Online Workshop: Qualitative Research Synthesis

Session 2:
Methods for a Qualitative Systematic Review

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A webinar sponsored by SEDL’s Center on Knowledge Translation for Disability and Rehabilitation Research (KTDRR)

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Methods for a qualitative systematic review

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Qualitative Synthesis
Qualitative Synthesis

• Qualitative Synthesis is a method through which the findings from qualitative studies are aggregated, integrated and/or interpreted (Sandelowski & Barroso 2007)

• Similar to other systematic reviews, it should follow a transparent, systematic and rigorous method

• An opportunity to enhance the “utilization value” (Smaling, 2003, p 20-21) and “power” (Kearney, 1998) of qualitative research (Sandelowski & Barroso, 2007)


Questions for Qualitative Synthesis

• Questions related to interventions:
  – How do people experience the identified outcomes?
  – Why does an intervention work (or not), for whom and in what circumstances?
  – What aspects of the intervention are valued (or not) and why this is so?
  – What factors facilitate or hinder successful implementation of a programme, service or treatment?
  – How can a particular intervention be adapted for large scale roll out? (Roen 2006)
Example #1 of Qualitative Integration

• An ethnographic study to explore the implementation of an EBP treatment in a child mental health centre

• Found that trainers struggled with the implementation of the treatment
  – some abandoned the treatment, while others considered selective or partial application of the treatment

• Barriers to implementation included:
  – lag time between initial training and use of treatment in practice
  – competence in treatment use
  – clinician engagement with the project
  – clinician-treatment fit
  – clinicians' first impressions of the EBP treatment after initial use

(Palinkas, et al., 2008)
Example #2 of Qualitative Integration

- Random allocation of hazardous drinkers among an Indigenous Australian Community Medical Centre
  - brief intervention vs. usual care

- Found low participation in the study:
  - Power was set at 400 participants (200 intervention, 200 control)
  - Only 10 participants agreed to participate and none of them indicated to have drinking problems above safe levels

- Researchers suspended the study, choosing instead to conduct interviews
  - Patients were embarrassed or resentful about being approached about their drinking
  - Aboriginal health workers were uncomfortable to approach patients about drinking habits (Sibthorpe, et al., 2002)
Capacity for Qualitative Synthesis

- The appropriate expertise or access to advice from experienced qualitative synthesis researchers
- Whether additional training is required
- Budget and cost for additional time and resources needed
Capacity for Qualitative Synthesis

• Access to appropriate databases and journals

• Access to an information specialist familiar with the particular challenges of retrieving qualitative research

• C2 resources to review and support the integration of qualitative synthesis through the editorial process
Methodological Considerations

- The Research Question
- Information Retrieval Strategy
- Screening Levels
- Critical Appraisal
- Synthesizing the Qualitative Evidence
- Choosing appropriate methods
- Stand alone vs mixed-method design
Family of Systematic Reviews

- Qualitative synthesis can be seen as one of several review methods that are part of, or leading to, systematic reviews:
  - Meta-Analysis (MA)
  - Qualitative Synthesis
  - Rapid Evidence Assessments (REA)
  - Scoping
  - Level of evidence reviews

Each has a unique method of answering research questions relevant to practitioners, researchers and policy-makers
Family of Systematic Reviews

• The synthesis of qualitative studies within the ‘family of systematic reviews’:
  – Helps to move qualitative synthesis out of the shadows of quantitative synthesis (i.e. meta-analysis)
  – Focused importance on creating methods that are transparent, consistent and rigorous
  – Distinguishes qualitative synthesis from other types of reviews
The Family of Systematic Reviews

Research Question

Family of Systematic Reviews
(Meta-Analysis, Systematic Synthesis, REA, Scoping)

Initial Screening

Comprehensive Information Retrieval Strategy

Brief Information Retrieval Strategy

Quantitative Studies

Type of Study

Qualitative Studies

Rapid Evidence Assessment

Apply Second Screening

Meta-Analysis

Apply Second Screening

Systematic Synthesis

Scoping Review

Provisional Results

Saini & Shlonsky, 2012
Determine the Research Question

• A review question should address the target population and intervention / phenomenon

• The components of the question helps to determine:
  – Types of studies (quantitative, qualitative, or both)
  – The databases and sources to search
  – Relevant search terms
Breadth and Scope

• In collaboration with service-users, reviewers need to determine resources needed to conduct the review and the expected timeframes for completion

• Use of preliminary mapping of the evidence
  – Consider the primary qualitative methods
  – Consider potential philosophical challenges
  – Consider potential method for synthesis
Information Retrieval

• Comprehensive, transparent, and must also depend on a variety of sources, published and unpublished

• When locating qualitative studies, special attention may be necessary to draw creatively on literature that does not fit precise search criteria
Information Retrieval

• Recent debate on whether qualitative evidence syntheses share the need for comprehensive, exhaustive searches

• Some argue for a more purposive sampling approach to reach theoretical saturation and/or the identification of the disconfirming case’ may be more appropriate (Dixon-Woods, 2006)

• Need to improve quality of reporting standards of search methods (Booth, 2006)
Example of Qualitative Filters

qualitative stud* or ethnograph* or phenomen* or ethnograph* or grounded theory or qualitative valid* or purposive sampl* or observational method* or content analys* or thematic analys* or constant comparative or field stud* or theoretical sampl* or discourse analys* or focus group* or (ethnolog* qualitative).tw or (ethnog*).tw or (phenomenol*).tw. or (grounded adj (theor* or study or studies or research)).tw. or (constant adj (comparative or comparison)).tw. or (purpos* adj sampl*4).tw. or (focus adj group*).tw. or (emic or etic or hermeneutic* or heuristic or semiotic*).tw. or (data adj1 saturat* or participant adj observ*).tw. or (heidegger* or colaizzi* or spiegelberg*).tw. or (van adj manen*).tw. or (van adj kaam*).tw. or (merleau adj ponty*).tw. or (husserl* or giorgi*).tw. or (field adj (study or studies or research)).tw. or (lived experience*).tw. or (narrative analysis).tw. or (discourse* adj analysis).tw. or (human science).tw. or (life experiences).tw. or (cluster sample).tw.

(adapted from http://www.urmc.rochester.edu/hslt/miner/digital_library/tip_sheets/cinahl_eb_filters.pdf)
Information Retrieval of Qualitative

• Using Qualitative filters may be too limiting

• The term “systematic” is used to emphasize the systematic and comprehensive approach to literature searching.

• Balance between recall and precision

• Transparent process to provide accountability and clarification of decision points

• Use of screening levels to sift, sort and pass to the data synthesis stage of the review
Screening for Qualitative Studies

- The inclusion criteria decide which studies should be (and not) included in the review.

- Screening process is multi-leveled moving from liberal to more specific criteria based on the purposes of the review.

- By not placing restrictions on the type of study (just that it is a study), able to get a good sense of the different types of studies that have addressed question.
Classify by Study Type

- Quantitative and qualitative studies should be separated and managed differently once all known studies have been located.

- Important to flag mixed-method studies.
Parallel Extraction

• Few extraction templates available as general guidelines for qualitative studies.

• Deciding what data to extract will be influenced by the method chosen for completing the qualitative synthesis.

• Qualitative software programs can help to organize, sort and sift the data according to the chosen method.
Management of Qualitative Synthesis

• Qualitative research typically involves collecting, organizing, and synthesizing large quantities of textual material and visual documents.

• Tasks such as coding documents, linking several documents, or searching for themes have always presented a challenge for the researcher.

• Qualitative software programs are now capable of helping the researcher organize and analyze qualitative data within various qualitative methods.
Critical Appraisal

• Qualitative research can be as rigorous as quantitative research.

• An understanding of the background and rationale for qualitative research and the methods used in qualitative research is necessary to evaluate studies.

• Evaluating a qualitative research article is prerequisite to incorporating the findings into clinical practice.
Critical Appraisal

Research should be

• contributory in advancing wider knowledge
• defensible in design by providing a research strategy which can address the evaluation questions posed
• Rigorous, systematic and transparent collection, analysis and interpretation of qualitative data
• credible in claim through offering well-founded and plausible arguments about the significance of the data generated (Spencer et al. 2003).
• In a non-hierarchical view of evidence, critical appraisal is as important as the study design

• Low quality RCT can provide less guidance than a well crafted qualitative study

• No common agreement on how best to critically appraise research studies
Ten Questions to Help you Make Sense of Qualitative Research

1. Was there a clear statement of the aims of the research?
2. Is qualitative methodology appropriate?
3. Was the research design appropriate to address the aims of the research?
4. Was the recruitment strategy appropriate to the aims of the research?
5. Were the data collected in a way that addressed the research issue?

6. Has the relationship between research and participants been adequately considered?
7. Have ethical questions been taken into consideration?
8. Was the data analysis sufficiently rigorous?
9. Is there a clear statement of findings?
10. How valuable is the research?

QRC Appraisal Form

- 25 dimensions of quality appraisal to consider rigour, credibility, dependability, confirmability, transferability and relevance of qualitative studies

- Additional 4 dimensions to appraise authenticity, fairness, and promotion of justice when central purpose is to empower participants through participant action research
• The QRC was pilot tested at the Factor-Inwentash Faculty of Social Work at the University of Toronto in 2007

• Based on the interrater agreement scores, modifications were made to the QRC and to the User Guide
Summary of Challenges

- The research question
  - Iterative vs Predetermined
- Information retrieval strategy
  - Theoretical vs Comprehensive
- Critical appraisal
  - Interpretation vs Screening
- Choosing appropriate methods
  - Aggregative, Integrative vs Interpretive
- Connecting islands of evidence
  - Transferability vs Generalizability
For your reference library

Contact Information

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We invite you to:

- Provide your input on today’s session
- Share your ideas for future sessions
- Participate in the Community of Practice to continue the dialogue
- PLEASE CONTACT: joann.starks@sedl.org

Thank you for participating!

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