Qualitative Research in Medical Education

Qualitative research is the study of social, relational, and experiential phenomena in their natural setting. It is exploratory research, intended to achieve a deep understanding of a situation from the perspective of participants. It is also inductive or “ground-up” research in which insights emerge from the data. In terms of medical education specifically, qualitative research can help researchers understand underlying behaviors, attitudes, perceptions, and culture in a way that quantitative methods alone cannot.

Qualitative researchers ask “what?” “why?” and “how?” to examine human experiences, group interactions, and social processes.

The Qualitative Research Process

- Define the Problem/Topic
- Conduct a Literature Review
- Craft a Theoretical Framework
- Apply for Ethics Approval
- Write a Research Proposal
- Choose a Methodology and Design the Project
- Conduct Sampling, Data Collection, and Analysis
- Craft a Hypothesis/Argument
- Disseminate Results

Qualitative Research Methodologies

- Ethnography: the study of social interactions, behaviours, and perceptions that occur within groups, organizations, and communities.
- Phenomenology: the study of the meaning for several individuals of their lived experience of a concept or a phenomenon.
- Grounded Theory: the study of social phenomenon through the development of theoretical explanations that are derived from the experience of study participants.
- Case Study: the study of an issue at a point in time or within a certain context.

Sampling

Sampling in qualitative research is purposive and researchers use their own judgments in selecting their study sample.

Saturation

The key with qualitative sampling is to continue collecting data until you have reached saturation – that is, until you have collected enough data to confirm themes and no new insights or themes arise.
Qualitative Research Methods

Qualitative data collection methods include interviews, focus groups, observation, and textual analysis.

**Interviews** are conversations evoked under the guidance of a researcher for the purpose of learning about people’s feelings, thoughts, and experiences. They provide information on participants’ personal perspectives and experiences and allow researchers to explore their research question in-depth.²

**Focus groups** are sessions involving 4 to 12 participants and a moderator or facilitator who guides the discussion of a topic relevant to the research question. It is an interactive exchange between participants.³

**Observation** is the collection of data related to what participants do, not just what they say they do. The researcher becomes fully engaged in the daily activities of the study participants and observes them as they go about their regular activities.³

**Textual research** is research involving the collection of textual data from existing documents, written narratives, or answers to open-ended questions.

Qualitative Data Analysis: Qualitative analysis involves working with data, organizing it, breaking it into manageable units, synthesizing it, searching for patterns, discovering what is important and what is to be learned, and deciding what you will tell others.

The key analysis techniques in qualitative research are: thematic, descriptive, and discourse.

**Coding:** Coding is the process of sorting or organizing qualitative data into categories representing similar trends or themes.

1. **1st Pass**
   - immersion in data
   - create initial code list
   - code data
   - iteratively revise code list

2. **2nd Pass**
   - create clusters of coded data
   - generate themes
   - consult literature

3. **3rd Pass**
   - confirmation / testing of themes
   - provide explanatory model

Trustworthiness & Authenticity

Qualitative researchers ensure rigour for their research through these four methods:

**TRIANGULATION**
- gathering data from different sources, using different methods, or involving different researchers

**THICK DESCRIPTION**
- providing detailed description of your sample, setting, and results

**MEMBER CHECKING**
- asking participants if insights are accurate to their experience

**CLARITY**
- recording procedures, data, analysis, and interpretations such that they could be audited

Key Points

- Qualitative research is exploratory and inductive – your insights emerge from the data.
- Clarify your research question – your methodology and the data collection method(s) you choose will depend on your research question.
- The qualitative research process is flexible – sampling, data collection, and data analysis often overlap.
- Sampling and data collection continues until saturation is reached.
- Qualitative research is not unbiased – acknowledge the impact of the researcher perspective.
- All research involving human participants requires ethics approval.

References

3. Lingard, L., & Kennedy, T.J. (2007). Qualitative research in medical education, Association for the Study of Medical Education.

Further Reading


