Qualitative Methods in Public Health Nutrition

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Overview of Today’s Talk

- Brief Overview of Qualitative Methods
  - Definition
  - Types of Qualitative Methods

- Review of Focus Group Methods
  - Definition
  - Strengths and Benefits
  - Design
  - Implementation
  - Analysis
  - Presentation of Results

- Q & A/Discussion
Qualitative Research: Definition

• Systematic and rigorous form of inquiry that uses methods of data collection such as in-depth interviews, focus group discussion, ethnographic observation, review of documents, etc.

• Focus on the contexts and meaning of human lives and experiences.

Patton, 1987; Maxwell, 1996; Pope and Mays, 1995
Qualitative Research: Definition

• Qualitative researchers aim to gather an in-depth understanding of human behavior and the reasons that govern such behavior.

• It investigates the why and how of decision making, not just what, where, when.

• Hence, smaller but focused samples are more often needed than large samples.

Patton, 1987; Maxwell, 1996; Pope and Mays, 1995
Qualitative Research

• Detailed data is gathered through open-ended questions that provide direct quotations.

• It emphasizes the importance of looking at variables in the natural setting in which they are found.

• Interaction between variables is important.

• Interviewer/moderator is an integral part of the investigation.
Types of Qualitative Methods

- Qualitative researchers typically rely on the following methods for gathering information:
  - Participant Observation, Non-participant Observation
  - Field Notes and Reflexive Journals
  - Structured Interview, Semi-structured Interview, Unstructured Interview with Key Informants (in-depth)
  - Focus Group Discussions
  - Analysis of documents and materials
FOCUS GROUP
A focus group is a form of qualitative research in which a group of people are asked about their perceptions, opinions, beliefs and attitudes towards a product, service, concept, behavior.

Questions are asked in an interactive group setting where participants are free to talk with other group members.
BENEFITS and STRENGTHS

- Group discussion produces data and insights that would be less accessible without interaction found in a group setting.

- Listening to others’ verbalized experiences stimulates memories, ideas, and experiences in participants.

(Lindlof & Taylor, 2002)
BENEFITS and STRENGTHS

- “Group Effect” - group members engage in “a kind of ‘chaining’ or ‘cascading’ effect; talk links to, or tumbles out of, the topics and expressions preceding it.
- Group members discover a common language to describe similar experiences.
- Enables the capture of a form of “native language” or “vernacular speech” to understand the situation.
BENEFITS and STRENGTHS

• Best suited when looking for more general and group views and opinions on a topic vs. more in-depth information.

• One advantage of the focus group (and interview) methodology is that the moderator’s guide and any materials presented can be revised between sessions.
Sample size and sample design depends on research questions and potential groups that must be covered.

In practice, if funds are not an issue, one may want to use “saturation” strategy or “constant comparative technique” (ground theory).

Time may also be considered.
NUMBER OF PARTICIPANTS PER FOCUS GROUP

- Researchers disagree about the proper number of participants for a successful focus group.

- Balance between the need to have enough people for a lively discussion and the danger of an overwhelming group size must be achieved.

- 8-12 (Kitzinger & Barbour, 1999), 6-12 (Lindlof, 1995), 6-8 (Krueger, 1998), etc.
SAMPLING OF PARTICIPANTS

• Most focus group research rely on **purposive sampling**.
  • based on research and potential contribution of participants.
• Take into consideration research questions.
• Demographics: reflection of target population.
• Be attentive for status differential among participants.
• Avoid having family members or close friends in the same group.
Regardless of sampling method, focus groups do not provide generalizable results—that is, the findings cannot be applied to all people similar to the participants.

Most useful measure of validity may well be transferability, which asks whether the results are presented in a way that allows other researchers to judge whether the findings apply in their context.
RECRUITMENT OF PARTICIPANTS

- Recruitment is the process of gathering the group together in the same place at the same time.

- Several ways to go about this:
  - Membership lists
  - Contact who knows the target group
  - Advertisement; flyers
  - Snowball technique (Lindlof, 1995).
RECRUITMENT of PARTICIPANTS

• Be clear with any advertisement when recruiting participants:
  - Characteristics of participants
  - Purpose of FG discussion
  - Duration: no longer than 2hrs; 1 ½ hr ideal
  - Confidentiality
• Be clear on selection criteria and screen to make sure participant meets criteria.
• 8-12 participants but always recruit a few extras.
DEVELOPMENT OF FG GUIDE

• **KEY** to success of FG.
  - Review of literature and any available documents on the topic. Consider theory.
  - Consider length of focus group guide; number of questions.
  - Open-ended questions but structured for guided group discussion.
  - Probes are key to keeping the flow of discussion and building on participants’ responses.
  - Translation of forms if needed (consider native speaker).
FOCUS GROUP GUIDE

• Pilot-testing of FG guide: very important.
  • Similar participants to ones to be included in FGs
  • At least 4 participants
  • Take notes, revise guide
DEVELOPMENT OF OTHER RELEVANT FORMS:

- Socio-demographic form
- Informed Consent (2 per person)
- Re-contact form (if needed)
- Incentive receipt form
- Any other forms (e.g., acculturation scale, information flyer/brochure)
SELECTION of FG MODERATOR

- Vital to the success of the focus group.
- Role begins before conduct of actual FG.
- Familiarity of research topic.
- No vested interest in outcomes.
- Neutral person: should maintain impartiality.
- Clear speaker and good moderator of “group conversation” and “dynamics”.
FG IMPLEMENTATION: LOGISTICS

- Setting
- Forms and equipment
- Supplies
- Sitting arrangements
- Provision of light food and refreshments
- Provision of child care if needed
- Check on equipment and room sound
- Incentives: compensation for participants’ time
- Reminder calls: day or evening before FG
FOCUS GROUP: IMPLEMENTATION

- Participants are the “experts” but need to discuss the topic of research in a limited amount of time.
- If needed, role of the moderator is to intervene and keep the discussion “flowing”.
- Establish rapport immediately: by thanking participants for coming!
- Relaxed environment: promote openness and willingness to talk.
FOCUS GROUP: IMPLEMENTATION

- Participation dynamics:
  - go around the table only in order at start
  - important to speak one at a time; turn taking
  - want to hear from everyone
  - no right or wrong answers.
  - want to hear honest thoughts
  - cannot answer questions during FG

- Request that participants be respectful of each others opinions.
- Address issues of maintaining confidentiality.
- Explain audio-recording of discussion.
FOCUS GROUP: IMPLEMENTATION

• Explain informed consent, distribute and complete as a group.

• Starting the FG Discussion:
  • Moderator starts by introducing himself and any other research members.
  • Participants then introduce themselves to the group, including some information relevant to the discussion.
  • “Icebreaker” question.
FOCUS GROUP: IMPLEMENTATION

• AFTER INTRODUCTORY REMARKS, session shifts to an in-depth investigation of participants’ perspectives and issues.

• Use of moderator guide to manage the session and ensure that all topics are covered without overtly directing the discussion.
GOOD MODERATOR BEHAVIORS

• Participants are encouraged to express their views and even disagree with one another about the topics.

• The moderator doesn’t simply accept what participants say but probes to learn about participants’ thinking and attitudes.

• The moderator also seeks opinions from all participants so that all are heard, rather than a vocal few dominating the discussion.
GOOD MODERATOR BEHAVIORS

- During the group session, the moderator has the difficult job of keeping the discussion on track without inhibiting the flow of ideas and comments.

- The moderator also must ensure that all group members contribute to the discussion and must avoid letting one participant's opinions dominate.
GETTING FOCUSED

• For participants, the focus-group session should feel free-flowing and relatively unstructured.

• In reality, the moderator must follow a preplanned script of specific issues and set goals for the type of information to be gathered.

• Moderator must know the question guide intimately.
FOCUS GROUP: CONCLUSION

- Thank you participants.
- Answer any question could not answer during FG discussion.
- Pass out any additional forms to be completed (e.g. socio-demographic forms).
- Distribute FG incentives and collect signature of receipt.
- Distribute any informational materials.
AFTER PARTICIPANTS LEAVE:

- Organize forms and gather tapes.
- Debrief with team members (moderator and note-taker).
- Plan for any changes needed for the next group.
  - FG dynamics and conduct;
  - FG composition;
  - Guide: order of questions, deletion or addition of questions, etc.
FOCUS GROUP: PRE-ANALYSIS

- Notes should be taken during the focus group by the moderator and by an assistant even if discussion is being audio recorded.

- Crucial because moderators cannot observe the range of behaviors of the group.

- Important nonverbal behaviors can aid in interpretation and can be missed if notes are not taken.
FOCUS GROUP: PRE-ANALYSIS

• Analysis process includes summarizing the discussion immediately following the focus group.

• People can forget important details easily, writing field notes as soon as possible after the focus group has ended is imperative.

• Researchers have the research questions in mind during the summing up process, salient themes of the discussion begin to emerge.
FOCUS GROUP: ANALYSIS

Data Transcription

- Tapes should be transcribed (verbatim) as soon after the focus group discussion as possible.

- Waiting until completion of all the groups is not necessary.

- Transcription and initial analysis of the first sets of tapes can only aid in moderating the following groups.
FOCUS GROUP: ANALYSIS

- Who should transcribe data?

- Qualitative data analyses require many careful readings of transcripts, and as researchers transcribe their own data first-level analysis is actually occurring.
Method of Coding

• Traditionally coding within a qualitative framework with colored highlighters and crayons to copies of the original transcripts and using a different color for each code.

• Current data management and analysis packages available (e.g., N*Vivo).
FOCUS GROUP: ANALYSIS

- Whether computer software or highlighters are used, the process remains the same.

- Following the research questions as guides, every line, paragraph, or other section of text is coded for relevant themes.

- As themes are developed, the researcher assigns a working definition to each code.
FOCUS GROUP: ANALYSIS

• Continuous process of going through the transcripts. **Immersion** in the data!

• Definition of codes is **continually challenged** and some times **new codes must be developed** because the properties do not fit the text.

• Codes that rarely used are dismissed and some categories are broadened to accommodate the lost code.
FOCUS GROUP: ANALYSIS

• Analysis is not linear, but circular.

• Constant comparison:
  • Continually compare the categories and codes of new transcripts with existing categories and codes in order to more fully develop the properties of the overarching categories for the individual codes.
FOCUS GROUP: ANALYSIS

• This process is on-going until **saturation** is reached.

• “**Saturation**” is the idea that no new codes or categories emerge and that coding more transcripts would only produce repetition of themes.
FOCUS GROUP: ANALYSIS IN PRACTICE

STEPS:

• Step 1: Identifying the big ideas
• Step 2: Unitizing the data
• Step 3: Categorizing the Units
• Step 4: Negotiating categories
• Step 5: Identify themes and use of theory
Step 1: Identifying the Big Ideas

- Occurs during and immediately following the focus group interview.
Step 2: Unitizing the Data

- Process of identifying those units of information that will later become the basis for defining categories.

- A unit should be aimed at assisting the researcher to better understand the topic.
Step 2: Unitizing the Data (cont.)

• A unit should be the smallest amount of information that is informative by itself.
  • Size can vary from a phrase to a sentence or paragraph.

• Whenever possible, the unit should include a direct quote from a participant.
Step 2: Unitizing the data (cont.)

- Units can be highlighted on the transcript or entered into the computer.

- The information units are cut into separate slips of paper so they can be categorized.
Step 3: Categorizing the Units

- Units are sorted into relevant piles that will eventually represent categories or themes.

- Briefly describe the criteria for each category on a separate slip of paper.

- Rules for inclusion can be rewritten during the categorization process.
Step 4: Negotiating Categories

- Steps 1-3 should be done by two data analysts working alone. They should then work together to negotiate and compare these categories.

- Analysts should attempt to come to a consensus on category titles, rules, and information units.
Step 5: Identify Themes and Use of Theory

• Consider if any of the big ideas established in the first step are supported by the categories.

• Big ideas that are reframed and restated are referred to as themes.

• Themes consider the big ideas from the focus group data as well as the information units and categories.
Step 5: Identify Themes and Use of Theory (cont.)

- The theoretical propositions that led to the study should be identified early on and used as a framework for developing data analysis.

- Theory can also be used to assist in interpreting the categories and the findings.
PRESENTATION OF RESULTS

• Summarizing results:
  • intent of focus groups is to report the views of the participants, not to generalize to larger groups.
  • The goal should be to find out why rather than how many.
  • Use of illustrative quotes.
CONCLUSIONS

• Focus groups can be a useful approach in public health and nutrition research.
  • pragmatic understanding of people’s perceptions and behaviors.
  • complement quantitative and other qualitative methods to understand observed behaviors.
  • aid in the goal of theory building, etc.
CONCLUSIONS

• Goal of this Presentation:
  • provide the audience with an introduction to the focus group method.
  • sense of the benefits and caveats attached to FGs.

• When implemented correctly focus groups can be an efficient and effective way to gain insights into social processes and human behavior.
CONCLUSION

• Thank you!

• Questions?

• Contact: alindsay@hsph.harvard.edu
RELIABILITY in QUALITATIVE RESEARCH

- Multiple viewings of videotape--by same person or different people.
- Multiple listening of audio tape--by same person or different people.
- Multiple transcriptions of audio tape--by same person or different people.
VALIDITY in QUALITATIVE RESEARCH

• Convergence with other sources of data--using variation kinds of triangulation and comparisons with the literature.

• Extensive quotations--from field notes, transcripts of interviews, other notes.

• Other research data--such as archival data, recordings (video or audio).
VALIDITY in QUALITATIVE RESEARCH

- Independent checks/multiple researchers—more than one person involved in the research of those studied; team research approach or other sources of verification.

- Member check—where you go back to those researched, at the completion of the study, and ask them if you are accurate or need correction/elaboration on constructs, hypotheses, etc.
Reliability vs. Validity

- High reliability may suggest a systematic bias at work in data.
  - Bias shared by multiple researchers or across observations by the same researcher.
- Many qualitative researchers emphasize validity rather than reliability.
  - Documenting what occurs in an accurate manner may reveal inconsistencies.