- From raw data to credible interpretation: Coding, categorization, themes & reporting
- Margaret Barton-Burke, PhD, RN, FAAN

Qualitative Research Analysis

Memorial Sloan Kettering Cancer Center

Learning Objectives

- Explain purpose of qualitative analysis
- Distinguish common approaches
- Apply coding & theme development
- Assess credibility
- Present findings effectively

What Is Qualitative Analysis?

- Systematic interpretation of meaning, experience & context
- Focus on meaning, process, context, variation & patterns
- Interpretive, systematic, reflexive & evidence-based
- MUST BE RIGOROUS

Common Data Sources

- Interviews
- Focus groups
- Observations
- Documents
- Visual/digital data
- Open-ended responses

Major Analytical Approaches

- Thematic Analysis
- Content Analysis
- Grounded Theory
- Narrative Analysis
- Discourse Analysis
- Phenomenological Analysis
- Framework Analysis

The Analysis Cycle

- Prepare data
- Familiarize yourself with the data
- Code data
- Develop categories
- Construct themes
- Interpret findings
- Write &/or presentation

Prepare & Manage Data

- Transcribe & organize data
- Audit the transcription
- Anonymize identifiers
- Secure storage & metadata
- Maintain audit trail & record

Become Familiar With Data

- Read repeatedly
- Note patterns & surprises
- Write summaries & memos
- Maintain reflexive journal

Generate Codes

- Descriptive, process, in vivo, emotion & interpretive codes
- Use inductive & deductive coding

- Lack of understanding
- Acceptance of diagnosis
- Negative perception
- Myths of cancer
- Communication skills in cancer management
- Physician patient relationship
- Poor knowledge of lung cancer treatment protocol
- Training of doctor
- Accepted medical advice
- Isolation
- Frustration
- Fate/Spirituality/Religion
- Cancer fatalism
- Resignation to fate
- Dissatisfaction
- Stigma
- Time
- Burdens of cancer treatment
- Denial
- Rating of doctors' communication

AND

- Circumventing the suspected culprit

Coding Example From sample transcripts

Participant 5

Build a Codebook

- Code name & definition
- Include/exclude criteria
- Examples & related codes

From Codes to Themes

Data extracts → Codes → Categories → Themes → Interpretation

Develop Strong Themes

- Coherent
- Distinctive
- Evidence-based
- Interpretive
- Relevant
- Nuanced

- Can be metaphorical

Compare Cases & Seek Variation

- Across participants & groups
- Across data sources
- Negative-case analysis

Reflexivity

- Examine researcher influence
- Challenge assumptions
- Document analytic decisions

Strengthening Trustworthiness

- Credibility
- Dependability
- Confirmability
- Transferability

Keep a journal or log

Software Tools

- NVivo
- ATLAS.ti
- MAXQDA
- Dedoose
- Spreadsheets

Ethical Considerations

- Protect confidentiality
- Respect informed consent
- Avoid harmful interpretations
- Review AI/cloud requirements – to keep the data safe

Common Pitfalls

- Topics treated as themes
- Quotes without analysis
- Frequency mistaken for significance

Writing Findings

- Claim
- Evidence
- Interpretation
- Context

Analytical Reporting Example – from transcript for participant 5

- Theme: Communication
- Meaning of cancer in his/her life

Practical Analysis Plan

- Preparation
- Familiarization
- Coding
- Theme development
- Quality review
- Reporting

Key Takeaways

- Analysis is systematic & iterative
- Research question guides decisions
- Transparency strengthens trustworthiness

Discussion Exercise

- Identify codes
- Create a category
- Develop a theme
- Consider alternative explanations