Assessing the reporting quality of published qualitative evidence syntheses in the Cochrane Library

Presented at: Reporting a Cochrane Qualitative Evidence Synthesis – how to avoid common reporting issues.

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Declaration of interests

- This work and presentation was created in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

- All authors are members of the Cochrane Qualitative and Implementation Methods Group.

- Noyes is a member of the Cochrane Methods Exec and Editorial Board and an originator of the eMERGe reporting tool for meta-ethnography.

- Noyes is Editor of the Cochrane-Campbell Handbook for QES.
Background

• Over ten years since the first qualitative evidence synthesis (QES) was published in the Cochrane Library, QES and mixed-methods reviews have become increasingly common and influential in healthcare research and policy development.

• The quality of such reviews and the clarity with which they are reported is therefore of paramount importance.
Aim

- This review aimed to assess the reporting quality of published QES in the Cochrane Library.

- Of note reporting quality is not the same as methodological quality and there are different tools for reporting and assessing methodological limitations.

- If a review is well reported it is much easier to subsequently assess methodological quality.
Methods

• All published QES and mixed-methods reviews were identified from the Cochrane Library.

• A bespoke framework developed by key international experts was used to code the quality of reporting of QES and mixed-methods reviews.

• Framework domains were based on the following guidelines:
  • Former Effective Practice and Organisation of Care (EPOC) Template
  • Meta-ethnography Reporting Guidance (eMERGe)
  • Enhancing Transparency in Reporting the Synthesis of Qualitative Research (ENTREQ)
Search String

Qualitative OR “mixed method” OR meta-synthesis OR “qualitative evidence synthesis” OR “framework synthesis” OR meta-ethnography OR “thematic synthesis” OR realist OR “qualitative comparative analysis”

Inclusion Criteria

We included any qualitative evidence synthesis or mixed-methods reviews included in the Cochrane Library from 2013 to 2023.
• Thirty-two reviews were identified, including 11 mixed-methods syntheses

PRISMA flow-chart
Framework guided by the EPOC/eMERGe/ENTREQ for reporting methodological quality

<table>
<thead>
<tr>
<th>Domain</th>
<th>Indicator</th>
</tr>
</thead>
</table>
| Title              | • Title included qualitative evidence synthesis  
|                    | • Title reflected the main objective                                       |
| Context            | • Sufficient context was provided? (Topic area / Health condition / Population / Setting / Type of intervention)  
|                    | • A rationale was provided for undertaking the review  
|                    | • A theoretical framework was cited                                         |
|                    | • An equity perspective was taken                                           |
|                    | • The QES was linked with a corresponding intervention effect review        |
| Question/Objectives| • Clear objectives were identified                                          |
|                    | • A specific question/s was stated for the review                           |
|                    | • Clear evidence of the use of a question formulation framework was identified |
|                    | (e.g. PICO if mixed methods, SPICE, SPIDER, etc.)                          |
Framework guided by the EPOC/eMERGe/ENTREQ for reporting methodological quality

<table>
<thead>
<tr>
<th>Domain</th>
<th>Indicator</th>
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</thead>
</table>
| Type of QES and included studies | • For mixed method reviews, the methods for both the QES and intervention effectiveness components were described.  
• QES method was specified (meta-ethnography, framework synthesis, thematic synthesis, etc.)  
• Type of studies included were specified [MSB1] (e.g. pure qualitative data collection and analysis, mixed method with qualitative component, open ended survey responses, Trial sibling studies only, or trial sibling and non-trial sibling studies included or non-trial sibling studies only)  
• Review included non-English language studies (or does not have non-English studies as an exclusion criterion)  
• Where non-English language studies were included the review identified how translation was carried out  
• Review included studies from LMIC and HIC income countries |
## Framework guided by the EPOC/eMERGe/ENTREQ for reporting methodological quality

<table>
<thead>
<tr>
<th>Domain</th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Screening</td>
<td>• Inclusion criteria were specified and were adhered to</td>
</tr>
<tr>
<td></td>
<td>• Search string/terms were identified</td>
</tr>
<tr>
<td></td>
<td>• The names and number of databases searched were identified</td>
</tr>
<tr>
<td></td>
<td>• Screening process was explained (If sampling was used, the process was explained)</td>
</tr>
<tr>
<td></td>
<td>• Screening Process was appropriate (eg double screening independently and evidence of how disagreements were resolved) (If sampling was used it was appropriate)</td>
</tr>
<tr>
<td></td>
<td>• PRISMA flow diagram (or equivalent) showed evidence of the search outcome</td>
</tr>
<tr>
<td>Synthesis</td>
<td>• Characteristics of included studies were specified</td>
</tr>
<tr>
<td></td>
<td>• Type of qualitative data extracted was specified (i.e. participant quotations only, author interpretations, both, etc.)</td>
</tr>
<tr>
<td></td>
<td>• Analysis process was explained</td>
</tr>
<tr>
<td></td>
<td>• Quotations from original studies were used to support findings</td>
</tr>
<tr>
<td>Findings</td>
<td>• Findings appropriately reported</td>
</tr>
<tr>
<td></td>
<td>• Theory development evident</td>
</tr>
</tbody>
</table>
Framework guided by the EPOC/eMERGe/ENTREQ for reporting methodological quality

<table>
<thead>
<tr>
<th>Domain</th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>For QESs that are integrated with an intervention effect review</td>
<td>The method used was appropriately applied? (Mention method used in comment section)</td>
</tr>
<tr>
<td>Quality Appraisal</td>
<td>An appropriate quality appraisal framework was applied</td>
</tr>
<tr>
<td></td>
<td>An appropriate quality appraisal framework was reported appropriately</td>
</tr>
<tr>
<td>Confidence in Review Findings</td>
<td>Confidence in the review findings were reported appropriately (i.e. GRADE CERQual)</td>
</tr>
<tr>
<td>Reflexivity</td>
<td>A specific reflexivity statement was evident including conflicts of interest</td>
</tr>
<tr>
<td>Limitations</td>
<td>Limitations of the review were reported (i.e., acknowledging including only English language studies in the inclusion criteria, etc.)</td>
</tr>
<tr>
<td>Overall quality</td>
<td>Rate the overall quality of the QES</td>
</tr>
<tr>
<td>Review funding</td>
<td>Funding was reported (if applicable) (Specify by whom it was funded in the comment section)</td>
</tr>
<tr>
<td>Patient and public/stakeholder involvement</td>
<td>Review involved PPIs and stakeholders (Specify how they were involved in the comment section).</td>
</tr>
</tbody>
</table>
DRAFT Results

- Thirty-two reviews were identified, including 11 mixed-methods syntheses.
- The quality of the QES and mixed method reviews published by Cochrane varied considerably.
- Based on the criteria within our framework, a quarter (8, 25%) of the reviews were rated as good quality achieving at least 80% compliance with our framework,
- 18 (56.25%) needed clarity or detail in their reporting (65%-79% compliance)
- six (18.75%) were rated as being less than 65% compliant with our framework.
<table>
<thead>
<tr>
<th>Individual Reviews % Compliance with Framework</th>
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<tbody>
<tr>
<td>A</td>
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<tr>
<td>-------</td>
</tr>
<tr>
<td>75.67%</td>
</tr>
</tbody>
</table>

Key:
- **80-100%**
- **65-79%**
- **<65%**
Percentage of Reviews Compliance with Indicators relating to Title, Context, Questions/Objectives

Title Context Questions/Objectives

- Title included qualitative evidence synthesis: 84.37%
- Title reflected the main objective: 87.50%
- Sufficient context was provided?: 75%
- A rationale was provided for undertaking the review: 90.62%
- A theoretical framework was cited: 81.25%
- An equity perspective was taken: 31.25%
- The QES was linked with a corresponding intervention effect review: 56.25%
- Clear objectives were identified: 93.75%
- A specific question/s was stated for the review: 18.75%
- Clear evidence of the use of a question formulation framework was identified: 6.25%
Types of QES Method Used

- Thematic Synthesis: 14, 44%
- Framework Synthesis: 9, 28%
- Meta-ethnography: 3, 10%
- Narrative Synthesis: 2, 6%
- Realist Evaluation: 1, 3%
- Qualitative Comparative Analysis: 1, 3%
- Not Specified: 3, 10%
- Not Applicable: 9, 28%
Percentage of Review Compliance with Indicators relating to the Type of QES and Included Studies
Percentage of Review Compliance with Individual Indicators relating to Screening, Synthesis and Findings
Quality Appraisal Frameworks Used

- 20, 63%
- 4, 13%
- 3, 9%
- 3, 9%
- 2, 6%
- 3, 9%
- 4, 13%
Percentage of Review Compliance with Individual Indicators relating to Quality Appraisal, Reflexivity, Limitations, Funding and PPI

- The method for integration used was appropriately applied: 85.71%
- An appropriate quality appraisal framework was applied: 84.37%
- An appropriate quality appraisal framework was reported: 84.37%
- Confidence in the review findings were reported appropriately: 81.25%
- A specific reflexivity statement was evident including conflicts of interest: 46.87%
- A Conflict of Interest Statement evident: 90.62%
- Limitations of the review were reported: 34.37%
- Funding was reported (if applicable): 87.09%
- Review involved PPIs and stakeholders: 15.62%

Key:
- 80-100%
- 65-79%
- <65%
Summary of Findings

• Good QES reporting guidance and practice has evolved over the last 10 years and findings need to take this into account.
• Our findings highlight gaps in the quality of Cochrane QES reporting.
• The need for further reporting guidance tailored for these types of reviews is required.
• Only a quarter of 32 included Cochrane reviews demonstrated good reporting quality.
• Most of the remainder required more detail or clarity, particularly regarding reporting of:
  • equity perspective,
  • question formulation,
  • reflexivity statements,
  • funding,
  • stakeholder involvement.
Summary of Findings

- Very few of the reviews reported specific research questions and few showed clear evidence of using a question formulation framework.

- Many of the reviews would have benefitted from more complete reporting of findings of the full synthesis, particularly the inclusion of interpretation and of verbatim text extracts to support the themes identified.

- Reporting of summarised GRADE-CERQual findings have often in recent times been given greater prominence than reporting the findings from the full synthesis using a specific synthesis method.

- The variability in reporting quality serves as a compelling reminder of the imperative to develop PRISMA-associated reporting guidance specifically designed for QES.
New tools and resources to further strengthen QES and mixed-methods review conduct and reporting
New Cochrane RevMan template and guidance for reporting for QES due Autumn 2024
PRISMA QES in development
New Cochrane-Campbell Handbook for QES due early 2025

[Image]

Part 1: Core methods
1. Starting a qualitative evidence synthesis
2. Defining the review scope and formulating review questions
3. Selecting and using theory
4. Developing and using logic models
5. Searching for and identifying studies
6. Selecting studies and sampling
7. Assessing study methodological strengths and limitations
8. Selecting a method of synthesis and data extraction
9. Conducting a framework synthesis
10. Conducting a thematic synthesis
11. Conducting a meta-ethnography
12. Using visual methods to support synthesis
13. Assessing confidence in the evidence using the GRADE-CERQual approach
14. Integrating qualitative and quantitative evidence
15. Conducting time-sensitive reviews

Part 2: Other relevant methods
16. Conducting a realist synthesis
17. Reviewing diverse types of implementation evidence
18. Conducting a qualitative comparative analysis
19. Introducing meta-narrative reviews, critical interpretive synthesis, narrative syn

Part 3: Reporting and peer review
20. Reporting a protocol and a review
21. Peer reviewing a protocol or a review

https://training.cochrane.org/cochrane-campbell-handbook-qualitative-evidence-synthesis
Integrating qualitative evidence syntheses with intervention effect findings [May 2022] "QES webinar series"
Angela Harden, Professor of Health Sciences, City, University of London.
James Thomas, Professor of Social Research & Policy, UCL Social Research Institute, UCL Institute of Education, London.
[click here for recording & accompanying materials]

GRADE CERQual [April 2022] "QES webinar series"
Megan Walnwright, consultant in qualitative research, Portugal & member of the GRADE-CERQual coordinating team.
[click here for recording & accompanying materials]

Meta-ethnography [March 2022] "QES webinar series"
Kate Flemming, Professor of Hospice Practice and Evidence Synthesis, University of York, UK
[click here for recording & accompanying materials]

Thematic Synthesis [February 2022] "QES webinar series"
Angela Harden, Professor of Health Sciences, City, University of London.
James Thomas, Professor of Social Research & Policy, UCL Social Research Institute, UCL Institute of Education, London.
[click here for recording & accompanying materials]

Making Sense of Framework and Best Fit Framework Synthesis [January 2022] "QES webinar series"
Professor Andrew Booth, Professor in Evidence Synthesis, School of Health and Related Research (ScHARR), University of Sheffield, UK.
[click here for recording & accompanying materials]

Selecting studies and assessing methodological limitations [December 2021] "QES webinar series"
Jane Noyes, Professor in Health and Social Services Research and Child Health, Bangor University, UK
Dr Andrew Booth, Reader in Evidence Based Information Practice & Director of Information, University of Sheffield, UK.
[click here for recording & accompanying materials]

Question formulation and searching for qualitative evidence [November 2021] "QES webinar series"
Dr Andrew Booth, Reader in Evidence Based Information Practice & Director of Information, University of Sheffield, UK.
[click here for recording & accompanying materials]
Module 12: Introduction to qualitative evidence synthesis

Getting started with qualitative evidence synthesis, taking stock of evidence, synthesising and developing findings and writing up a report. Read more

Restricted

Log in to access
Applying and reporting GRADE CERQual

How to avoid common mistakes

https://training.cochrane.org/resource/applying-and-reporting-grade-cerqual-how-to-avoid-common-mistakes
New innovations to support review authors

GRADE CERQual interactive Summary of Qualitative Findings

iSoQ Version 1.0
An online tool for applying the GRADE-CERQual approach to findings of a qualitative evidence synthesis

- Learn more about iSoQ
- Browse
- Watch a short video

Interactive Summary of Qualitative Findings (epistemonikos.org)
New CAMELOT tool for assessing methodological limitations

CochrAne qualitative Methodological Limitations Tool. (CAMELOT)

Figure 7.1 Overview of CAMELOT

New Qualitative Data thickness/richness assessment tool *


Figure 4: The sliding data (A) thickness assessment tool and (B) richness assessment tool

*CERQual group would like to undertake more work on use of this tool
We are here to help!