Online Workshop: Qualitative Research Synthesis

Session 1:
Introduction to Reviewing and Synthesizing Qualitative Evidence

Karin Hannes, KU Leuven
Methodology of Educational Sciences Research Group

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

800-266-1832 | www.ktdrr.org

Copyright ©2015 by SEDL, an Affiliate of the American Institutes for Research. All rights reserved.

Funded by NIDRR, US Department of Education, PR# H133A120012. No part of this presentation may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording, or any information storage and retrieval system, without permission in writing from SEDL (4700 Mueller Blvd., Austin, TX 78723), or by submitting an online copyright request form at www.sedl.org/about/copyright_request.html. Users may need to secure additional permissions from copyright holders whose work SEDL included after obtaining permission as noted to reproduce or adapt for this presentation.
Masterclass on Qualitative Evidence Synthesis
Introduction Session

Karin Hannes
Methodology of Educational Sciences Research Group
KU Leuven
Karin.hannes@ppw.kuleuven.be
A fairly short, reasonably cheap introduction to QES

• How did I get triggered by qualitative evidence synthesis?
• What is qualitative research and what sort of evidence does it generate?
• How can qualitative research contribute to treatment effectiveness reviews?
• How is a qualitative evidence synthesis different from a review of effectiveness?
• What (general) approaches can be used?
• What does a qualitative review protocol look like?
HOW DID I GET TRIGGERED BY QUALITATIVE EVIDENCE SYNTHESIS?
Meet Emma

Born the 6th of October 2010
Meet Emma

Born the 6th of October 2010
Little sister of Door and Polle
If you don’t know the answer to your question

Where would you go look for it?
You’d go to the Cochrane or Campbell Library!

Diet or exercise, or both, for weight reduction in women after childbirth

Amanda R. Amoim, Yvonne M. Linnet, Paulo Morencio C. Lourenço

1Epidemiology, UERJ-IMS, Rua São Francisco Xavier, Rio de Janeiro, Brazil. 2Obesity Unit, Karolinska University Hospital, Stockholm, Sweden. 3Department of Epidemiology, University of State of Rio de Janeiro, Rio de Janeiro, Brazil

Contact address: Miss Amanda R. Amoim, PhD Student, Epidemiology, UERJ-IMS, Rua São Francisco Xavier, 5247, andar Bloco D e E, Maracanã, Rio de Janeiro, CEP: 20559-900 RJ, Brazil. amanda@ims.uerj.br, sar@cen.seap.br.

(Coauthor group: Cochrane Pregnancy and Childbirth Group.)

Cochrane Database of Systematic Reviews, Issue 2, 2007 (Status in this issue: Edited, commented)
Copyright © 2007 The Cochrane Collaboration. Published by John Wiley & Sons, Ltd.
DOI: 10.1002/14651858.CD005627.pub2

This record should be cited as: Amoim AR, Linnet YM, Lourenço PMC. Diet or exercise, or both, for weight reduction in women after childbirth. Cochrane Database of Systematic Reviews 2007, Issue 3. Art. No.: CD005627. DOI: 10.1002/14651858.CD005627.pub2.
The answer to my question

• Women who exercised did not lose significantly more weight than women in the usual care group.
• Women who took part in a diet or diet plus exercise program, lost more weight than women in the usual care.
• There was no difference in the magnitude of weight loss between diet and diet plus exercise group.
• The interventions seemed not to affect breastfeeding performance adversely.
The answer to my question

• Women who exercised did not lose significantly more weight than women in the usual care group.
• Women who took part in a diet or diet plus exercise program, lost more weight than women in the usual care.
• There was no difference in the magnitude of weight loss between diet and diet plus exercise group.
• The interventions seemed not to affect breastfeeding performance adversely.

A study in the Journal of the American College of Nutrition found that those who ate cereals were lower in weight compared to those who ate meat and eggs, bread or skipped breakfast.
The answer to my question

SIMPLE logical reasoning:

• IF a diet helps to lose weight after pregnancy
• IF cereals have proven to work well as a diet
The answer to my question

SIMPLE logical reasoning:

• IF a diet helps to lose weight after pregnancy
• IF cereals have proven to work well as a diet

• THEN the consumption of cereals will lead to weight loss after pregnancy!
• Right?
Wrong effect!
And then you panic
Wrong effect!
And then you panic
You’d go and dig a little deeper...
You’d go and dig a little deeper...

**Study 1 (Thornton)**

- Husbands and female relatives were the primary sources of emotional, instrumental and informational support.
- Holistic health beliefs and the opinions of others strongly influenced the mothers in their perception about the need to remain healthy.
- Absence of mothers, female relatives, friends to do child care, companionship for exercise and advice about food were barriers limiting women’s ability to maintain healthy practices.
You’d go and dig a little deeper...

**Study 1 (Thornton)**

- Husbands and female relatives were the primary sources of emotional, instrumental and informational support.
- Holistic health beliefs and the opinions of others strongly influenced the mothers in their perception about the need to remain healthy.
- Absence of mothers, female relatives, friends to do child care, companionship for exercise and advice about food were barriers limiting women’s ability to maintain healthy practices.

**Study 2 (Setse)**

- Postpartum depression
- Desire to lose weight
- Cost of weight programs
- Negative impact of media covering celebrity post partum weight loss
- Family behaviors that promote unhealthy eating
- Impact of child care facilities on ability to exercise
You’d go and dig a little deeper

Conclusion study 1 (Thornton)
We need community-based, family oriented programs to increase the chance of successful weight reduction.

Conclusion study 2 (Setse)
Weight loss interventions should address the psychological effects of childbearing, affordability and perceptions of body image. They should incorporate family-centred approaches.
WHAT IS QUALITATIVE RESEARCH AND WHAT SORT OF ‘EVIDENCE’ DOES IT GENERATE?
Evidence of effectiveness

'It is surely a great criticism of our profession that we have not organised a critical summary,..., adapted periodically, of all relevant randomised controlled trials'

Archie Cochrane
Evidence of what?

'It is surely a great criticism of our profession that we have been foolish enough to think that critical summaries of relevant randomised controlled trials would provide us with the right answer for each type of query'

Karin Hannes
Evidence of what?

• Evidence of ‘effectiveness’: the extent to which an intervention, when used appropriately, achieves the intended effect.
Evidence of what?

- **Evidence of ‘effectiveness’**: the extent to which an intervention, when used appropriately, achieves the intended effect.

- **Evidence of ‘feasibility’**: the extent to which an intervention is practical and practicable, whether or not an intervention is physically, culturally or financially practical or possible within a given context.

- **Evidence of ‘appropriateness’**: the extent to which an intervention fits with a situation, how an intervention relates to the context in which it is given.

- **Evidence of ‘meaningfulness’**: the extent to which an intervention is positively experienced by the population and relates to the personal experience, opinions, values, beliefs and interpretations of the population.
Evidence of what?

- **Evidence of ‘effectiveness’:** the extent to which an intervention, when used appropriately, achieves the intended effect.
- **Evidence of ‘feasibility’:** the extent to which an intervention is practical and practicable, whether or not an intervention is physically, culturally or financially practical or possible within a given context.
- **Evidence of ‘appropriateness’** the extent to which an intervention fits with a situation, how an intervention relates to the context in which it is given.
- **Evidence of ‘meaningfulness’:** the extent to which an intervention is positively experienced by the population and relates to the personal experience, opinions, values, beliefs and interpretations of the population.

**Evidence about**

**Cost-benefits**

Lived experiences of a certain condition, situation

**What people value or not**
Evidence of what?

WHAT IF HE HAD THOUGHT ABOUT

...organising a critical summary,..., adapted periodically, of all relevant qualitative research studies?
Evidence of what?

Mixed method reviews

WHAT IF HE HAD THOUGHT ABOUT

...organising a critical summary,..., adapted periodically, of all relevant qualitative research studies?
Evidence of what?

Mixed method reviews

Of course it mixes apples and oranges. In the study of fruit nothing else is sensible. Comparing apples to oranges is the only endeavor worthy of true scientists. Comparing apples to apples is trivial. (Gene Glass, 2000)
Qualitative research

Qualitative research in its most basic form is research investigating the way in which people make sense of their ideas and experiences. The what, The why, The how.
Qualitative research

Qualitative research in its most basic form

is research investigating the way in which people make sense of their ideas and experiences

The what
The why
The how

The search for MEANING (instead of factual information)
Developing a more complex picture of a phenomenon or situation.
Evidence of what?

Many Community Integration programs show positive results and should be studied more rigorously. To further establish that post-acute TBI rehabilitation interventions improve CI, future studies should include...

- intervention strategies based on injury severity,
- a control group,
- longer term follow-up

Effectiveness of rehabilitation in enhancing community integration after acute traumatic brain injury: a systematic review.

Kim H¹, Colantonio A

Author information
Evidence of what?

“Oh, that’s too bad. Something hit his head, it won’t heal, he’s gone nuts,”

“It’s like, if I’m on an Olympic running team and I have a small injury, yet I go back to that group. The need, the expectation is there.”

- It is essential that professionals know the pre-morbid characteristics of the adolescents
- The program needs to go beyond the physical symptoms.
- Social role recovery should be considered an important component of such programs.

Social inclusion of persons with moderate head injuries: The points of view of adolescents with brain injuries, their parents and professionals

JÉRÔME GAUVIN-LEPAGE¹,²,³ & HÉLÈNE LEFEBVRE¹,³
Evidence of what?

A cross sectional study by Carpenter, Forwell, Jongbloed, and Backman (2007) indicates that life satisfaction is more strongly related to community participation than impairment and activity limitations.

Barriers and facilitators

[Video - PhotoVoice: Advocacy through Photography]

(Community Participation after Spinal Cord Injury, N. Charleston, SC - 7/28/08)

Used with permission of Susan D. Newman
Qualitative Evidence Synthesis defined

A process of summarizing qualitative research findings, by comparing and analysing textual, visual or other research evidence derived from multiple accounts of an event, phenomenon or situation as reported in basic qualitative research studies.

Explore questions such as

• How do people experience a condition, situation?
• Why does an intervention work (or not), for whom and in what circumstances...?
• What are the barriers and facilitators related to a program?
• What impact do specific barriers and facilitators have on people, their experiences and behavior?
Qualitative evidence synthesis defined

‘The process or result of building up separate elements, especially ideas, into a connected whole, especially a theory or system’ (Oxford English Dictionary)

“A systematic empirical inquiry into meaning”

Systematic

• Planned
• Ordered/structured
• “Reconstructed logic of science”

Empirical

• Depends upon the world of experience.
• Builds on what we can capture with our senses.

Inquiry into meaning

• Developing a more complex picture of a phenomenon or situation.
• Rich, Deep, Thick, Textured, Insightful, …

Shank, 2006
HOW CAN QUALITATIVE RESEARCH CONTRIBUTE TO TREATMENT EFFECTIVENESS REVIEWS?
Contribution to treatment effectiveness reviews

• Contribute to the understanding of heterogeneity in outcomes
• Provide a research-based context for interpreting and explaining trial results
  • How to achieve change (more effectively)?
  • How to improve interventions?
  • How to ‘fit’ subjective needs?
  • What other type of interventions might be needed?

• Provide evidence on the subjective experience of those involved in developing, delivering and receiving an intervention or living with a particular condition or in a specific environment
• Reveal the extent to which effective interventions are actually adopted in policies and practice
Contribution to treatment effectiveness reviews

Qualitative research can contribute to Cochrane Intervention reviews in four ways:

• **informing reviews** by using evidence from qualitative research to help define and refine the question, and to ensure the review includes appropriate studies and addresses important outcomes;

• **enhancing reviews** by synthesizing evidence from qualitative research identified whilst looking for evidence of effectiveness;

• **extending reviews** by undertaking a search to specifically seek out evidence from qualitative studies to address questions directly related to the effectiveness review; and

• **supplementing reviews** by synthesizing qualitative evidence within a stand-alone, but complementary, qualitative review to address questions on aspects other than effectiveness.
Drivers for

- Greater recognition of the value of qualitative research in evidence-based policy
- ‘Empty’ reviews
- Public perspectives and experiences
- Systematic reviews of complex interventions
- Issues of process and implementation
- Extension of evidence-based health care to other areas of public policy
- Growing tradition for integration in primary research (mixed methods research)
- Dedicated research funding for methodological research
- Establishment of dedicated methods groups (e.g. Cochrane Qualitative Methods Research Group)
HOW IS A QUALITATIVE EVIDENCE SYNTHESIS DIFFERENT FROM A REVIEW OF EFFECTIVENESS?
The aggregative versus the configurative discourse

CONCEPTUALISATION OF SYSTEMATIC REVIEWS

Metaphor honestly stolen from Gough and Thomas, 2012
Conceptualisation of reviews

• **Meta-analysis:** Statistically pooling the results from individual studies addressing a similar topic, in order to create a more robust and trustworthy effect measure.
Assess the effectiveness to LHW programme implementation.

Lay health workers can increase immunisation uptake in children < 5 years old

<table>
<thead>
<tr>
<th>Study or Subgroup</th>
<th>log(CC)</th>
<th>SE</th>
<th>Weight</th>
<th>IV, Random, 95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barnes 1999</td>
<td>0.0099</td>
<td>0.1963</td>
<td>6.9%</td>
<td>1.01 [0.69, 1.48]</td>
</tr>
<tr>
<td>Gokcay 1993</td>
<td>-0.0202</td>
<td>0.1113</td>
<td>14.0%</td>
<td>0.98 [0.79, 1.22]</td>
</tr>
<tr>
<td>Johnson 1993</td>
<td>0.3074</td>
<td>0.0912</td>
<td>16.8%</td>
<td>1.36 [1.14, 1.63]</td>
</tr>
<tr>
<td>Krieger 2000</td>
<td>0.4382</td>
<td>0.098</td>
<td>15.8%</td>
<td>1.55 [1.28, 1.88]</td>
</tr>
<tr>
<td>LeBaron 2004</td>
<td>0.0861</td>
<td>0.07</td>
<td>20.0%</td>
<td>1.09 [0.95, 1.25]</td>
</tr>
<tr>
<td>Rodewald 1999</td>
<td>0.2546</td>
<td>0.0237</td>
<td>26.5%</td>
<td>1.29 [1.23, 1.35]</td>
</tr>
<tr>
<td><strong>Total (95% CI)</strong></td>
<td>100.0%</td>
<td></td>
<td>1.23 [1.09, 1.38]</td>
<td></td>
</tr>
</tbody>
</table>

Heterogeneity: Tau² = 0.01; Chi² = 16.68, df = 5 (P = 0.005); I² = 70%
Test for overall effect: Z = 3.42 (P = 0.0006)
Conceptualisation of reviews

**Configuration**

- Arrange or configure the findings from primary studies in order to generate new theory or explore the salience of existing theory in particular situations.
- Piecing together research knowledge from different contexts.
Conceptualisation of reviews
The importance of context

TEXT MESSAGE:
**Honey, I'm running late - please put the chicken on the stove. Love you!**

Cynthia Lum, 2011
Conceptualisation of reviews
The importance of context

TEXT MESSAGE:
**Honey, I'm running late - please put the chicken on the stove. Love you!**

Cynthia Lum, 2011
• Programme acceptability, feasibility, appropriateness

  – Lay health worker relationship with health professionals
  – Lay health worker motivation and incentives
  – Lay health worker training, supervision and working conditions
  – Patient flow process
  – Service integration
  – Social-cultural conditions
<table>
<thead>
<tr>
<th>Programme acceptability, appropriateness and feasibility: The lay health worker-recipient relationship I</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.</strong> Both programme recipients and LHWs emphasised the importance of trust, respect, kindness and empathy in the LHW-recipient relationship.</td>
</tr>
<tr>
<td><strong>2.</strong> Recipients appreciated the similarities they saw between themselves and the LHWs.</td>
</tr>
<tr>
<td><strong>3.</strong> Some LHWs expressed an appreciation of the community-based nature of the programmes, which allowed them a certain amount of flexibility in their working hours.</td>
</tr>
<tr>
<td><strong>4.</strong> LHWs were compared favourably with health professionals, whom recipients often regarded as less accessible, less friendly, more intimidating, and less respectful.</td>
</tr>
<tr>
<td><strong>5.</strong> Some recipients who had easy access to doctors indicated a preference for these health professionals.</td>
</tr>
<tr>
<td><strong>6.</strong> LHWs reported difficulties in managing emotional relationships and boundaries with recipients.</td>
</tr>
</tbody>
</table>
Lay health worker review

SAMPLE
The role of QES in SR: different aims

<table>
<thead>
<tr>
<th>Nature</th>
<th>Meta-analysis</th>
<th>Qualitative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aim</td>
<td>Accumulating</td>
<td>Make sense of data</td>
</tr>
<tr>
<td>Studies</td>
<td>Strictly comparable</td>
<td>Basic comparability</td>
</tr>
<tr>
<td>Result</td>
<td>More power</td>
<td>Added value in content</td>
</tr>
<tr>
<td>Synthesis</td>
<td>Through data</td>
<td>Through interpretation</td>
</tr>
</tbody>
</table>
WHAT GENERAL APPROACHES CAN BE USED?
Conceptualisation of qualitative evidence synthesis
The method is related to the **purpose** of the review

- Bring together separate findings into an interpretive explanation that is greater than the sum of the parts (meta-ethnography)
- Critically approach the literature in terms of deconstructing research traditions or theoretical assumptions (critical interpretive synthesis)
- Produce theories or models that are based on phenomena involving processes of contextualised understanding and action (grounded theory)
- Respond to a review need for evaluating an intervention’s appropriateness, acceptability and effectiveness (thematic analysis)
- Summarize evidence in order to develop lines of action for practice and policy (meta-aggregation)
- Unpicking the mutually interdependent relationships between persons and environments, by formulating patterns 'With this intervention, these outcomes occur with these population foci and in these settings (ecological triangulation)
- Bring together research of widely different designs and paradigms (meta-narrative)
## Epistemological arguments

<table>
<thead>
<tr>
<th>Idealist</th>
<th>Realist</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meta-narrative</td>
<td>Critical interpretive synthesis</td>
</tr>
<tr>
<td>Meta-ethnography</td>
<td>Grounded theory</td>
</tr>
<tr>
<td>Thematic synthesis</td>
<td>The JBI meta-aggregative approach</td>
</tr>
<tr>
<td>Framework synthesis</td>
<td>Ecological triangulation</td>
</tr>
<tr>
<td>Subjective idealism</td>
<td>Subjective idealism</td>
</tr>
<tr>
<td>Objective idealism</td>
<td>Objective idealism</td>
</tr>
<tr>
<td>Critical realism</td>
<td>Critical realism</td>
</tr>
<tr>
<td>Critical realism</td>
<td>Scientific realism</td>
</tr>
</tbody>
</table>

- **Idealist**: There is no shared reality independent of multiple alternative human constructions.
- **Realist**: There is a world of collectively shared understandings.
- **Knowledge of reality is mediated by our perceptions and beliefs**.
- **It is possible for knowledge to approximate closely an external reality**.

---

Spencer, 2003

Based on Barnett-Page and Thomas, 2009
Choosing the right approach to inform policy and practice?

- Purpose/Aim
- Nature of the research

- Epistemology
- Nature of researcher

- Breadth and depth – level of experience
- Nature of the research team

- Resource requirement
Figure 2: Selection of a Synthesis Method

- **Project:** Barriers and obstacles in engaging LHW
  - **Nature of Research**
  - **Resource Requirements**
  - **Nature of Research Team**

- **Nature of Researcher**

- **Lack of structure and degree of iteration in formal GT & TS may be difficult for novice; CIS offers more structure. Both researchers have experience in interpretive research methods; the aggregative and realist nature of TS might be incongruent with their epistemological stance.**

- **Two researchers; one novice. Requirement for multidisciplinary team and realist epistemology of TS are problematic. GT experience of lead researcher beneficial to conducting formal GT.**

- **Wish to inform practitioners by synthesis findings. Thematic synthesis (TS) promises this outcome. CIS requires that synthesis findings be interpreted by practitioners. Formal grounded theory (GT) implies implications.**
  - Large number of primary research studies; restricting them to GT studies would make synthesis more manageable. Funding will not permit extensive synthesis or large multidisciplinary team. Resource requirements of CIS and TS prohibitive.

- **Select Formal GT as synthesis method.**

- **Consider priority criteria (i.e., available funding & epistemological fit).**
Qualitative Evidence Synthesis guidance

• Guidance is on the CQIMG website
  – Methods to synthesize and integrate qualitative evidence
  – http://cqimg.cochrane.org/supplemental-handbook-guidance

• Mailbase for questions/discussion
  – asqus@jiscmail.ac.uk

• Methodological support for Cochrane or non-Cochrane related QES by KU Leuven researchers based on personal interests (co-authoring)
Thank you for participating!

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

*Please fill out the brief Evaluation Form:*

Disclaimer

This presentation was developed for grant number H133A120012 from the National Institute on Disability and Rehabilitation Research (NIDRR), Office of Special Education and Rehabilitative Services (OSERS), U.S. Department of Education. However, the contents do not necessarily represent the policy of the Department of Education, and you should not assume endorsement by the federal government.