Qualitative Data Analysis: Coding

Qualitative Methods: Interviews

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Session Overview

- Memos to Codes

- Developing Codebook

- Coding Data

- Inter-coder Agreement

- Thick Descriptions

- Comparisons and Categorizations

Memos vs Codes

- Memos are your initial notes in margin as you actively read transcripts

- Codes are the themes, topics, or concepts that emerge as repetition across multiple transcripts

Memos to Codes

- You develop codes – software does not develop codes

- Use about 1/3 of your data to develop codes

- Choose diverse transcripts

- Memos that are repeated might indicate code

- You can modify codes later – iterative process

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Types of Codes

- Inductive Codes
  - Majority of codes
  - Emerge from the data as repetitive themes

- Deductive Codes
  - Predetermined codes based on interview guide
  - Concepts from literature
  - Need to validate that codes are in data

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Developing a Codebook

- Dictionary or guidebook of all codes in project
- Provides guidelines for consistent coding across multiple staff
- Provides name of the code (easy to remember)
- Provides clear definition or description of what code is and is not
- Provides example of appropriate text excerpt for code

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What Makes a Code?

- Theme relevant to research question

- Discussed by participants

- Repeated in data

- Clear issue

How Many Codes?

- Depends on how rich or thin data are

- Until "Saturation"

- Depends on depth of analysis

- Depends on level of detail of code (narrow or wide focus)

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Example Codebook

Code	Description	Example
Satisfaction	Satisfaction with amount or type of exercise. Also applies to enjoyment of exercise. Can be used positively (am satisfied) or negatively (am not satisfied).	"I wish I could exercise more." / "A lot of my exercise was fun, so I enjoyed it. It didn't feel like exercise."
Reasons for exercise	Reasons participants choose to exercise, or would like to exercise more. Use for reasons that influence long term or short term exercise goals. Do not use for motivational factors that might influence a person to workout on any given day.	"It makes me feel a lot better, emotionally as well as physically. And then...the health benefits are up there"
Motivation to exercise	Drive to engage in exercise. Applies to factors that cause a participant to follow through on their intention to exercise. Can be used positively (am motivated) or negatively (am not motivated).	"...after a long day of work I just don't feel like going"
Barriers	Factors that keep a participant from exercising. Applies to people, e.g. family members who discourage exercise, or situations, e.g. lack of time to exercise.	"Well, since I'm kinda in the process of moving I cancelled my gym membership. So with that I haven't really been exercising."
Facilitators	Factors that enable exercise. Applies to people, e.g. family members who encourage exercise, or situations, e.g. access to a gym.	"I have a little bit more time on my schedule to be able to go to the gym and pay for my gym membership " / "when I was living with a roommate, we...had a fairly consistent workout routine"

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Refining the Codebook

- Codes can change during project period
- May want to split code into two or combine multiple codes into one
- Iterative process to determine scope needed
- Definitions need to be a clear YES or NO for quick coding
- Can code positive or negative but often easier to code one and differentiate later (ex: satisfaction)

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Coding

- Once codebook is refined and finalized, systematically apply codes to text

- Code entire dataset

- Involves reading, identifying, selecting, and applying code based on interpretation

- Need to be able to justify applying code or not applying code

Define Text Segment Length

- With multiple coders, need to determine coding style

- Macro "Lumper" coding vs Micro "Splitter" coding – can lump all text into large codes or split into several little text strings

- Important to define for inter-coder agreement

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Lumper

P: Yeah, and just, I guess probably having access to it, like having to go to a gym and join a gym now, instead of, like, just having, like, a school gym you can go to, or something like that, it's just a little bit more harder to go and feel comfortable doing it.

I: Right, OK. So are you happy with your current level of physical activity, or do you wish you could exercise more?

P: I mean, I wish I could exercise more, but I am happy with the current level, I guess seeing that I do more than two hours of high activity every week, so--

I: Mmhmm, so, in a perfect world what would your exercise routine look like?

P: Like three times a week working out, like, like every other day or something, and then, like, having, like, the weekend off and doing the sports on the weekend. So, just bumping up--

Splitter

P: Yeah, and just, I guess probably having access to it, like having to go to a gym and join a gym now, instead of, like, just having, like, a school gym you can go to, or something like that, it's just a little bit more harder to go and feel comfortable doing it.

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Approaches to Coding

- Try to code more than you may need

- Code in stages if you have a lot of codes

- Can use functional codes, such as indicating good quotations to be used later

- Can use more than one code on same text

- Use code lengths long enough to provide context (codes will be separated out from transcripts)

Inter-coder Agreement

- Measure of reliability of coding
- Can two coders independently code data in same way?
- Way of assessing validity or accuracy in data
- Improves consistency and quality of analysis
- Have two coders or team code same few interviews
- Software will calculate inter-coder agreement
- Come to consensus on codes/revise definitions

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Coding Manually vs Using Software

- Software is not required for qualitative data analysis

- Analysis is primarily done by investigators

- Can code using highlighters or colored pencils

- Can code using color-coding in Word

- Software helps with sorting by codes and by subgroups across interviews

- Software also calculated inter-coder agreement

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Thick Description

- Way of summarizing and providing interpretation on a topic across multiple interviews

- Describes an act and context surrounding that act

- Provides social and cultural meaning

- Describes how participants perceive act or concept

How to Write Thick Description

- Search through codes

- Search by subgroups

- Search for overlapping codes (ex: where "satisfaction" and "facilitators" overlap)

- Search around a question ("In what context do people see family as a barrier or facilitator")

What to look for when writing

- Breadth – shows differences and range of context around an issue (ex: all types of barriers to physical activity)

- Depth – shows details and thoroughly explains an issue (ex: access to the gym is a barrier and involves cost, location, etc.)

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What to look for when writing

- Context – shows meaning of issue such as who, what, when, where, why (ex: context around life events that change physical activity levels)

- Nuance – Is an issue different under different circumstances? (ex: family can be perceived as barrier to exercise or as a facilitator)

Comparisons and Categorizations

- Analysis can go beyond summaries and thick descriptions around a concept

- Can compare differences by circumstance

- Can make comparisons across subgroup (males vs females, by age, by employment status, etc.)

- Can categorize codes into groups that represent as single issue

- Ultimately looking for patterns to build explanations

Questions?

Activity 6: Coding

- Using the codebook provided and colored pencils at your table, code the interview 6. Mark which color represents each code.

- Continue coding additional interviews as time allows.

- Be prepared to discuss your experiences with coding.