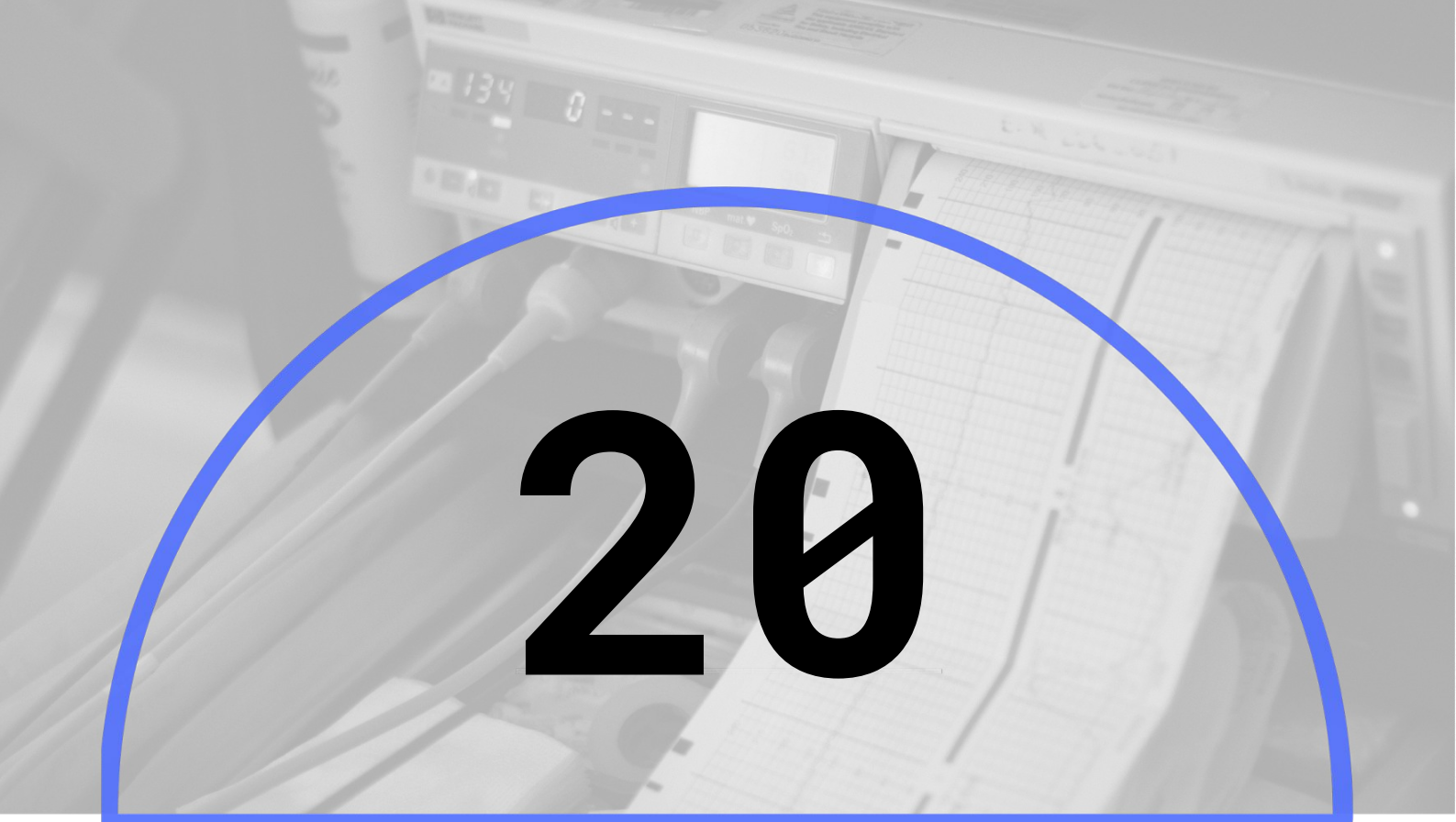

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QUALITATIVE STUDY DESIGN

KSU COLLEGE OF MEDICINE
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ACKNOWLEDGMENTS

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LECTURE **OBJECTIVES**

By the end of this lecture, I am able to:

- Define qualitative research
- Compare qualitative and quantitative research
- Describe qualitative studies' methods, data collection and sampling
- Identify steps in conducting qualitative studies
- Describe the strengths and weaknesses of qualitative studies

Qualitative Research

Definition

Qualitative research study things in their natural settings, attempting to make sense of, or interpret, phenomena in terms of the meanings people bring to them.

There are no isolation nor comparison groups in qualitative studies.

Qualitative vs Quantitative Studies

	Quantitative	Qualitative
General framework	Seek to confirm hypotheses about phenomena (answer "how many?")	Seek to explore phenomena (answer "how?") Explore beyond the numbers
	Instruments use more rigid style of eliciting and categorizing responses to questions	Instruments use more flexible, iterative style of eliciting and categorizing responses to questions
	Use highly structured methods such as questionnaires, surveys, and structured observation	Use semi-structured methods such as in-depth interviews, focus groups, and participant observation. Participants affect the study design
Analytical objectives	• To quantify relationships • To predict causal relationships • To describe characteristics of a population	• To describe variation • To describe and explain relationships • To describe individual experiences • To describe group norms
Question format	Closed-ended	Open-ended
Data format	Numerical (obtained by assigning numerical values to responses)	Textual (obtained from audiotapes, videotapes, and field notes) a good investigator would detect non-verbal cues
Flexibility in study design	Study design is stable from beginning to end	Some aspects of the study are flexible (for example, the addition, exclusion, or wording of particular interview questions)
	Participant responses do not influence or determine how and which questions researchers ask next	Participant responses affect how and which questions researchers ask next
	Study design is subject to statistical assumptions and conditions	Study design is iterative, that is, data collection and research questions are adjusted according to what is learned

- mixed method studies are the best, they're done to describe and explain relationships

Qualitative Studies

The Methods

Method	Focus
Ethnography Ethnicity	**Context or culture:** An ethnography is a description and interpretation of a cultural or social group or system. The research examines the group's observable and learned patterns of behavior, customs, and ways of life
Narrative Study of a person	**Individual experience & sequence:** The narrative approach weaves together a sequence of events, usually from just one or two individuals to form a cohesive story.
Phenomenological	**People who have experienced a phenomenon:** Phenomenology is the study of human experience and of the ways things present themselves to us in and through such experience Eg, School gun violence
Grounded Theory	**Develop a theory from grounded in field data:** You use primarily interviews and existing documents to build a theory based on the data. You go through a series of coding techniques to identify themes and build the theory. Sample sizes are often also larger - between 20 to 60 - with these studies to better establish a theory.
Case Study not necessarily on case	**Organization, entity, individual, or event:** A case study involves a deep understanding through multiple types of data sources. (go through layers)

Techniques (Data Collection)

Data Collection Techniques	Key Features
Interviews	• "Semi-structured" interviews which involve a number of open ended questions based on the topic areas that the researcher wants to cover. • Allows probing
Focus groups	• During a focus group, a group of individuals - usually 6-12 people - is brought together in a room to engage in a guided discussion of a topic. See group dynamic
Observation	• Technique that can be used when data cannot be collected through other means, or those collected through other means are of limited value or are difficult to validate. • For example, in interviews participants may be asked about how they behave in certain situations but there is no guarantee that they actually do what they say they do. Observing them in those situations is more valid: it is possible to see how they actually behave.
Collection of documented material such as letters, diaries, photographs	• These can be particularly useful in trying to understand the philosophy of an organization as may be required in ethnography. A new emerging technique, used in cases of war zones, starvation and quarantines.
Open ended questions in questionnaires	• Open ended questions, responses to which are to be analyzed qualitatively, may be included in questionnaires even though the majority of the questionnaire will generate quantitative data. • The open ended questions usually require that responses, which reflect the opinions of the respondents, be written in blank spaces. Free text • This form of data may give useful guidance to a researcher planning an interview or focus group study.

Qualitative Studies

Sampling

- In qualitative research, only a sample (that is, a subset) of a population is selected for any given study.
- The study's research objectives and the characteristics of the study population (such as size and diversity) determine which and how many people to select.

The three most common sampling methods:

Purposive Sampling

- It groups participants according to preselected criteria relevant to a particular research question (for example, HIV-positive women in Capital City).
- Sample size depends on the resources and time available, as well as the study's objectives.
- Purposive sample sizes are often determined on the basis of theoretical saturation.

a subset of purposive sampling

***Quota Sampling**

- Sometimes considered a type of purposive sampling
- In quota sampling, we decide while designing the study how many people with which characteristics to include as participants.
- Characteristics might include age, place of residence, gender, profession, marital status, use of a particular contraceptive method, HIV status, etc.

*Quota sampling is more specific with respect to sizes and proportions of subsamples, with subgroups chosen to reflect corresponding proportions in the population

Snowball Sampling

Participants or informants with whom contact has already been made use their social networks to refer the researcher to other people who could potentially .participate in contribute to the study. (Gatekeepers!) شيخ القبيلة

How do you know when you have an adequate sample?

- Ideally this will occur when you have reached theoretical saturation
- Theoretical saturation: occurs when new data from new cases do not contribute to the development of emerging theory even after you have tried to ensure that your new cases are those most likely to extend or challenge your ideas
- In practice, if you are applying for funding for a study, you will need to specify how many participants you are likely to need. Theoretical saturation will probably be reached after 20-60 interviews

Sampling depends on:
1- Research Objectives
2- Characteristics of the study population

Eg. you want to conduct a qualitative study on campus violence. You get several focus groups and interview them and recognise themes. You keep adding more focus groups but you are still getting the same themes. At this point you have reached theoretical saturation.

CONDUCTING A QUALITATIVE STUDY

Steps in conducting a qualitative study

1- Identifying a research problem / stating the problem Important

2- Reviewing the literature

3- Specifying a purpose and research questions

4- Collecting the data

5- Analyzing the data

6- Determining the quality of data done in qualitative studies more

7- Reporting the research

Qualitative research is researcher dependent

3- Specifying a purpose and research questions:

- **Qualitative purpose statement and research questions:**
  - Broad and general
  - Open ended: e.g. "How do students react to violence on campus?"
  - Seek participants' experiences.
- **Research purpose:**
  - The purpose of this _____(phenomenological, grounded theory, case study, ethnographic) study is to _____ (understand, describe, develop, discover) the _____ (central focus for the study) for _____(the unit of analysis: person, process, groups, site).

CONDUCTING A QUALITATIVE STUDY

Steps in conducting a qualitative study

5- Analyzing the data STEPS:

Step 1: Organize and prepare the data for analysis. Put all narration on a transcript and read it all.

Step 2: Read through all the data to obtain a general sense of the information and to reflect on its overall meaning. Find a major theme.

Step 3: Begin detailed analysis with a coding process. Coding is the process of taking text data or pictures, segmenting sentences (or paragraphs) or images into categories, and labeling these categories with a term, often a term based on the actual language of the participant. Eg. get different coloured highlighters and a assign a theme to each colour. Then highlight parts respectively.

Step 4: Use the codes to generate a description of the setting or people as well as categories or themes for analysis. Description involves a detailed rendering of information about people, place, or events in a setting. Researchers can generate codes for this description.

Step 5: Advance how the descriptions and themes will be represented in the qualitative narrative.

Step 6: Evaluate the lessons learned from the data and make interpretations (or meaning) of data.

Strengths & Weaknesses

Strengths	Weaknesses
Collect very rich data in an efficient manner rather than being limited to the responders to a set of predefined questions, it is possible to explore interesting concepts that can lead to novel theory by analyzing the entirety of a participant's interview/story/interaction.	Poor quality qualitative work can lead to misleading findings. Worst outcome
	Qualitative research alone is often insufficient to make population- level summaries. NEVER implement qualitative design on population level
When combined with quantitative methods, qualitative research can provide a much more complete picture Combined studies are the best	Policy makers may not understand or value the interpretation and therefore may not recognize the importance of qualitative research. Do a quantitative followed by a qualitative (to explain the numbers)
Lead to the generation of new theory from unexpected findings	Time and labor-intensive.
	Ethical issues at all phases of the study. IRB is a nightmare for qualitative studies. Researcher has to disclose their value system

EXAMPLE

How and Why Do Smokers Start Using E-Cigarettes? Qualitative Study of Vapers in London, UK:

The aims of the study were to

(1) describe how and why smokers start to vape and what products they use.

(2) relate findings to the COM-B theory of behaviour change (three conditions are necessary for behaviour change (B): capability (C), opportunity (O), and motivation (M)).

(3) to consider implications for e-cigarette policy research. Semi-structured interviews (n = 30) were conducted in London, UK, with smokers or ex-smokers who were currently using or had used e-cigarettes.

Wadsworth, E., Neale, J., McNeill, A., & Hitchman, S. (2016). How and why do smokers start using e-cigarettes? Qualitative study of vapers in London, UK. International journal of environmental research and public health, 13(7), 661.

Young adult e-cigarette users' reasons for liking and not liking e-cigarettes: A qualitative study:

Objective: To gain an in-depth understanding of what young adult electronic- or e-cigarette users like or dislike about e-cigarettes. We aimed to determine the reasons that may encourage young adults to use e-cigarettes or discourage them from using e-cigarettes.

Design: Twelve focus group discussions were conducted with 62 current daily e-cigarette users (63% men) of mean age = 25.1 years (standard deviation = 5.5). Data were analysed following principles of inductive content analysis.

Results: Results indicated 12 categories of reasons for liking e-cigarettes (e.g. recreation, smoking cessation) and 6 categories of reasons for not liking e-cigarettes (e.g. poor product quality, poor smoking experience).

Pokhrel, P., Herzog, T. A., Muranaka, N., & Fagan, P. (2015). Young adult e-cigarette users' reasons for liking and not liking e-cigarettes: a qualitative study. Psychology & health, 30(12), 1450-1469.