

Qualitative research in India

Qualitative Research is primarily an exploratory research. It is used to gain an understanding of underlying reasons, opinions, and motivations. It provides insights into the problem or helps to develop ideas or hypotheses for potential quantitative research.

Qualitative research is being conducted by medical researchers today because it can answer questions that quantitative methods (such as randomized controlled trials) cannot. It focuses on understanding experiences, attitudes, and behaviours. These “soft” areas of clinical care are drawing increased attention because of the recognition that they have a profound effect on perception of health, health-seeking behaviour, and adherence to treatment^[1].

Differences between Qualitative and Quantitative research^[1]:

Characteristic	Quantitative research	Qualitative research
Philosophical base	Positivism	Phenomenology
Goal	Verification	Concept development
Questions posed	How often? How many?	Why? What purpose?
Setting	Experimental	Natural
Study population	Numerous	Few
Sampling	Random	Purposeful
Approach	Deductive	Inductive
Analysis	Statistical	Interpretive
Result	Hypothesis testing	Hypothesis generating
Researcher	Distant	Involved
Presentation	Focus on data	Focus on narrative
Typical model	Lines	Circle, webs

Contemplating on the qualitative research in India, literature search hardly provides any yield on qualitative research. National health –related governing bodies formulate guidelines for the prevention and treatment of many diseases and revise them more often on the basis of quantitative research and less on the basis of qualitative research. But, it is through qualitative research that people’s health-related behaviours like childcare and dietary practices, sanitation and hygiene, treatment seeking

for illness, etc.,^[2] can be studied and hence better preventive and curative strategies may be formulated for a sound health in the society. With the awareness of the benefits of qualitative research, the challenges about the steps and analysis of qualitative research should be borne in mind too.

Here is a briefing about the way qualitative research may be carried out -

Research question in Qualitative research^[3]:

Research questions assume two forms: a **central question and associated subquestions**.

The **central question** is a broad question that asks for an exploration of the central phenomenon or concept in a study. The inquirer poses this question, consistent with the emerging methodology of qualitative research, as a general issue so as to not limit the inquiry. In qualitative research, the intent is to explore the complex set of factors surrounding the central phenomenon and present the varied perspectives or meanings that participants hold. The following are guidelines for writing broad, qualitative research questions:

- Ask one or two central questions followed by no more than five to seven subquestions. Several subquestions follow each general central question; the subquestions narrow the focus of the study but leave open the questioning.
- Relate the central question to the specific qualitative strategy of inquiry.
- Use exploratory verbs that convey the language of emerging design.

These verbs tell the reader that the study will -

- Discover (e.g., grounded theory)
- Seek to understand (e.g., ethnography)
- Explore a process (e.g., case study)
- Describe experiences (e.g., phenomenology)
- Report the stories (e.g., narrative research)
- Expect the research questions to evolve and change during the study in a manner consistent with the assumptions of an emerging design. Often in *qualitative* studies, the questions are under continual review and reformulation (as in a grounded theory study).

Stages involved in Analysis of Qualitative Research data^[4]:

Stage 1: Transcription

A good quality audio recording and, ideally, a *verbatim* (word for word) transcription of the interview is needed.

Stage 2: Familiarization with the interview

Becoming familiar with the whole interview using the audio recording and/or transcript and any contextual or reflective notes that were recorded by the interviewer is a vital stage in interpretation. It can also be helpful to re-listen to all or parts of the audio recording.

Stage 3: Coding

After familiarization, the researcher carefully reads the transcript line by line, applying a paraphrase or label (a 'code') that describes what they have interpreted in the passage as important.

Stage 4: Developing a working analytical framework

After coding the first few transcripts, all researchers involved should meet to compare the labels they have applied and agree on a set of codes to apply to all subsequent transcripts. Codes can be grouped together into categories (using a tree diagram if helpful), which are then clearly defined. This forms a working analytical framework.

Stage 5: Applying the analytical framework

The working analytical framework is then applied by indexing subsequent transcripts using the existing categories and codes. Each code is usually assigned a number or abbreviation for easy identification and written directly onto the transcripts. Computer Assisted Qualitative Data Analysis Software (CAQDAS) is useful to speed up the process and ensure that, at later stages, data is easily retrievable.

Stage 6: Charting data into the framework matrix

A spreadsheet is used to generate a matrix and the data are 'charted' into the matrix. Charting involves summarizing the data by category from each transcript.

Stage 7: Interpreting the data

Impressions, ideas and interpretations of the data are noted down. Characteristics of and differences between the data are identified, perhaps generating typologies, interrogating theoretical concepts or

mapping connections between categories to explore relationships and/or causality.

Thematic analysis is a search for themes that emerge as being important to the description of the phenomenon. The coding process involves recognizing (seeing) an important moment and encoding it (seeing it as something) prior to a process of interpretation. A "good code" is one that captures the qualitative richness of the phenomenon. Encoding the information organizes the data to identify and develop themes from them^[5].

Techniques to identify themes^[5] are:

1. Repetitions
2. Indigenous Typologies or Categories
3. Metaphors and Analogies
4. Transitions
5. Similarities and Differences
6. Linguistic Connectors
7. Missing Data
8. Theory-Related Material

Coding is the process of organizing and sorting your data. Codes serve as a way to label, compile and organize your data. They also allow you to summarize and synthesize what is happening in your data. In linking data collection and interpreting the data, coding becomes the basis for developing the analysis.

References

1. Huston P, Rowan M. *Qualitative studies - Their role in medical research. Canadian Family Physician* 1998; 44: 2453 – 58.
2. Priya R. *Qualitative research in public health. Issues in Medical Ethics* 2000; VIII (4):113-5.
3. Creswell JW. *Research design. 3rd edition. USA: Sage publications. 2014. p. 129-32.*
4. Gale NK, Heath G, Cameron E, Rashid S, Redwood S. *Using the framework method for the analysis of qualitative data in multi-disciplinary health research. BMC Medical Research Methodology* 2013;13:117.
5. Ryan GW, Bernard RH. *Techniques to Identify Themes. Field Methods* 2003; 15 (1):85-109.

Dr. Anita Herur

Professor of Physiology,
S. Nijalingappa Medical College,
Bagalkot, Karnataka, India
E-mail: dranitaherur@yahoo.co.in