School of Nursing Sciences University of Nairobi Qualitative Research Seminar_PhD Students

WEEK 1: Introduction to Qualitative Research

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Our Focus for Today

- Introductions
- Philosophical underpinnings of research
- Why qualitative research?
- Difference between qualitative and quantitively research
- Qualitative research approaches
- Your research

The Research Journey

...begins with a question

The Research Paradigms

- Quantitative
- Qualitative
- Mixed Methods
- First, a review of terminologies, paradigms and philosophical underpinnings:

Ontology, Epistemology, Methodology and Methods

Paradigm and philosophical underpinnings

Positivism, Interpretivism and Pragmatism

Ontology

- Is the beginning of any research after which epistemology, methodology, and methods follow
- Ontological assumptions concern with what is the form as well as the nature of reality and being, and what is there that can be known about that reality
 - people are infected COVID-19
- A researchers knowledge, intentions, goals, philosophical assumptions are interlinked with the research they undertake
- Two important types of ontology:
 - Realism (objective) and Relativism (subjective).

Epistemology

- Epistemological assumptions are concerned with how knowledge can be created, acquired and transferred
- It is responsible for knowledge gathering and concerned about developing new knowledge in the form of new models or theories
- Example:
 - How is COVID-19 transmitted?
 - What is the incubation period?
 - What are the signs and Symptoms?

How can you answer these questions?



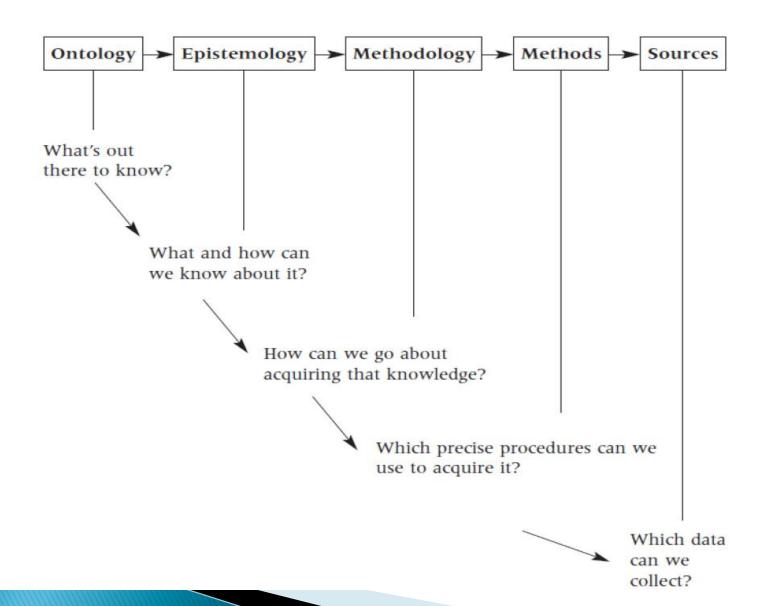
Methodology

- A methodology is the strategy or plan of action which decides the kinds of methods used. A researchers methodological approach reflects the underlying ontological and epistemological assumptions and decides the kind of methods to be used in a study
- After deciding ontological and epistemological position about reality, methodology tells us about the procedures of knowledge generation
- A methodology is a blueprint to carry out research in a particular paradigm. It guides researchers to choose suitable research methods.
- Unless we decide our methodologies, we cannot go further in our research journey.

Methods

- While methodology tells us about the overall research approach under a paradigm, Methods helps us with the instruments used for the collection and analysis of data
- Methods are the techniques and procedures used for collection and analysis of data.
- The methods should are to be selected based on a research problem under study and kind of sources from which data needs to be collected

Interrelationship between the building blocks of research



Paradigms: Positivism

(also known as scientific methods)

- Positivists believe that different researchers will generate a similar result using the same statistical tools and following the same research process while investigating large samples paving a path for context-independent universal generalization
- Advocates the use of quantitative research methods
 - Ontology of positivist paradigm is realism
 - Epistemology is objectivism
 - Methodology experimental
- Positivist believes that there exists only one true reality which is identifiable and measurable

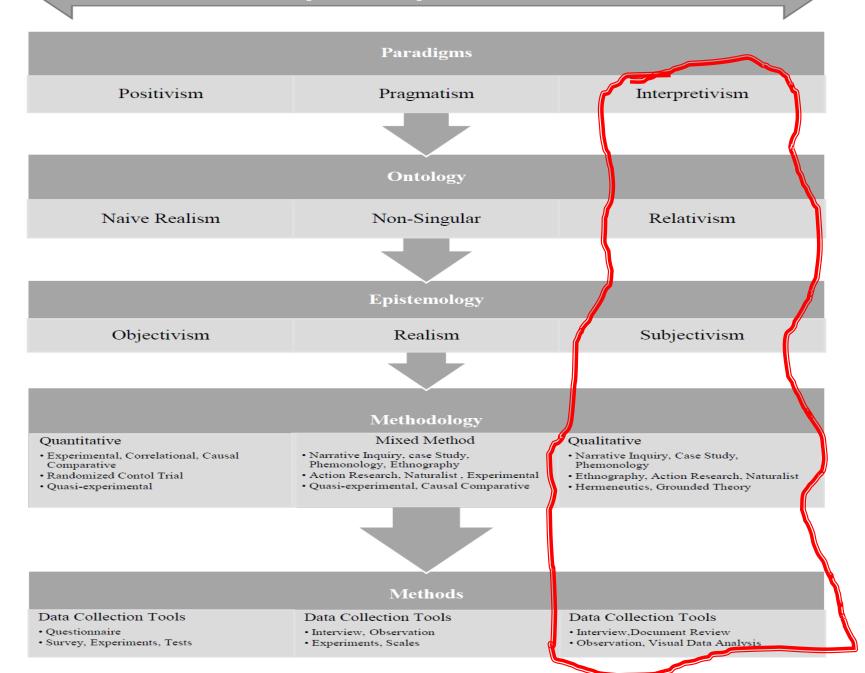
Interpretivism (constructivism)

- The opposite side of positivism. Used to understand the subjective world of human experience.
- Understand the viewpoint of subjects being observed rather than the viewpoint of the researcher.
 - Ontology of interpretivism paradigm relativism, i.e reality is subjective. It is socially constructed (constructivism)
 - Epistemology is transactional and subjective
 - Methodology non-experimental
- Interpretive methodology tries to understand the phenomenon from an individual perspective, keeping in mind the historical and cultural context of the individual

Pragmatism

- Between Positivism and Interpretivism: Mixed methods research (MMR)
- The focus is more on a research problem under study, types of questions asked rather than methods used
- Research conducted within this framework is free to use the methodology of qualitative as well as quantitative paradigms
- Pragmatism being the primary philosophy of MMR, takes into account "multiple viewpoints, perspectives, positions and standpoints" of the problem under study

Objective - Subjective Continuum



Reference

Understanding philosophical underpinnings of research with respect to various paradigms: Perspective of a research scholar.

 https://www.researchgate.net/publication/333036861_Understanding_philoso phical_underpinnings_of_research_with_respect_to_various_paradigms_Perspec tive_of_a_research_scholar/link/5cd82a90a6fdccc9dda4993c/download

Quantitative, Qualitative, Mixed Methods

Quantitative:

- aims to measure numerical variables and create statistical representations of these variables to test theories.
- produces findings that are supposedly objective and neutral by using laboratory equipment, measurement scales, timing devices, structured surveys, and meta-analyses.

Qualitative (Our Focus):

- seeks to document individual perspectives, experiences, thoughts, and behaviors.
- generates the narratives of individuals and groups by interacting with them, observing their behavior, and consider how the nuances of a context may influence their perspectives and experiences.

Research Paradigms

Mixed-methods research:

attempts to integrate and coalesce the components of both quantitative and qualitative paradigms into a form of research where both quantitative and qualitative data complement and substantiate each other

What is Qualitative Research?

- Provides information on what people:
 - Think
 - Feel
 - Know
 - Do
- Helps to understand local beliefs, attitudes, practices and priorities FROM THE 'LOCAL' POINT OF VIEW.

Why Qualitative Research?

Why or how of the phenomenon (Qualitative)

What and how much (Quantitative)

When to use qualitative Research (1)

primarily concerned about opinions and beliefs of individuals

investigator's desire for a detailed understanding of an issue. They do not know what information they need to answer their research questions

- the emphasis is on exploration and explanation instead of effectiveness, accuracy, and validity,
- Sometimes the research topic is sensitive in nature and requires emotional depth

When to use qualitative Research (2)

- the investigators seek engage participants in the design, conduct, and analysis of the study (action research)
- or investigators seek to explain why interventions shown to be effective in a clinical trial are not effective in the real world. It adds color to quantitative research
- It is less structured in description, because it formulates and builds new theories. This research observes the world in its natural setting, interpreting situations to understand the meanings that people make from day to day life
- used in the discipline of social and health sciences to examine the experiences, perspectives, and perceptions of individuals and communities.
- Used when details matter more than generalizability

Quantitative vs. Qualitative Methods

Qualitative	Quantitative
Aim – a complete, detailed description	Aim – classify features, count them,
	construct statistical models
Researcher may only know roughly in	Researcher knows clearly in advance what
advance what he/she is looking for	he/she is looking for
Recommended for earlier phases of	Recommended for latter phases of research
research projects	projects
The design emerges as the study unfolds	All aspects of the study are carefully
	designed before data is collected
Researcher is the data gathering instrument	Researcher uses questionnaires or
	equipment to collect numerical data
Data is in the form of words, pictures or	Data is in the form of numbers and
objects	statistics
Subjective - individuals' interpretation of	Objective – seeks precise measurement &
events is important	analysis of target concepts
Qualitative data is more 'rich', time	Quantitative data is more efficient, able to
consuming, and less able to be generalized	test hypotheses, but may miss contextual
Consuming, and less able to be generalized	detail
Researcher tends to become subjectively	Researcher tends to remain objectively
immersed in the subject matter	separated from the subject matter

Quantitative analysais calculates *mean*.

Qualitative analysis calculates *meaning*.

Quantitative vs. Qualitative Methods

Example 1:

Oil Painting

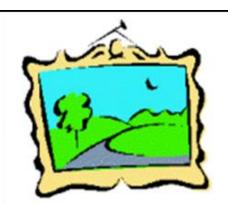


Qualitative data:

- blue/green color, gold frame
- smells old and musty
- texture shows brush strokes of oil paint
- peaceful scene of the country
- masterful brush strokes

Example 1:

Oil Painting



Quantitative data:

- picture is 10" by 14"
- with frame 14" by 18"
- weighs 8.5 pounds
- surface area of painting is 140 sq. in.
- cost \$300

Basic Approaches in Qualitative Research

- Phenomenology
- Grounded Theory
- Ethnography
- Case Studies
- Qualitative Descriptive

Phenomenology

- Focuses on individual experiences, beliefs, and perceptions questions and observations are aimed at drawing out individual experiences and perceptions
- A phenomenological study describes the meaning for several individuals of their lived experiences of a concept or a phenomenon
- Phenomenologists focus on describing what all participants have in common as they experience a phenomenon (e.g., grief is universally experienced).
- qualitative researchers identify a phenomenon (an "object" of human experience qualitative researchers identify a phenomenon (an "object" of human experience

Two approaches to phenomenology

- Hermeneutic phenomenology:
 - research as oriented toward lived experience (phenomenology) and interpreting the "texts" of life (hermeneutics)
- Empirical, transcendental, or psychological phenomenology:
 - focused less on the interpretations of the researcher and more on a description of the experiences of participants. In addition
 - (bracketing), in which investigators set aside their experiences, as much as possible, to take a fresh perspective toward them phenomenon under examination.

Procedures for Conducting Phenomenological Research

- The type of problem best suited for this form of research is one in which it is important to understand several individuals' common or shared experiences of a phenomenon.
- Data are collected from the individuals who have experienced the phenomenon.
- Often data collection in phenomenological studies consists of indepth interviews and multiple interviews with participants.
- Recommends that researchers interview from 5 to 25 individuals who have all experienced the phenomenon. Most often smaller sample sizes

Procedures for Conducting Phenomenological Research

Questions:

- What have you experienced in terms of the phenomenon?
- What contexts or situations have typically influenced or affected your experiences of the phenomenon?
- Statements and themes are then used to write a description of what the participants experienced (textural description).
- They are also used to write a description of the context or setting that influenced how the participants experienced the phenomenon, called imaginative variation or structural description.

Grounded Theory

- The intent is to move beyond description and to generate or discover a theory. The researcher generates a general explanation (a theory) of a process, action, or interaction shaped by the views of a large number of participants
- A key idea is that this theory-development does not come "off the shelf," but rather is generated or "grounded" in data from participants who have experienced the process
 - Uses in–depth interviews
 - Focus group discussions
- Uses systematic and exhaustive comparison of text segments to build thematic structure and theory from a body of text.

Procedures for Grounded Theory

- Grounded theory is a good design to use when a theory is not available to explain a process.
- The research questions that the inquirer asks of participants will focus on understanding how individuals experience the process and identifying the steps in the process (What was the process? How did it unfold?).
- After initially exploring these issues, the researcher then returns to the participants and asks more detailed questions that help to shape the axial coding phase, questions such as:
 - What was central to the process? (the core phenomenon);
 - What influenced or caused this phenomenon to occur? (causal conditions);
 - What strategies were employed during the process? (strategies);
 - What effect occurred? (consequences).

Grounded Theory Procedures

- Questions are typically asked in interviews, although other forms of data may also be collected, such as observations, documents, and audiovisual materials.
- The point is to gather enough information. This may involve 20 to 30 interviews to develop (or saturate) the model.
- The analysis of the data proceeds in stages.
- During coding, the researcher forms categories of information about the phenomenon being studied by segmenting information. Within each category, the investigator finds several properties, or subcategories, and looks for data to show the extreme possibilities on a continuum of the property

Procedure for Grounded Theory

- The result of this process of data collection and analysis is a theory, a substantive-level theory, written by a researcher close to a specific problem or population of people.
- The theory emerges with help from the process of memoing, a process in which the researcher writes down ideas about the evolving theory throughout the process of open, axial, and selective coding.
- The substantive-level theory may be tested later for its empirical verification with quantitative data to determine if it can be generalized to a sample and population.
 - Alternatively, the study may end at this point with the generation of a theory as the goal of the research.

Ethnography

- Ethnography literally means "to write about a group of people."
- Traditionally, ethnographic research has involved a researcher's total and prolonged immersion within a study community, often for a year or longer.
- A strength of the ethnographic approach is the naturalistic, in situ manner in which it is carried out and its emphasis on understanding the emic (insider/local) perspective.
 - Observing individual and group behavior in its natural context and participating in that context can generate insights that other forms of research cannot

Ethnography

- An ethnography focuses on an entire cultural group. Typically it is large, involving many people who interact over time (i.e. teachers in an entire school, a community social work group).
- As a process, ethnography involves extended observations of the group, most often through participant observation, in which the researcher is immersed in the day-to-day lives of the people and observes and interviews the group participants
- The researcher describes and interprets the shared and learned patterns of values, behaviors, beliefs, and language of a culturesharing group
- Ethnographers study the meaning of the behavior, the language, and the interaction among members of the culture-sharing group

Ethnography -Procedures

- Ethnography is appropriate if the needs are to describe how a cultural group works and to explore the beliefs, language, behaviors, and issues such as power, resistance, and dominance.
- Identify and locate a culture-sharing group to study. Typically, this group is one that has been together for an extended period of time, so that their shared language, patterns of behavior, and attitudes have merged into a discernable pattern.
 - This may also be a group that has been marginalized by society.
- Because ethnographers spend time talking with and observing this group, access may require finding one or more individuals in the group who will allow the researcher in—a gatekeeper or key informants (or participants).

Qualitative Descriptive

- Mainly used in nursing
- Where nothing is known, no data
- Most basic qualitative approach
- Exploratory, descriptive
- Aim is to describe the phenomenon

Case Studies

- A qualitative case study examines a phenomenon within its reallife context.
- Data are collected on or about a single individual, group, or event.
- In some cases, several cases or events may be studied. The primary purpose of a case study is to understand something that is unique to the case(s).
- Knowledge from the study is then used to apply to other cases and contexts
- Qualitative case study methods often involve several in-depth interviews over a period of time with each case. Interviews explore the unique aspects of the case in great detail, more so than would be typical for a phenomenological interview.

Case Studies

- Participants and/or cases, by definition, should be selected for their unique properties.
- Because it is the case's special attributes that are of interest, sample sizes are generally small, usually one to several cases.
- Inquiry in these types of studies focuses largely on their defining case features and the differences they exhibit from other individuals/events in the larger population.
- The overall idea is to tease out what makes them so different and why.
- Often, knowledge gained from case studies is applied to a larger population.

Narrative Analysis

- It is a specific type of qualitative design in which "narrative is understood as a spoken or written text giving an account of an event/action or series of events/actions, chronologically connected"
 - Narratives can be from interviews, literature, letters, diaries.
 Narratives (storytelling) used as source of data
- A narrative study reports the life of a single individual
- The procedures consist of focusing on studying one or two individuals, gathering data through the collection of their stories, reporting individual experiences, and chronologically ordering (or using life course stages)o report the meaning of those experiences.

Narrative Analysis: Procedures

- Select one or more individuals who have stories or life experiences to tell, and spend considerable time with them gathering their stories through multiples types of information.
- Research participants may record their stories in a journal or diary, or the researcher might observe the individuals and record fieldnotes.
- Researchers may also collect letters sent by the individuals; assemble stories about the individuals from family members; gather documents such as memos or official correspondence about the individual; or obtain photographs, memory boxes (collection of items that trigger memories), and other personal-family-social artifacts.

Narrative Analysis: Procedures

- After examining these sources, the researcher records the individuals' life experiences.
- Collect information about the context of these stories. Narrative researchers situate individual stories within participants' personal experiences (their jobs, their homes), their culture (racial or ethnic), and their historical contexts (time and place).

Narrative Analysis

- Analyze the participants' stories, and then "restory" them into a framework that makes sense.
- Restorying is the process of reorganizing the stories into some general type of framework.
- This framework may consist of gathering stories, analyzing them for key elements of the story (e.g., time, place, plot, and scene), and then rewriting the stories to place them within a chronological sequence

Mixed Methods Approaches

- Research studies are becoming increasingly diverse and inclusive of both qualitative and quantitative methods—mixing methods to address specific objectives.
- The basic premise behind using a mixed methods research design is that the combination of both approaches provides a better understanding of a research problem than either approach could alone
- Integrating methodological approaches strengthens the overall research design, as the strengths of one approach offset the weaknesses of the other, and can provide more comprehensive and convincing evidence than mono-method studies.

Mixed Methods Approaches

- Another more practical benefit is that mixed method research can encourage interdisciplinary collaboration and the use of multiple paradigms
- The overarching premise is that the integration of two or more approaches
- Should provide some added benefit with regard to research objectives that a single approach could not offer.

Mixed Methods

Triangulation:

Tests consistency of findings obtained through different instruments

Complementarity:

Clarifies and illustrates results from one method with the use of another method

Iterative:

 Results from first method shape subsequent methods or steps in the research process

Deepens understanding:

Stimulates new research questions or challenges results obtained through one method

Expansion:

Provides richness and detail to the study exploring specific features of each method Theoretical Framework

Conceptual Framework

Research Questions

Let us discuss some your research questions

Parts of a research Proposal/Protocol

- Background/significance
- Research question
- Rationale
- Theoretical Framework/Conceptual framework
- Purpose
- Objectives
- Methodology
- Quant/Qual (approach)
- Methods
 - Data collection
 - Analysis
 - Report writing

The End Thank you!