Identifying the best research design to fit the question. Part 2: qualitative designs

Qualitative research methods have become increasingly important as ways of developing nursing knowledge for evidence-based nursing practice. Qualitative research answers a wide variety of questions related to nursing’s concern with human responses to actual or potential health problems. The purpose of qualitative research is to describe, explore, and explain phenomena being studied. Qualitative research questions often take the form of “what is this?” or “what is happening here?” and are more concerned with the process rather than the outcome. This editorial provides an overview of qualitative research, describes 3 common types of qualitative research, and gives examples of their use in nursing.

**Sampling, data collection, and data analysis**

Sampling refers to the process used to select a portion of the population for study. Qualitative research is generally based on non-probability and purposive sampling rather than probability or random approaches. Sampling decisions are made for the explicit purpose of obtaining the richest possible source of information to answer the research questions. Purposive sampling decisions influence not only the selection of participants but also settings, incidents, events, and activities for data collection. Some of the sampling strategies used in qualitative research are maximum variation sampling, stratified purposeful sampling, and snowball sampling. Qualitative research usually involves smaller sample sizes than quantitative research. Sampling in qualitative research is flexible and often continues until no new themes emerge from the data, a point called data saturation.

Many data collection techniques are used in qualitative research, but the most common are interviewing and participant observation. Unstructured interviews are used when the researcher knows little about the topic, whereas semi-structured interviews are used when the researcher has an idea of the questions to ask about a topic. Participant observation is used to observe research participants in an natural setting as possible. The types of participant observation range from complete participation to complete observation. To learn more about the topic being studied, qualitative researchers may also use other data sources such as journals, newspapers, letters, books, photographs, and video tapes.

Qualitative data analysis, unlike quantitative data analysis, is not concerned with statistical analysis, but with analysis of codes, themes, and patterns in the data. Increasingly, qualitative researchers use computer software programs to assist with coding and analysis of data. The product of qualitative research varies with the approach used. Qualitative research may produce a rich, deep description of the phenomenon being studied or a theory about the phenomenon. Qualitative research reports often contain direct quotes from participants that provide rich illustrations of the study themes. Qualitative research, unlike its quantitative counterpart, does not lend itself to empirical inference to a population as a whole; rather it allows the researcher to generalise to a theoretical understanding of the phenomenon being examined.

**Types of qualitative research**

There are many different types of qualitative research, such as ethnography, phenomenology, grounded theory, life history, and ethnomethodology. As in quantitative research, it is important for the nurse researcher to select the qualitative research approach that would best answer the research question. Three of the most commonly used approaches to qualitative research in nursing are phenomenology, ethnography, and grounded theory. The goals and methods associated with each approach will be described briefly in the following sections. Examples of research studies that use each approach and that have previously been abstracted in Evidence-Based Nursing are summarised to illustrate some of the similarities and differences among approaches. Other sources are available that provide a more complete description and comparison of these approaches and their use in nursing.

**Phenomenology**

The aim of a phenomenological approach to qualitative research is to describe accurately the lived experiences of people, and not to generate theories or models of the phenomenon being studied. The origins of phenomenology are in philosophy, particularly the works of Husserl, Heidegger, and Merleau-Ponty. Because the primary source of data is the life world of the individual being studied, in depth interviews are the most common means of data collection. Furthermore, emerging themes are frequently validated with participants because their meanings of that lived experience are central in phenomenological study.

Phenomenology was used to answer the research question what is the lived experience of adults who are integrating hearing loss into their lives? (See Evidence-Based Nursing, 1998 October, p131). The convenience sample consisted of 32 adults with mild to profound degrees of hearing loss. Data were collected through semi-structured, audiotaped interviews with participants. Analysis involved identification of core and major themes in the data, and validation of the findings with selected participants. The core theme of dancing with eloquently captured the participants’ perceptions of moving gracefully or awkwardly, with the changes required by hearing loss, never sure of the next steps. The major themes of dancing with (a) loss and fear, (b) fluctuating feelings, (c) courage amidst change, and (d) an altered life perspective, provide the reader with a rich description of the participants’ perceptions of what it was like to live with hearing loss. These findings offer nurses a deep understanding of the phenomenon that they can apply in their interactions with people living with hearing loss. The phenomenological
approach was key to uncovering participants' meanings of the complex and dynamic process of integrating hearing loss into their lives.

Ethnography
The goal of ethnography is to learn about a culture from the people who actually live in that culture. A culture can be defined not only as an ethnic population but also as a society, a community, an organisation, a spatial location, or a social world. Ethnography has its roots in cultural anthropology, which aims to describe the values, beliefs, and practices of cultural groups. The process of ethnography is characterised by intensive, ongoing, face to face involvement with participants of the culture being studied and by participating in their settings and social worlds during a period of fieldwork. The essential data collection methods of participant observation and indepth interviewing permit the researcher to learn about the meanings that informants attach to their knowledge, behaviours, and activities. The context (social, political, and economic) of the culture assumes an important part of an ethnographic study, unlike a phenomenological study.

An ethnographic approach was used to answer the research question what is it like to be a young urban African-American who has at least one AIDS-afflicted family member? (See Evidence-Based Nursing, 1998 October, p130.) Stories of 6 young people are described in the article. There was an extensive 4 year period of in depth fieldwork that included telephone and in person interviews and participant observation. The stories powerfully illustrated how the culture in which the youths had to survive was so alienating that they deliberately sought exposure to HIV. The findings provide an important understanding for nurses working with adolescents in either preventive or acute care roles. The ethnographic approach was uniquely suited to bringing attention to the important influence of the context of marginalisation, insensitive social policies, and demanding caretaking responsibilities, on the lives of these youths.

Grounded theory
The purpose of a grounded theory approach to qualitative research is to discover social-psychological processes. Grounded theory was developed by Glaser and Strauss in the 1960s and is founded philosophically on symbolic interactionism. Distinct features of grounded theory include theoretical sampling and the constant comparative method. Theoretical sampling refers to sampling decisions made throughout the entire research process in which participants are selected based on their knowledge of the topic and based on emerging study findings. In data analysis, the researcher constantly compares incidents, categories, and constructs to determine similarities and differences and to develop a theory that accounts for behavioural variation. Both observation and interviewing are commonly used for data collection.

Grounded theory was used to answer the research question what is the process of reimagining after an alteration in body appearance or function? (See Evidence-Based Nursing, 1998 October, p133.) The theoretical sample consisted of 28 participants who had experienced body image disruptions such as significant weight change; amputation or paralysis of body parts; and scars from burns, surgery, or trauma. Participants were interviewed at 3, 6, 12, and 18 months after the physical alteration. The constant comparative method of concurrent data collection and analysis was used to develop a 3 phase theory of the process of reimagining: (a) body image disruption, (b) wishing for restoration, and (c) reimagining the self. Nurses can use this vital understanding of the phases of reimagining to assist clients through the process by anticipating potential needs or problems, providing information and support, and exploring alternative problem solving strategies. The grounded theory approach was ideally suited to discovering the social-psychological process of reimagining.

Conclusion
The examples of nursing research studies using 5 different approaches exemplify the value of qualitative research in answering important nursing questions. The studies also provide rich illustration of the differences and similarities between the disparate approaches that are captured by the term “qualitative research.” The approaches differed in the type of research question asked, the philosophical underpinnings of the methods used, and to some extent, the final product. All studies, however, resulted in important new information about the phenomena studied. This new information facilitates a deeper understanding of participants’ experiences by nurse readers and—as long as nurses remain aware of the theoretical rather than empirical basis for generalising from the qualitative findings—has the potential for influencing nursing practice in similar situations.

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9 A culture can be defined both as an ethnic population and as a society, a community, an organisation, a spatial location, or a social world.
10 What differentiates the constant comparative method from the theoretical sampling method is the idea that data collection and analysis go on concurrently. This approach is a key feature of grounded theory methodology.
12 The community of the youths in this study included different cultural groups.
13 The participants were selected based on their knowledge of the culture in which the youths had to survive.