

Discover, Describe, Understand



Consider Qualitative Research

# AGENDA



**Qualitative Methods**



**Mixed Methods**



**Focus Groups**

# JAMA: 820 Qualitative Research Articles since 2015

JAMA Network Open | Original Investigation | Health Informatics

November 20, 2019

## Contemporary Views of Research Participant Willingness to Participate and Share Digital Data in Biomedical Research

Abhishek Pratap, MS; Ryan Allred, BA; Jaden Duffy, BA; Donovan Rivera, MSW; Heather Sophia Lee, PhD; Brenna N. Renn, PhD; Patricia A. Areán, PhD

[Abstract](#) | [Full Text](#)

 JAMA Netw Open. 2019; 2(11):e1915717. doi: 10.1001/jamanetworkopen.2019.15717

This mixed-methods survey and qualitative study investigates the association of willingness to participate in biomedical research and share social media data with source of study funding and online recruitment platform.



JAMA Internal Medicine | Original Investigation

October 1, 2019

## Assessment of Rapid Response Teams at Top-Performing Hospitals for In-Hospital Cardiac Arrest

Kimberly Dukes, PhD; Jacinda L. Bunch, PhD, RN; Paul S. Chan, MD, MSc; Timothy C. Guetterman, PhD, MA; Jessica L. Lehrich, MS; Brad Trumpower, MS; Molly Harrod, PhD; Sarah L. Krein, PhD, RN; Joan E. Kellenberg, MS, MPH; Heather Schacht Reisinger, PhD; Steven L. Kronick, MD, MS; Theodore J. Iwashyna, MD, PhD; Brahmajee K. Nallamothu, MD, MPH; Saket Girotra, MD, SM

[Abstract](#) | [Full Text](#)

JAMA Intern Med. 2019; 179(10):1398-1405. doi: 10.1001/jamainternmed.2019.2420

This qualitative study evaluates differences in design and implementation of rapid response teams at top-performing and non-top-performing sites for survival of in-hospital cardiac arrest.



Original Investigation | Hematology

May 24, 2019

## Management of Chronic Pain in Adults Living With Sickle Cell Disease in the Era of the Opioid Epidemic A Qualitative Study

Cynthia B. Sinha, PhD<sup>1</sup>; Nitya Bakshi, MBBS, MS<sup>1,2</sup>; Diana Ross, RN, MS<sup>1</sup>; et al

[Author Affiliations](#) | [Article Information](#)

JAMA Netw Open. 2019;2(5):e194410. doi:10.1001/jamanetworkopen.2019.4410

PubMed 2112 Clinical Trial Articles with Qualitative Components since 2015

# Quick Comparison

Qualitative vs. Quantitative Inquiry

## Qualitative

Systematic collection, organization, description and interpretation of textual, verbal or visual data

Inductive

Smaller sample sizes

Not typically representative of the population

Exploration of attitudes and patterns of behaviors

## Quantitative

Systematic collection of data about a phenomenon, using standardized measures and statistical analysis

Deductive

Larger sample sizes

Statistically representative

Variables can be isolated and defined

Question or problem is known

Hypothesis driven

# Purpose of Qualitative Inquiry

**Describe, decode, translate and otherwise come to terms with the meaning, not the frequency, of certain more or less naturally occurring phenomena in the social world**

The experience of health, illness and medical intervention cannot always be counted and measured.

Knowledge gained from qualitative research methods can: inform clinical practice, indicate how to support people living with chronic conditions, contribute to community education and awareness

Example: Exploration of beliefs and understandings is needed to find out why the results of research are often not implemented in clinical practice. Interventions may not work in practice if people do not view them as acceptable, ethical, accessible, feasible and cost-effective.

Qualitative research = meanings, experiences and views of the participants

Qualitative evidence is helpful in assessing the impact of interventions. Are they acceptable? feasible?

**Clinical trials test effectiveness; Qualitative studies test acceptability and feasibility**

# Qualitative Methodologies

## Grounded Theory

Most frequently used methodology  
Seeks to understand social processes  
Iteration of analysis; exploring patterns as they emerge

## Phenomenology

Seeks to understand subjective lived experiences  
Typically explores individual experiences through in-depth interviewing  
Inductive analysis  
Reflexivity

## Ethnography

Aims to understand people in their contexts  
Explores the influence of culture, social organization, and shared values  
Direct observation

## Case Study

Seeks an in-depth understanding of an individual case to illustrate a problem of interest

# Qualitative Research Methods



## Interviews

- Structured, semi-structured, unstructured
- Flexible
- Explores experiences & attitudes
- Benefit of uncovering issues or concerns that have not been anticipated by the researcher
- **Interpersonal aspects of care**
- **Quality of care**
- **Identifying obstacles to change**



## Focus Groups

- Time efficient
- Public views vs. private views
- Participant interaction and discussion
- **Market research**
- **Gauging community interest/knowledge**
- **Implementing new technology/ Intervention**
- **Quality of care**



## Observation

- Systematic observation of organizational settings, behaviors, and interactions
- **Formative evaluations of new services**
- **Study of everyday work in healthcare settings**
- **Delivery of care**



## Content Analysis

- Reviewing and evaluating documents
- Document review
- Case studies (produce rich descriptions of a single phenomenon)
- Utilizes available data rather than engaging with people for interviews or focus groups
- Less obtrusive, more efficient
- Bias in document selection
- **Understanding care decisions**

# PROS & CONS

## Conducting Qualitative Research



### Pros



Deeper meaning to lived experiences



Assesses quality and feasibility



Informs quantitative study design



### Cons



Not representative of the general public



Not hypothesis driven



# Qualitative Informs Quantitative

## Qualitative work puts an emphasis on people's lived experience.

- locating the meanings that people place on
  - events
  - processes
  - structures
- perceptions
- presuppositions
- assumptions

## Conditions that are suitable for a qualitative study:

- questions about people's experiences
- meanings people make of their experiences
- studying a person in the context of her or his social/interpersonal environment
- research where it is difficult to develop a standardized instrument due to the lack of knowledge on the phenomenon

Qualitative studies lend insights to develop ideas, hypothesis, and measurement tools for quantitative research!

# Qualitative Data Analysis



## Data Collection

Collect data through one or multiple qualitative methodologies

## Transcription

Qualitative data is often in the form of text. Interviews are written into transcripts. Observations are field notes.

## Coding

Identifying segments in the data that are responsive to the research question. Compare one segment with the next, looking for recurring patterns in the data set until **Thematic Saturation** is reached.

## Interpretation

Interpret the meaning of patterns and their relationships.

# Assessing Research Quality

## Theoretical Approach

*Is a qualitative approach appropriate?*

*Is the study clear in what it seeks to do?*

## Study Design

*How defensible is the research design?*

## Data Collection

*How well was the data collection carried out?*

## Trustworthiness

*Is the role of the researcher clearly described?*

*Is the context clearly described?*

*Were the methods reliable?*

## Analysis

*Is the data analysis sufficiently rigorous?*

*Are the data rich?*

*Is the analysis reliable?*

*Are the findings convincing?*

## Relevance of Findings and Conclusions

## Ethics

*How clear and coherent is the reporting of ethics?*

## Overall Assessment

*Is the study relevant?*

*How well was the study conducted?*

# Mixed Methods

## Methodology for integrating quantitative and qualitative analysis

### Triangulation

to obtain different but complementary data on the same topic to best understand the research problem

### Embedded

one data set provides a supportive, secondary role in a study based primarily on the other data type (secondary data can be collected before, during, after initial data collection)

### Explanatory

a two-phase mixed methods design: qualitative data helps explain or build upon initial quantitative results (qualitative data collected after quantitative analysis)

### Exploratory

two-phase mixed methods design is that the results of the first method (qualitative) can help develop or inform the second method (quantitative). Design is based on the premise that an exploration is needed for one of several reasons: measures or instruments are not available, the variables are unknown, or there is no guiding framework or theory



# Focus Groups

# Focus Groups

The focus group is an interview style designed for small groups of unrelated individuals, formed by investigator and led in a group discussion on some particular topic or topics.



Focus Groups can be used for:

1. Obtaining general background information about a topic of interest.
2. Generating research hypotheses that can be tested using more quantitative approaches.
3. Stimulating new ideas and creative concepts.
4. Diagnosing the potential for problems with a new program, service, or product.
5. Generating impressions of products, programs, services, institutions, or other objects of interest.
6. Learning how respondents talk about the phenomena of interest, which may facilitate quantitative research tools.
7. Interpreting previously attained qualitative results.

# Focus Groups in Clinical Research

1

## Perspectives

- Commonly used to explore the perspectives of patients and healthcare professionals
- Perceptions of treatments of specific illnesses

2

## Interventions

- Assessing the feasibility and acceptability of implementing new interventions
- Understanding the success or failure of an attempted intervention

3

## Invention

- Developing healthcare technology
- New diagnostics or therapeutic method

4

## Community Health

- Community and cultural understanding
- Assessing attitudes and beliefs



## A Contextual Analysis to Explore Barriers and Facilitators of Pain Management in Swiss Nursing Homes.

- Focus groups of registered nurses, licensed nurse practitioners, and nursing aides
- Aimed to understand barriers and facilitators to pain management in nursing homes
- Discovered need for interventions and behavior changes for staff and residents

## The “Information Technology for Patient-Centered Health Care” (INFOPAT) research program

- 21 Focus Groups: colorectal patients, type 2 diabetes patients, physicians, pharmacists, and other health care professionals
- Aimed to develop and evaluate an electronic personal health record to improve regional health care for chronically ill people and strengthening patients’ participation in their health care process.
- Researchers explored patients’ and health care professionals’ experiences with cross-sectoral health care and patient self-management, and expectations regarding the advantages and disadvantages of a personal electronic health record
- information gathered served as a basis for constructing a personal electronic health record prototype





## Focus Group Pitfalls

1. Running a focus group because the investigator doesn't know what else to do.
2. Being too vague about the objectives of the focus group
3. Using too few focus groups
4. Over-reaching during a focus group
5. Including too many participants in each group
6. Too much or not enough influence from the moderator (professional moderators get professional results)



## Recap

### Qualitative Research Questions:

- Explore social process and human experience
- Ask about what, why, and how
- Seek to explore and explain

## Quick Practice

- Where can qualitative research fit into your practice?
- Write a research question that can be answered through qualitative analysis
- Which data collection method is best to answer this question?



**DATA SOLUTIONS**

# THANK YOU

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Please visit the Center for Data Solutions website.

Contact us using the 'Get Started' page:

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# Resources

<https://www.pcori.org/research-results/about-our-research/research-methodology/pcori-methodology-standards#QualitativeMethods>

Lowe, Andrew, Anthony C. Norris, A. Jane Farris, and Duncan R. Babbage. "Quantifying thematic saturation in qualitative data analysis." *Field Methods* 30, no. 3 (2018): 191-207.

Tracy, Sarah J. "Qualitative quality: Eight "big-tent" criteria for excellent qualitative research." *Qualitative inquiry* 16, no. 10 (2010): 837-851.

Hannes K. Chapter 4: Critical appraisal of qualitative research. In: Noyes J, Booth A, Hannes K, Harden A, Harris J, Lewin S, Lockwood C (editors), *Supplementary Guidance for Inclusion of Qualitative Research in Cochrane Systematic Reviews of Interventions*. Version 1 (updated August 2011). Cochrane Collaboration Qualitative Methods Group, 2011. Available from URL <http://cqrmg.cochrane.org/supplemental-handbook-guidance>

Robert Wood Johnson Foundation: Exemplary Qualitative Research in the Health Care Field: <http://www.qualres.org/HomeExem-4288.html>