Chapter 08 / Capítulo 08

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Qualitative Health Research in the Jurisdiction of Academic Specialization / Investigación Cualitativa en Salud en la Jurisdicción de Especialización Académica

This module will provide a general introduction to the context of qualitative research methodology, its application in the health sciences, the different methodological traditions, the particularities of its designs and analyses, and emerging trends in this field of study. Qualitative research is defined in various ways: as the study of human understanding and its interaction with the environment, as an effort to answer questions about human experiences and realities through direct study with people in their everyday environment, or as a means of finding answers to questions focused on social experience and how it shapes and gives meaning to human life.

In any case, it represents a dynamic and open scientific perspective, rooted in the natural context of the participants, that seeks to capture phenomena in their essence, revealing their richness and explaining their complexity holistically. Scientific evidence modifies our beliefs about how the world around us works; this implies a plural and open view of "evidence" and "science," with different but complementary perspectives of knowledge.

Qualitative research provides evidence about values, motivations, and behaviors, complex aspects of human reality that numerical instruments cannot capture but that we need to understand rigorously and systematically to improve our clinical practice.

In recent years, qualitative research has expanded its scope from the social sciences to the health sciences, a logical move if we seek to investigate evidence that represents the complexity of reality, contextualize the people studied, and truly assess health needs and expectations from the perspective of those affected. It is now recognized that the criteria for scientific rationality are not unique and that the epistemological foundation of positivism is not the only form of "science." Key differences between paradigms include the types of objectives (measuring, verifying, and generalizing vs. exploring, interpreting, and understanding), the nature of the data (quantitative vs. qualitative), and the techniques used (controlled measurement vs. naturalistic observation).

The growth of qualitative research in health sciences has been remarkable. While there were 5,022 articles labeled "qualitative research studies" in PubMed in 2000, this figure rose to 17,775 in 2010, demonstrating the field's growing importance.

8.1. Theoretical and methodological approach

Qualitative research is an amalgamation of diverse knowledge and practices that has emerged from multiple disciplines over the past few decades. This diversity transcends the traditional divide between quantitative and qualitative approaches, revealing a more intricate scientific landscape encompassing a variety of paradigms. In this context, different methods (conceived as "pathways" toward a goal, i.e., the means used to achieve an end) take their positions. These methods are tools, not goals in themselves, and must be selected in harmony with the research question to preserve the study's validity and consistency. Among the wide range of methods available, four stand out for their use and relevance: ethnography, grounded theory, phenomenology, and action research.

8.1.1. Ethnography

Ethnography, rooted in cultural anthropology, primarily uses participant observation to collect data. This involves the researcher immersing themselves in the experiences or situations they are observing to gather information, often without directly participating in the actions, yet always being part of the experience: the ethnographer is physically present. This method seeks to understand the lifestyles and perspectives of ethnocultural groups regarding a specific phenomenon. The study is conducted in natural settings, that is, where the action occurs; the researcher must familiarize themselves with the group's symbolism and language. Ethnography is characterized by the use of various data sources, including field observation, as well as the analysis of documents, photographs, and maps, to gather all relevant information and shed light on the subject of study. Ethnographic data is rich, deep, and detailed.

The analysis of this data focuses on identifying cultural categories and patterns, considering culture as a prism through which people shape and interpret their actions. Ethnographic results provide detailed descriptions of cultural practices in different contexts, emphasizing not only the physical environment, which is merely the setting for the action, but also intangible aspects such as beliefs, values, and situations that comprehensively explain human behavior.

8.1.2. Grounded theory

Originating in sociology, particularly symbolic interactionism, this approach is based on three fundamental ideas. First, that human beings act in response to the meaning they assign to things; second, that these meanings arise or develop through social interaction with others; and third, that these meanings are modified and adapted through individual interpretive processes. The goal is to understand how people interpret and make sense of their daily activities, acting according to socially established norms that are so ingrained that individuals rarely question their behavior.

In Grounded Theory, data collection is carried out through interviews and participant observation. Human interaction is the main source of data, and analysis focuses on uncovering the underlying processes in this interaction, known as basic socio-psychological processes. These processes are examined at different stages, identifying the conditions of the action, the strategies people use to deal with everyday problems, and the consequences of these actions. This theory is particularly useful for researchers interested in capturing temporality, change, and its effects on a process.

8.1.3. Phenomenology

Phenomenology has its roots in the thinking of existentialist philosophers from Germany, France, and the Netherlands in the 19th and 20th centuries. This discipline explores the "essence" of phenomena, their inherent nature, and the meaning that people attach to them, positing the existence of an "understandable essence."

The purpose of descriptive phenomenology is to detail the meaning of an experience from the perspective of those who have lived it. On the other hand, hermeneutic (or interpretive) phenomenology seeks to understand that experience. This branch of phenomenology considers that experience itself is an interpretive process and that this interpretation occurs in the context in which the researcher also participates.

To collect data, in-depth interviews are mainly used, with the particularity that multiple interviews must be conducted with each informant to deepen the understanding of the

phenomenon. Phenomenological findings are presented as narratives or as themes with subthemes.

8.1.4. Action research (IA)

Action Research (AR) combines scientific research with social action, closely linked to fields such as social psychology and organizational development and draws on approaches such as "action science" and "reflection in action." This method has been applied for decades in fields such as education and sociology and has recently gained relevance in the health sector. AI focuses on understanding, decision-making, and implementing change, merging knowledge and action so that knowledge generation and practical application occur simultaneously.

Several characteristics distinguish AI: collaboration between researchers and participants, practical problem solving, transformation of practices, and the development of emerging theories. In essence, AI is a process that includes analyzing the situation, identifying problems, and creating and executing planned action strategies, which are subject to continuous observation, reflection, and modification. The main techniques for collecting data include interviews, observation, and reflective journals.

8.2. Qualitative design (characteristics)

Design in qualitative research is a comprehensive plan that harmonizes objectives, data collection methods, and planned analysis. Despite requiring detailed preparation, qualitative research needs flexibility to adapt to the phenomenon being studied, which may lead to modifications to the design during the research to achieve a deeper understanding of the topic. This adaptability gives rise to the term "emergent design," which indicates that the design can evolve as the research progresses, based on discoveries rather than the researcher's negligence.

Qualitative research is characterized by principles such as flexibility, circularity of the process, iterativity, and the researcher's reflexivity. When planning the design, aspects such as identifying potential collaborators, selecting the study site, developing access strategies, collecting relevant materials, identifying environments for collecting meaningful data, identifying key contacts, available time and resources, tools for data collection and analysis, and ethical considerations are considered.

Sampling in qualitative research avoids probabilistic sampling and focuses on qualified and reflective informants. Sampling is intentional or theoretical, focusing on "concepts" rather than individuals, and seeks "saturation" of information. Informants can provide various sources of data, with texts (transcripts) being the most common.

Data collection techniques include interviews (structured, semi-structured, in-depth, open-ended), observation (open/covert, participant/non-participant), and document analysis. Each technique has its advantages and limitations, and data must be collected in reliable and verifiable formats, such as digital recordings or field diary notes, which must be transcribed in full and verified before analysis.

8.3. Qualitative data (analysis)

Qualitative data analysis is considered one of the most complex and subjective aspects of qualitative research. This process is dynamic, interactive, integrative, reflective, inductive,

creative, methodical, and rigorous. It is defined as a set of operations and reflections applied to data to extract relevant meanings in relation to a research problem. Qualitative studies can be exploratory, descriptive, or interpretive, depending on the depth of the analysis. The basic analysis procedure involves multiple readings of transcripts, coding, categorization, and the establishment of relationships between categories. The researcher's interpretive ability, influenced by their personal experiences and attitudes, is crucial in this process.

The analysis includes various techniques such as constant comparison of data, consultation of relevant literature, use of memos and diagrams, matrices for crossing codes and categories, analytical metaphors, and conceptual maps. Depending on the approach, there are various analytical models, such as content analysis, thematic analysis, discourse analysis, narrative analysis, and the grounded theory model.

To facilitate the analysis of large volumes of qualitative data, computer-assisted qualitative data analysis (CAQDAS) programs can be used, such as Atlas.ti, Ethnograph, HyperResearch, Maxqda, among others. These programs offer features such as text segment tagging, code association, text search by code, code sorting, and links to memos. Still, it is important to remember that the creation of relationships and the understanding of meanings depend on the "art" of the researcher.

8.4. Future lines of qualitative work

A significant challenge in qualitative research is establishing clear evaluation criteria to assess its quality. To date, there is no consensus on what these criteria should be. Although there are multiple proposals, researchers must reach agreements that respect the unique nature of qualitative research and ensure its validity.

Furthermore, in our society, it is essential to manage knowledge effectively, especially regarding health issues. This involves not only retrieving and synthesizing quantitative evidence, but also qualitative evidence. In this context, syntheses of qualitative studies (such as meta-syntheses and meta-ethnographies) have emerged as an extremely useful approach for evaluating health technologies and programs.

Finally, it is important to highlight the growing use of mixed-methods research, which combines quantitative and qualitative approaches. These integrative designs address the complexity of reality more comprehensively, recognizing that it is not composed solely of numerical data, but also of facts, emotions, events, and diverse situations.