Appraising Qualitative Research

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Outline

• Introduction
  – Objectives
  – Qualitative inquiry

• Qualitative Research Guides
  – Credibility
  – Applicability

• Summary
Objectives

• Be able to
  – Identify questions answerable with qualitative research
  – Recognize qualitative methods of inquiry in health sciences literature
  – Recognize major threats to the credibility and applicability of the results of qualitative inquiry
Key Concept

• Quantitative Research
  – Aims to test well-specified hypotheses concerning predetermined variables, yielding data suitable for statistical analysis
  – Deductive
  – Approach
    • Define and deduce
Key Concept

• Qualitative Research
  – Aims to improve insight into social, emotional, and experiential phenomena in health care, yielding data suitable for interpretation
  – Inductive
  – Approach
    • Discover and describe
### Comparison

<table>
<thead>
<tr>
<th></th>
<th>Quantitative</th>
<th>Qualitative</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hypothesis</strong></td>
<td>Prospectively declared</td>
<td>Iteratively derived</td>
</tr>
<tr>
<td><strong>Variables</strong></td>
<td>Predetermined As few as possible</td>
<td>Discovered As many as required</td>
</tr>
<tr>
<td><strong>Measurements</strong></td>
<td>Binary Ordinal Continuous</td>
<td>Observations Interviews Records</td>
</tr>
<tr>
<td><strong>Analysis</strong></td>
<td>Compare measurements</td>
<td>Interpret observations</td>
</tr>
</tbody>
</table>
Key Question

• Is qualitative research relevant?
  – Is my question about social, rather than biomedical, phenomena?
  – Do I seek theoretical or conceptual understanding of the problem?
Users’ Guides for an Article Reporting the Results of Qualitative Research in Health Care

Are the results credible?

- Was the choice of participants or observations explicit and comprehensive?
- Was research ethics approval obtained?
- Was data collection sufficiently comprehensive and detailed?
- Were the data analyzed appropriately and the findings corroborated adequately?

What are the results?

How can I apply the results to patient care?

- Does the study offer helpful theory?
- Does the study help me understand the context of my practice?
- Does the study help me understand social interactions in clinical care?
Validity

• Are the results credible?
  – Was the choice of participants or observations explicit and comprehensive?
  – Was research ethics approval obtained?
  – Was the data collection sufficiently comprehensive and detailed?
  – Were the data analyzed appropriately and the findings corroborated adequately?
Sexually assaulted women report more medical conditions and experience poorer health compared to women without such an experience.


Others have found postassault health care, however, can also have negative consequences.
Studies that explicitly investigate individuals’ own perceptions of their recovery process and what recovery means for the individual are scarce (Draucker et al., 2009). This study aimed to address that omission and extend the qualitative literature by exploring participants’ own accounts of recovery from an experience of sexual assault, and to identify factors that they perceived as facilitating or impeding their recovery process.
Credibility

• Are the results credible?
  – Look for description of
    • Participant selection
    • Data selection
    • Data closure
    • Analysis of findings
    • Validation of findings
• Was the choice of participants explicit and comprehensive?
  – Target Population
    • Persons, groups, or institutions that the results of the study should inform
  – Sample Subpopulation
    • Method by which an informative subset of the population is selected
  – Sample Size
    • How the number of participants is determined
• Participants were recruited who had experienced sexual assault and considered themselves as having “recovered”
Credibility

- Was the choice of participants explicit and comprehensive?
  - Sample Strategy

<table>
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<tr>
<th>Quantitative</th>
<th>Qualitative</th>
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<tbody>
<tr>
<td>Goal is to be proportionately representative of illness, risks, prognosis, etc</td>
<td>Goal is to be experientially comprehensive of influential, if not prevalent, perspectives</td>
</tr>
<tr>
<td>Strategies designed to minimize error and bias</td>
<td>Strategies designed to leverage error and bias</td>
</tr>
<tr>
<td>Objective, arms-length, selection strategy</td>
<td>Subjective, conscious, selection strategy</td>
</tr>
<tr>
<td>Selection criteria fixed and consistent</td>
<td>Selection criteria flexible and evolving</td>
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</table>
Credibility

- Was the choice of participants explicit and comprehensive?
  - Sample Size

<table>
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<tr>
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<tbody>
<tr>
<td>Capture prevalent experience</td>
<td>Capture range of experience.</td>
</tr>
<tr>
<td>Insight from the whole</td>
<td>Insight from the particular</td>
</tr>
<tr>
<td>Sample size predetermined using power and error calculations</td>
<td>Sample size discovered; can change frequently during study</td>
</tr>
<tr>
<td>Inadequate sample size reduces reliability/precision</td>
<td>Inadequate sample size reduces credibility/applicability</td>
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</table>
27 participants
20 completed the questionnaire fully
The remaining 7 participants only completed the section on recovery, although 3 of them also noted that they had not received any postassault medical care
Key Term

• Purposive Sampling
  – Selection of relatively small number of participants meeting particular criteria
    • Typical cases
    • Unusual cases
    • Critical cases
    • Sensitive cases
    • Linked cases
      – Not necessarily convenient cases
      – Snowball sampling: Participants nominate or refer other potential study participants who meet the study inclusion criteria
Credibility

• Was research ethics approval obtained?
  – Formal research ethics board review
    • Research protocol for source selection, data collection, and analysis
    • Consent process
    • Approval of risks to participants
  – Consideration of potential risks to participants
    • Confidentiality
    • Study burden
      – Interviews, incentives, disincentives, opportunity costs
    • Interference with work or workplace
The participants were provided a link to an online qualitative questionnaire.

Participants were anonymous and received no remuneration.

The full questionnaire investigated recovery from sexual assault with a focus on the medical, legal, and social aspects of the recovery process.
Ranjbar & Speer

- For recovery, participants were asked their definition of recovery and how they believed this was best achieved.
- For the medical section, they were asked about their encounters with health professionals, to describe their positive and negative experiences, how they perceived these in relation to their recovery process, and what they would have liked to be different.
Credibility

• Was data collection sufficiently comprehensive and detailed?
  – Sources
    • All relevant people and situations
  – Strategies
    • Witness (Field Observation)
    • Solicit (Interviews)
    • Review (Documents)
  – Instruments
    • All appropriate data collection tools
Sources of Data

Field observation (observing events)
- Direct (observer present)
  - Participant (active participant)
  - Nonparticipant
- Indirect (audio or video recording)
  - Interviews
    - Individual
    - Group
- Document analysis
  - Content analysis (word frequency)
  - Interpreting text
Sources of Data

• **Witness (Field Observation)**
  – Observe social phenomena prospectively
    • Direct
      – Non-participant
        » Researcher stays uninvolved
      – Participant
        » Researcher acknowledged part of setting
    • Indirect
      – Video, audio, remote observations
Sources of Data

• Witness (Field Observation)
  – Key Questions
    • What “observer effects” on participants are likely?
    • Are these effects a source of bias or a potential source of data?
    • Can the effects be isolated by comparing alternate observation strategies?
Sources of Data

• Solicit (Interviews)
  – Individual
    • Computerized
    • Structured
    • Semi-structured
    • Open-ended
    • In-depth: probe, contrast, etc
  – Group
    • Group interviews
    • Focus groups
Sources of Data

• Solicit (Interviews)
  – Key Questions
    • Were the interview methods appropriate to the topic(s) addressed?
    • Were social acceptability effects examined?
    • Were social acceptability effects isolated by comparing interview strategies?
Sources of Data

• Review (Documents)
  – Sources
    • Policies, records, charts, artefacts, etc.
  – Analysis
    • Content Analysis
      – Frequency of words or concepts
    • Interpretive Analysis
      – Nuance, meaning, context
Credibility

• Are the results credible?
  – Key questions
    • Do the chosen methods of observation fit the research question?
    • Could the specific methods systematically distort the interpretation?
    • Was data collection sufficiently broad to balance biases?
      – Numbers of investigators, sources, interpreters
      – Degree of investigator engagement
      – Record of investigator experiences
Credibility

• Were data analyzed appropriately and the findings corroborated adequately?
  – Conceptual framework
    • Organize patterns of observation
  – Analysis stopping criteria
    • Saturation
  – Triangulation
    • Investigator, member, theory
11 of the 27 participants mentioned that they encountered health services (excluding counseling) at some point after their experience(s).

4 received it immediately after

Most reported having sought medical care later for other health issues related to their experiences
Participants predominantly reported negative postassault encounters with health services and how these impeded their recovery process; positive experiences were also reported although the negative accounts dominated the responses.
Key Term

• Conceptual Framework
  – An organization of ideas that provides a system of relationships between those ideas
    • Concepts are the basic building blocks of theory
    • Theory consists of concepts and their relationships
They used an essentialist, inductive thematic analysis approach, influenced by Braun and Clarke (2006), which involved reporting participants’ experiences and identifying patterns in the data.
The analysis of participants’ accounts on being recovered yielded three themes.

The analysis of participants’ experiences with health services resulted in a further three themes, all of which represent factors perceived by participants as impeding their recovery process.

Participants suggested that being recovered means accepting the experience, being freed from negative states, regaining control and trust, and receiving help from and being believed by others.
• Three themes described factors that impeded their recovery processes: health professionals’ inexperience in dealing with survivors of sexual assault; health professionals’ adhering to rape myths and stereotypes; and disrespectful or inconsiderate treatment of survivors.
There were two aspects of inexperience: failure to understand disclosures of assault and failure to act appropriately on disclosure.
Ranjbar & Speer

• The fear of disbelief was a major worry for participants because it influenced if and how much they talked about the experience.

• What was appreciated was for their disclosures of assault to be accepted and taken at face value.

• On the contrary, participants reported that they were either blamed or feared they would be blamed and judged by health professionals.
Disrespectful or inconsiderate treatment was another aspect of health services frequently referred to by participants as impeding their recovery.

Participants portrayed respectful treatment as sensitive and gentle care during medical examinations or evidence collection.
Key Term

• Theoretical Saturation
  – The point at which iterations among data collection, analysis, and theory development yield a well-developed conceptual framework and further observations yield minimal or no new information to further challenge or elaborate the framework.
Key Term

• Triangulation
  – Key findings are corroborated using multiple sources of information and analyzed using multiple social science frameworks
Credibility

• Were data analyzed appropriately and the findings corroborated adequately?

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<tr>
<td>Predetermined, fixed, analytic framework</td>
<td>Challenge, elaborate, corroborate framework</td>
</tr>
<tr>
<td>Analysis follows data collection</td>
<td>Analysis alternates with data collection until redundant</td>
</tr>
<tr>
<td>Analysis is a means</td>
<td>Analysis is part of research product that leads to a new framework</td>
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Credibility

- Are the results credible?
  - Strong
    - Participant selection and data collection methods are clearly described
    - Sources of idiosyncratic findings are diluted by multiple observation strategies
    - Makes sense: good fit between methods and question
  - Weak
    - Unable to determine what was actually done
Importance

• What are the results?
  – Sufficient detail to evoke a vivid picture of the setting and interactions studied?
  – Look for examples, quotes, illustrations, sentinel cases
• Participants perceived that the failure of health professionals to attend to or believe disclosures of sexual assault (whether intentional or not) prevented them from receiving necessary medical care and trivialized their experiences. It must be noted here that although participants wanted to have the right to feel like victims, this is not to say that they wanted to be revictimized.
Applicability

• How can the results be applied?
  – Does the study offer helpful theory?
  – Does the study help me understand the context of my practice?
  – Does the study help me understand social interactions in health care?
Applicability

• Does the study offer helpful theory?
  – Supporting concepts organized
    • Hierarchical
  – Variables embrace full range of observed phenomena
  – Compare and contrast with prevailing theories
Applicability

- Does the study offer helpful theory?

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<td>Product is affirmation or denial of hypothesis</td>
<td>Product is theory, new hypotheses, new variables</td>
</tr>
<tr>
<td>“Statistically” and “clinically” significant</td>
<td>“Comprehensive” and “relevant”</td>
</tr>
<tr>
<td>Airtight fit of question, methods, results,</td>
<td>Parsimony, consistency, clarity, explanatory</td>
</tr>
<tr>
<td>conclusion</td>
<td>capacity</td>
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Applicability

• Does the study offer helpful theory?
  – Key question
    • Is the research compelling to someone experienced in the health care context?
Applicability

• Does the study help understand the health context?
  – Could the insights and theories be usefully applied to similar social settings elsewhere?
Summary

• Key Points
  – Although critical appraisal is still useful for exploratory (qualitative) research, the appraisal guides differ significantly from those for experimental research.
Summary

• Key Points
  – Many of the tests for bias in quantitative research appear “reversed” in qualitative research
  – One qualitative researcher’s bias could be another’s sentinel insight
    • eg, “blinding” could render investigators ineffective
  – Qualitative and quantitative approaches are complementary, not mutually exclusive
Limitations

- Small N – self selected non-clinical sample
- Several participants reported depression and anxiety disorders.
- Retrospective study
- No assessment of respondents’ nationality
Ranjbar and Speer

- The findings can serve as the basis for developing coding schedules that future qualitative studies may use to assess the conclusions using larger sample sizes
Users’ Guides to the Medical Literature Education Guides

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