Dead on arrival?

An overview of living systematic reviews and their methodological rigor

Melanie M. Golob*, Andrea Leinberger-Jabari, Brenna Loufek, Jonathan Livingstone-Banks, David Nunan

*presenting author: DPhil candidate in EBHC, University of Oxford

No conflicts of interest to disclose related to this presentation
Total number of PubMed citations for the top 10 publishing countries, 1995-2015

Background

2017 - Cochrane living pilot & guidance

Estimated number of SRs indexed per year via PubMed (including 95% CI), 2000–2019

Background

1. Stakeholders
2. Search
3. Updates
4. Surveillance
5. Methods
6. Ceasing

But is guidance being followed?
And does it matter?
Aims

Perform an overview of LSRs

| Current Cochrane LSR status | Cochrane LSRs compliance with guidance | Non-Cochrane LSRs compliance with guidance | Salient LSR features for feasibility |

Inform future best practice
Methods

677 records identified as “living”

541 protocols or preprints

136 eligible publications

113 non-Cochrane reviews

23 Cochrane reviews included

23 non-Cochrane reviews randomly selected

Retrieved June 2022
Results

47% (317/677) records identified as “living” were on COVID-19
Results

• Less than a quarter met all living criteria – all Cochrane

• On average, 50% of the LSR guidance items met
  • Cochrane LSRs met twice as many as non-Cochrane (4 vs 2)

• 7 ‘zombie’ LSRs
  • Published >2 years ago with only 1 living version
Results

Certainty did not change or was not evaluated in a majority of studies

<table>
<thead>
<tr>
<th>Change in certainty from previous version, for one or more outcomes</th>
<th>Cochrane</th>
<th>Non-Cochrane</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased (low to high, etc.)</td>
<td>17%</td>
<td>4%</td>
</tr>
<tr>
<td>Decreased (high to low, etc.)</td>
<td>9%</td>
<td>4%</td>
</tr>
<tr>
<td>Some increased, some decreased</td>
<td>9%</td>
<td>4%</td>
</tr>
<tr>
<td>Did not change</td>
<td>13%</td>
<td>13%</td>
</tr>
<tr>
<td>Unclear</td>
<td>9%</td>
<td>4%</td>
</tr>
<tr>
<td>n/a</td>
<td>43%</td>
<td>70%</td>
</tr>
</tbody>
</table>

n/a = certainty not evaluated or only 1 version of the review
Limits

Potentially undercounting LSRs/versions

- Reviews that did not self-identify as living
- Reviews that did not link to most recent version

Potentially skewed adherence rates

- Reviews in Cochrane’s pilot program that helped inform guidance
- Subjectivity of guidance items
- Subjectivity of living criteria
Conclusions

• Lack of consistency and understanding

• Consequences of mislabeling a review as living:
  • Wasted time
  • Wasted resources
  • Extraneous publications
Conclusions

• ‘Living’ was a buzzword for SRs during the pandemic

NEXT – survey living evidence groups to determine:

• Standards
• Facilitators
• Barriers
• Overall satisfaction with living approach
Thank you for participating in this session

Melanie Golob
melanie.golob@kellogg.ox.ac.uk

@melaniegolob
(on X, the platform formerly known as Twitter)