Bridge over Troubled Waters: Using implementation science to improve outcomes for children

Robyn Mildon, PhD
Parenting Research Centre

Healthy Start

Healthy Start is a national initiative aimed at building the capacity of practitioners to better support the needs of families headed by a parent with learning difficulties.

Knowledge to Practice Gap

Healthy Start grew out of a gap between research and practice.
We do this by:
- Developing and support local opinion leaders.
- Building an active multi-disciplinary practice network
- Provided resources, learning events, targeted training and ongoing support.

Only 9% of those who completed all 3 phases of training followed through to implementation.

Children and families cannot benefit from interventions they do not experience.
For many reasons, best evidence is not being taken up in practice settings, and many children and their families are not receiving the best possible programs and support.

“Evidence” on effectiveness helps you select what to implement for whom

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

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

Implementation gap
There are no clear pathways to 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)

Insufficient methods for implementation
Implementation by laws/compliance by itself does not work
Implementation by “following the money” by itself does not work
Implementation without changing supporting roles and functions does not work
Diffusion/dissemination of information by itself does not lead to successful implementation
Training alone, no matter how well done, does not lead to successful implementation

(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.

Are we ready?
To successfully implement and sustain evidence-based programs and practice we need:

The What:
What is the program/practice

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

The Who:
Expert implementation assistance
Evidence-based practice and programs

Evidence-based practices
- skills, techniques, and strategies that can be used by a practitioner.
- common elements (Chorpita et al) / kernels (Embry, 2004)

Evidence-based programs
- collections of practices that are done within known parameters (philosophy, values, service delivery structure, and treatment components)

The promise of the kernels/common elements

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.

Impact of Evidence-Based Practice on Staff Turnover (Aarons, et al., 2009)

Effect of EBP implementation on staff retention.
- 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.

Perspectives on EBP Implementation and Turnover

Learning new skills like SafeCare were motivators to stay with current employers.
Implementation of EBPs helps to recruit and retain new staff.

What we do matters
How we do it matters

**Implementation**

**What is implementation?**
Implementation is defined as a specified set of activities designed to put into practice an activity or program of known dimensions (Fixsen et al., 2005).

Implementation is a process with core components:
- Research
- Implementation
- Practice

**Why focus on implementation?**
Many programs and practices found to be effective in child and family support research fail to translate into meaningful outcomes across a number service settings.

Some research indicates that two-thirds of organisations’ efforts to implement change fail (Burns, 2004).

**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>
<td>Effective</td>
</tr>
<tr>
<td>Actual benefits</td>
<td>Inconsistent; not</td>
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<tr>
<td></td>
<td>sustainable; poor</td>
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<tr>
<td>Poor outcomes</td>
<td>outcomes; sometimes</td>
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<td></td>
<td>harmful</td>
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(“...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)
Implementation matters

500 studies evaluated in five meta-analyses
indicates that the magnitude of mean effect sizes are two to three times higher when programs are carefully implemented and free from serious implementation problems than when these circumstances are not present
59 additional quantitative studies found that higher levels of implementation are associated with better outcomes, particularly when fidelity or dosage is assessed.

Durlak & DuPre (2008)

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)

Implementation theories and frameworks

- many implementation theories to promote effective implementation have been described in the literature (differing terminologies and definitions)
- most theories propose ‘what works’ but more research is needed into ‘what works where and why’

Implementation theories, for example...

Conceptual Model for Considering the Determinants of Diffusion, Dissemination, and Implementation of Innovations in Health Service Delivery and Organization (Greenhalgh et al., 2004)
Conceptual Model for Implementation Effectiveness (Klein & Sorra, 1996)
Dimensions of Strategic Change (Pettigrew & Whipp, 1992)
Theory-based Taxonomy for Implementation (Leeman et al., 2007)
PARiHS Framework: Promoting Action on Research Implementation in Health Services (Rycroft-Malone et al., 2002)

**Knowledge to Implementation Cycle**

(based on Fixsen et al 2005)

**The “what”**

- For who
- Specify outcomes
- Consider which EBP/Practices (being a good consumer)
- Examine fit with current workforce
- Assess readiness for change
- Assesses feasibility
- Look at implementation support including technical assistance and resource needed and what is provided

**Specify outcomes**

- Free from abuse and neglect
- Safe from injury and harm
- Free from child exposure to conflict or family violence
- Ability to pay for essentials
- Optimal language development
- Adequate family housing
- Optimal cognitive development
- Positive family functioning
- Healthy teeth and gums
- Optimal antenatal and infant development
- Healthy weight
- Adequate nutrition
- Positive child behaviour and mental health

**Identify the “what”**

Clearly understand needs of young children and their families in your area

- Attention to cultural and linguistic issues
- Determine what you get and don’t get from expert assistance
- Determine whether moving ahead with the initiative and implementation is desirable and feasible
- Create readiness for change at many levels

**Not all EBPs are created equal**

Manualised: is it written down?

- Have the developers identified essential components vs those that can be adapted?
- Are there comprehensive measures of fidelity available?
- Are all the core components of technical assistance available?

**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.).
Knowledge to Implementation Cycle
(based on Fixsen et al 2005)

Installation
Plan and prepare what needs to be in place to ensure organisation is ready to implement
- Assess readiness of service or organisation.
- Ensure right resources and structures are in place

Competency drivers
- Staff selection: key ingredient of implementation at every level includes selection of practitioners and organisation staff (trainers, coaches, evaluators, administrators), and
- Training: efficient ways to provide knowledge of background information, theory, philosophy, and values; introduce the components and rationales of key practices; and provide opportunities to practice new skills and receive feedback in a safe training environment.
- Coaching: most skills needed by successful practitioners can be introduced in training but really are learned on the job with the help of a consultant/coach. Coaching needs to be work based, opportunistic, readily available, and reflective (e.g., debriefing discussions).

Organisational drivers
- Decision Support Systems: quality improvement information, organisational fidelity measures, and child and family outcomes
- Facilitative intervention: leadership that makes use of a range of data inputs to inform decision making, supports the overall processes, and keeps staff focused on the desired intervention outcomes (champions)
- System alignment intervention: strategies to work with external systems to ensure the availability of the financial, organisational, and human resources required to support the work of the practitioners (Strategies for strengthening key partnerships)
Leadership
- Inspire with a vision
- Align agency values, mission and practice
- Provide resources to do the job
- Create a learning environment
- Communicate
- Celebrate performance

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.

Purveyor organisations/Intermediary organisations
Purveyor
- an individual or group of individuals representing a program or practice who actively work implementation sites to implement that practice or program with fidelity and to good effect (Fixsen et al. 2005)
Intermediary organisation
- has a broader role in the development and support of multiple programs or practices. Often have a role in building the capacity within a system or agency to implement and sustain a ebp.