What does qualitative research have to offer evidence based health care?

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Qualitative Methods

• Participant observation
• In depth interviews
• Focus groups
• Discourse analysis
• Documentary analysis
Subject Matter - How People Understand the World.

• Immanuel Kant (1724-1804)
• Critique of Pure Reason, 1781
• We look through tinted spectacles
• We impose our own categories of understanding on objects in the world in order to make sense of them.
The Failure of Inductive Science

“They were not discussing the whole subject of beards in relation to insanity, although that merited a paper apart. All connected with chronic lunatics must have seen very fine beards. He had got at least a dozen photographs. Undoubtedly there was a greater tendency with chronically insane women to develop beards than with others.”

*Journal of Mental Science, 1886, p.297.*
“The goal of all research in health technology assessment should be to establish knowledge about which we can be reasonable confident.....Therefore, decisions about whether qualitative or quantitative methods are most appropriate to a particular research problem should be made on the basis of which approach is likely to answer the question most effectively or efficiently.”

HTA (1999)
Evidence & Design

Ia  Meta-analysis of randomised controlled trials.
Ib  At least one randomised controlled trial.
IIa At least one well-designed controlled study without randomisation.
IIb At least one other type of well-designed quasi-experimental study.
III Well-designed non-experimental descriptive studies, such as comparative studies, correlation studies and case studies.
IV  Expert committee reports or opinions and/or clinical experiences of respected authorities.
3 Key Questions

• What types of questions can qualitative methods answer?

• What does a rigorous qualitative study involve?

• Are these types of questions useful in evidence-based health care?
What types of questions can qualitative research answer?

<table>
<thead>
<tr>
<th>Question</th>
<th>Level of Evidence</th>
</tr>
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<tbody>
<tr>
<td>What exists?</td>
<td>High</td>
</tr>
<tr>
<td>Explaining process</td>
<td>Moderate</td>
</tr>
<tr>
<td>How many or how often?</td>
<td>Theoretically high, practically very low</td>
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</tbody>
</table>
A) How many? or how often?

**Theory**
- Initial qualitative analysis
- Generation of concepts & definitions
- Coding of all transcripts
- Check for inter-rater reliability
- Conclusion

**Practice**
- N= 30-40
- Data collection
- Transcription
- Analysis
- Time = 12-18 months
- Experienced researcher
- Cost = c. £50-100k
Generalisability & Inference

Quantitative

Sampling
- Large
- Random

Statistical

Qualitative

Sampling
- Small
- Theoretical

Conceptual
B) What Exists?

- What is seen as problematic?
  - From the perspective of patients, public or professionals?

- What beliefs do people have about infection?
  - Signs, cause, consequences, timeline, cure/control

- What are the perceived barriers to guideline implementation?
Advantages Over Cross-sectional Surveys....

• Unforeseen views or behaviours

• We can define precisely (validity) - concept development
C) Questions of process....

- Policy implementation

- Illness Behaviour

- Opening the “Black Box” of complex interventions
A FRAMEWORK FOR DEVELOPMENT AND EVALUATION OF RCTs FOR COMPLEX INTERVENTIONS TO IMPROVE HEALTH

This document is a discussion document drafted by members of the MRC Health Services and Public Health Research Board. It is intended to provide a framework for individuals considering the evaluation of a complex intervention. It does not set out a set of required steps in carrying out trials in this area.

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Describe the constant and variable components of a replicable intervention AND a feasible protocol for comparing the intervention to an appropriate alternative using a protocol that is theoretically defensible, reproducible and adequately controlled, in a study with appropriate statistical power.
Problems - Moderate Evidence

Assume rationality

Retrospective justification

Biological factors

Hypothesis Generation
What Does a Rigorous Qualitative Study Involve?
Quantitative Research Process

Specific Research Question → Sample → Data Collection → Analysis → Conclusion

Literature
Qualitative Research Process

Broad Research Question

Theoretical Sampling

Data Collection

Analysis

New Specific Questions

Conclusion

Literature
Rigour

- Disconfirmation
- Respondent validation
- Triangulation
  - Data sources
  - Methods
- Inter-rater coding
- Audit trail

Reader Responsibility
Are These Types of Questions Useful in Evidence-based Health Care?
Defining Objectives

E.g. Symptoms, Social Networks, Support, Satisfaction.....

Developing Outcome Measures

Designing Interventions

Examining Implementation Problems

Evaluating Services

Patient-Centred Services

Adherence/Concordance

Process Issues/Action Research

Triangulation/Experience
Disadvantages of Qualitative Research

- Cannot tell us anything about frequency
- Cannot indicate definitive strength of association
- Time
- Cost
- High quality requires high skill/craft
Conclusion

• Qualitative methods can provide a high level of evidence

• Qualitative methods are part of the wider process to evidence-based health care