Implementation science and practice: key concepts and strategies

NATIONAL REDESIGN NETWORK
Hosted by Morning Lane Associates

Jane Lewis
The Colebrooke Centre for Evidence and Implementation

13 September 2013
King’s College, London

© Colebrooke Centre for Evidence and Implementation 2013
What we’ll cover

• About the Colebrooke Centre
• What is implementation science and how will it help us?
• Stage and timescales for effective implementation
  Exercise and discussion
• Key concepts and strategies
  Exercise and discussion
• Implementation processes
About the Colebrooke Centre

• Specialists in implementation science and practice in child and family services
• Social enterprise, not-for-profit
• Services:
  – Design and selection of interventions
  – Implementation strategies and support
  – Implementation evaluation
  – Contributing to scientific knowledge
• For local government, voluntary sector, central government, philanthropies, improvement bodies
What is implementation science and how will it help us?
The science-practice gap
The science-practice gap

Research dissemination and translation initiatives

© Colebrooke Centre for Evidence and Implementation 2013
The Resurrection of Christ, therefore, is central to our Christian faith.

The Irish Faith Centre will present, for the whole of Easter Week, an hour long video by Dr. Gene Scott Ph.D., on the evidence for the Resurrection, commencing on:

Monday 29th March to Saturday 3rd April every night at 8.30pm, and Sunday 4th April at 11.30am. All are welcome to come and see it.

Irish Faith Centre
360a Nth. Circular Rd., Phibsborough. (Doyles Corner)
www.irishfaithcentre.ie
The science-practice gap

Research dissemination and translation initiatives

© Colebrooke Centre for Evidence and Implementation 2013
Research dissemination and translation initiatives

The science-practice gap
Implementation

© Colebrooke Centre for Evidence and Implementation 2013
The emergence of implementation science

• **Systematic** study of implementation contexts, processes, strategies

• Science **in the service of practice**

• Draws on fields beyond services to people

• Beyond evidence-based programmes

© Colebrooke Centre for Evidence and Implementation 2013
Implementation

• Active and planned efforts to identify approaches that (will) work and to deliver them in ways that maximise their effectiveness

• ‘a specified set of activities designed to put into practice an activity or program of known dimensions’ (Fixsen et al, 2005)

• ‘the nexus between research and practice’ (Chaudoir et al, 2013)
From letting it happen to helping it happen to making it happen

Implementation matters!

“The level of implementation achieved is an important determinant of programme outcomes. Achieving good implementation ... can lead to much stronger benefits for participants.”

Durlak and Dupre, 2008 – review of over 500 quantitative studies
Implementation matters!

“... a well-implemented intervention of an inherently less efficacious type can outperform a more efficacious one that is poorly implemented.”

Lipsey, 2009 – meta-analysis of juvenile offender interventions
Anything times zero is zero

effective practices \times effective implementation \times enabling contexts \equiv intended outcomes

Used with permission of NIRN

© Colebrooke Centre for Evidence and Implementation 2013
Growing recognition of implementation science

Most important idea noted in survey of school psychology researchers (McIntosh et al, 2013)
Evaluation of My Baby’s Brain – Hertfordshire County Council

- Impact evaluation
- Cost benefit analysis
- Implementation analysis

(Project in collaboration with Warwick Medical School, University of Warwick)

© Colebrooke Centre for Evidence and Implementation 2013
Let Teachers Shine – Shine Foundation

- Theory of change
- Evidence check
- Implementation analysis

© Colebrooke Centre for Evidence and Implementation 2013
Implementing the Adoption Reform Programme – London Borough

• Reviewing options
• Designing change
• Planning implementation
Systems leadership – Virtual Staff College

• Review of international literature
• Strategic interviews
• Leadership scenarios
• International case studies

(Project in collaboration with Cass Business School, City University, London)
Stage and timescales for effective implementation
Implementation stages

Fixsen et al, 2005; Metz and Barclay, 2012
Implementation stages

- Exploration
- Installation
- Initial implement’n
- Full implement’n
- Sustained implement’n

Fixsen et al, 2005; Metz and Barclay, 2012
Implementation stages

- Exploration
- Installation
- Initial implementation
- Full implementation
- Sustained implementation

Substantive innovations take 2-4 years to full implementation

Fixsen et al, 2005; Metz and Barclay, 2012
Key components and strategies for effective implementation
What doesn’t work in implementation

- Just Do It
- Training alone
- Disseminating research and good practice
- Guidelines
- Mandate and regulation
- Funding incentives
Conceptual model

Based on Damschroder et al, 2009
The intervention: what is the ‘it’ in ‘does it work?’ or ‘shall we use it?’
Assessing the intervention

• Specificity and readiness for implementation
• Active ingredients
• Evidence
• Availability of support from developers or others
Assessing the fit

• Fit with your needs
• Fit with your context: values, people, ways of working
• Fit with resources and capacity

© Colebrooke Centre for Evidence and Implementation 2013
Adaptation

• Fidelity matters – but so does context
Adaptation

• May be necessary to adapt to:
  – the community being served
  – the provider characteristics
  – the delivery system
  – wider social and political context

• But adaptation is managed and intentional
Staff

• Values and goals
• Perceptions of the innovation
• Readiness for change
• Social networks
• Capacity and how to build it
Building staff capacity – the importance of coaching
### Training and Coaching

<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>

Source: Joyce andShowers, 2002
People respond well to it

Still in post 3 yrs after introduction of Evidence Based Programme (SafeCare) Aarons et al 2009
Inner context

• Culture and climate
• Readiness for change and previous experiences of change
• Leadership for innovation
• Facilitative systems inc
  – IT
  – HR
  – Decision-support data systems
Outer context

• Local communities and cultures
• Interactions between organisations and service systems
• Policy
• Legislation
• Funding
Systems-based implementation

• Working with what you have where possible
• Re-purposing
A very chilling thought!

“All organizations [and systems] are designed, intentionally or unwittingly, to achieve precisely the results they get”

R Spencer Darling
Systems-based implementation

• Working with what you have where possible
• Re-purposing
• Challenging and disturbing the system
• Shaping systems to host the intervention
Systems support for innovation
Systems support for innovation

Prism
Systems support for innovation

Prism

Prison

© Colebrooke Centre for Evidence and Implementation 2013
Systems-based implementation

• Working with what you have where possible
• Re-purposing
• Challenging and disturbing the system
• Shaping systems to host the intervention
• Getting on the radar
Implementation processes
Implementation processes

• Planning
• Engaging
• Implementation teams
Implementation teams

- Involve all those responsible for making change happen
  - multi-disciplinary and multi-skilled
  - cross-organisational
- Role stability more important than personnel
- Must have authority to make decisions
- Must have access to and trust of seniors
# Implementation teams

## Implementation Teams

<table>
<thead>
<tr>
<th>INTERVENTION</th>
<th>IMPLEMENTATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effective</td>
<td></td>
</tr>
<tr>
<td>Effective use of Implementation Science &amp; Practice</td>
<td>80%, 3 Yrs</td>
</tr>
<tr>
<td>Letting it Happen Helping it Happen</td>
<td>14%, 17 Yrs</td>
</tr>
</tbody>
</table>

**Expert Impl. Team**

- Fixsen, Blase, Timbers, & Wolf, 2001

**NO Impl. Team**

- Balas & Boren, 2000
- Green, 2008
Implementation processes

• Planning
• Engaging
• Implementation teams
• Access to technical assistance
• Improvement cycles and data to support
Improvement cycles

Plan

Act

Study

Do

© Colebrooke Centre for Evidence and Implementation 2013
Implementation processes

- Planning
- Engaging
- Implementation teams
- Access to technical assistance
- Improvement cycles and data to support
- Implementation outcomes model
Implementation outcomes:

A taxonomy (based on Proctor et al, 2011)

- Our staff and service users will like it [Acceptability]
- Our staff will use it [Adoption]
- People will think it fits here [Appropriateness]
- It will be built into everyday practice [Feasibility]
- They will do it in the way we intended [Fidelity]
- Implementation costs will be worth it [Cost]
- It will become embedded [Penetration]
- It will last [Sustainability]
An implementation outcomes model is a key tool.

- Inputs
- Outputs
- Implementation outcomes
- Service outcomes
- Client outcomes

© Colebrooke Centre for Evidence and Implementation 2013
Monitor implementation

“... no program should be evaluated until sufficient time has been allotted for its effective implementation”

Durlak and Dupre (2008)
“The only thing worse than failing and not knowing why you failed is succeeding and not knowing why you succeeded”

Jane Timmons-Mitchell
Evaluate impact and implementation
Evaluate impact and implementation

Impact evaluation

How did we do it?
How do others sites get the same results?
Evaluate impact and implementation

+ How did we do it?
- Did they implement it right?
+ How do others sites get the same results?
Evaluate impact and implementation

Impact evaluation

Implementation evaluation

+ How did we do it?
  How do others sites get the same results?

- Did they implement it right?
Key messages

• Implementation matters – it drives impacts
• Use and contribute to the science
• What is the ‘it’?
• Implementation is intentional, planned and sustained
• Repurposing – look through an implementation lens
• Systems have to change – there will be blood!
• Know what good implementation is going to look like and monitor against it
References


Metz and Barclay (2012) ‘Active implementation frameworks for program success’ in Zero to 3 March 2012 11-18

