Application of Qualitative Research in Dietetics

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1. Intro to qualitative research
   1. Purpose of Qual research
   2. Difference between Quant and Qual Research

2. Writing a research question
   1. Activity- write two research questions-critique a research question

3. Qual research methodology
   1. Study designs
   2. Data collection methods
   3. Data management- analysis and data management softwares (Nvivo)- NOT INCLUDED
RESEARCH

• A systematic investigation to establish facts or principles or to collect information on a subject

Types of research
• Quantitative
• Qualitative
1. QUALITATIVE RESEARCH

• Approach that produces findings not derived from standard statistical procedures or other means of quantification.

• Defined as a naturalistic approach that seeks to understand phenomena in uncontrolled, context-specific settings, in which data are not numbers, but text, audio, or visual.

1. PURPOSE OF QUALITATIVE RESEARCH

Complement quantitative research

Describe context of phenomena

Study process of phenomena; is exploratory in nature

Determine causal explanations of phenomena in natural settings

Generate theories and hypotheses

Validate theory

Does not require a big sample

## 1. QUALITATIVE vs QUANTITATIVE RESEARCH

<table>
<thead>
<tr>
<th><strong>Approach:</strong> Inductive</th>
<th><strong>Approach:</strong> Deductive</th>
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</thead>
<tbody>
<tr>
<td><strong>Goal:</strong> Depth, generates hypothesis</td>
<td><strong>Goal:</strong> Breadth/ tests hypothesis</td>
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<tr>
<td><strong>Setting:</strong> natural/uncontrolled setting</td>
<td><strong>Setting:</strong> controlled/ Experimental/ quasi</td>
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<td><strong>Sampling:</strong> Purposive</td>
<td><strong>Sampling:</strong> Random</td>
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<tr>
<td>Sample Size: Small</td>
<td>Sample Size: Large</td>
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<tr>
<td><strong>Data Collection:</strong> observations/ Guides</td>
<td><strong>Data Collection:</strong> Survey</td>
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<td><strong>Data Analysis:</strong> iterative interpretation</td>
<td><strong>Data Analysis:</strong> Statistical models</td>
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<tr>
<td><strong>Explore:</strong> Outcomes due to treatments, manipulations and outcomes</td>
<td><strong>Explore:</strong> Complex issues and interactions between humans, reasons for outcomes, and processes</td>
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Harris J, et al.  
2. Identifying a Research Question

• Qual Res inquires research questions and **NOT** objectives.
• It is *exploratory in nature*
• It will *explore a phenomenon/ concept* whose variables are not known and with no theoretical base, expect the research question to **evolve/change** during the course of the study
2. Writing a Research Question

1. Focus on a single phenomenon
2. It starts with an exploratory verb e.g. *generate, discover, understand, describe, explore*
3. Use verbs that are non-directional
4. The research question is framed as an objective
5. It should specify the site of the study to the participants
2. Writing a Research Question

Activity- Critique the question

The purpose of this study is to understand the perceptions of communities of community midwives regarding effective work.
2. Writing a research question

Better Version

‘To explore communities’ perceptions of community midwives of to effective work in Southern Punjab’
Writing a Research Question

Activity

‘Rural lahore is not knowledgeable about breastfeeding’
Writing a Research Question

Better Version

???????????????
3. Qualitative Research Methodology

There are four components of qualitative research methodology

• Qualitative research strategies/designs
• Sampling Methods
• Data sources and collection
• Data Management
3. Qualitative Research Strategies

1. In-depth interviews
2. Focus group discussions
3. Documents
4. Observations
In-depth Interviews

A one-to-one conversation between researcher and participant, providing information on the participant’s point of view.
In-depth Interviews

A conversation that is less open & undirected

Interviewer takes a leading role, guiding the conversation to cover the topics of the research

Asks a series of questions one after the other

An interview lasts between 40 minutes and one hour

Interview usually takes place in a private setting

An in-depth interview is usually a one-to-one situation

Researcher uses a ‘topic guide’ to guide his or her questioning during the interview

Skovdal, M., & Cornish, F. CHAPTER 3 - Interviews and focus group discussions Qualitative Research for Development (pp. 55-74).
Identify key informants

Goal of the sampling is breadth and not the representativeness.

Sample size varies depending upon the complexity of the inquiry and cannot be decided in advance.

The cut off sample is decided by theoretical saturation.
In-depth Interviews

Advantages
• Useful when participants cannot be directly observed
• Participants can provide historical information
• Allows researcher control over the line of questioning

Limitations
• Provides indirect Information filtered through the views of interviewees
• Provides information in a designated place rather than the natural field setting
• Researcher's presence may bias responses
• Not all people are equally articulate and perceptive
Data Collection Approach

• unstructured, open-ended interview and **taking interview notes**
• unstructured, open-ended interview, **audiotape** the interview, and **transcribe it**
• semi structured interview, audiotape the interview and transcribe it
• Different types of interviews: email, face-to-face, focus group, online telephone interviews
Observations

The researcher takes field notes on the behavior and activities of individuals at the research site.

In these field notes, the researcher records, in an unstructured or semistructured way (using some prior questions that the inquirer wants to know), activities at the research site.
Observation- Types

1. Participant vs Non Participant
2. Direct vs indirect
3. Disguised vs undisguised
4. Structured vs non structured
5. Human vs Mechanical
**Observations**

**Advantages**

- Researcher has a first-hand experience with participant
- Researcher can record information as it occurs
- Unusual aspects can be noticed during observation
- Useful in exploring topics that maybe uncomfortable for participants to discuss
- Costs Less
- No chance of recall error

**Limitations**

- Researcher may be seen as intrusive
- Private information maybe observed that researcher cannot report
- Researcher may not have good attending and observing skills
- Certain participants (e.g., children) may present special problems in gaining rapport
Focus Group Discussions

Discussion among four to eight participants, facilitated by a researcher, generating data on the research topic through peer discussions.
The idea is to drop a pebble in the middle of the pond and stimulate a ripple effect of conversation. A discussion guide is usually used to collect data in focus groups in a similar way as mentioned for in depth interviews.
Focus Group Discussions

COMPOSITION

- Normally comprises of 4-8 participants
- Avoid power differentials among individuals
- The number of focus groups recommended per strata is 3-5

Stratify by characteristics e.g. age, gender, education etc.

- Homogeneity and heterogeneity
- Better to have all participants as strangers to avoid any influence of one participant over another
Focus Group Discussions

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Limitations</th>
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<tbody>
<tr>
<td>• Gives a more collective point of view on how the group as a whole</td>
<td>• Expensive &amp; time consuming</td>
</tr>
<tr>
<td>discusses a topic</td>
<td>• Harder to get everyone in the same place at the same time</td>
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<td>• A deeper understanding of the phenomenon</td>
<td>• Biased sample</td>
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<td>• New insights; exploring shared norms, common knowledge, shared beliefs</td>
<td>• Reliability of thematic analysis</td>
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<td>&amp; common debates</td>
<td>• Reliability of perceptions (not always accurate)</td>
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<tr>
<td>• Complements and further explains statistical information obtained</td>
<td>• Difficulties preventing a particularly vocal or dominant participant</td>
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<td>from other evaluative processes</td>
<td>from coercing others to agree with his/her views</td>
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<td></td>
<td>• Data obtained are very context-specific and therefore not generalizable</td>
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<tr>
<td></td>
<td>to other institutions or contexts</td>
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Documents

During the process of research, the investigator may collect **documents**. These may be public documents (e.g., newspapers, minutes of meetings, official reports) or private documents (e.g., personal journals and diaries, letters, e-mails).
Documents

Advantages

• Enables a researcher to obtain the language and words of participants.
• Can be accessed at a time convenient to researcher—an unobtrusive source of information.
• Represents data which are thoughtful in that participants have given attention to compiling them,
• As written evidence, it saves a researcher the time and expense of transcribing

Limitations

• Not all people are equally articulate and perceptive.
• May be protected information unavailable to public or private access.
• Requires the researcher to search out the information in hard-to-find places.
• Requires transcribing or optically scanning for computer entry.
• Materials may be incomplete.
• The documents may not be authentic or accurate
Data Collection Methods

1. Keeping a journal during the research study
2. Have a participant keep a journal or diary during the research study
3. Collect personal letters from participants
4. Analyze public documents (e.g., official memos, minutes, records, archival material).
5. Examine autobiographies and biographies
6. Have participants take photographs or videotapes (i.e., photo elicitation)
7. Medical records
<table>
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<th>Application</th>
<th>Research Question</th>
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<tr>
<td>Decision making processes</td>
<td>How do dietitians make decisions about discontinuing tube feedings?</td>
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<tr>
<td>Sociocultural factors that affect food and nutrition-related behaviors</td>
<td>What are motivators and barriers to urban African-Americans consuming fruits and vegetables?</td>
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<tr>
<td>Reasons for a dietetics-related phenomenon</td>
<td>Why didn’t a technology based, interactive diabetes education program improve diabetes self management compared to a traditional diabetes education program?</td>
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<tr>
<td>Teaching effectiveness in dietetics</td>
<td>Which are best practices among dietetics educators who have been identified as excellent in their field?</td>
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## Qualitative Research Applications in Dietetics

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<th>Research Question</th>
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<td>Consumer and employee behavior, attitudes, and perspectives in foodservice</td>
<td>What are the behaviors, attitudes, and perspectives related to food safety among community hospital foodservice workers?</td>
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<tr>
<td>Exploring unfamiliar cultures regarding their mores, traditions, and beliefs related to food and nutrition</td>
<td>What mores, traditions, and beliefs promote obesity among the Pima Indians?</td>
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<td>Evaluation of dietetics education programs</td>
<td>What is the process used by a particular dietetic internship to educate their students?</td>
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<td>Task-related processes</td>
<td>To what degree is the Nutrition Care Process applied in community and clinical environments?</td>
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<tr>
<td>Theory development and modification</td>
<td>To what degree does Social Learning Theory apply in explaining the choice between soda and milk?</td>
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Acknowledgement

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References


• Skovdal, M., & Cornish, F. *CHAPTER 3 - Interviews and focus group discussions Qualitative Research for Development* (pp. 55-74).