcomes; sometimes harmful</td>
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Implementation matters

Durlak & DuPre (2008) review of over 500 implementation studies in the field of prevention and health promotion programs for children and youth found that the magnitude of mean effect sizes were at least 2 to 3 times higher when programs were implemented well with few or no problems in the implementation.

Full implementation of programs was associated with better outcomes, particularly when fidelity and dosage were used to measure levels of implementation.
Implementation matters

“... in some analyses, the quality with which the intervention is implemented has been as strongly related to recidivism effects as the type of program, so much so that a well-implemented intervention of an inherently less efficacious type can outperform a more efficacious one that is poorly implemented.”

Lipsey et al (2010)
To get the most out of what we have, these alone will not do...

Laws and policy directives

Funding

Identification and cataloguing of empirically supported practices and programs.

One way dissemination of information

Implementation without changing supporting roles and functions does not work

Training alone

(Embry & Biglan, 2008; Fixsen et al., 2005)
Successful uptake of knowledge requires more than one-way communication and one-off training events.

Instead requiring genuine interaction among researchers, decision makers, and other stakeholders AND active, purposeful and planned implementation activities.

Implementation success cannot occur without change, and the recognition that change is difficult for participants.
Frameworks for implementation

descriptions of the implementation process which include key attributes, facilitators, and challenges related to implementation provide an overview of practices that guide the implementation process and provide guidance to researchers and practitioners by describing specific steps to include in the planning and execution of implementation efforts.
Quality Implementation Framework (Meyers, Durlak and Wandersman, in press)

National Implementation Research Network (Fixsen, Naoom, Blase, Friedman & Wallace, 2005)

Getting to Outcomes Framework (Wandersman, Imm, Chinman, & Kaffarian, 2000)
Quality Implementation Framework
Phase One: Initial Considerations regarding the host setting (elements)

1. Conducting a Needs and Resources Assessment
2. Conducting a Fit Assessment
3. Conducting a Capacity/ Readiness Assessment
4. Possibility for Adaptation
5. Obtaining Explicit Buy-in from Critical Stakeholders and Fostering a Supportive Organizational Climate
6. Building General/Organisational Capacity
7. Staff recruitment/ maintenance
8. Effective Pre-innovation Staff Training
Phase Two: Creating a Structure for Implementation

9. Creating Implementation Teams:

10. Developing an implementation plan:

Phase three: Ongoing Structure Once Implementation Begins

11. Technical assistance/Coaching/Supervision:

12. Process evaluation

13. Supportive feedback mechanism

Phase Four: improving Futures Applications

14. Learning from experience
Knowledge to Implementation Cycle
(based on Fixsen et al 2005)

Innovation
Implementing positive innovations for continual practice and program improvement.

Development & Adoption
Identify and assess evidence-based practices and programs.

Installation
Plan and prepare what needs to be in place to ensure the organisation is ready to implement practices or program.

Early Implementation
Initiating and maintaining change. Support provided through early stages of change.

Full Implementation
Maintaining and improving implementation of practices and programs.

Sustainability
Create a permanent organisational capacity and a sustainable infrastructure.
Improved outcomes for children and families

Performance Assessment

Implementation Drivers

Adaptive
Integrated & Compensatory

Technical Leadership

Coaching
Training
Selection

Competency Drivers
Organization Drivers

Systems Intervention
Facilitative Administration
Decision Support Data System

© Fixsen & Blase, 2008

Graphics by Steve Goodman, 2009
Implementation drivers

Competency Drivers

• develop, improve, and sustain ability to implement an intervention with fidelity and benefits to consumers. Drivers include: Selection, Training, Coaching, and Performance Assessment

Organizational Drivers

• create and sustain hospitable organizational and systems environments for effective services. Drivers include: Decision Support Data System, Facilitative Administration, and Systems Intervention

Leadership Drivers

• methods to manage technical problems
To Achieve Desired Outcomes = Actual Outcomes Achieved

Current Level of Capacity + Tools + Training + QI/QA + TA = Current Level of Capacity + GTO Steps: (1) Needs & Resources; (2) Goals & Desired Outcomes; (3) Science-based practices; (4) Fit; (5) Capacity; (6) Plan; (7) Implementation & Process Evaluation; (8) Outcome evaluation; (9) Continuous Quality Improvement; and (10) Sustainability

From Barbee et al 2011.
Staff recruitment and selection
Staff training and on-going coaching
Performance evaluation
Staff recruitment and selection

Realistic recruitment: a process that presents accurate information to potential applications about the real nature of a job and the organisation using a variety of strategies

Competency-based selection: education and practitioner background, openness to change, openness to EBPs, flexibility, congruence with agency values and mission
Training and Coaching

Strongest and most consistent finding is that the single-exposure training models are ineffective methods of producing changes in practitioner skills.

What training methods work?

- value of training enhancements such as feedback and coaching

- training to criterion (clinicians receive training, feedback and coaching until they met the minimum standards; continue to receive ongoing monitoring and refresher training)
Impact of coaching

Effect of EBP implementation on staff retention and recidivism

SafeCare with & without fidelity monitoring

Services as usual with and without monitoring.

Greater staff retention in the condition where the EBP was implemented along with ongoing fidelity monitoring presented to staff as supportive consultation.
Performance evaluation

Early monitoring of implementation followed promptly by retraining doubled the fidelity of implementation to over 85% for providers who were having initial difficulties (Durlak & DuPre, 2008)

How this is done matters – consultative supportive coaching during fidelity monitoring process improved worker retention
Intervention fidelity

**Exposure**: amount of an intervention that is offered to the participants in relation to the amount prescribed in the validated intervention model (the number of sessions or hours of programmed activity offered).

**Adherence**: extent to which the intervention was delivered according to the program developer’s specifications for content.

**Quality of delivery**: pertains to practitioners/manager performance on dimensions that are thought to enhance delivery of the intervention (e.g., enthusiasm, style, ability to facilitate client participation, etc.).
Context Matters
Implementation is affected by organisational context

Relationship between organisational support for EBP, attitudes towards EBP and use of EBPs in practice.

Findings:

• gap between public and private sector organisations regarding innovation and implementation.

• private agencies provided greater support for EBP implementation

• staff working for private agencies reported more positive attitudes toward adopting EBPs.

• organisational support was significantly positively associated with attitudes toward EBP and EBP use in practice.

Aarons et al. (2009)
Potential moderators:

**Participant characteristics** (complexity of cases, responsiveness, family obligations/mobility, caregiver depression, age etc, characteristics of the neglect – type of neglect and reasons for neglect)

**Social significance of goals, appropriateness of procedures and importance of outcomes** (social validity)

**Organisational context** (receptivity, size, turnover, professional characteristics, organisational culture, leadership, readiness for change, community controlled sector, attitudes towards DCF, access to vehicles for staff, number of employees who are local, usual focus of service delivery e.g., adults/children/community, recruitment processes)

**Community context** (number of language groups in the community, pragmatic barriers – distance/climate, sorry business in community, size of the community, Growth Town/RSD status/prescribed community, attitudes toward DCF/FaHCSIA, availability of housing/food security/recreation/transportation, quality of school, other services received by clients/available to them)

**Broader Context** (socio-political, funding, legislation, interorganisational networks, DCF referrals)

**Individual provider characteristics** (demographics including gender, cultural background, language skills, skills/experience, values, goals, readiness for evidence based practice, attitudes towards DCF)
Threats to Sustainability

Individual level: long-term effects of a program as assessed after 6 or more months following the most recent intervention contact.

Organisational level: extent to which an intervention becomes institutionalized or part of routine organizational policies and practices of an agency.

Dosage: The case of Early Risers “Skills for Success” program.

Early Risers is an evidence-based, early-age targeted conduct problems prevention program.
Bridging the gap from science to service

Improving outcomes for families & children