Long-term effects of healthcare professional behaviour change interventions: a systematic review of Cochrane reviews

Julie McLellan, Pauline Campbell, Helen Frost, Anna Gavine, Margaret Maxwell, Ronan O’Carroll, Justin Presseau, Brian Williams, Stephan U Dombrowski

j.m.mclellan@stir.ac.uk  @JulieMcL88
What is sustainability?

- INDIVIDUAL: Continuing to deliver intervention activities
- ORGANISATIONAL: Maintaining the intervention delivery in an identifiable form
- COMMUNITY: Maintaining the capacity of a community to deliver the intervention

Scheirer (2005)

Research Aim and Objective

**Aim:** Examine sustainability of healthcare professional behaviour change interventions at the individual level

**Objective:** Overview of reviews (Becker & Oxman, 2011)

Methods

Design
• Narrative Overview of Cochrane reviews

Inclusion criteria
• Data gathered >12 months
• RCTs and cRCTs
• Interventions aimed at changing HCP behavior
• Reporting HCP behaviour or patient outcomes (proxy measures)
Methods

Primary Outcome

• Sustained HCP clinical behaviour:
  - Rate/s of performing prevention/diagnosis, and treatment behaviours
  - Assessment of adherence/fidelity to procedures or protocols

Secondary Outcome

• Non-clinical, e.g. attendance at training
• Patient level outcomes, e.g. patient infections as a proxy of HCP hand-washing behaviour
Methods

Search Methods & Selection of reviews

• Hand search of Cochrane Database of Systematic reviews
• Full papers independently assessed by 2 reviewers

Assessment of methodological quality

• Risk of Bias in systematic Reviews (ROBIS) tool (Whiting et al., 2015)

## Results: review level

17 Cochrane reviews (2000 – 2015)

<table>
<thead>
<tr>
<th>EPOC category</th>
<th>Number of Reviews</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivery arrangement</td>
<td>n=4</td>
<td>Referrals</td>
</tr>
<tr>
<td>Financial arrangements</td>
<td>n=1</td>
<td>Remuneration</td>
</tr>
<tr>
<td>Governance arrangements</td>
<td>n=1</td>
<td>Prescribing</td>
</tr>
<tr>
<td>Implementation strategies</td>
<td>n=11</td>
<td>Reminders</td>
</tr>
</tbody>
</table>

Interventions to improve outpatient referrals from primary care to secondary care (Review)


The effect of different methods of remuneration on the behaviour of primary care dentists (Review)

Brocklehurst P, Price J, Glenny AM, Tickle M, Birch S, Mertz E, Grytten J

Interventions to improve the appropriate use of polypharmacy for older people (Review)

Patterson SM, Cadogan CA, Kerse N, Cardwell CR, Bradley MC, Ryan C, Hughes C

Implementation of treatment guidelines for specialist mental health care (Review)

Barbui C, Girlanda F, Ay E, Cipriani A, Becker T, Koesters M
Results: review level

- **Participants**: HCPs, patient groups, organisations (e.g. health centres), policy makers, members of general public

- **Outcomes level**: patient n= 2, HCP n= 1, both n= 14

- 15 low risk of bias and 2 unclear risk of bias
17 reviews
• 17 reviews
• 400 trials
• 17 reviews
• 400 trials
• 40 reported data > 12 months
• 10%
Frequency of data collection time points > 12 months
Frequency of reviews number of studies > 12 months
Review references to sustainability

• 13/17 did not mention any aspects of sustainability

• 4/17 mentioned sustainability:
  • 2 commented on uncertainty of sustainability
  • 1 highlights the importance of sustainability
  • 1 discussed measurement of sustainability
Is there a lack of focus on sustainability at the trial level?

- Search terms as defined by Stirman et al. (2012)
- Found very little reference to sustainability in any of the individual trials
- 15/40 mentioned sustainability
Discussion

• Few studies of HCP behaviour change interventions report long-term outcomes (+12M)

• Little focus on sustainability of HCP behaviour change interventions, at both the review and trial level

• Why is this?

• Should there be a formal requirement for Cochrane reviews to comment on sustainability?
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Any Questions?

j.m.mclellan@stir.ac.uk