Introduction to qualitative evidence synthesis and the CERQual approach

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Qualitative evidence synthesis
Starting point!

Have you:

Carried out primary qualitative research?

Carried out systematic reviews of any kind?

Carried out systematic reviews of qualitative research?

Used the results from systematic reviews in a decision making process?

Used the results from systematic reviews of qualitative research in a decision making process?
What is qualitative research?

Aims to explore people’s perceptions and experiences of the world around them, including of health, illness and health and social care services

Characteristics:

• Understanding and interpretation

• Naturalistic approach
  • How people behave in ‘natural’ settings, i.e. how they behave in social life

• Multiple perspectives
  • Accepts that different social actors have different perspectives on reality

• Inductive, hypothesis generating rather than hypothesis testing

• Reflexive
  • Attempts to explicitly consider how researchers interact with the field of research
What is a qualitative evidence synthesis?

A qualitative evidence synthesis is a systematic review of primary qualitative studies in a topic area.

Like primary qualitative research, qualitative evidence syntheses:
- Aim to explore people’s perceptions and experiences of the world around them, including health, illness, health and social care services, health technologies.
What is a qualitative evidence synthesis?

Qualitative evidence syntheses are increasingly used in decision making processes, including to inform the development of clinical and health system recommendations (e.g. by WHO, NICE).

Like other reviews, qualitative evidence syntheses should have clear and transparent:

- Synthesis question/s
- Criteria for considering studies
- Search methods
- Data collection and analysis methods, including methods for assessing how much confidence to place in the findings
- Presentation of findings
What questions can be addressed by a qualitative evidence synthesis?

<table>
<thead>
<tr>
<th>Stage of the policy cycle</th>
<th>Where there are questions concerning...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diagnosing the problem</td>
<td>▪ People’s (consumers, health care providers, policy makers) views or experiences</td>
</tr>
<tr>
<td></td>
<td>▪ Why a particular problem has arisen</td>
</tr>
<tr>
<td></td>
<td>▪ How to understand a particular problem conceptually</td>
</tr>
<tr>
<td>Assessing policy options</td>
<td>▪ How people value different policy options and views regarding these options</td>
</tr>
<tr>
<td></td>
<td>▪ Insights into how an intervention might work – particularly useful for complex interventions</td>
</tr>
<tr>
<td>Exploring implementation strategies for a policy option</td>
<td>▪ Factors likely to affect the implementation of a policy option</td>
</tr>
<tr>
<td></td>
<td>▪ Views regarding implementation strategies</td>
</tr>
<tr>
<td>Monitoring the effects of a policy option</td>
<td>▪ Studies may contribute to subsequent reviews</td>
</tr>
</tbody>
</table>

Synthesizing qualitative evidence

Methods for qualitative synthesis are still evolving

Choice of synthesis method should be informed by:

- Whether the research question is exploratory in nature or highly focused and specific
- The nature of the evidence identified (e.g.: descriptive or highly theorized)
- Whether an established theoretical framework exists for the phenomenon of interest, or if a more inductive synthesis approach should be used

Unlike systematic reviews of the effects of interventions, qualitative synthesizes often take an iterative approach to sampling, extraction and synthesis
Questions:

Methods:

Initial concepts:

Relation to theory:

Approach to synthesis:

Product:

Review use:

Open

Closed

Idealist

Tentative

Secure

Generate

Explore

Test

Configuring

Aggregating

Iterative

A priori

Theoretical search for key concepts & relationships

‘Exhaustive’ search for ‘all’ studies

Value study contributions

Avoiding bias

Emergent concepts & theory

Magnitude & precision

Enlightenment

Instrumental

From: Gough et al., 2012 Systematic Reviews
<table>
<thead>
<tr>
<th>Predominant review type</th>
<th>Review questions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Aggregative</strong></td>
<td></td>
</tr>
<tr>
<td>‘What works?’ reviews</td>
<td>What is the effect of a health or social intervention?</td>
</tr>
<tr>
<td>Diagnostic test</td>
<td>What is the accuracy of this diagnostic tool?</td>
</tr>
<tr>
<td>Cost benefit</td>
<td>How effective is the benefit of an intervention relative to its cost?</td>
</tr>
<tr>
<td>Prevalence</td>
<td>How extensive is this condition?</td>
</tr>
<tr>
<td><strong>Configurative</strong></td>
<td></td>
</tr>
<tr>
<td>Meta-ethnography [4]</td>
<td>What theories can be generated from the conceptual literature?</td>
</tr>
<tr>
<td>Critical interpretative synthesis [8]</td>
<td></td>
</tr>
<tr>
<td>Meta narrative review [11]</td>
<td>How to understand the development of research on an issue within and across different research traditions?</td>
</tr>
<tr>
<td><strong>Configuring and aggregative</strong></td>
<td></td>
</tr>
<tr>
<td>Realist synthesis [9]</td>
<td>What is the effect of a social policy in different policy areas?</td>
</tr>
<tr>
<td>Framework synthesis [25]</td>
<td>What are the attributes of an intervention or activity?</td>
</tr>
</tbody>
</table>
## Approaches to synthesis

<table>
<thead>
<tr>
<th>Aggregative</th>
<th>Interpretive or configuring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collecting empirical data to describe and test predefined concepts</td>
<td>Interpreting information and developing concepts to understand the phenomenon of interest</td>
</tr>
<tr>
<td>Use pre-defined methods</td>
<td>May adapt methods iteratively during the synthesis process</td>
</tr>
<tr>
<td>In relation to decision making: concerned with finding evidence to specific pre-defined questions</td>
<td>In relation to decision making: concerned with developing concepts that provide new ways of understanding</td>
</tr>
</tbody>
</table>

**In practice:**
- Syntheses sit on a spectrum from more aggregative to more interpretive
- Most synthesis methods have an aggregative component while some also include an interpretive component. However, all synthesis requires some level of interpretation as one moves from data (from primary qualitative studies) to a synthesis finding.

*Drawn from: Gough et al., 2012 Systematic Reviews*
# Synthesizing qualitative evidence

## Qualitative synthesis methods

<table>
<thead>
<tr>
<th>Approach</th>
<th>Meta-ethnography</th>
<th>Thematic analysis</th>
<th>Meta-aggregation</th>
<th>Grounded theory</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description</strong></td>
<td>Identifies key themes in each study, then seeks to translate these into context of each other study. Themes with the best overall fit/explanatory power are adopted.</td>
<td>Identification of major / recurrent themes in the studies identified; summary of findings of primary studies under these thematic headings</td>
<td>Translating the results from each study into themes or metaphors. These are then grouped into categories and combined to create synthesized themes. These allow the recommendations for practice to be generated.</td>
<td>Constant comparative method identifies patterns and interrelations in primary data. Sampling responds to analysis, until theoretical saturation reached</td>
</tr>
</tbody>
</table>

| Synthesis approach | Interpretive | Interpretive/integrative | Integrative | Interpretive |


Example of a thematic QES
“Respectful maternity care” Shakibazadeh et al 2018

Key finding: engaging with effective communication

Lower ordered themes:

Talking and listening to women

- Listening to women’s concerns and trying to solve issues and addressing concerns
- Being sensitive to women’s wishes and needs
- Acknowledging the importance of body language, nonverbal communication, gestures, and expressions.
- Providing passive support by being present
- Valuing honesty, even in challenging situations
- Saying “I don’t know” and knowing when to call for help
- Having interpreters to translate and explain procedures
- Ensuring quality of care given to women with language difficulties
- Showing compassion for what women are experiencing
- Presenting willingness to provide support and help by being warm, calm, patient, kind, tactful, smiling, and having a warm voice all through taking care of women
- Giving women full attention and true assistance
- Addressing women’s doubts

Practicing and encouraging effective non-verbal communication

Being honest

Availability of interpreters due to language proficiency and cultural differences

Providing empathy
Questions?
What is GRADE-CERQual
Terms

Systematic reviews of qualitative evidence

= Qualitative evidence syntheses
What kinds of evidence are needed to address these questions?

- Is the intervention effective? Systematic reviews of controlled studies
- Is the intervention acceptable? Systematic reviews of qualitative evidence
- Is the intervention feasible?
How can we assess how much confidence to place in this evidence?

- Is the intervention effective?
  - Systematic controlled studies

- Is the intervention acceptable?
  - Systematic reviews of qualitative evidence

- Is the intervention feasible?
What does the CERQual approach do?

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

In the context of a review of qualitative evidence, a finding is:…

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

Findings from qualitative evidence syntheses can be presented as:
- themes, categories or theories
- As both descriptive or more interpretive findings
Relationship to GRADE

CERQual is part of the GRADE Working Group

CERQual shares the same aim as the GRADE tool used to assess the certainty of evidence of *effectiveness*

However, CERQual is grounded in the principles of qualitative research.
What might make you have less confidence in a finding from a qualitative evidence synthesis?

Example:

“Midwives are often resistant to performing tasks that are outside the scope of obstetric care”

- Researcher characteristics
- Study context vs review context
- What is meant by “often”?
- Biased studies
- How many studies
- Agreement between studies
The GRADE-CERQual approach
<table>
<thead>
<tr>
<th>Component</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methodological limitations</td>
<td>The extent to which there are concerns about the design or conduct of the primary studies that contributed evidence to an individual review finding</td>
</tr>
<tr>
<td>Coherence</td>
<td>An assessment of how clear and cogent the fit is between the data from the primary studies and a review finding that synthesises that data. By ‘cogent’, we mean well supported or compelling</td>
</tr>
<tr>
<td>Adequacy of data</td>
<td>An overall determination of the degree of richness and quantity of data supporting a review finding</td>
</tr>
<tr>
<td>Relevance</td>
<td>The extent to which the body of evidence from the primary studies supporting a review finding is applicable to the context (perspective or population, phenomenon of interest, setting) specified in the review question</td>
</tr>
<tr>
<td>Level</td>
<td>Definition</td>
</tr>
<tr>
<td>------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>High confidence</td>
<td>It is highly likely that the review finding is a reasonable representation of the phenomenon of interest</td>
</tr>
<tr>
<td>Moderate confidence</td>
<td>It is likely that the review finding is a reasonable representation of the phenomenon of interest</td>
</tr>
<tr>
<td>Low confidence</td>
<td>It is possible that the review finding is a reasonable representation of the phenomenon of interest</td>
</tr>
<tr>
<td>Very low confidence</td>
<td>It is not clear whether the review finding is a reasonable representation of the phenomenon of interest</td>
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Applying GRADE-CERQual to qualitative evidence synthesis findings: introduction to the series.

**Paper 1:** Introduction to the series
- The rationale and conceptual basis for CERQual, the aims of the approach, how the approach was developed and its main components
- The purpose and structure of this series
- The growing role for qualitative evidence in decision-making

**Paper 2:** How to make an overall assessment of confidence
- How to make an overall assessment of confidence in a review finding
- Create a CERQual Evidence Profile
- Create a CERQual Summary of Qualitative Findings table

**Paper 3:** How to assess the methodological limitations of the body of data contributing to a review finding

**Paper 4:** How to assess the coherence of a review finding in the context of a qualitative evidence synthesis

**Paper 5:** How to assess adequacy of data in the context of a qualitative evidence synthesis

**Paper 6:** How to assess relevance of data in the context of a qualitative evidence synthesis

**Paper 7:** Understanding the potential impacts of dissemination bias
- How dissemination bias might be conceptualized in the context of qualitative research
- Its potential impact within qualitative evidence syntheses
- How it might impact on assessments of confidence in findings from qualitative evidence syntheses

**Papers 3, 4, 5 and 6:** Understand each component of the CERQual approach and for guidance on how to operationalise each component as part of a CERQual assessment

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GRADE-CERQual series publications

Questions?