

Speaker Notes: Qualitative Methods in Dissemination and Implementation Research

PART 1: OVERVIEW

Slide 1: Overview

Welcome to “Qualitative Research Methods in Dissemination and Implementation Studies.” This narrated powerpoint is the first in a series of presentations and provides an overview of qualitative methods. These presentations are offered to you by The North Carolina Translational and Clinical Sciences Institute, which is the academic home of the Clinical and Translational Science Award at UNC-Chapel Hill.

Slide 2: Learning Objectives

These are the learning objectives for the presentation. By the end, you should be able to define what qualitative research is, and how and when it can be used within the field of dissemination and implementation research. You should be able to describe some of the main types of qualitative research designs and sampling approaches. Finally, you should understand the various methods for both collecting and analyzing qualitative data, including validity issues pertaining to qualitative research.

Slide 3: What is Qualitative Research?

What exactly is qualitative research, and how do scientists use it? Qualitative research is a **systematic approach** to examining the way people interpret and make sense of their experiences. Qualitative research is a form of social inquiry that, at its core, is interested in understanding how people do what they do and why people do what they do. In order to understand how people perceive their environment and interact with others, qualitative researchers must explore the point of view of those experiencing the problem or condition being studied. The process of qualitative research is **inductive**, meaning that researchers build concepts and theories based on what they observe, hear, and learn. While exploring another person’s perspective, qualitative researchers seek a **depth** of understanding regarding the context in which the problem or condition is occurring. This is accomplished through attentively listening to the participant’s story. Therefore, qualitative researchers themselves become the primary instrument for data collection and analysis. Their role is to accurately record what they observe and/or what they hear from the participant.

Slide 4: What is Qualitative Research? (2)

Qualitative research is an umbrella term that includes a variety of approaches within a broader conceptual framework. The framework puts an emphasis on processes and meanings that are rigorously examined, but not measured in terms of quantity, amount or frequency. Qualitative research typically proceeds iteratively rather than sequentially. It is useful for developing rich, detailed description; for studying the complex interplay of action and context; for exploring new or rapidly emerging phenomena; and for generating theoretical insights. Qualitative research involves fieldwork, where the researcher meets with certain people or goes to a particular place in order to record behavior that is occurring in a natural setting. By using a combination of open-ended methods, qualitative researchers

typically produce a wealth of descriptive data about a relatively small number of subjects. For example, dissemination and implementation researchers are often interested in designing feasibility studies to examine the **acceptability** of a particular health intervention. In this case, a qualitative research method, such as a focus group, could be used to learn the extent to which a program is suitable, satisfying, or attractive to those who are delivering it as well as those who are receiving it. Knowing how people react to an intervention can have strong implications for tailoring the program to fit better in specific settings with specific populations. Qualitative researchers attempt to “drill down” into an issue and acquire in-depth information about individuals. Their goal is to understand the insider’s perspective and seek detailed knowledge of specific topics. Lastly, qualitative researchers strive to “make the facts **understandable**,” and tend to place more emphasis on discovering insights within cases, rather than deriving inferences or predictions from patterns across cases. In summary, qualitative research is at its best when there is depth over breadth, when there is an understanding of an insider’s perspective over an outsider’s perspective, and when the focus is on providing insight over generality.

Slide 5: When to Use Qualitative Research

The question of when to use qualitative research comes up fairly often as investigators plan and design their studies. In general, the less detail you know about a situation or an issue, the more likely you are to benefit from using qualitative research methods. Qualitative research is, by definition, exploratory, and is useful when you are learning about an issue, defining a concept, or developing an approach to address a problem. Qualitative research is valuable when events change quickly, when we lack ways of quantitatively measuring something, or when we want a deeper understanding of an issue. Qualitative research can also be helpful when the statistical results are confusing and we need to know more about the environment in which the data were collected. Context is extremely important in implementation research. Contextual factors, both individually and in combination, can affect implementation of a program in meaningful and significant ways. It is also important to know when NOT to use qualitative research. Qualitative research should not be used when there is already an in-depth understanding of an issue or problem. It should not be used to test fully formed hypotheses or to generate measures of statistical significance and generalizability across populations.

Slide 6: Qualitative Study Design

Researchers tend to select a qualitative research design or approach based on a number of factors, including funder’s expectations, timelines, budgets, the research question(s) being asked, and the population being targeted. Four examples of qualitative research study designs include ethnography, case study, grounded theory and pilot testing.

Ethnography is rooted in anthropology and involves the study of an intact group in its natural context for a sustained time period. Ethnographic research is labor and time intensive, with the researcher typically gaining access to the group and using participant-observation and key informant interviews to inductively explore an issue.

Case study design has multidisciplinary roots including law, business and medicine. Multiple methods can be used in case study design including interviews, observation, and historical archives. The main

feature of case study design is the intense focus on the individual case and the attempt to understand what is common about the group being studied. Case study methods are well-suited for studying implementation processes, which tend to be fluid, non-linear, and context-sensitive. In addition to permitting in-depth analysis of individual cases, case study methods offer analytic strategies for systematically comparing patterns observed across cases.

Grounded theory comes out of sociology and was initially developed in response to the lack of new sociological theories being generated. The primary methods used in grounded theory are interviews and observations. Grounded theory attempts to inductively generate theory that describes and explains an event or issue using the iterative process of data collection and analysis. For instance, during data collection, a continuous comparative analysis between interviews is utilized in which the interviewer can base question probes on themes identified in previous interviews. Relationships between concepts are continually identified and refined to enable theory development.

Pilot Testing is often used as an assessment tool to modify and improve products or programs during their planning, development or evaluation. Common methods used are focus groups, interviews, surveys and field notes. Pilot testing can be less descriptive than other research designs and more prescriptive or recommendation-driven. Pilot testing is beneficial to studying dissemination processes that allow researchers to quickly assess the extent to which individuals respond to dissemination strategies and understand how information being disseminated is understood and/or relevant to the target population.

Slide 7: Sampling Approaches

In qualitative research, it is unnecessary and untenable to collect data from everyone in the population being studied in order to achieve valid results. The project's research aims and the characteristics of the study population (i.e. size and diversity) often determine which and how many people to select. Three of the most common sampling methods in qualitative research include purposive, snowball, and convenience sampling.

Most qualitative sampling methods are purposive in nature because we usually approach sampling with a specific plan in mind. That is, we group participants according to preselected criteria relevant to a particular research question (i.e. medical directors in community health clinics). Purposive sample sizes are often based on the number of people who have expertise in the area being researched and the amount of time it takes to reach theoretical saturation.

Snowball sampling is a form of purposive sampling where participants make referrals of other people who could contribute to the study based on their social networks. This form of participant recruitment is often helpful when working with hard-to-reach or hidden populations.

Convenience sampling is the least rigorous of the three sampling approaches. Researchers, however, sometimes prefer convenience sampling because it is fast, inexpensive, easy and the participants are readily available.

Slide 8: Qualitative Data Collection

Here are a list of some of the many different kinds of methods used to collect qualitative research data in dissemination and implementation studies; all with their own set of strengths and weaknesses. Often, combinations of these methods are used by dissemination and implementation researchers to verify or triangulate data in their research projects.

Interviews, focus groups, cognitive interviews and other data sources that are collections of narratives should be audio recorded. These data are typically open-ended without pre-determined response scales. Participant/non-participant observations, field notes, and historical/archival analysis of documents and materials require the researcher to write notes and memos that directly relate to the research topic.

Slide 9: Analyzing the Results

Since qualitative data consists of words and observations, not numbers, qualitative researchers should be actively engaged in the analysis of the data; ideally, having the analysis plan being thought out at the beginning of the design phase. While there is no single or best way to analyze qualitative data, the analytic process usually depends on the researcher or research team getting to know their data, categorizing information, identifying patterns and connections within and across the categories and interpreting results.

Slide 10: Coding Qualitative Data

Coding is the process of listening to and/or reading the data and breaking the data into discrete “text units” with the idea of interpreting their meaning using either existing codes or a priori codes that have been developed from deductively derived constructs using conceptual models or theories or developing codes inductively as researchers begin working with and examining their data. “Text units” are simply chunks of text that seem to have meaning or coherence and can be any size you want: a word, a phrase, a line, a sentence, a paragraph, or even an entire document. Provided you have the time and resources, different types of qualitative data analysis software exist (e.g. Atlas.ti and Nvivo). These software programs do not do the coding for you but allow you to code and store your data; allow you to search and retrieve data; and are beneficial in organizing your findings.

To ensure consistency in coding, researchers develop a coding manual or code book. A code book can consist of definitions for each code, can outline the decision rules for when to apply the code and when not to apply it, can provide examples of appropriate and inappropriate uses of the code, and can track any revisions that you make to the codes. A code book is a “living document”. As codes are applied to the interview transcripts, questions will arise about the meaning of the codes, the differences between codes, and the decision rules about when to apply codes. These questions should prompt discussion which, in turn, should prompt revisions and refinements of the code book. Definitions will get sharpened, new codes will get added, decision rules will be modified, and examples will get changed.

Slide 11: Thank you!

This concludes Part 1 in this series of presentations. Part 2 is a case study illustrating how evidence based interventions can be tailored for broader dissemination. Staff from the TraCs Institute are available for consultations. In order to become a member and request a consultation, please call us at 919-966-6022, email us at nctracs@unc.edu, or visit our website at tracs.unc.edu.