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
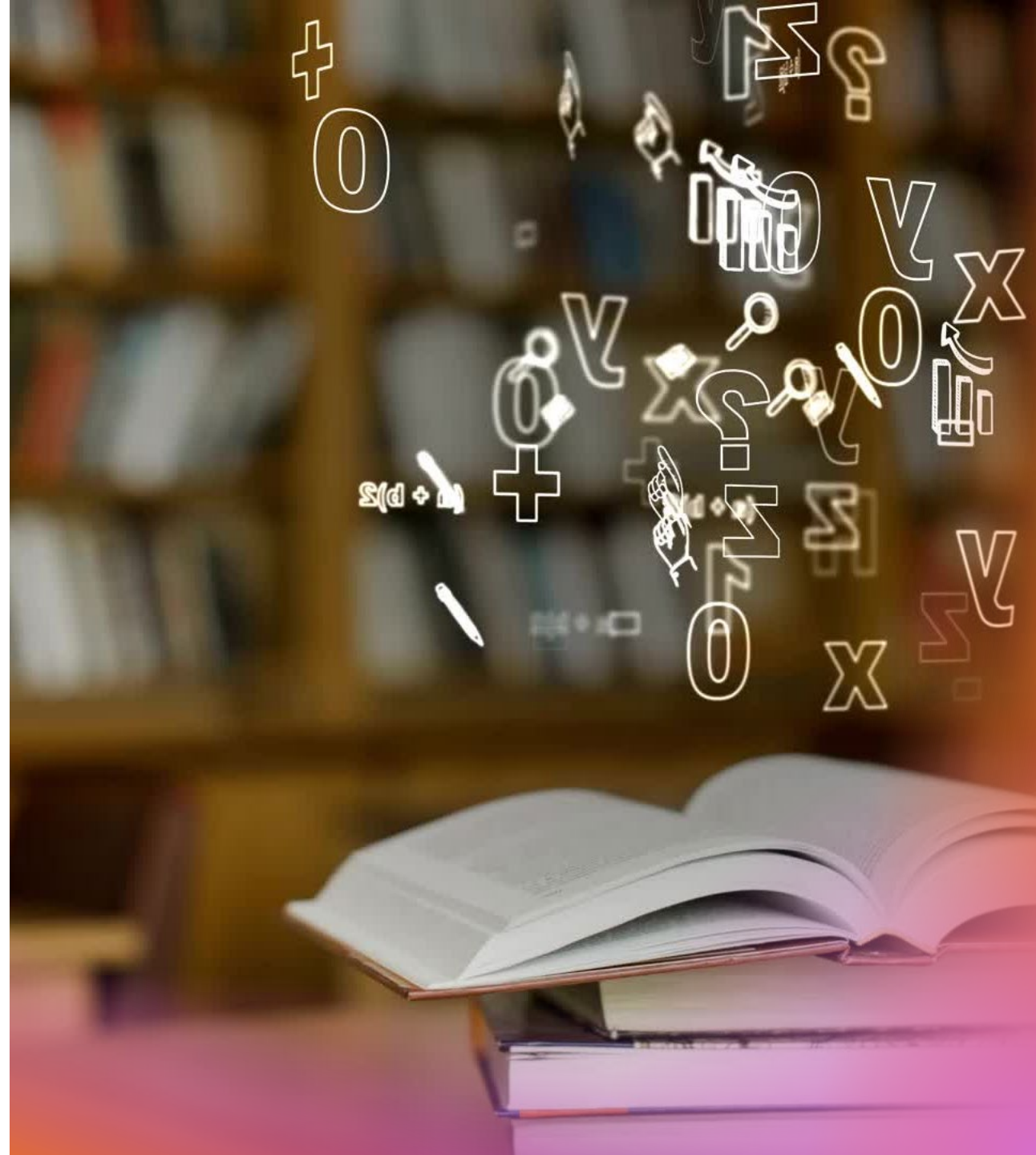
Methods

- 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"
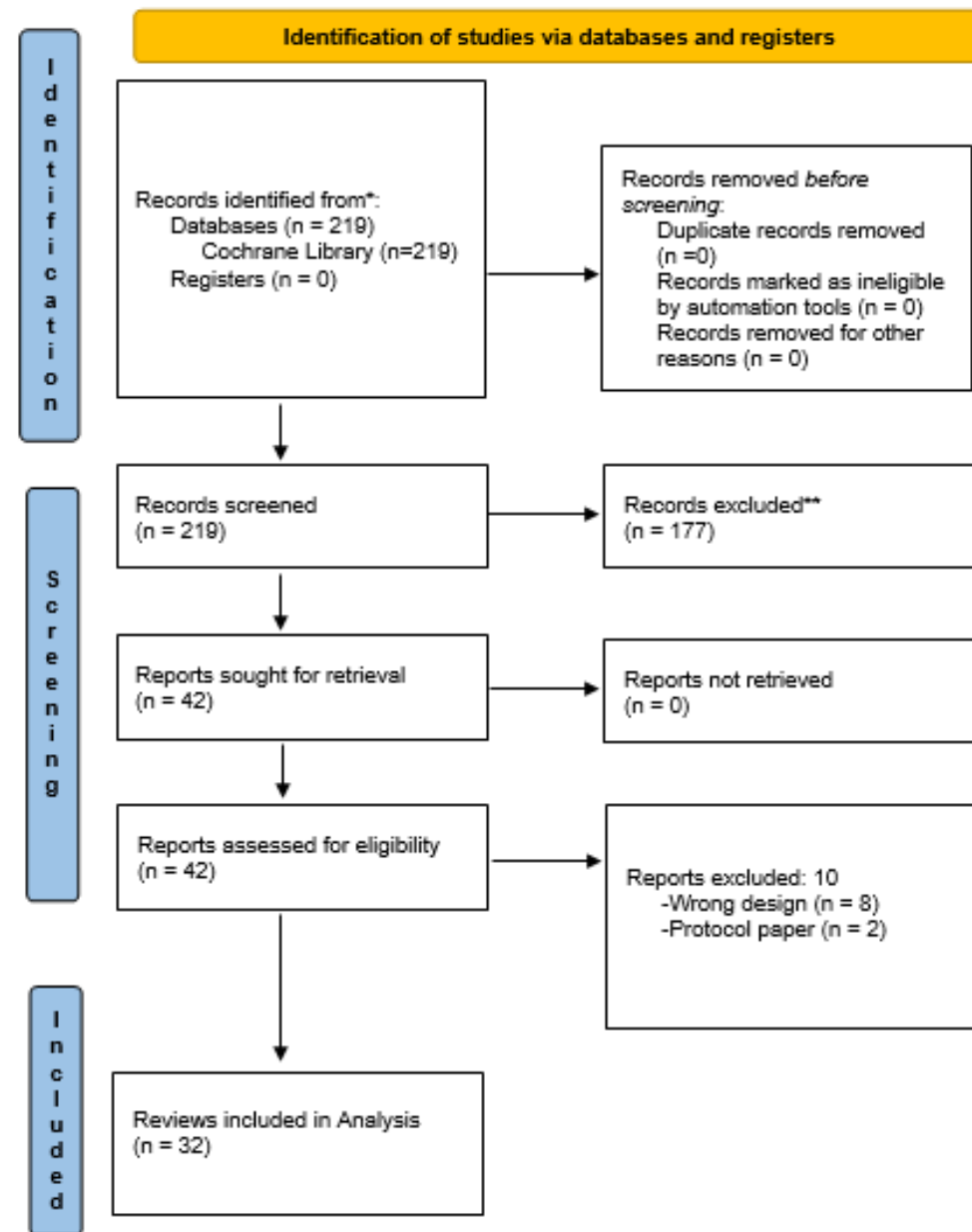
Inclusion Criteria

We included any qualitative evidence synthesis or mixed-methods reviews included in the Cochrane Library from 2013 to 2023.

PRISMA flow-chart

- Thirty-two reviews were identified, including 11 mixed-methods syntheses

Identification of studies via databases and registers

Identification

Records identified from*:
Databases (n = 219)
    Cochrane Library (n=219)
Registers (n = 0)

Records removed *before screening*:
    Duplicate records removed (n = 0)
    Records marked as ineligible by automation tools (n = 0)
    Records removed for other reasons (n = 0)

Screening

Records screened (n = 219)

Records excluded** (n = 177)

Reports sought for retrieval (n = 42)

Reports not retrieved (n = 0)

Reports assessed for eligibility (n = 42)

Reports excluded: 10
    -Wrong design (n = 8)
    -Protocol paper (n = 2)

Included

Reviews included in Analysis (n = 32)

Framework guided by the EPOC/eMERGe/ENTREQ for reporting methodological quality

Domain	Indicator
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.)

Rating	
3	Good
2	Could be clearer or more detailed
1	Poor quality description
0	Not Addressed

Framework guided by the EPOC/eMERGe/ENTREQ for reporting methodological quality

Domain	Indicator
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

Rating		
	3	Good
	2	Could be clearer or more detailed
	1	Poor quality description
	0	Not Addressed

Framework guided by the EPOC/eMERGe/ENTREQ for reporting methodological quality

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

Rating		
	3	Good
	2	Could be clearer or more detailed
	1	Poor quality description
	0	Not Addressed

Framework guided by the EPOC/eMERGe/ENTREQ for reporting methodological quality

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

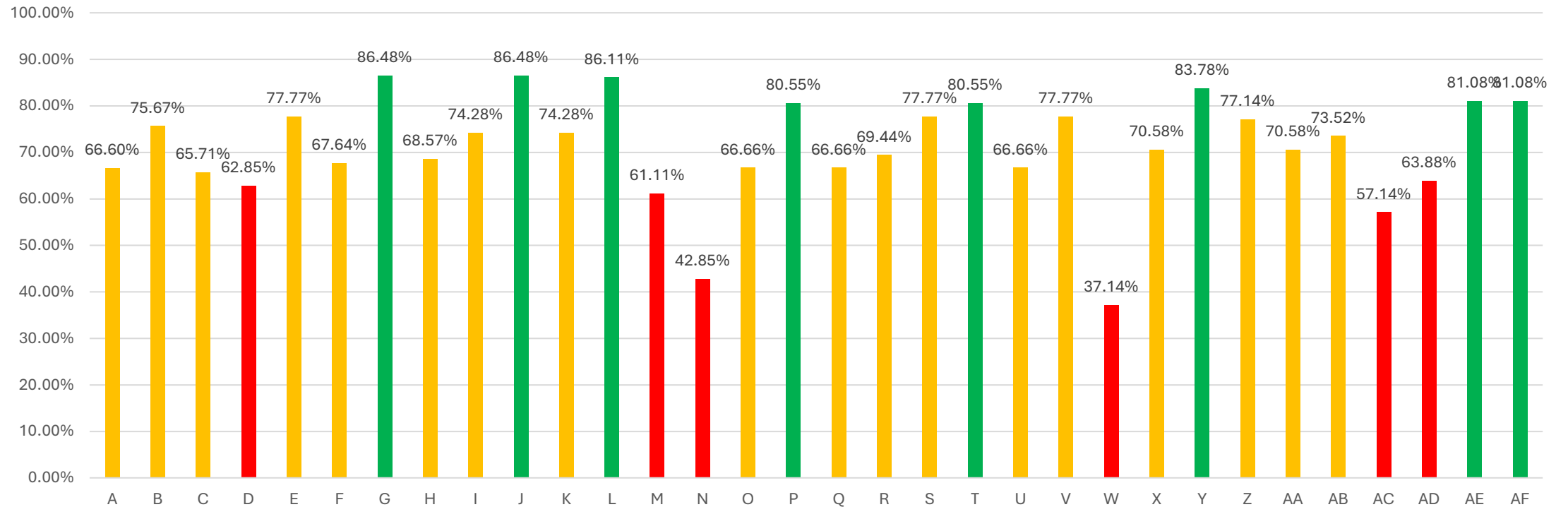| Rating	
3	Good
2	Could be clearer or more detailed
1	Poor quality description
0	Not Addressed

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.
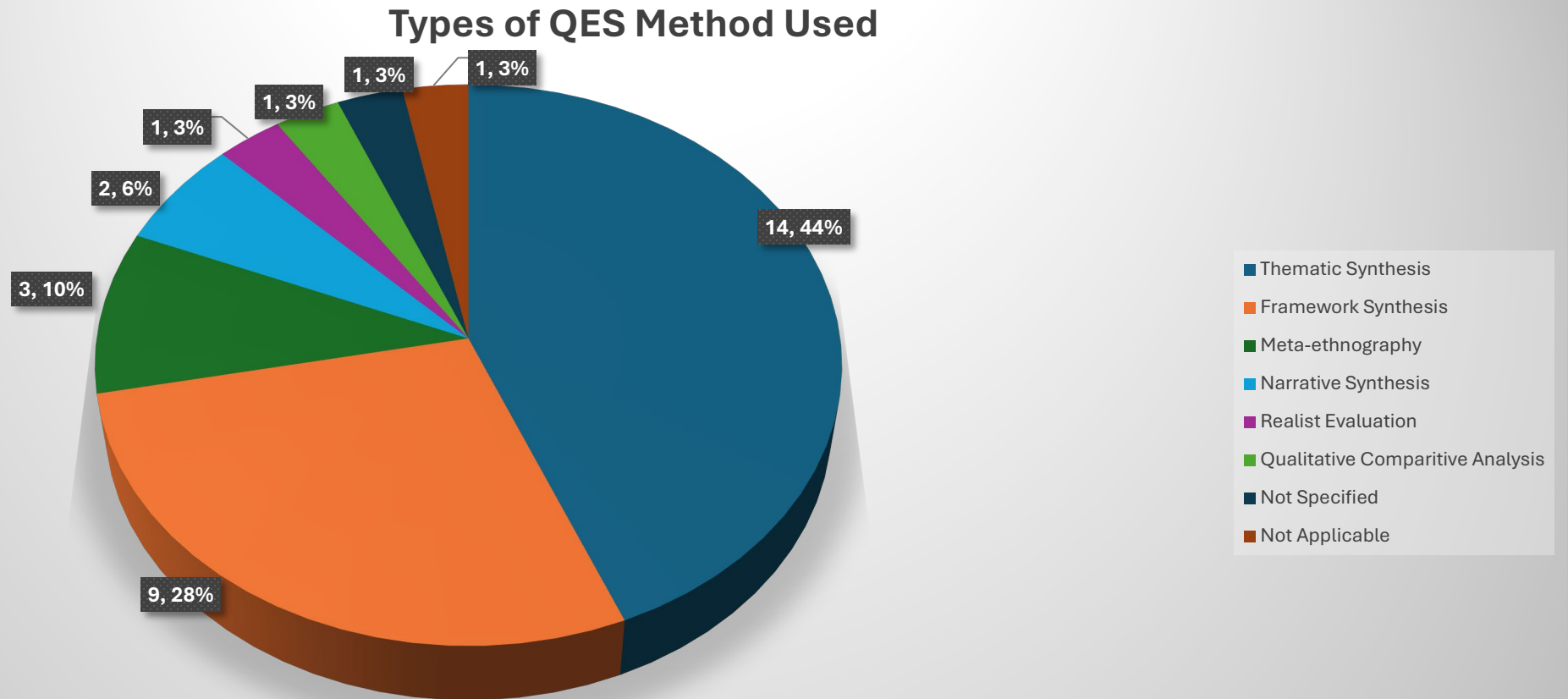
Individual Reviews % Compliance with Framework

Individual Reviews % Compliance with Framework

Category	Value
A	66.60%
B	75.67%
C	65.71%
D	62.85%
E	77.77%
F	67.64%
G	86.48%
H	68.57%
I	74.28%
J	86.48%
K	74.28%
L	86.11%
M	61.11%
N	42.85%
O	66.66%
P	80.55%
Q	66.66%
R	69.44%
S	77.77%
T	80.55%
U	66.66%
V	77.77%
W	37.14%
X	70.58%
Y	83.78%
Z	77.14%
AA	70.58%
AB	73.52%
AC	57.14%
AD	63.88%
AE	81.08%
AF	81.08%

Key
- 80-100%
- 65-79%
- <65%

Percentage of Reviews Compliance with Indicators relating to Title, Context, Questions/Objectives

Title Context Questions/Objectives

Indicator	Percentage
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%

Key
80-100%
65-79%
<65%

Types of QES Method Used

Percentage of Review Compliance with Indicators relating to the Type of QES and Included Studies

TYPE OF QES AND INCLUDED STUDIES

- FOR MMR, THE METHODS FOR BOTH THE QES AND... — 53.84%
- QES METHOD WAS SPECIFIED — 90.32%
- TYPE OF STUDIES INCLUDED WERE SPECIFIED — 90.62%
- REVIEW ATTEMPTED TO INCLUDE NON-ENGLISH LANGUAGE... — 56.25%
- THE REVIEW IDENTIFIED HOW TRANSLATION WAS CARRIED OUT — 81.25%
- REVIEW ATTEMPTED TO INCLUDE STUDIES FROM LMIC AND... — 78.12%

Key
80-100%
65-79%
<65%
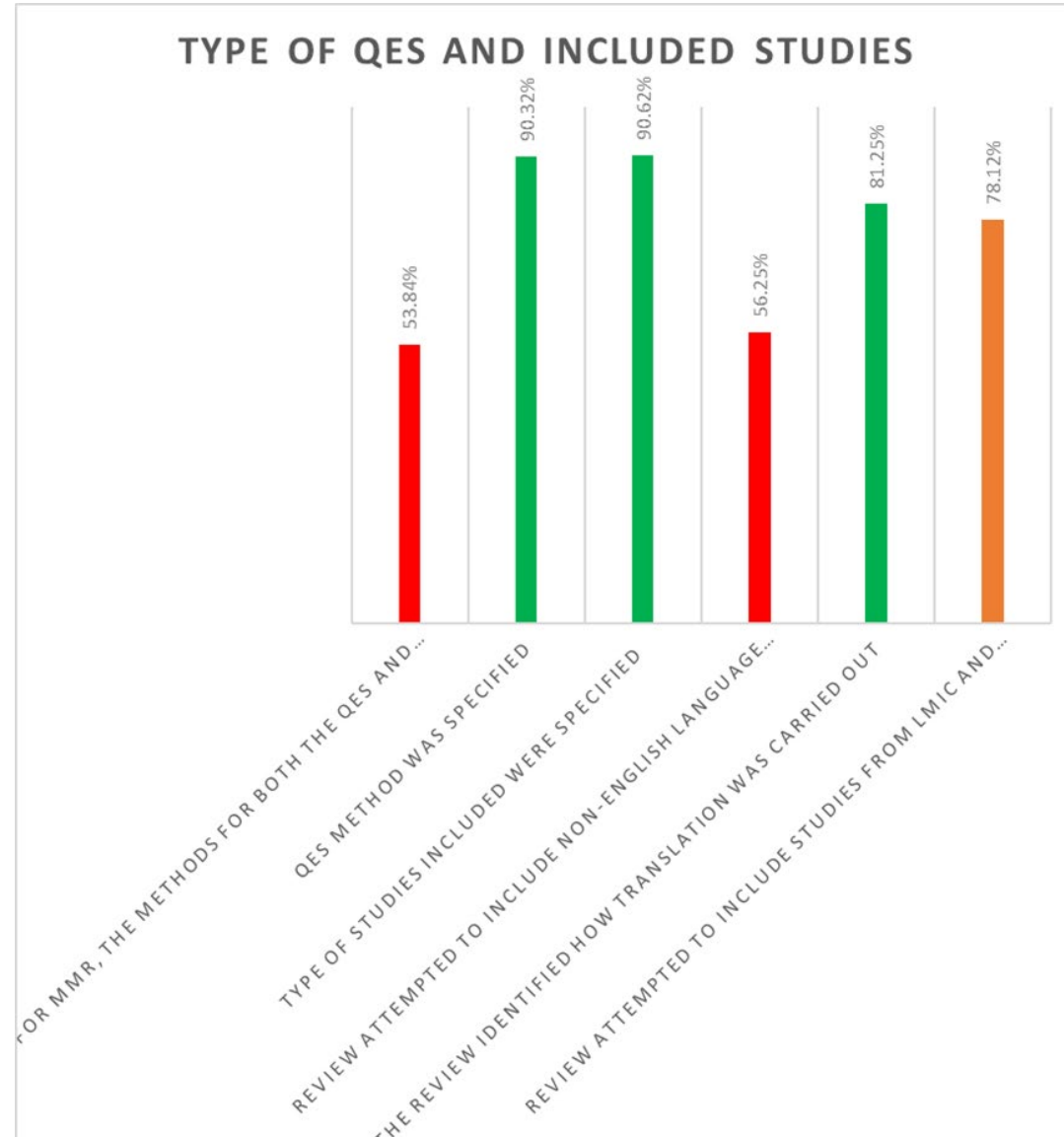
Percentage of Review Compliance with Individual Indicators relating to Screening, Synthesis and Findings

Screening, Synthesis & Findings

Key
80-100%
65-79%
<65%
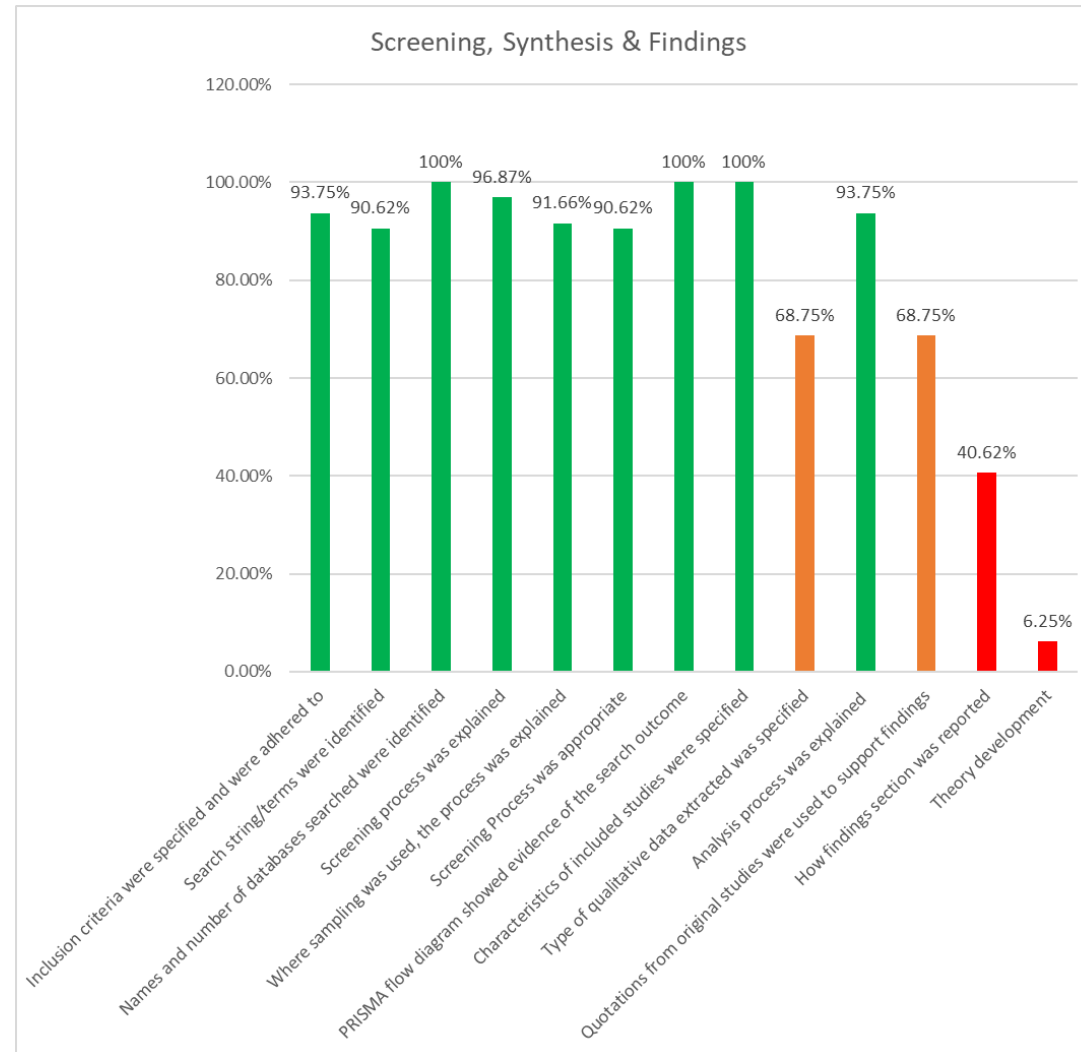
Quality Appraisal Frameworks Used

Quality Appraisal Frameworks Used
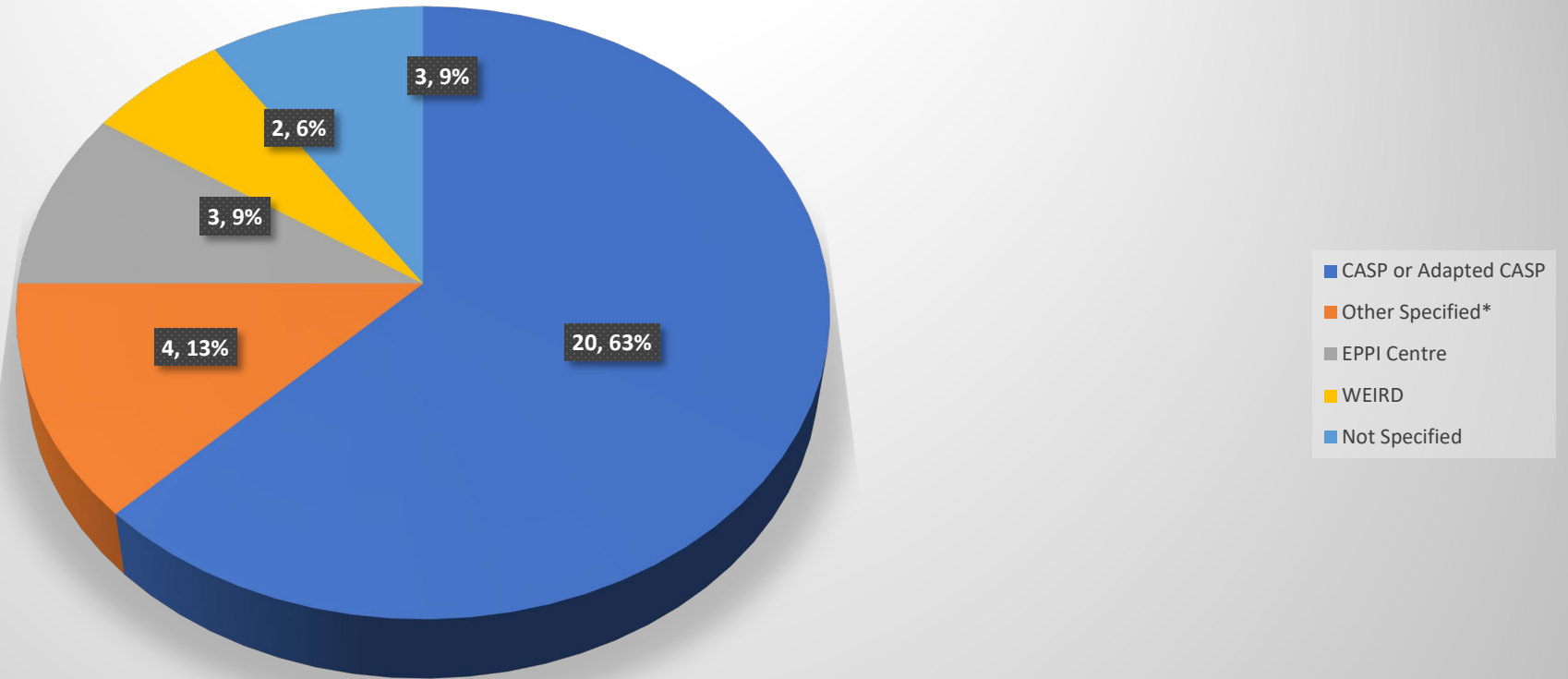
Percentage of Review Compliance with Individual Indicators relating to Quality Appraisal, Reflexivity, Limitations, Funding and PPI

Quality Appraisal, Reflexivity, Limitations, Funding, PPI
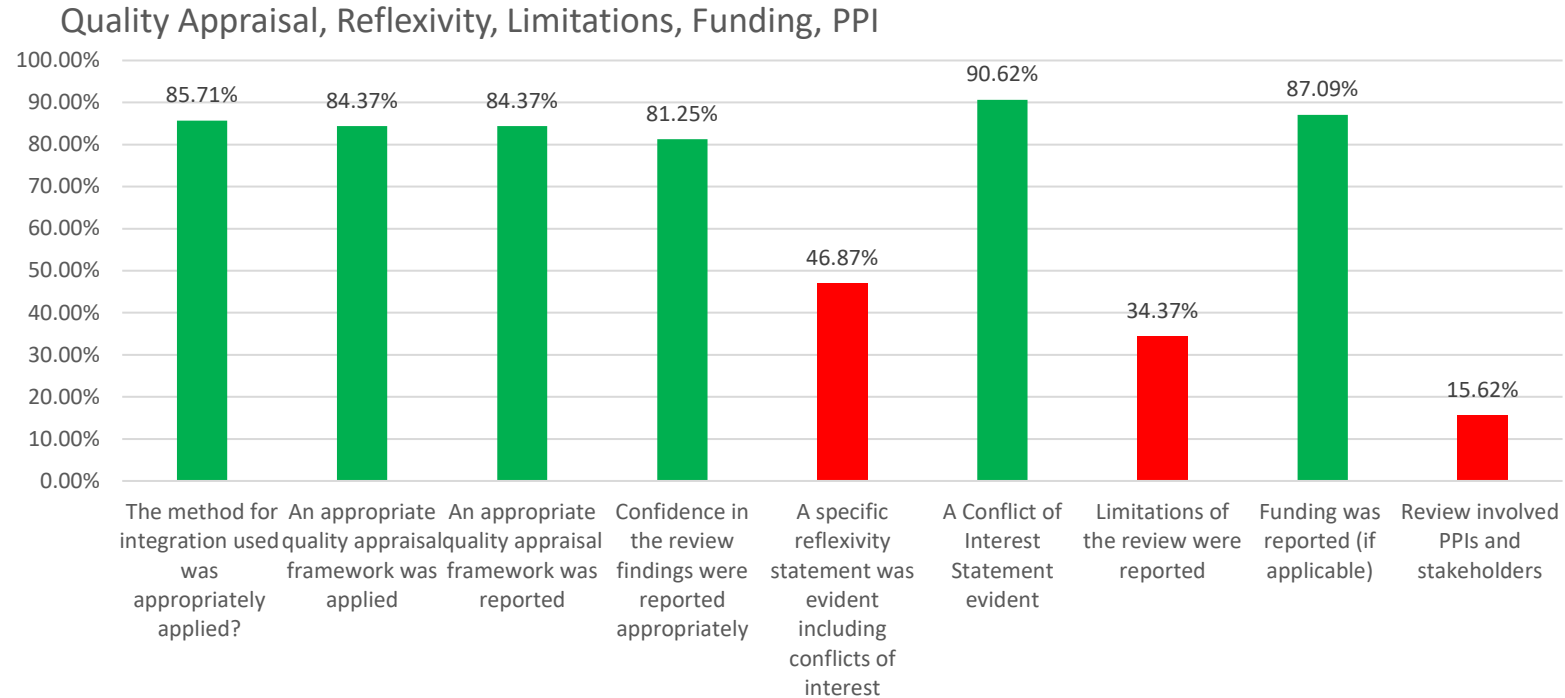
Summary of Findings

- 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

RMW Knowledge Base

- Start here
- Work smarter
- Practice and training
  - Create a practice review
  - **Cochrane review template**
  - Cochrane Trainers
- Plan: define analyses and risk of bias
- Prepare: extract study data
- Populate: import and organize data
- Publish
- Text editing
- Tables and figures
- Review dashboard
- Versions of reviews
- Diagnostic test accuracy reviews
- Organization management
- Review management
- People management

RMW Knowledge Base / Practice and training

Cochrane review template

- Review template
- How to use the template
- Prototype review
- References

ⓘ **Focused review format**
From 3 June 2024, all protocols, reviews and updates in RevMan have the focused review format enabled by default. This applies to all review types. No data or text is lost in RevMan when the focused review format is enabled.

If your protocol, review or update was **submitted** for editorial assessment **before 3 June 2024**, or is being supported by the Methods Support Unit, it will not switch to the focused review format at this stage. Your submission will remain in the current format through to publication. **For these exceptions, the focused review format will be enabled after either publication or a reject decision.**

Review template

NEW! We have a **recommended template for intervention reviews** in the focused review format.

Create your personal copy of the template as a practice review in RevMan. (Hold down Ctrl + click the button below to open the practice review in a new tab.)

Create my copy of the review template

Click on the title to open the template in RevMan.

Your copy of the template will be **available for 30 days**. Come back here at any time to recreate a copy!

The template will be continuously updated to reflect best practice. Always open the template as a practice review in RevMan to ensure you are always viewing the latest version.

Practice reviews

[Study-centric] Intervention Review template   Expires: September 17, 2023 🗑

How to use the template

Cochrane's intervention review template contains **essential guidance on conducting your review and reporting your findings.** This guidance is relevant to **all authors of protocols, reviews and updates** using the focused review format.

Open the template in RevMan alongside your own protocol, review or update. See Split the screen. **Check that each section of your work follows the template.**
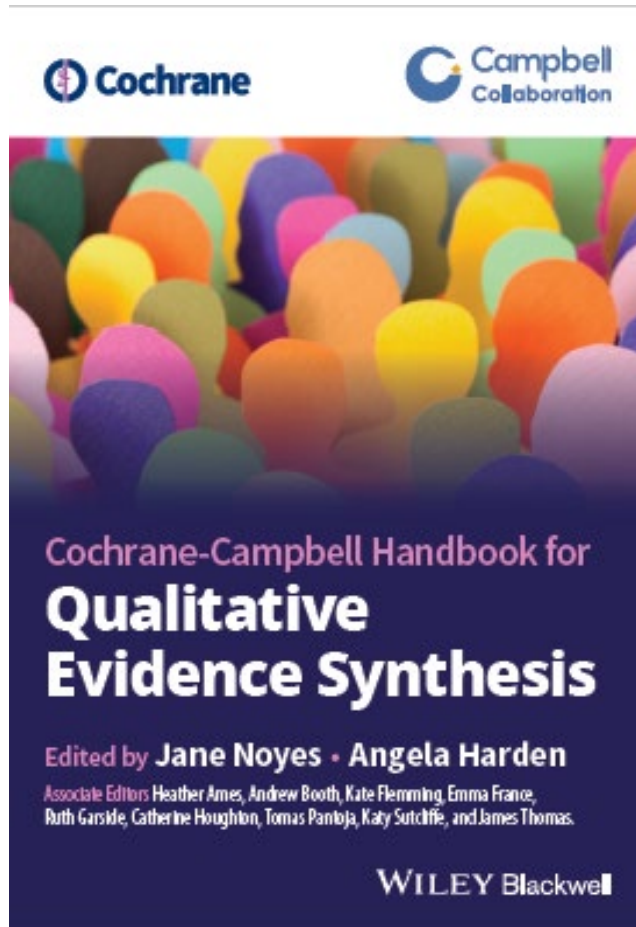
New Cochrane-Campbell Handbook for QES due early 2025

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 syr

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

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 Wainwright, 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*

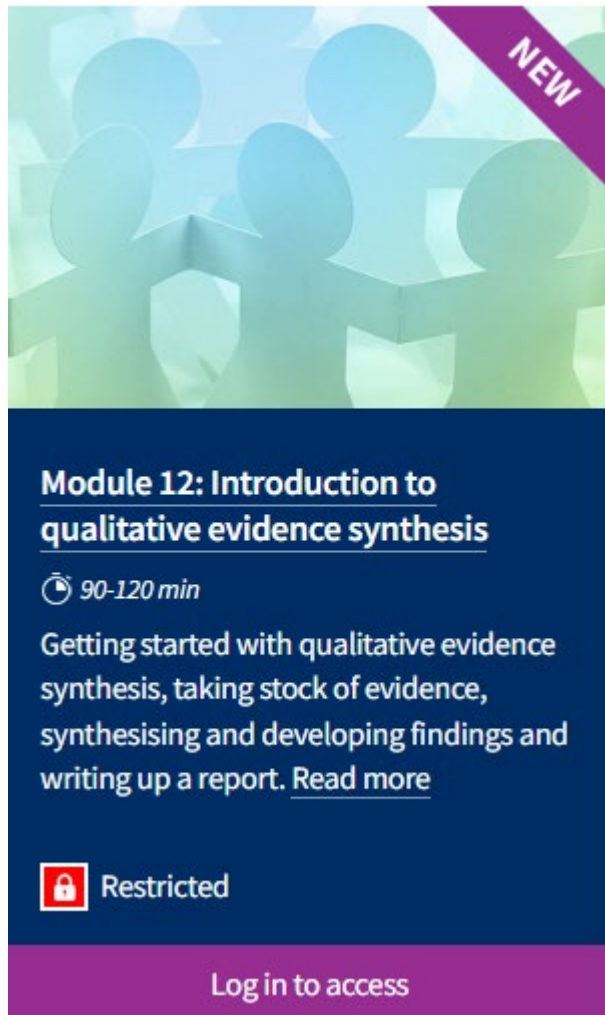Jane Noyes, Professor in Health and Social Services Research and Child Health, Bangor University, UK

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

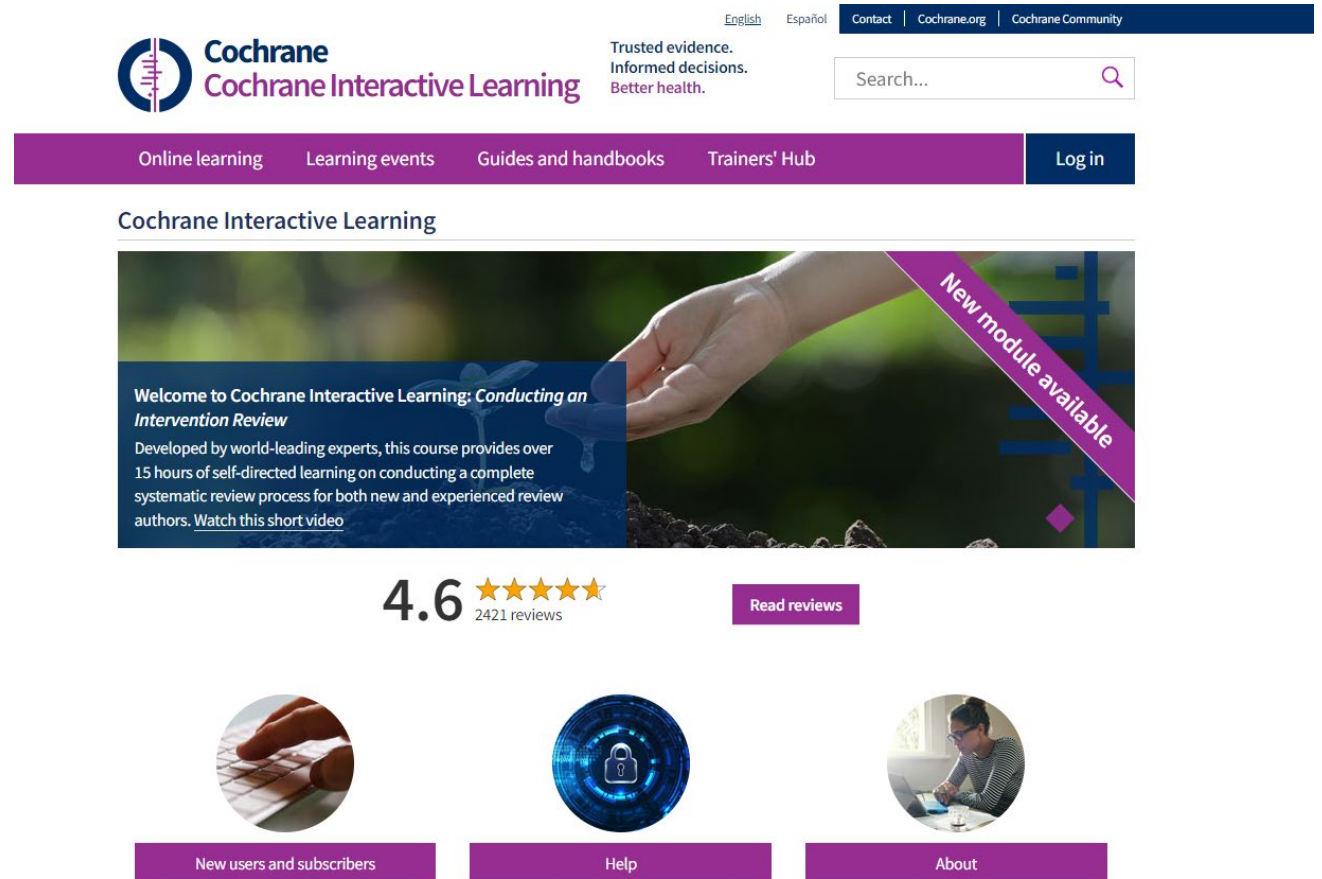# https://training.cochrane.org/interactivelearning

Module 12: Introduction to qualitative evidence synthesis

⏱ 90-120 min

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

🔒 Restricted

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New module available

4.6 ★★★★★
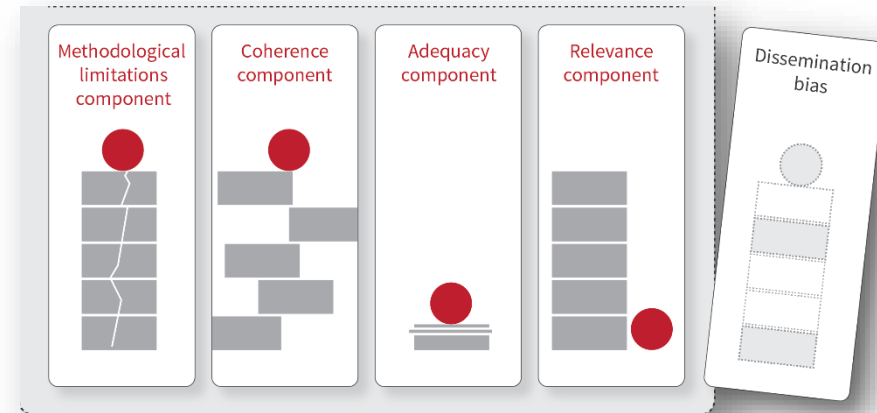2421 reviews

Read reviews

New users and subscribers   Help   About

Professor Jane Noyes &
Professor Andrew Booth

Cochrane Methods
Qualitative and
Implementation

https://training.cochrane.org/resource/applying-and-reporting-grade-cerqual-how-to-avoid-common-mistakes

Applying and reporting GRADE CERQual

How to avoid common mistakes

Methodological limitations component

Coherence component

Adequacy component

Relevance component

Dissemination bias

PRIFYSGOL BANGOR UNIVERSITY · 1884

GRADE

Cochrane

GRADE CERQual

University of Sheffield

New innovations to support review authors

Interactive Summary of Qualitative Findings (epistemonikos.org)

New CAMELOT tool for assessing methodological limitations

CochrAne qualitative Methodological Limitations Tool. (**CAMELOT**)
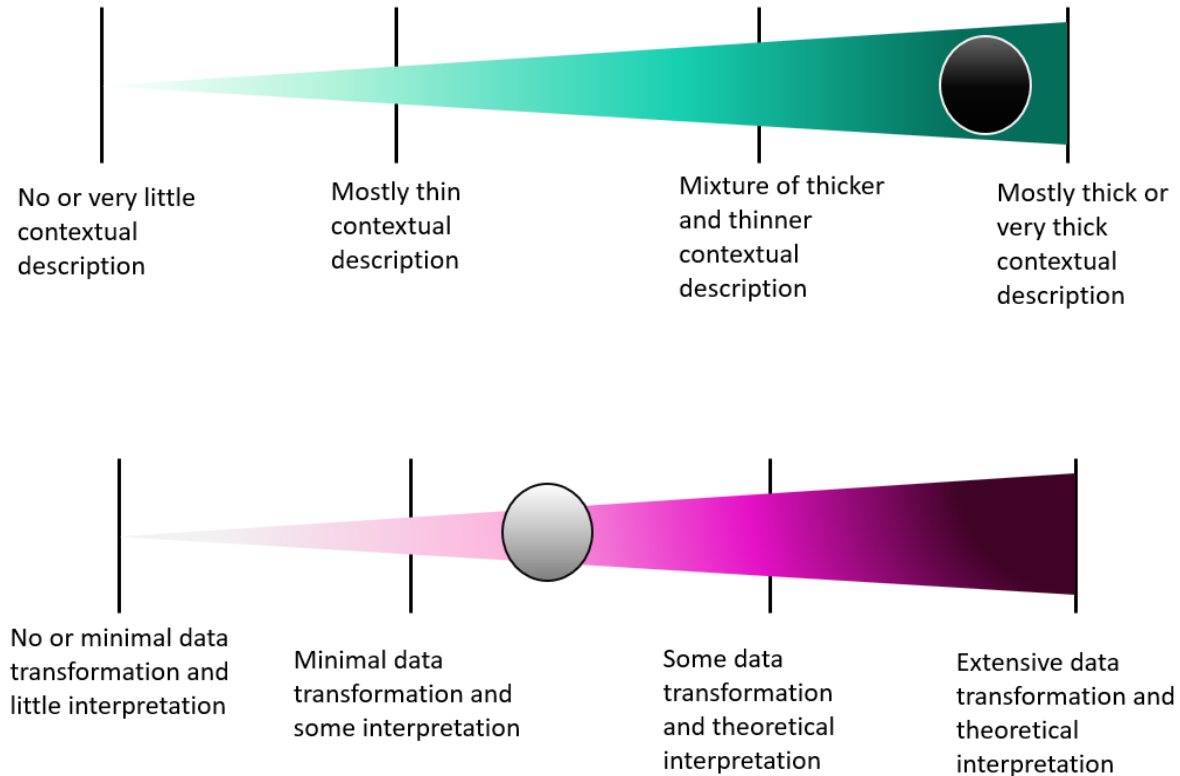

Figure 7.1 Overview of CAMELOT
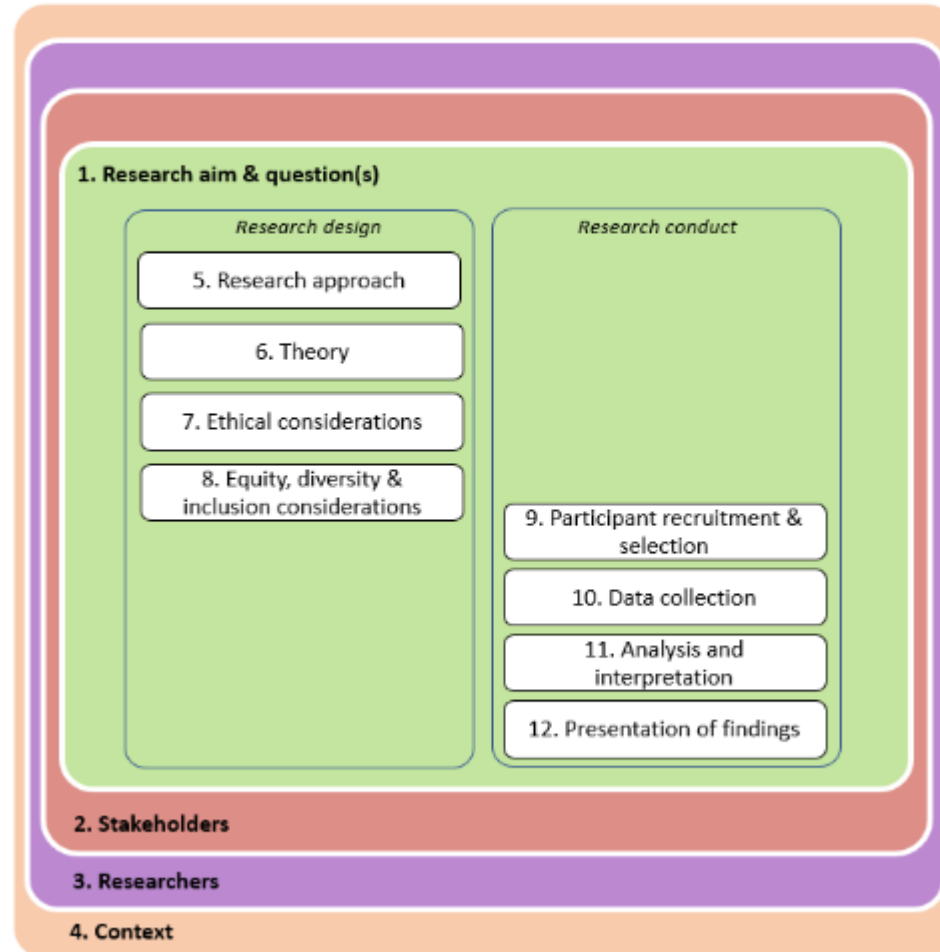
See Munther-Kaas et al
Cochrane Evidence
Synthesis and Methods
journal – in press
and chapter 7 Cochrane-
Campbell Handbook for
QES

New Qualitative Data thickness/richness assessment tool *

See Ames et al Cochrane Evidence Synthesis and Methods journal – in press
and chapter 6 Cochrane-Campbell Handbook for QES

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

No or very little
contextual
description

Mostly thin
contextual
description

Mixture of thicker
and thinner
contextual
description

Mostly thick or
very thick
contextual
description

No or minimal data
transformation and
little interpretation

Minimal data
transformation and
some interpretation

Some data
transformation
and theoretical
interpretation

Extensive data
transformation and
theoretical
interpretation

*CERQual group would like to undertake more work on use of this tool

We are here to help!