

# Introduction to qualitative analysis

GSTTP research mini-course

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# Learning objectives

- Describe qualitative analysis methods (primarily deductive approaches) including steps of qualitative analysis.
- Practice developing and applying a codebook.

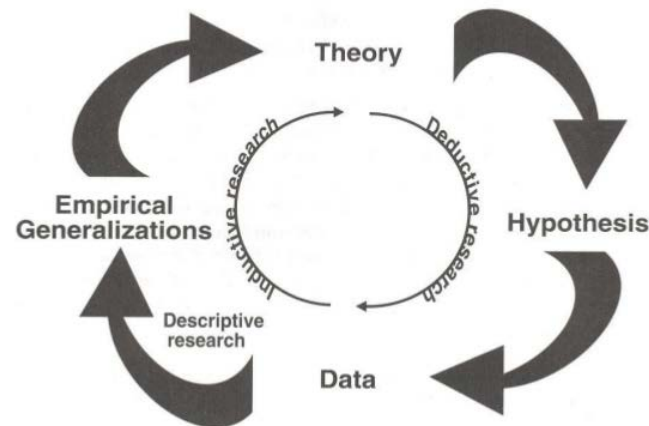
# Refresher: What is qualitative research?

- Qualitative data = (usually) words
- Research questions amenable to qualitative data:
  - How & Why (& What) (not How Many/Much) → meaning, not frequency
    - *Not merely descriptive!*
- “Mixed methods” research = incorporates both qualitative & quantitative data
  - Side by side; or integrated/iterative

# Refresher: Categories of qualitative research

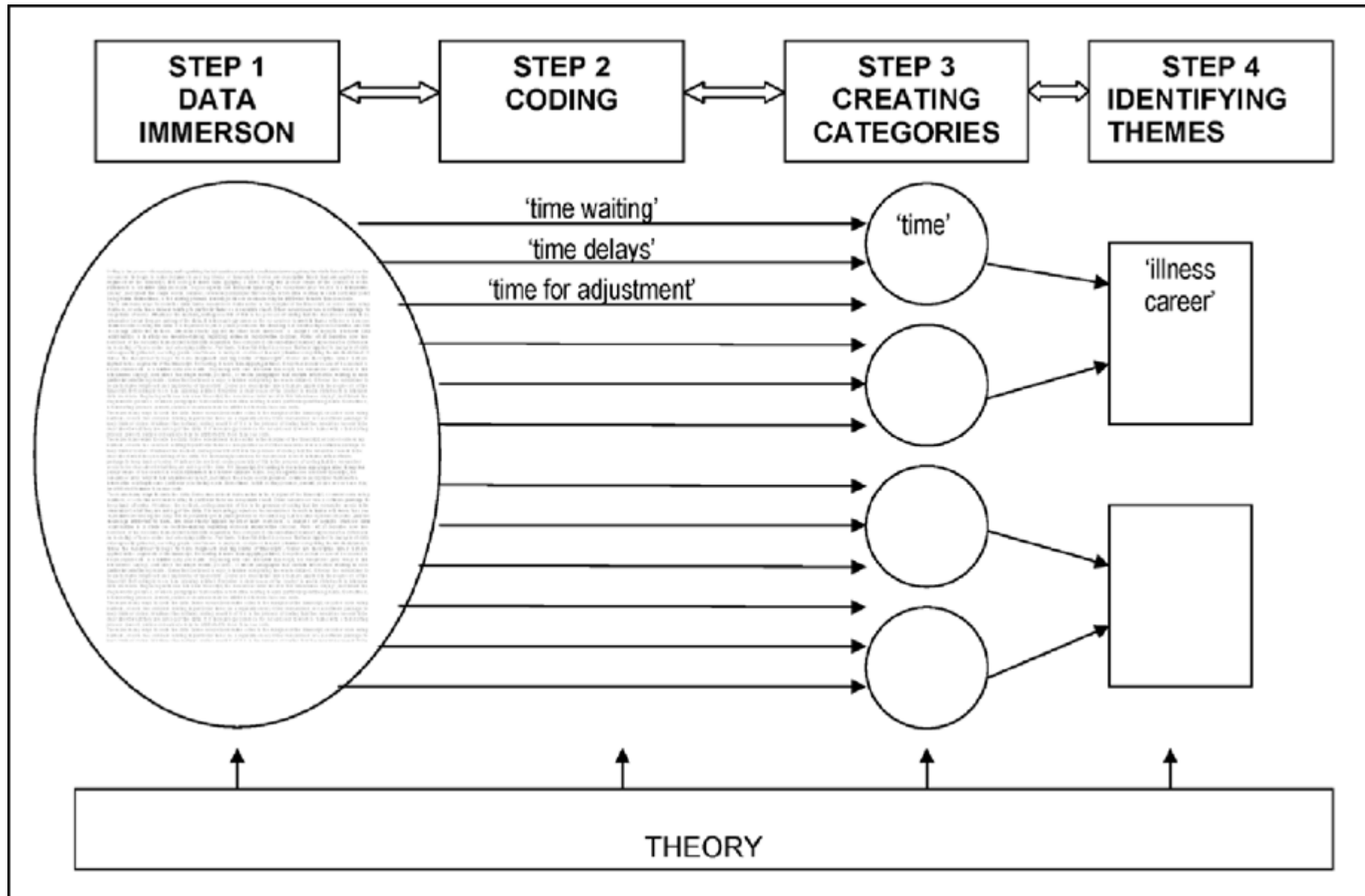
- Inductive vs. deductive approach
  - Starting with a participant's observations & generalizing "upward" (hypothesizing about broader phenomena, theories, etc.) = inductive → grounded theory
  - Collecting data to test a pre-defined theory = deductive

## DEDUCTIVE & INDUCTIVE REASONING



# Analysis

- Data management: if audio-recorded, transcribe so you have a written document
  - If required, translate transcripts into English (can be done in 1 step if transcriptionists are fully bilingual)
- Coding: label text by concepts/themes (software can be used)
  - Can be defined up-front – e.g. based on theoretical framework
  - Can include (or consist entirely of) “emergent” codes
  - Double-coding (at least on subset) recommended for quality assurance
- Analysis
  - Can be descriptive
  - Can look for associations (between codes, themes by respondent type)



# Coding: Process – for deductive analysis

- Draft a codebook based on underlying theoretical framework
  - Codes can be hierarchical (parent/child codes etc.) or the structure can be flat
- “Test run” this on a subset of interviews – should be done by >1 member of the team
  - Do the codes work? What’s missing? What’s too narrow or too broad?
  - Revise & refine codebook iteratively

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## CFIR Codebook

Note: This template provides inclusion and exclusion criteria for most constructs. Please post additional inclusion and exclusion criteria, guidance, or questions to the [CFIR Wiki](#) discussion tab in order to help improve the CFIR.

This template only includes CFIR definitions and coding criteria; codebooks may include other information, such as examples of coded text, rating guidelines, and related interview questions.

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### I. Innovation Characteristics

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A. Innovation Source **Definition:** Perception of key stakeholders about whether the innovation is externally or internally developed.

**Inclusion Criteria:** Include statements about the source of the innovation and the extent to which interviewees view the change as internal to the organization, e.g., an internally developed program, or external to the organization, e.g., a program coming from the outside. Note: May code and rate as "I" for internal or "E" for external.

**Exclusion Criteria:** Exclude or double code statements related to who participated in the decision process to implement the innovation to [Engaging](#), as an indication of early (or late) engagement. Participation in decision-making is an effective engagement strategy to help people feel ownership of the innovation.

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B. Evidence Strength & Quality **Definition:** Stakeholders' perceptions of the quality and validity of evidence supporting the belief that the innovation will have desired outcomes.

**Inclusion Criteria:** Include statements regarding awareness of evidence and the strength and quality of evidence, as well as the absence of evidence or a desire for different types of evidence, such as pilot results instead of evidence from the literature.

**Exclusion Criteria:** Exclude or double code statements regarding the receipt of evidence as an engagement strategy to [Engaging](#): Key Stakeholders.

Exclude or double code descriptions of use of results from local or regional pilots to [Trialability](#).

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C. Relative Advantage **Definition:** Stakeholders' perception of the advantage of

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# Coding, continued

- Once you have a solid draft codebook, >1 team member should apply this to a subset of transcripts
  - May wish to calculate inter-rater reliability: does everyone apply codes consistently
- Then, can begin coding in earnest
  - Need to decide: one coder per transcript or >1?
  - You'll get faster at coding as you do more of it, but it is time-consuming – and it's important to be attentive & read carefully, so you don't want to rush it



# Tips for codebooks & coding

- Codes should be broadly applicable (not so narrow to only be relevant once or twice) and discrete (clear boundaries and no overlap)
- Codes should either always, or never, have valence/direction (positive or negative, barrier or facilitator, etc.)
- Team should decide if they want to take a “lumper” (big codes that may require more work later during analysis to disaggregate) or a “splitter” (small codes that may require more up-front work to specify and refine) approach

# Using software

The screenshot displays the NVivo Starter software interface for a file named "CM\_MensSurvey.nvp". The top menu bar includes FILE, HOME, CREATE, DATA, ANALYZE, QUERY, EXPLORE, LAYOUT, and VIEW. The VIEW tab is active, showing options for Navigation View, Find, Quick Coding, Dock All, Undock All, Close All, Docked, Annotations, Bookmarks, Close, Zoom, Layout, List View, Coding Stripes, Highlight, Classification, Previous, Next, Reference, and Color Scheme.

The main workspace shows a transcript with the following text:

43\_G22\_screen\_K9

Click to edit

I: Alright. Any other additional responsibility that men have to protect their wives from cervical cancer?

R: The other responsibility I think the man has is to prevent having sex with other women

I: How does that relate in terms of sleeping with strange women?

R: I believe that most diseases that affect sex organs are transferred through sex and I think cervical cancer is one of them

I: Alright. Is there any other additional responsibility that men have to protect their wives from cervical cancer?

R: Aah that is the responsibility I was thinking about

I: Alright. Can you explain to me on how the procedure of examining cervical cancer works?

R: I have not heard the way they conduct the procedure

I: You have never heard even a little?

R: Maybe just to say they examine their private parts

I: How do they examine the private parts?

R: Aah I don't know

The right-hand pane shows a list of coding categories with vertical bars indicating their density in the transcript:

- Recommendations\_schools
- UnclearContent
- CCRiskFactors\_sexpartners
- MensRole\_riskfactors
- MensRole\_supportingpartner
- ScreeningExperience\_waittime
- ScreeningExperience\_painful
- Impressions\_maledoctor
- Impressions\_procedure
- Recommendations\_communitymembers
- Recommendations\_messagecontent
- Coding Density
- ScreeningDescription

The bottom status bar shows: CM 40 Items Nodes: 14 References: 17 Read-Only Line: 16 Column: 0

# Analysis

- Interpreting the data: identifying & comparing themes
- Read through coded data
- Identify similarities, repetitions, clusters of codes/sub-codes
- Label the meaning of these = themes
- Organize and compare these in order to answer your research question(s)

# Writing & publishing

- Guidelines for reporting
  - COREQ (Consolidated criteria for reporting qualitative research)
  - SQRQ (Standards for reporting qualitative research)
- Some challenges in publishing:
  - Word limit for many biomedical journals
  - Not all journals are interested in qualitative research
  - Not all reviewers are qualified to assess quality of qualitative research
  - Tension around degree to which you quantify the findings

# Example #1: Malawian men & cervical cancer

- Qualitative data from women indicated that spousal support for screening & treatment of cervical cancer is a barrier for some women

*“After I was told that I have cancer signs and that they need to treat, I went back home and people started saying that I will never again have any more children and that they have seen people who have been treated from lesions but they never gave birth again. My husband got scared and he asked around to see whether that is true or not. Most responses told him that it’s true so yesterday he came back home and said our marriage is over.” (23, HIV-)*
- So we decided to talk to men about their knowledge, opinions, impressions of cervical cancer disease & screening



“A loving man has a very huge responsibility”: A mixed methods study of Malawian men’s knowledge and beliefs about cervical cancer

Samuel Lewis<sup>1\*</sup>, Corrina Moucheraud<sup>2†</sup>, Devon Schechinger<sup>3</sup>, Misheck Mphande<sup>4</sup>, Ben Allan Banda<sup>4</sup>, Hitler Sigauke<sup>4</sup>, Paul Kawale<sup>5</sup>, Kathryn Dovel<sup>1,4</sup> and Risa M. Hoffman<sup>1</sup>

# Mixed methods study

## • Quantitative data

- Demographic characteristics
- Knowledge about CC & screening (true/false questions)
- Experience with CC disease (know anyone who had it), and screening (**was wife ever screened**)
- Gender attitudes (GEM scale)
- Household decision-making
- Decision-making for screening

## • Qualitative data

- Role of men in CC prevention
- “Could you please explain in your own words how cervical cancer screening is done”
- “I will now briefly describe how cervical cancer screening is done... What makes you comfortable? What makes you uncomfortable or worried? Overall, would you feel comfortable having your wife screened?”
- “You said earlier that your wife or partner also received treatment for an abnormal cervical cancer screening result. Did she face any barriers to receiving this treatment or problems with treatment?”

# Our codebook – developed inductively

Codebook\_Malawi Mens Survey Summer 2019

| Code                                  | Definition   | Example quote(s)  |
|---------------------------------------|--|---|
| <u>ScreeningHypotheticallyPainful</u> | Respondent has heard the screening procedure is / could be painful                   | <p>"R: Other women do complain about the pain.<br/>I: How about your wife did she complain anything about that?<br/>R: We did not talk much about that but all I know is that some women do complain about the pain." (ID_121 NM)</p> |
| <u>ScreeningExperience_Painful</u>    | Respondent has heard directly from his wife that the screening procedure was painful | <p>"I:Okay.She did not say anything about pain?<br/>R: She mentioned about the pain to say when they were moving the metal there was some sound[imitating]... But not too much pain" (ID_135 SL)</p>                                  |
| <u>ScreeningExperience_Waittime</u>   | Respondent noted the wait time at the clinic   | <p>"I:What did she say about the waiting of the results and the length she had to wait?<br/>R:She mentioned that it was too long but she had to wait for the results as it was for the essence." (ID_132 AN)</p>                      |
| <u>ScreeningExperience_Other</u>      | Respondent noted other factors that negatively affected the screening experience     | <p>"R:What happened was that when she returned home, it took us two weeks to start sleeping with each other again." (ID_172 AN)</p>   |
| <u>ScreeningDescription</u>           | Respondent's answer to the question about describing CC screening                    | <p>"R: I have heard about it a little.<br/>I: OK, could you explain that to me?<br/>R: I hear women go in a room and they undress because when screening thy screen inside a woman's genital." (ID_179 NM)</p>                        |
| <u>CC_riskfactors_Hygiene</u>         | Respondent comments on the importance of male and female hygiene, specifically       | <p>"I: Uh.Can you explain more about husband's hygiene and cervical cancer? What kind of hygiene should it be so that the husband should not give cervical cancer to the wife?"</p>   |

# Identifying themes within codes

Impressions\_maledoctor\_Analysis - Word

File Home Insert Design Layout References Mailings Review View Help EndNote X7 ACROBAT Tell me what you want to do

Read Mode Print Layout Web Layout Draft Learning Tools Vertical Side to Side Ruler Gridlines Navigation Pane Zoom 100% One Page Multiple Pages Page Width New Window Arrange All Split View Side by Side Synchronous Scrolling Switch Windows Macros Properties

Navigation

Search document

Headings Pages Results

- UNCOMFORTABLE
  - SEXUAL FEELINGS
  - SHYNESS
  - UNSPECIFIED
- NOT A PROBLEM
  - YOU NEED HELP / IT IS...
  - OTHER SERVICES USE D...
  - DOCTORS ARE PROFES...
  - OTHER

UNCOMFORTABLE

SEXUAL FEELINGS

Files\\34\_G20\_noscreen\_K9 - § 1 reference coded [ 16.88% Coverage]

R: Well, there could be a slight problem especially when it comes to a male doctor doing the screening because the procedure will take place where there is just the doctor and the patient and some doctors may forget about their job once they see a woman's vagina and start proposing other things like wanting to have sex with the woman.

I: As you have explained that if it is a male doctor then it would be a problem, what would be your preference, or how would you prefer the process to be like?

R: I think it would be better if the women could be assisted by a female doctor.

I: When being screened the women should be screened by a female doctor?

R: Yes.

Files\\41\_G20\_noscreen\_K7 - § 1 reference coded [ 12.95% Coverage]

R: Mainly, like where I live most women would say this doctor was showing sexual feelings for me or this doctor did this to me, now that is one thing that is discouraging men from allowing their wives to get screened, we all think differently and once we see that our wives have been screened by a male doctor we already assume that a sexual relationship has begun.

I: About what the women complain that the doctor was doing this and that was is because of the screening procedure?

R: Yes, because they undress for the doctor.

I: Ok, so because they undress they end up asking them for a sexual relation?

R: Yes.

Page 6 of 15 7422 words English (United States)

- Compared by men's characteristics: older/younger, partner screened Y/N, gender equity scale score



# Example #2: Health behaviors among Malawians living with hypertension & HIV




- Qualitative study led by Khumbo Phiri (who you will soon meet) – this was part of her MPH thesis
- Interviews with 30 HIV-positive Malawian adults who were also hypertensive
- Interview guide included questions about care-seeking (not explored in this analysis) + about health behaviors

GLOBAL PUBLIC HEALTH  
<https://doi.org/10.1080/17441692.2021.1874468>

 **Routledge**  
Taylor & Francis Group

 Check for updates

**Health behaviours and beliefs among Malawian adults taking antihypertensive medication and antiretroviral therapy: A qualitative study**

Corrina Moucheraud <sup>a</sup>, Khumbo Phiri <sup>b</sup> and Risa M. Hoffman <sup>c</sup>

# Richer data, so could do a deeper thematic analysis

- Main themes:
  - High awareness of hypertension and benefits of treatment
  - Social support helps with adherence to medication
  - Acceptability of skipping or stopping medication if feeling healthy
  - Relatively infrequent reports of side effects/ adverse events as barrier to adherence
  - Alternative & complementary medicines (esp among ppl with poor adherence)
  - Dietary changes are important but can be challenging
  - Reducing stress and stressful relationships is part of self-care for hypertension
  - Hypertension imposes employment changes and financial constraints

# Also “meta themes”

- Cut across the aforementioned topics
  - Hypertension’s relationship with household finances, especially for women
    - Hypertension > Employment challenges > Financial strain
    - Can affect adherence, nutrition, care-seeking, stress...
    - Exacerbated by household structures/dynamics: few spouses, many dependents
  - Gender roles affect health behaviors
    - Wives accommodated husbands’ dietary needs, but not vice-versa
    - Women altered their social relationships in response to HTN diagnosis

# Resources

- UCLA library has a number of great books available online about qualitative research, including but not limited to:
  - How to Use Qualitative Methods in Evaluation (Quinn)
  - Handbook of Interview Research (Gubrium & Holstein)
  - The SAGE Qualitative Research Kit (Flick)
  - Research Design: Qualitative, Quantitative and Mixed Methods Approaches (Creswell)