

The GRADE-CERQual approach for assessing how much confidence to place in the findings of qualitative evidence syntheses and the iSoQ tool

**GRADE** CERQual

Megan Wainwright PhD, on behalf of the GRADE-CERQual Project Group

April 25 2022- Cochrane Learning live webinar series

# Today's webinar

- Introduce the GRADE-CERQual approach
- Give an overview of each of the GRADE-CERQual components and how to make an overall assessment of confidence
- Demonstrate how the new iSoQ tool (interactive Summary of Qualitative Findings) can assist you with applying GRADE-CERQual

# What does the GRADE-CERQual approach do?

- GRADE-CERQual aims to transparently assess and describe how much **confidence** to place in individual review findings from qualitative evidence syntheses



# What is a Qualitative Evidence synthesis?

"A qualitative evidence synthesis, or QES, is a type of systematic review that brings together the findings from primary qualitative research in a systematic way. (Flemming & Noyes 2021)

# New to QES?

## **Qualitative Evidence Synthesis (QES): Learning Live webinar series**

### **All webinars available to watch on:**

**<https://training.cochrane.org/qes-learning-live-webinar-series>**

- Introduction to qualitative research and qualitative evidence synthesis
- Question formulation and searching for qualitative evidence
- Selecting studies and assessing methodological limitations
- Making sense of framework and best fit framework synthesis
- Thematic Synthesis
- Meta-ethnography
- Upcoming: Integrating qualitative evidence syntheses with intervention effect findings

# GRADE-CERQual is applied to individual synthesis findings

- In the context of a qualitative evidence synthesis, a review finding is...:

...an analytic output that describes a phenomenon or an aspect of a phenomenon

- Review findings from qualitative evidence syntheses can be both descriptive or more interpretive. They might describe a theme or pattern, or theory emerging from the analysis.

# Difference between "full" and "summarized" review finding

1. The **full review findings** as reported in the “Findings” section of the review
  - Most detailed presentation of each finding
  - Should include references to the studies contributing to the finding
  - May include data extracts from the studies contributing to the finding
  - May include a final GRADE-CERQual assessment

# Example of full review findings

- This review used a thematic synthesis approach for data analysis



RESEARCH ARTICLE

## The Mistreatment of Women during Childbirth in Health Facilities Globally: A Mixed-Methods Systematic Review

Meghan A. Bohren<sup>1,2\*</sup>, Joshua P. Vogel<sup>3</sup>, Erin C. Huntz<sup>2</sup>, Otha Lutali<sup>4</sup>, Supriya K. Mahi<sup>5</sup>, João Paulo Souza<sup>6</sup>, Carolina Aguiar<sup>7</sup>, Fernando Saraiya Coneglian<sup>8</sup>, Alex Lutz Amaljo Diniz<sup>9</sup>, Ozge Tunçpınar<sup>10</sup>, Denis Javedi<sup>11</sup>, Oshemi T. Oshadijo<sup>12</sup>, Rajat Khosla<sup>13</sup>, Michelle J. Hindin<sup>1,2</sup>, A. Metin Gülmezoglu<sup>2</sup>

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### Physical Abuse

Physical abuse during childbirth [9,10,13,21,61,67,68,73,75,77,80,84,86,87,91,97] was perpetrated by nurses [10,13,67,80,84,86], midwives [61,73,75,77,87,91], and doctors [84,91]. Women sometimes reported specific acts of violence, but often referred to these experiences more generally, describing beatings, aggression, physical abuse, a “rough touch,” and the use of extreme force [9,10,13,21,61,73,80,84,87]. Hitting and slapping, with an open hand or an instrument, were the most commonly reported specific acts of physical violence [10,13,67,75,77,87,91]. Women also reported being pinched, particularly on the thighs [13,86] and kicked [10]. Some women were physically restrained during labor with bed restraints [97] and mouth gags [86].

**Findings**

... of neglectful, abusive, and disrespectful treatment of women in health facilities, there is no consensus at a global level on how these are defined and measured. This mixed-methods systematic review aims to synthesize and measure quantitative evidence on the mistreatment of women during childbirth to inform the development of an evidence-based typology of the mistreatment of women during childbirth.

**Conclusions**

... CINAHL, and Embase databases and grey literature using a pre-defined search strategy to identify qualitative, quantitative, and mixed-methods studies on women during childbirth across all geographical and income-level settings. We used a thematic synthesis approach to synthesize the qualitative evidence and meta-analysis to synthesize the quantitative evidence. In total, 65 studies were included from 34 countries. Qualitative findings were organized under seven domains: (1) physical abuse, (2) sexual abuse, (3) verbal abuse, (4) stigma and discrimination, (5) failure to meet professional standards of care, (6) poor rapport between women and providers, and (7) health system conditions and constraints. Due to high heterogeneity of the quantitative data, we were unable to conduct a meta-analysis; instead, we

Interim Development (USA) (LEAD), Avenirnet (B), WHO Gendered Grant (GHA-G-0-0-00) and the UNDP/UNFPA/UNICEF/WHO/World Bank Special Programme of Research, Development, and Research Training in Human Reproduction (HRP), Department of Reproductive

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17 January 2017



# Difference between "full" and "summarized" review finding

**2. Summaries of review findings** are reported in the Evidence Profile Table and the Summary of Qualitative Findings Table (SoQF)

- A shorter version of each finding that is as explicit as possible.
- Come in different styles and sizes. Is more than just a theme name.
- The Evidence Profile and SoQF table are most useful to users of the review findings

# Example of a summary of a review finding in a Summary of Qualitative Findings (SoQF) table

**Table 3. Summary of qualitative findings.**

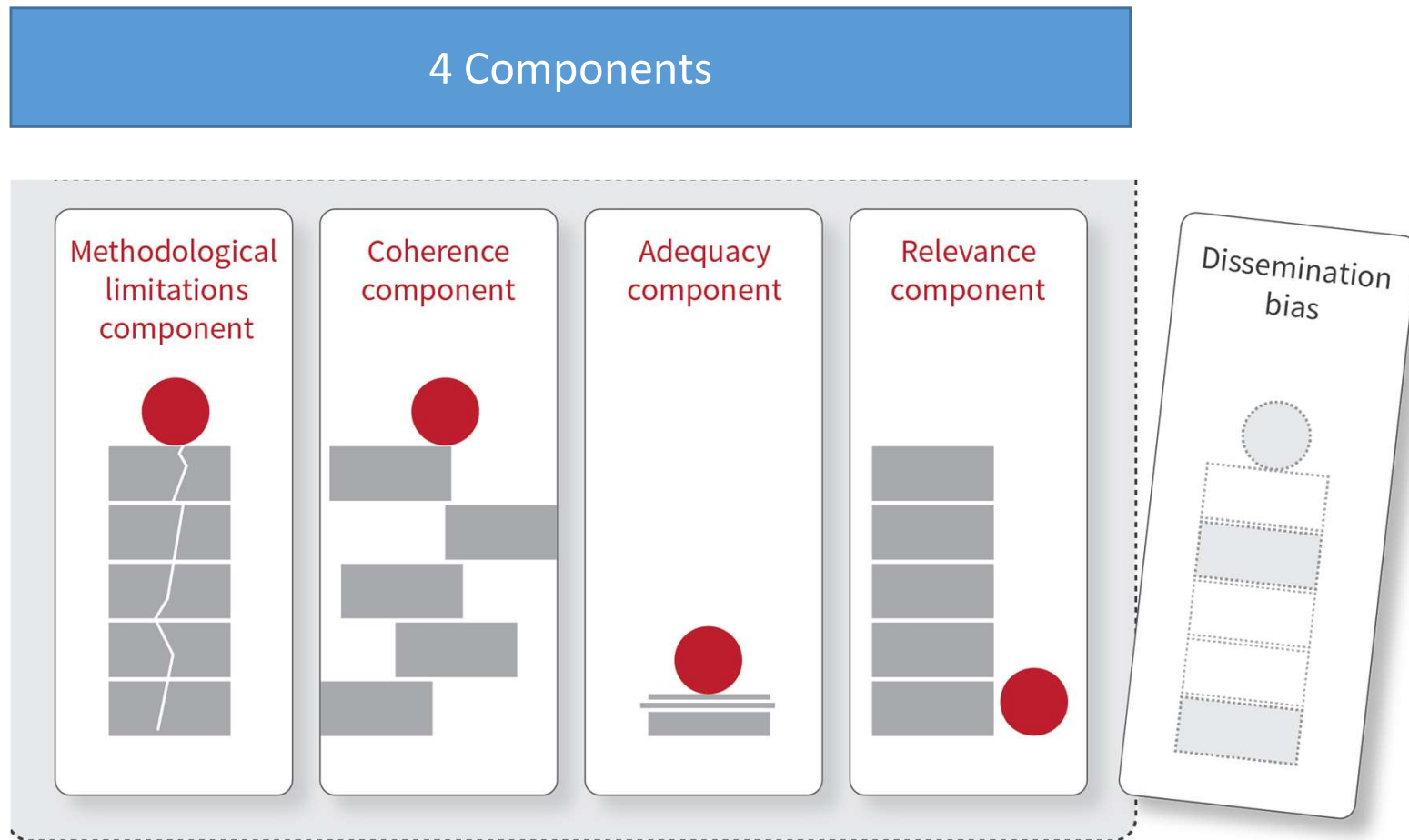
Review Finding	Contributing Studies	Confidence in the Evidence	Explanation of Confidence in the Evidence Assessment
<p><b>Physical abuse</b></p> <p><b>Use of force:</b> Women across the world reported experiencing physical force by health providers during childbirth. In some cases, women reported specific acts of violence committed against them during childbirth, but women often referred to these experiences in a general sense and alluded to beatings, aggression, physical abuse, a rough touch, and use of extreme force. Pinching, hitting, and slapping, either with an open hand or an instrument,</p>	<p>[6,9,10,13,21,61,67,68,73,75,77,80,84,86,87,91,96,97]</p>	<p>High</p>	<p>18 studies with minor to significant methodological limitations. Thick data from 11 countries across all geographical regions, but predominantly sub-Saharan Africa. High coherence.</p>

# What do we mean by 'confidence in the evidence'?

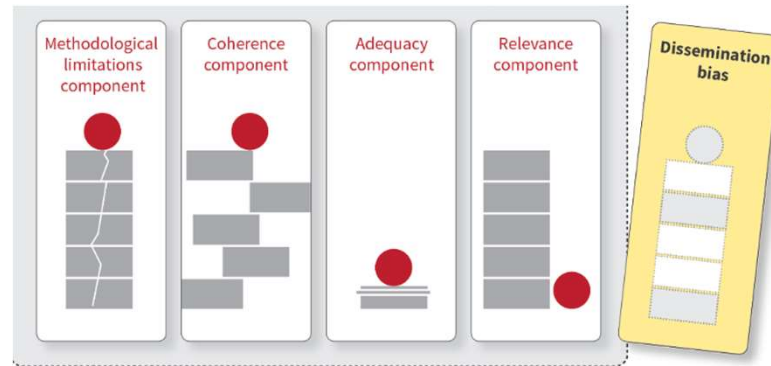
The extent to which a review finding is a reasonable representation of the phenomenon of interest

- i.e. the phenomenon of interest is unlikely to be substantially different from the research finding

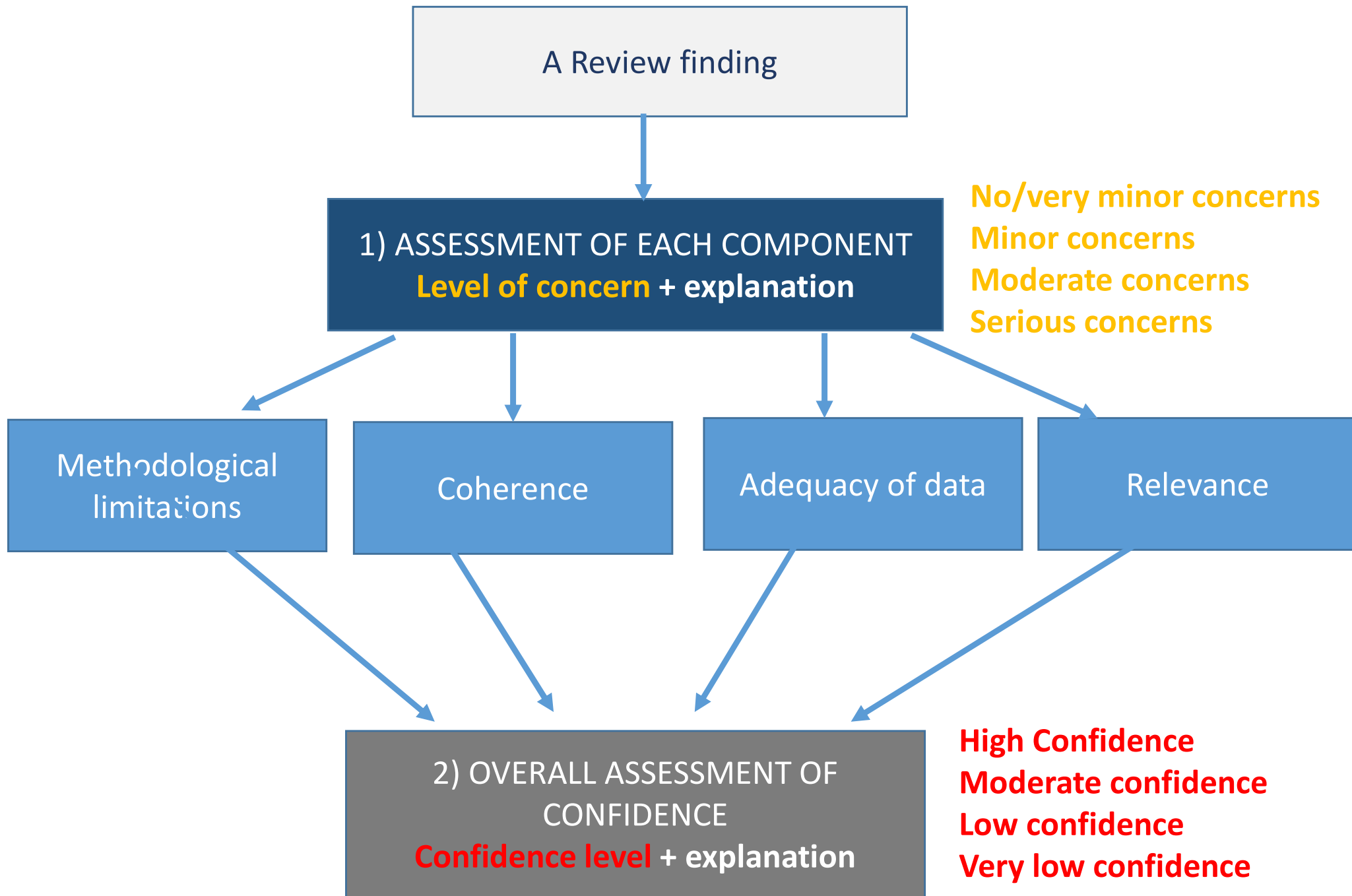
# Confidence is based on the assessment of 4 components



# Dissemination bias in qualitative research



- Toews I, Glenton C, Lewin S, Berg RC, Noyes J, Booth A, Marusic A, Malicki M, Munthe-Kaas HM, Meerpohl JJ. **Extent, Awareness and Perception of Dissemination Bias in Qualitative Research: An Explorative Survey.** *PLoS One*, 2016 Aug 3;11(8)
- Toews I, Booth A, Berg RC, Lewin S, Glenton C, Munthe-Kaas HM, Noyes J, Schroter S, and Meerpohl JJ. **Dissemination Bias in Qualitative Research: conceptual considerations.** *Journal of Clinical Epidemiology* 2017 Aug; 88:133-139.
- Toews I, Booth A, Berg RC, Lewin S, Glenton C, Munthe-Kaas HM, Noyes J, Schroter S, Meerpohl JJ. **Further exploration of dissemination bias in qualitative research required to facilitate assessment within qualitative evidence syntheses.** *J Clin Epidemiol.* 2017 Aug;88:133-139. doi: 10.1016/j.jclinepi.2017.04.010. Epub 2017 Apr 20. PMID: 28433676.



# When and where do we use GRADE-CERQual?

- GRADE-CERQual meant to be applied in all types of QES (although so far mainly used for more descriptive findings so far)
- GRADE-CERQual assessments designed for use in all types of decision making processes
- GRADE-CERQual is applied near the end of the review process and requires review authors to draw on data they've produced in the review process (e.g. critical appraisals, study description table, extracted data underlying findings).

# Systematic Review Process

(QES for decision-making)

Review Question and Inclusion and Exclusion Criteria

Evidence Searching

Title & Abstract Screening

Full-text Screening

Data-Extraction

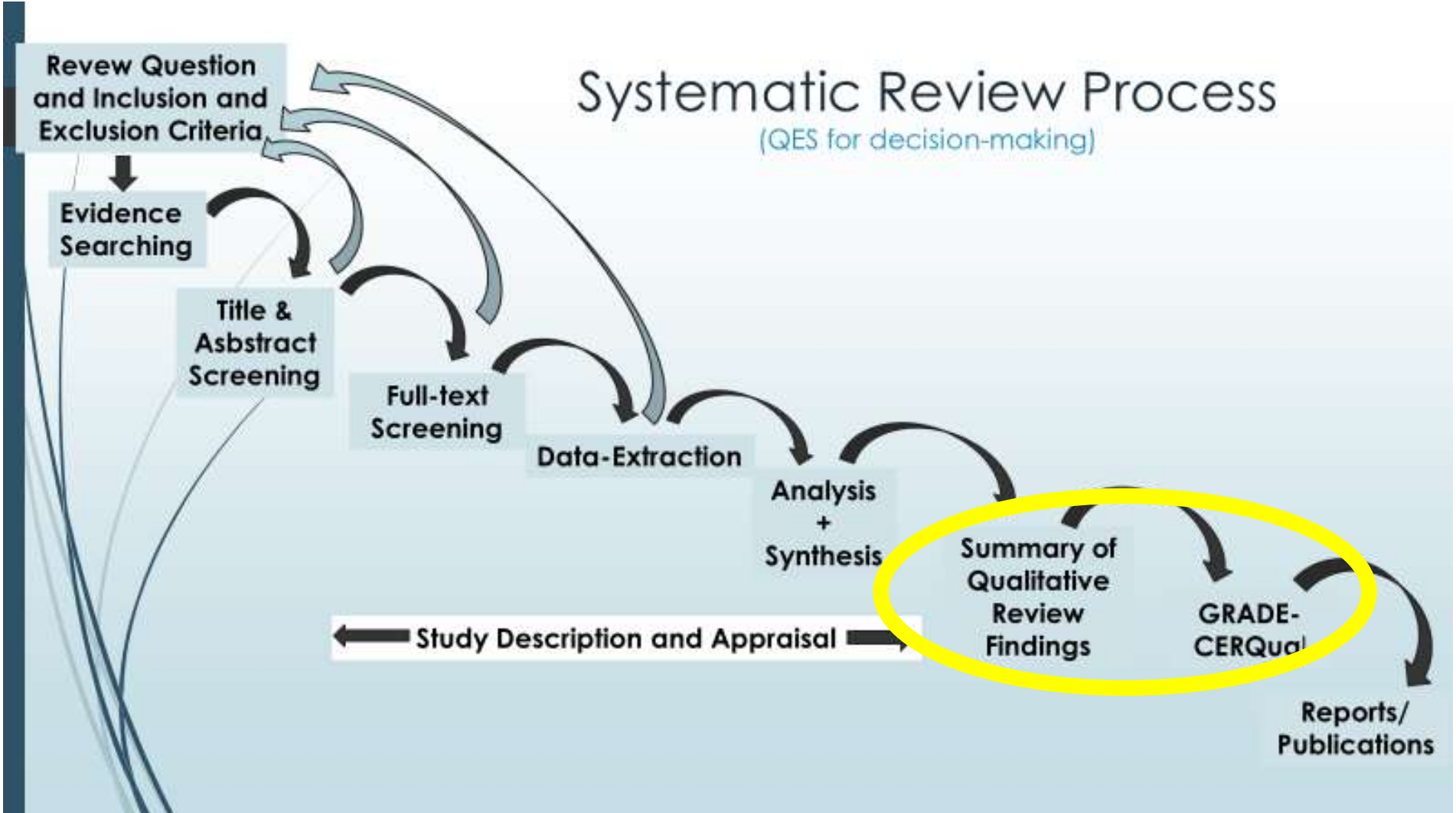
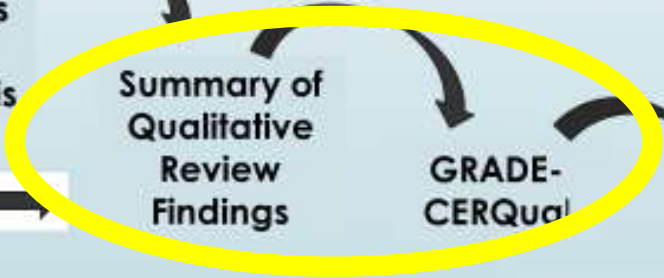
Analysis + Synthesis

Summary of Qualitative Review Findings

GRADE-CERQual

Reports/ Publications

Study Description and Appraisal





# Two key outputs of applying GRADE-CERQual

- Evidence Profile Table
- Summary of Qualitative Findings (SoQF) table

# Evidence Profile table

Table 3. Confidence in the Evidence for Reviews of Qualitative Research (CERQual) Evidence Profile

Summary of Review Finding	Studies That Contributed to the Review Finding	Methodological Limitations	Relevance (Applicable to the Context Specified in the Review Question)	Coherence (Well Grounded in Data and Providing a Convincing Explanation)	Adequacy (the Degree of Richness and Quality of Data Supporting a Finding)	Assessment of Confidence in the Evidence	Explanation of CERQual Assessment
1. Increase in quality of life: home mechanical ventilation results in an increase in the users' quality of life; this applies both to their physical condition, eg, they report better sleep, fewer headaches, more energy, less fatigue, and, to their psychological condition, eg, they report a sense of rehabilitation of identity, regaining autonomy and self-determinism	Lindahl et al, <sup>15</sup> Lindahl et al, <sup>19</sup> Briscoe and Woodgate, <sup>20</sup> Sundling et al, <sup>21</sup> Dreyer et al, <sup>22</sup> Ballangrud et al, <sup>14</sup>	No or very minor limitations: this finding was supported by 4 papers of high quality and 2 papers of moderate quality; the limitations were mainly connected to sparse use of citations in the papers and unclear inclusion process and criteria; all the studies have scant descriptions of the researchers' role in gathering and administration of data	Minor concerns: the finding was supported by 2 papers with direct relevance, 3 with unclear relevance and 1 with partial relevance; the relevance assessment was not judged to be crucial in the assessment of this particular finding: all the papers described an increase in quality of life and most of the "unclear relevance" was due to the inability to separate participants with or without help in the home; furthermore, the contributions to the finding were divided	No or very minor concerns: data are consistent within and across the studies; the only problem was the inability in some papers to distinguish between participants with or without help in the home or participants with invasive or noninvasive treatment; nevertheless, all the papers describe similar experiences	No concerns: contributions to the finding were divided across the papers, and most papers offered fairly detailed and rich data to explain the finding; the studies include a reasonable number of participants	High confidence	This finding was graded as high confidence because of minor methodological concerns and minor or no concerns for relevance, coherence, and adequacy

# Summary of Qualitative Findings (SoQF) table

## SUMMARY OF FINDINGS

Summary of findings for the main comparison. **Summary of qualitative findings**

Finding number	Summary of review finding	Studies contributing to the review finding	CERQual assessment (confidence in the findings)	Explanation of CERQual assessment
<b>Factors affecting implementation</b>				
<b>Awareness-raising among healthcare providers and women</b>				
1	The benefits of labour companionship may not be recognised by providers, women, or their partners.	<a href="#">Abushaikha 2013</a> ; <a href="#">Afulani 2018</a> ; <a href="#">Alexander 2014</a> ; <a href="#">Brüggemann 2014</a> ; <a href="#">Coley 2016</a> ; <a href="#">Pafs 2016</a>	Moderate confidence	Due to minor concerns regarding methodological limitations, coherence, and relevance, and moderate concerns regarding adequacy
2	Labour companionship was sometimes viewed as non-essential or less important compared to other aspects of care, and therefore deprioritised due to limited resources to spend on 'expendables'.	<a href="#">Akhavan 2012b</a> ; <a href="#">Brüggemann 2014</a> ; <a href="#">Legendyk 2005</a> ; <a href="#">Premberg 2011</a>	Low confidence	Due to minor concerns regarding coherence, moderate concerns regarding methodological limitations and serious concerns regarding relevance and adequacy

# Most recent guidance

The screenshot shows the Implementation Science journal website. The header includes the journal logo and navigation links: Home, About, Articles, Collections, and Submission Guidelines. The main content area displays the article title 'Applying GRADE-CERQual to Qualitative Evidence Synthesis Findings' under the category 'Research'. A blue box highlights a section of the article text. On the right side, there is a sidebar with a 'Submit manuscript' button and various journal-related links.

**IS Implementation Science**

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Reviewer acknowledgements

Volume 13 Supplement 1

**Applying GRADE-CERQual to Qualitative Evidence Synthesis Findings**

Research

**Guidance on how to assess methodological limitations in the context of a review finding**

The steps taken when assessing methodological limitations are shown in Fig. 2 and detailed below.

**Step 1: collect and consider the necessary information related to methodological limitations**

To assess methodological limitations of the body of data contributing to a review finding, you first need to choose an appropriate critical appraisal tool to assess the methodological strengths and limitations of the primary studies contributing data to the review finding. Regardless of the chosen tool, you will need to collect detailed information regarding the methods of data collection and analysis used in each study, as well as other aspects covered by the critical appraisal tool that you have chosen. The level of detail reported on the conduct of the included studies may vary greatly depending on the study design, the topic/field, type of publication or journal specifications.

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# GRADE-CERQual is not a tool for:

- Assessing how well an individual qualitative study was conducted
- Assessing how well a systematic review of qualitative studies was conducted
- Assessing how much confidence to place in review findings in general.
- Assessing confidence in findings of a narrative synthesis of quantitative studies when a meta-analysis is not possible



# GRADE-CERQual is a tool for:

- assessing how much confidence to place in individual review findings from qualitative evidence syntheses





CERQual made easy



## Scenario:

Decision makers are considering a new healthcare service for women. But before they introduce it, they want to know whether those affected, including female patients and healthcare workers, are likely to accept it.

A review of qualitative research is commissioned and conducted

One of the findings describes women's experiences of the intervention

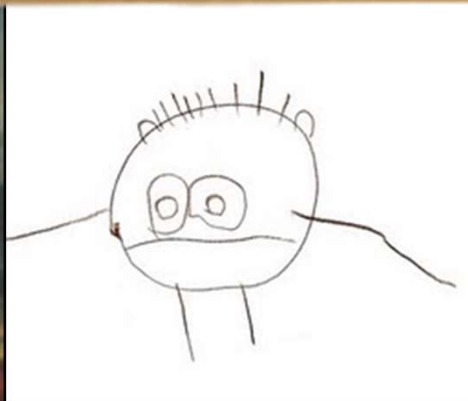




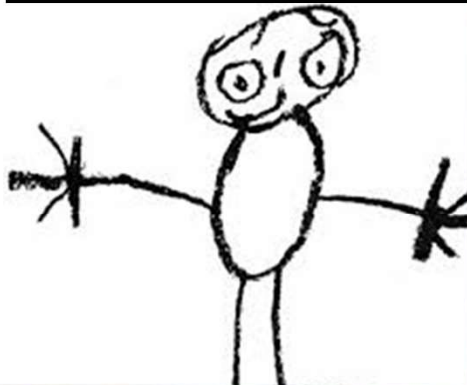
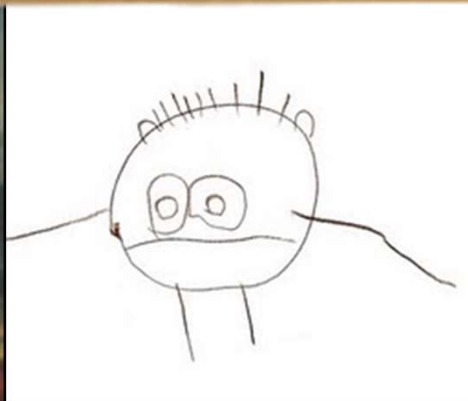




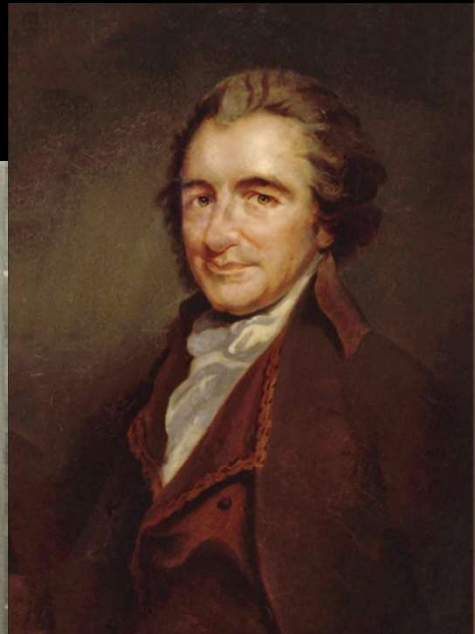




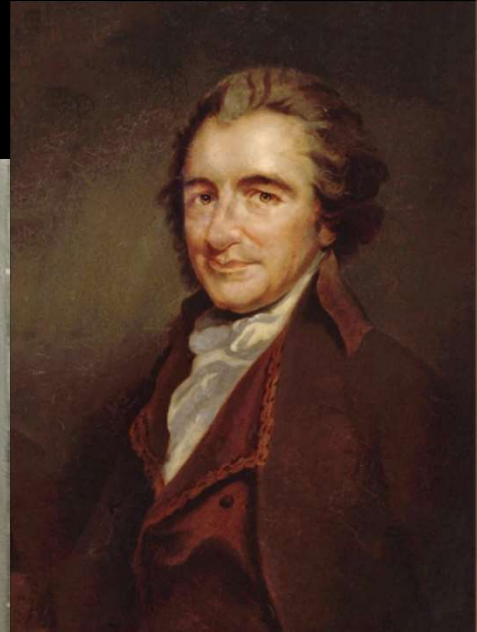




































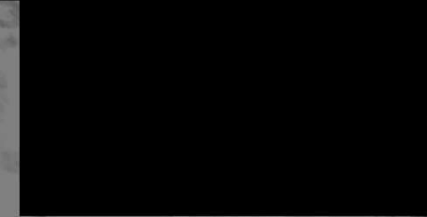












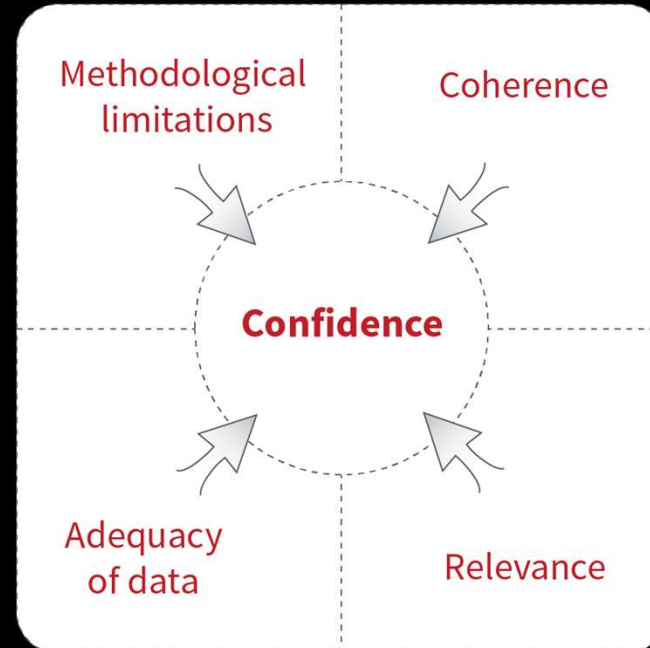


For each GRADE-CERQual component, you need to identify your concerns and whether these are:

- No or very minor concerns
- Minor concerns
- Moderate concerns
- Serious concerns

After assessing all four components an overall assessment is made, expressed as either:

- High confidence
- Moderate confidence
- Low confidence
- Very low confidence



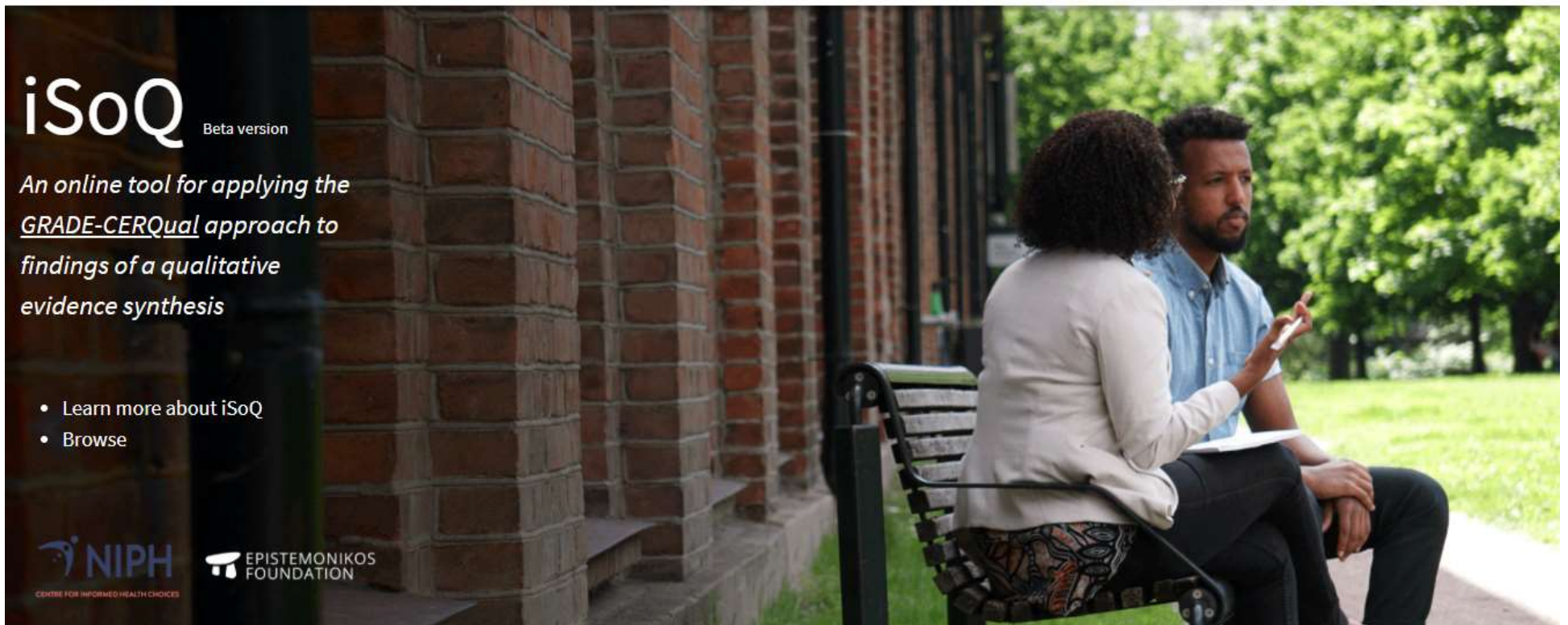


# New Online Tool!

← → ↻ isoq.epistemonikos.org 🔍 ☆ 📄 🌐 ⚙️ ⓘ

📱 Apps 📧 Namespro 🇺🇸 Douglas and Durham 🇨🇦 McGill 365 login 📁 Evernote 🌐 Acces D 📺 WeVideo 📧 Mailchimp 📄 ResearchGate 🏛️ Durham Library 📖 McGill Library 🌐 Webnode


**GRADE CERQual** *interactive Summary of Qualitative Findings* [About](#) [Browse](#) [Help](#) [Login](#)

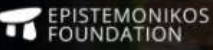


**iSoQ** Beta version

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

- Learn more about iSoQ
- Browse

 **NIPH**  
CENTRE FOR INFORMED HEALTH CHOICES

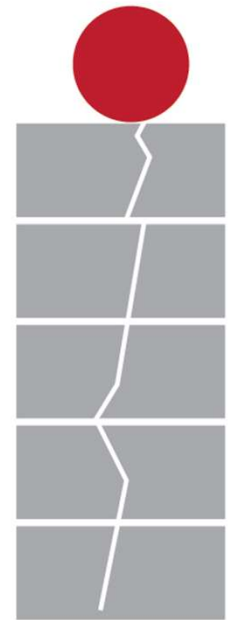
 **EPISTEMONIKOS**  
FOUNDATION

The banner features a photograph of a woman and a man sitting on a park bench, engaged in conversation. The woman is wearing a white jacket and patterned pants, while the man is wearing a blue shirt and dark pants. They are sitting on a wooden bench with a brick wall in the background and green trees in the distance.

# Methodological limitations

The extent to which there are *problems in the design or conduct* of the primary studies supporting a review finding

Methodological  
limitations  
component



# Concerns about methodological limitations

- We are less confident that the review finding reflects the phenomenon of interest when:

the primary studies underlying a review finding are shown to have **problems in the way they were designed or conducted**

- A critical appraisal tool for qualitative studies should be used to make this assessment
  - Typically includes appraisals of how the participants and settings were selected, how data was collected and analysed, researcher reflexivity etc
- See [Munthe-Kaas et al, 2019](#), and [Noyes et al. 2017](#) for what to look for in a critical appraisal tool when you are planning to apply GRADE-CERQual



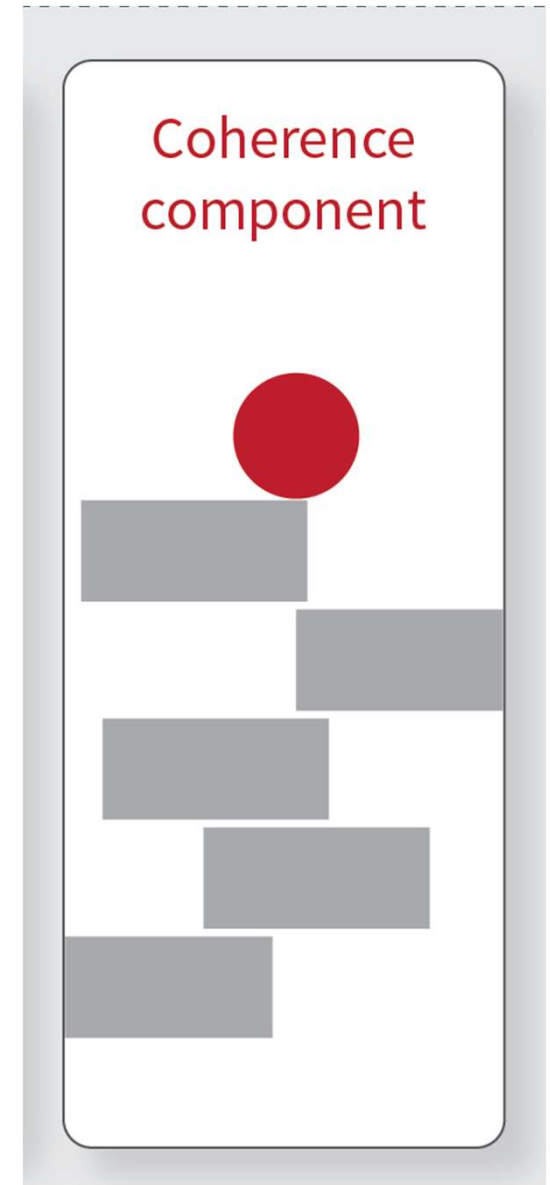
## Grounds for concern

Where methodological limitations have been identified, think about the following issues:

- Is this particular limitation likely to have had a serious impact on the review finding? Some limitations may be more serious than others and other limitations may be serious for some review findings but not for others.
- What is the relative contribution of these studies to the review finding? If these studies are key studies, this is of more concern.

# Coherence

An assessment of how clear and cogent the fit is between the data from the primary studies and the review finding





# Concerns about coherence

We are less confident that the finding reflects the phenomenon of interest when the fit between the data from the primary studies and the review finding is not completely clear



# Assessing coherence of the review finding: Dealing with variation or ambiguity in the data

Review finding

## Option 1:

*Most children preferred staff to have week-long shifts because they liked the stability and structure and the opportunity to form attachment. Children in one study preferred short shifts, but these children had poor relationships with their caregivers. In one study the experiences of the children were unclear.*

## Option 2:

*In situations where children have good relations with their caregivers, they prefer longer shifts because these provide stability and structure and opportunities to form attachment.*

Coherence

**No concerns about coherence**

Minor concerns about **coherence**. The finding is broadly supported by the data. However, one study gave a contradictory account of children's experiences, although this may be explained by their poor relationship with caregivers. In another study, children's experiences were unclear.

# Grounds for concern

## If finding is descriptive in nature

- Varied data - Some elements of the underlying body of evidence might not fit the description of the key patterns captured in the review finding.
- Ambiguous data - Key aspects of the underlying body of evidence may be vaguely defined or described, or defined in different ways.

Varied data or ambiguous data must either be reflected in the review finding or discussed and represented in the assessment of coherence.

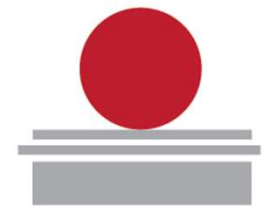
## If finding is interpretive in nature

- There are plausible alternative descriptions, interpretations or explanations that could be used to synthesise the data.

# Adequacy of data

The degree of *richness* and *quantity* of data supporting a review finding

Adequacy  
component



# Concerns about adequacy of data

We are less confident that the finding reflects the phenomenon of interest when:

the data underlying a review finding are not sufficiently rich or only come from a small number of studies or participants

Review authors need to make a judgement on what constitutes data that are not sufficiently rich or too small a number in the context of a specific review finding



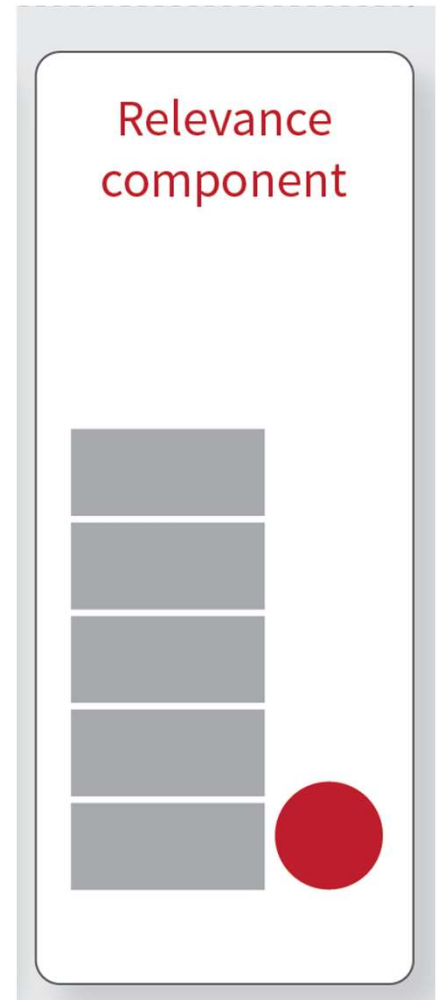
# Grounds for concern

You may have concerns regarding the adequacy of the data if:

- there are insufficient details to gain an understanding of the phenomenon described in the review finding
  - the review finding is supported by data from only one or very few studies, participants or observations
- 
- Review findings that are simple and primarily descriptive: relatively superficial data may be sufficient.
  - Review finding that are complex or explanatory: you may have concerns if the finding is based on data that is too superficial to allow a sufficient exploration of the phenomenon

# Relevance

The extent to which the body of evidence from the primary studies supporting a review finding is *applicable to the context* specified in the review question





# Concerns about relevance

We are less confident that the finding reflects the phenomenon of interest when:

the contexts of the primary studies underlying a review finding are **substantively different from the context** of the review question

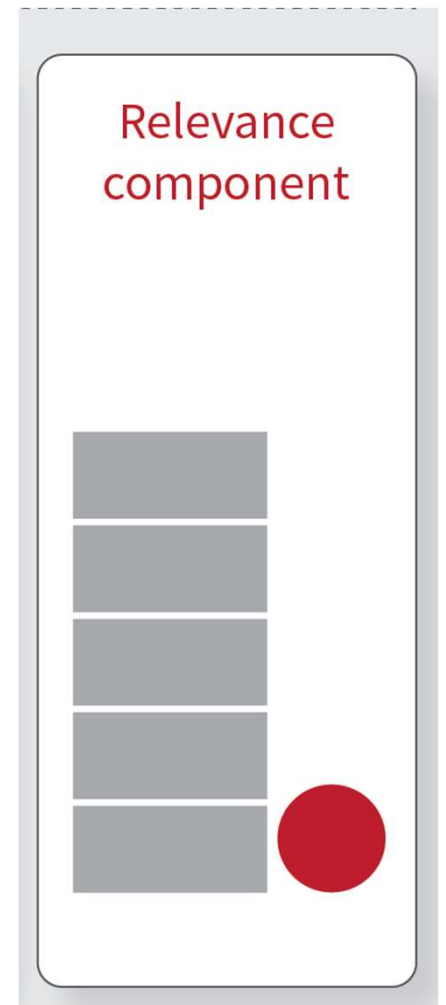


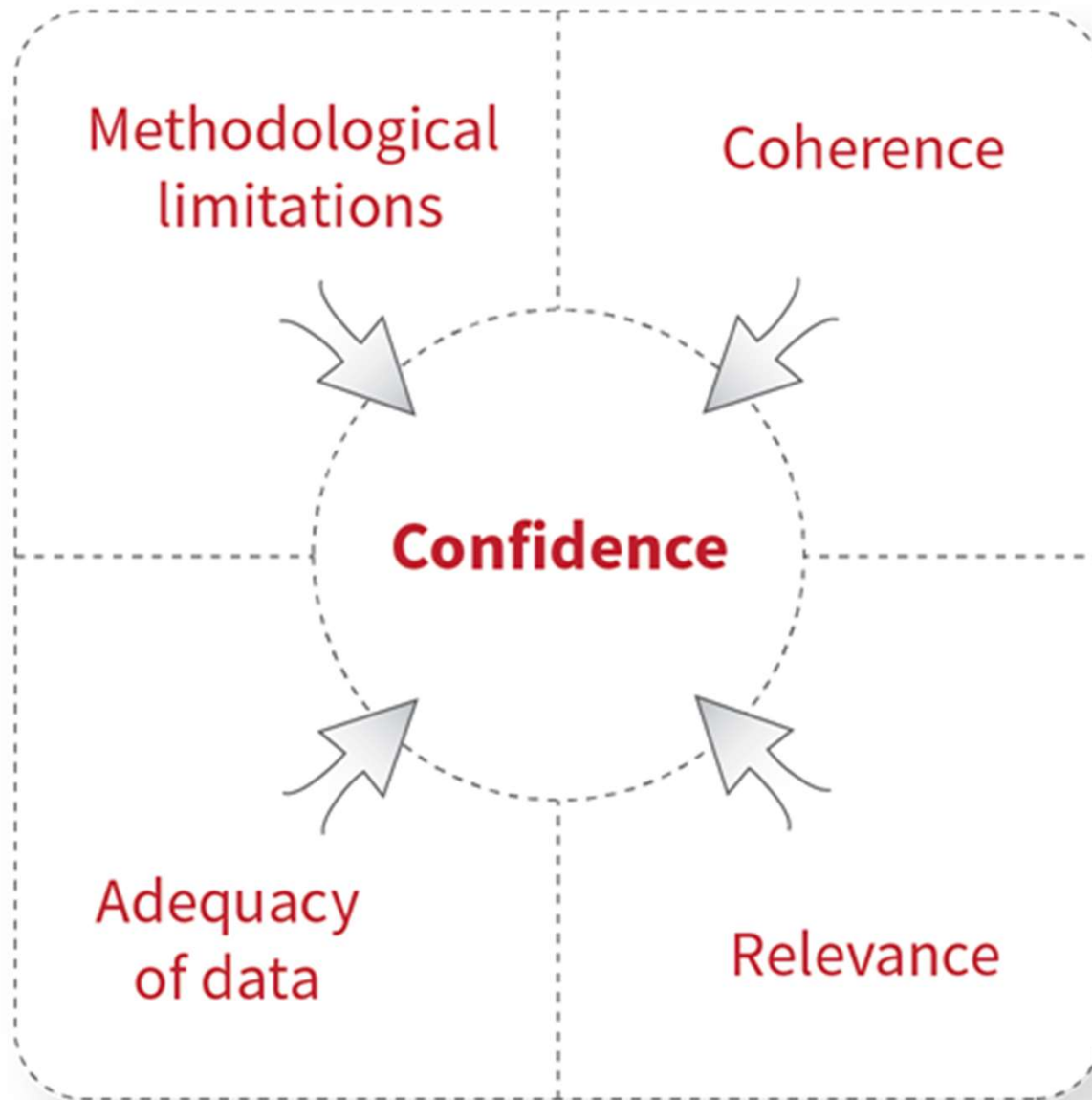
# What do we mean by "contexts"

- Time (for example, were the studies conducted too long ago to be relevant?)
- Setting (for example, country of the study, place of care, rural vs. urban)
- Treatment (for example, is the treatment in the study different from the one specified in the review question?)
- Perspective (for example, do we only have information about a subset of the population of interest?)

# Grounds for concern

- **Indirect relevance:** One study included in a review focused on health workers' perceptions of women's experience while the review was interested in women's experience
- **Partial relevance:** Most of the included studies in the review were from the USA, while the review was global in focus
- **Unclear relevance:** The review is interested in 18-25 year olds, but some studies describe participants as "young adults" without ages.





After assessing each of the separate components, we make an overall judgement of the confidence in each review finding



# Additional support

- With applying the GRADE-CERQual approach
  - Q&A Webinars - <https://www.cerqual.org/upcoming-events/>
- With using iSoQ
  - iSoQ Drop-in support webinars <https://www.cerqual.org/upcoming-events/>
  - Help Videos - <https://isoq.epistemonikos.org/help>
  - iSoQ tech support: [isoq@epistemonikos.org](mailto:isoq@epistemonikos.org)

# Coming soon...

- Results of an Evaluation of GRADE-CERQual's use in Evidence Synthesis that focuses on fidelity to and reporting of the GRADE-CERQual approach - currently under review
- 2<sup>nd</sup> iSoQ Launch Webinar hosted by PAHO and EVIPNet Americas
  - May 19 2022 @ 11:00 Eastern Time (US and Canada)
  - Registration: [https://paho.org.zoom.us/webinar/register/WN\\_KZgaEb7HRzmogYu8N6cBBw](https://paho.org.zoom.us/webinar/register/WN_KZgaEb7HRzmogYu8N6cBBw)

# To learn more about GRADE-CERQual

- Join the mailing list and/or project group via the webpage or email below

[GRADECERQual@gmail.com](mailto:GRADECERQual@gmail.com)

[www.cerqual.org/contact](http://www.cerqual.org/contact)

@CERQualNet

**GRADE** CERQual