Qualitative Research Methodologies: An Overview
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In recent years there has been an emergence of qualitative methodologies in nursing research, including neuroscience nursing research. This is due to increasing recognition of qualitative approaches as means of making contributions to nursing science and acknowledgment of these approaches as congruent with the values and concerns of nursing. Qualitative approaches offer neuroscience nurses the opportunity to understand the experiences and meaning of neurologic dysfunction to their clients. Clinicians, practitioners, academicians and researchers in neuroscience nursing need to have an understanding of qualitative approaches. Only with this understanding will it be possible for neuroscience nurses to conduct, interpret, evaluate or implement qualitative research in practice. This article examines the paradigmatic assumptions underlying qualitative methods, discusses commonalities of three qualitative approaches and reviews components of a qualitative research design.

Paradigmatic Assumptions
A paradigm is a world view or a way of looking at a field of study including assumptions inherent in that world view. Before entering a discussion of qualitative research design, one must examine the assumptions and goals underlying the various approaches. Qualitative methods have primarily been associated with a human science or naturalistic paradigm. First, reality is dynamic and multiple. What this means is multiple meanings can be derived from similar experiences and meanings can change over time. Second, phenomena must be studied in context; researchers do not manipulate or control variables to obtain data. Lastly, the researcher is an integral part of the research process. This paradigm is concerned with the nature of meaning. Qualitative approaches share the common goal of understanding achieved by describing or uncovering meaning.

Commonalities of Qualitative Approaches
Several approaches to conducting qualitative research have emerged from different disciplines. Three approaches which are becoming widely used in nursing research are described here.

Ethnography is a research approach used in anthropology to provide descriptions of cultural groups. An ethnographic study is a broad but detailed study of a cultural or subcultural group. All ethnographic studies have a general purpose to understand the cultural meanings people use to organize and interpret their experiences, or in other words, to grasp the person's point of view. One example of an ethnographic study in nursing research is the exploration of the meaning of aging among elderly in a variety of clinical settings.

Phenomenology has its early roots in biblical interpretation and more recently has been developed and refined by 20th century philosophers. The purpose of this approach is to uncover the meaning of the human experience through analysis of participant descriptions. Phenomenology attempts to understand and make explicit human phenomena in context. Doolittle studied stroke survivors to understand how these individuals defined recovery, experienced their bodies after stroke and explicated the practical knowledge gained by survivors during recovery.

Grounded theory, as developed by sociologists, is a
form of field research aiming to generate theoretical constructs which explain the "action" or the "what is going on here" in a social context. Constructs are generated from data which are further developed with the final goal being a theory supported by data. Catanzaro has used this approach to study the effect of progressive neurologic disease on individuals and their families.8

Common characteristics can be identified in the 3 qualitative designs described. All three methods (1) are inductive, (2) occur in social or human settings and (3) describe or explain human phenomena.14

Components of Qualitative Research Designs

Ethnography, phenomenology and grounded theory have similar components in research design. Components include identifying the phenomena, gathering or generating data, analyzing the data and describing and presenting findings.13

Identifying the Phenomena

Phenomena appropriate for study include human circumstances related to health and illness. The aim is to understand human responses to these conditions. Often these circumstances do not lend themselves to quantitative study.

From practice, literature review, consultation with colleagues and much reflection, a research question is formulated. Initially the literature may be reviewed to provide early direction in formulating the research question or discover areas that have been largely ignored in the literature. Literature is not used to hypothesize what will be discovered in the study. Often a qualitative researcher finds a limited body of literature which does not fully explicate the phenomenon of interest.

Qualitative researchers interview or observe individuals experiencing the phenomenon. The number of subjects or participants varies from study to study. The researcher continues to collect data until redundancy or repetition occurs in the descriptions of the phenomenon being studied. When the researcher has "saturated" a phenomenon in such a way that further data collection is providing only repetition, then the researcher has the needed data. However, if the researcher's understanding of the phenomenon is still cloudy, more interviews than originally planned may be conducted. Another factor affecting the amount of data available is the number of interviews per participant.

Gathering Data

Data are most often gathered in the form of interviews or participant observation. Other sources include informal interaction, documents or photographs.1

Quality of data gathered is dependent on ability of the researcher to develop a trusting relationship with the individuals being studied. Leniger has emphasized informants will share more meaningful data when trust has been established.18

Interviews may be unstructured or semistructured. Typically interviews begin with rather broad questions, and as the study progresses interviews become more focused. Because the researcher must be able to change the direction of the interview based on participant responses, the questionnaire and degree of structure must permit exploration of leads and cues provided by participants.

The researcher must be an excellent listener, clarifying responses from participants which are unclear or incomplete. Participants often raise issues which were unanticipated by the researcher. In the author's study of losses experienced by individuals with Parkinson's disease, the significance of and cultural meanings associated with loss of driving ability were not fully anticipated. The interview structure demanded flexibility to explore these issues. The goal of qualitative approaches is to gain a deep, rich understanding of the participant's experiences. This can only be accomplished when the researcher actively listens and remains open to the participant's responses.

In many qualitative studies, observation is an integral part of data collection. The researcher spends much time observing social interaction. Detailed notes are taken which are then transformed into transcripts to provide a rich source of data.

Data Analysis

Data analysis occurs simultaneously with data collection. Many researchers write summaries, including the main themes, concerns and issues which arose, at the end of each interview or observation. Also included in the summary may be areas the researcher wishes to explore further with this participant or with future participants. This helps generate further questions and clarify unclear areas.

A coding scheme is essential to analysis. Data are organized around common themes and patterns. The researcher spends hours reading interviews from beginning to end, line by line and word by word. Only after doing this can codes be developed. A code is a category derived from the research question and data. Codes may be refined or modified as more data are collected and the researcher's understanding of the phenomenon deepens. During analysis the researcher utilizes comparison and contrast. As common themes emerge, cases which further explicate the theme and cases where the theme is nonexistent are examined, and the researcher's understanding of the phenomenon becomes clearer.

Throughout analysis the researcher continues to move back and forth from detail to the whole and back to detail. Geertz summarized interpretation as "hopping back and forth between the whole conceived through the parts which actualize it and the parts conceived through the whole which motivates them. We seek to turn them, by sort of intellectual perpetual motion into explications" (p. 239).1
Describing the Findings

There is no universal way to present qualitative findings. Since different procedures may have been used at various stages of data collection and analysis, it is essential the researcher explicate the approach. This may begin with a description of initial broad research aims. The researcher must describe how the central themes and the interpretation evolved from the participant’s descriptions. Often direct quotations from participants are provided in the presentation of findings. This provides the reader with the context and allows the reader to evaluate the interpretation.

Summary

Qualitative approaches are becoming more widely used in nursing research. Though many different qualitative approaches exist, there are similarities in their assumptions, goals and design. Phenomenology, ethnography and grounded theory are inductive methods aimed at describing and explaining human phenomena. These methods offer nurses avenues for understanding human responses to health and illness.

References