The Journal of School Nursing
Volume 22, Number 4
August 2006

Understanding Qualitative Research: A School Nurse Perspective

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ABSTRACT: More school nurses are engaging in the generation of research, and their studies increasingly are using qualitative methods to describe various areas of practice. This article provides an overview of 4 major qualitative methods: ethnography, phenomenology, grounded theory, and historical research. Examples of school nursing research studies that have used these methods are included. Descriptions of other qualitative designs, ethical considerations, and issues of scientific rigor are also discussed.

KEY WORDS: ethnography, grounded theory, historical research, phenomenology, qualitative research

INTRODUCTION

Historically, most research studies have used quantitative designs to study areas of interest. These methods focus on measurement using numbers and center around correlations, cause and effect, and experiments. The traditional scientific method, consisting of identification of a problem, formulation of a hypothesis, conducting of an “experiment” to support or to nullify the hypothesis, and then generation of findings, represents what many consider to be true research. In the past 10 years, however, nurse scientists have begun to recognize that many phenomena of interest defy measurement by the traditional quantitative style and require more in-depth explanation and exploration (Streubert, 1999b). This has resulted in an increase in the use of qualitative designs, defined as “broadly stated questions about human experiences and realities studied through sustained contact with persons in their natural environments, and producing rich, descriptive data that help us to understand those persons’ experiences” (Boyd, 2001, p. 68). With their roots in sociology and anthropology, qualitative methods are being increasingly recognized as valuable in their potential contribution to nursing knowledge.

Many of the issues that have an impact on school nursing practice are complex in nature and to date, have not been studied in sufficient depth. Certain areas of interest to school nursing are multifaceted and are not suited to measurement using quantitative methods, such as surveys and research instruments. The purpose of this article is to provide an overview of the common elements of qualitative research, various qualitative methods, and implications for school nursing research. Also included are ethical implications of qualitative research, as well as strategies to ensure sufficient scientific rigor.

USE OF QUALITATIVE METHODS

The researcher takes into account many factors when designing a research study and when choosing a method (Table 1). The decision to utilize qualitative methods is influenced by issues such as researcher preference or experience (Strauss & Corbin, 1998). A common and valid rationale for choosing qualitative designs is the nature of the research problem. Certain disciplines (e.g., anthropology, nursing), and philosophical orientations (e.g., phenomenology) study phenomena that are better understood with interpretive methods. For example, a nurse researcher may be interested in quality of life. Because there are many influences on this complex concept, a qualitative approach that allows the participants to tell their stories in their own words may be more appropriate. The qualitative researcher engages in prolonged contact...
with the participant via interviews and observation in order to gain a true understanding of his or her experience related to quality of life.

Using qualitative methods, the researcher can explore areas in which little is known or can gain a new perspective in an area in which much is known (Shreibер & Stern, 2001). Qualitative research designs allow one to understand the intricate details about feelings, thought processes, and emotions that are often difficult to explore using more conventional research methods.

Whereas quantitative studies obtain their data from surveys, questionnaires, and other empirical sources, data for qualitative studies are derived most often from interviews, observations, documents, and records. Rather than interpreting data with statistical formulas and mathematical equations, qualitative researchers interpret data using procedures that involve conceptualizing and reducing data, elaborating categories in terms of their properties and dimensions, and relating ideas through a series of prepositional statements. Also included in data analysis are writing of memos and drawing of diagrams. These strategies allow the qualitative researcher to gain an understanding of the concepts of interest from the perspective of the research participants, with the data emerging from their experiences. Reporting of qualitative research findings is often rich in participant comments, providing the reader with a deeper understanding of the participants’ experiences and perspectives.

### Table 1. Comparison of Quantitative and Qualitative Research Methods

<table>
<thead>
<tr>
<th>Quantitative</th>
<th>Qualitative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective</td>
<td>Subjectivity valued</td>
</tr>
<tr>
<td>One reality</td>
<td>Multiple realities</td>
</tr>
<tr>
<td>Reduction, control, prediction</td>
<td>Discovery, description, understanding</td>
</tr>
<tr>
<td>Measurable</td>
<td>Interpretative</td>
</tr>
<tr>
<td>Mechanistic</td>
<td>Organismic</td>
</tr>
<tr>
<td>Parts equal the whole</td>
<td>Whole is greater than the parts</td>
</tr>
<tr>
<td>Report statistical analyses</td>
<td>Report rich narrative</td>
</tr>
<tr>
<td>Researcher separate</td>
<td>Researcher part of research process</td>
</tr>
<tr>
<td>Subjects</td>
<td>Participants</td>
</tr>
<tr>
<td>Context free</td>
<td>Context dependent</td>
</tr>
</tbody>
</table>

*Source: Streubert, 1999a.*

With this research method, data collection and analysis are cyclic in nature. As records, observations, and artifacts are studied, the impetus is created for further study. According to Spradley (1980), ethnographic studies end because time and resources do not allow continuation, not because the researcher has completely described a culture.

**Ethnography**

*Description of ethnography.* Ethnography involves studying a group of people in their own environment. The goal of ethnography is to learn from, rather than about, people of various cultures, religions, and ethnic groups (Spradley, 1980). There is a concern with the meaning and actions of the people being studied, resulting in the description and interpretation of cultural patterns. The researcher takes into account the participant’s point of view. A major strategy in ethnography is participant observation. Researchers become the data collection instrument through observation and recording of data. The researcher becomes a participant in the “cultural scene,” collecting diaries, journals, records, and other cultural artifacts. Ethnographic research occurs in the environment where the participants live. A fundamental characteristic of ethnography involves physically situating oneself in the environment and surroundings of the group being studied. Field work includes journaling by the participant observer to document observations, feelings, reactions, and biases. Also, interviews of group members may be conducted, taped, and transcribed for analysis by the researcher to gain an understanding of people’s viewpoints, beliefs, and practices.

**A fundamental characteristic of ethnography involves physically situating oneself in the environment and surroundings of the group being studied.**
the students, and nurses used a variety of methods to help students meet their educational goals.

Spear (2002) studied the social and learning environment of an alternative school program for pregnant and parenting female adolescents. The researcher used an ethnographic approach to study the culture of pregnant and parenting adolescents based on their routine daily lives in order to reveal the meanings of everyday experiences. Spear produced field notes and gathered informal conversational data over a 16-week period. As a participant observer, the researcher facilitated group discussions that revealed four major themes: nurture and positive regard; sisterhood and belonging; mentoring and sense of family; and proactive learning environment and academic goals. From this study, the researcher recommended a more comprehensive school-based approach to meeting the needs of pregnant and parenting adolescents.

These two studies provide examples of how ethnographic methods can be used to gain an insider’s view into two cultures—rural school nurses and pregnant and parenting teens. By interviewing participants, observing them in their natural environment, and obtaining supplementary data sources, researchers were able to construct themes and articulate findings from the perspective of the participants.

**Phenomenology**

*Description of phenomenology.* The roots of phenomenology date back to the first decade of the 20th century. The philosophical underpinnings of phenomenology are the basis of this qualitative research method. The goal of phenomenology is to achieve a deeper understanding of the nature and meanings of everyday experiences. Its central focus is the lived experience of the world in everyday life. The lived experience presents to the individual what is true or real in his or her life, and gives meaning to the individual’s perception of a particular phenomenon (Carpenter, 1999).

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The foundations of phenomenological inquiry lie in a holistic study of the human experience as it is lived from the perspective of the individual. Areas of interest that are studied using this approach are those central to human life experiences, such as happiness, fear, and caring. There are many ways to proceed with a phenomenological study, and the chosen method is based on the area of interest. According to Spiegelberg (1975), descriptive phenomenology comprises a three-step process: intuiting, analyzing, and describing. Intuiting requires that the researcher become totally immersed in the phenomenon of interest. It is the process by which the researcher begins to know about the phenomenon as described by the study participants. In the analysis process, the researcher identifies the essence of the phenomenon under investigation based on the data obtained and how it is presented. Relationships are explored and connections are made with related phenomenon. The third step, describing, aims to communicate and bring to written and verbal description the critical elements of the phenomenon. Classification or grouping of the phenomenon provides the basis of description. The holistic perspective and appreciation of experiences as lived by humans make this research approach highly appropriate for the study of topics central to nursing.

*Phenomenology and school nursing research.* Solum and Schaffer (2003) conducted a study to explore school nurses’ experience of ethical conflict in school nursing using a modified phenomenological approach. Six school nurses participated in the study. The researchers used a three-step phenomenological method: data collection through interviews, analysis of interviews, and relationship identification among the essences by analysis across the interview data to answer the research question. Data were gathered during interviews on the lived experiences of school nurses related to ethical problems involving their professional practice. Descriptions of these lived experiences were validated by agreement across the participants’ experiences. Study findings revealed that school nurses use professional standards, ethical principles, and personal values as rationale for resolving ethical dilemmas rather than using ethical decision-making models. The researchers suggested that school nurses could benefit from hearing the voices of their colleagues through dialogue about ethical problems and decision making.

Pulcini, Couillard, Harrigan, and Mole (2002) conducted a two-phase study to identify the professional and personal characteristics of exemplary school nurses. In Phase 1, the researchers utilized a phenomenological approach to explore the lived experience of exemplary school nurses. Data were collected via a focus group, semistructured interviews, and a content analysis of nomination portfolios of the participants, all of whom had been recognized as the state School Nurse of the Year over a period of time. By conducting 1-hour, individual open-ended interviews, the researchers were able to extract common terminology and categories that characterized exemplary school nursing practice, as well as organizational and structural characteristics of the school system in which they practiced.

These two studies represent qualitative descriptive studies that have adopted some of the techniques and methods inherent in phenomenological research. To date, there have been no school nursing studies published that are pure phenomenology, but this may be an area of further interest to school nursing researchers.
Grounded Theory

Description of grounded theory. The grounded theory approach to qualitative research explores social processes that occur within human interactions. The goal of grounded theory is to develop theory that is grounded in data systematically gathered and analyzed (Strauss & Corbin, 1998). This research approach focuses on a process, with the goal of developing a substantive middle-range, clinically specific theory that describes a behavioral concept and can be used to guide nursing practice (Morse, 2001). The task of grounded theory researchers is to discover and to conceptualize the essence of complex interactional processes, resulting in the emergence of a theory that offers a new way of understanding the observations from which it was generated (Hutchinson & Wilson, 2001).

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The underlying philosophical framework for grounded theory is symbolic interactionism. Blumer (1969) postulated that people develop specific ideas and behaviors regarding a situation based on their social interactions with others, and behave in a given situation based on the meaning that situation has for them.

There are five basic steps in the process of grounded theory research: collection of data, formation of concept, concept development, concept modification and integration, and reporting of findings. The researcher collects data through interviews, field notes, and memos. The constant comparison method of data analysis is used in grounded theory, meaning that data are analyzed as they are collected. In grounded theory, each new datum is compared with data previously collected for the purpose of concept formation, which involves codes, categories, and identification of a basic social process. As the concept is developed further, the researcher continues to collect data from participants who will provide more insight and understanding about the concept. Based on subsequent data collected and analyzed, the concept is modified. The existing literature is then studied within the framework of research findings, and a core variable is identified. This provides the basis for the development of the middle-range grounded theory. A major strength of grounded theory as a research method is that it is concerned with how participants create and respond to experiences, rather than what they think or how they perceive the world and their daily experiences, as with ethnography and phenomenology (Morse, 2001).

Grounded theory and school nursing research. Of all qualitative methods, grounded theory has predominated in school nursing research (Morris & Butt, 2003, Morris & Strong, 2004, Robinson, 2001; Simmons, 2002; van Daalen, 2005; Werle, 2004). Robinson used a grounded theory approach to explore the health behavior selection process of young adolescents. Data collection methods included in-depth interviews, field notes from school settings, and memos. Through constant comparison of new data with previously collected information, the researcher developed categories and identified patterns of relationships, which in turn led to identification of increasingly abstract categories and the formulation of a conceptual model that described the study phenomenon. The conceptual model identified four major themes: assessing/valuing, confirming, choosing, and safeguarding. According to Robinson, understanding these processes will afford the school nurse the opportunity to develop new strategies for influencing health behavior outcomes among young adolescents.

van Daalen (2005) conducted a small feminist study using grounded theory to gain an understanding of why fewer high school girls are enrolling in physical education classes once the compulsory credits have been obtained. Five girls, ages 15–17 years, were interviewed to provide a holistic description of their lived experiences in physical education (PE) classes in the context of their lives. Using the constant comparison method of data analysis, the data were divided into portions, followed by coding to identify story lines. Although some educators had divulged to the researchers prior to the study that girls were not taking PE classes because they “are lazy and don’t like changing,” study findings revealed that this actually was not the case. Rather, their reasons included forced competition, degrading evaluation, and sexuality- and size-related harassment by both peers and teachers. Based on these results, van Daalen recommended that school nurses and physical education teachers develop a physical education model based on building a positive self-esteem and a positive relationship with one’s body, rather than on competition and athletic ability.

Grounded theory as a qualitative method allows the researcher to explore what is occurring in school nursing practice; to identify themes, constructs and categories; and to derive clinically applicable theories that can be used to further guide practice. Because school nursing issues often must be understood in the context of the situation in which they are occurring, being influenced by students, educators, parents, and many others, grounded theory provides the opportunity to explore issues and direct practice.

Historical Research

Description of historical research. Historical research has been considered a legitimate scholarly method in nursing during the past three decades (Fitzpatrick, 2001). This represents the pursuit of nurse scholars...
not only to inform themselves about the background of the profession, but also to provide a framework for current and future direction. In conducting historical inquiry, researchers look into the past to develop new ideas and to influence thinking and understanding. Historical researchers must exhibit more than just a curiosity about past events. A thesis is developed about the relationship among ideas, events, or people in the past. Historical researchers probe for links among events of the past that require questioning, reasoning, and interpreting. From there, historians sift through data to discover meanings from the past, examining each datum closely for clues.

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Data collection for historical research is derived from various sources, including private letters, personal journals, books, magazines, professional journals, and newspapers, as well as interviews. These sources are examined to seek relationships among ideas, events, institutions, and people. In contrast to other research methods, the purpose of historical studies is not to make predictions, but, rather, to understand the past, allowing for explanations of present or future relationships.

Historical research begins with selection of a topic and a time period of study. The researcher must assure that data regarding the area of interest will be accessible. Because the goal is not to predict, there is no hypothesis. The study is guided by the researcher’s interest and speculation; as sources are studied, patterns begin to emerge. A literature review is conducted in order to formulate questions that will be addressed, to determine a time frame for the study, and to decide on a conceptual framework. Also, researchers can determine what materials are available. Primary sources often are found in personal recollection of events, journals, and diaries. Secondary and primary sources are obtained from libraries, newspapers, and archives. Authenticity and genuineness of data sources must be confirmed. Data analysis occurs throughout the process of data collection and results in the development of new ideas based on supporting evidence. Researchers critically analyze the data, with the goal of finding new truths that the evidence produced by the data can support (Lewenson, 1999). The final stage of the process is the historical narrative, where the researcher tells the story that interprets the data and engages readers in the historical debate. At this point, findings provide evidence of what happened, why, and how it happened by exploring relationships among events, ideas, people, organizations, and institutions.

**Historical research and school nursing research.** To date, there have been no published studies in school nursing research that used this method. An example of a school nurse study that could be undertaken using a historical research method would include the evolution of the registered nurse as the primary health care provider in the school setting. The researcher could examine archives beginning with Lina Rogers, the first school nurse, and could describe relationships over the past 100 years among various levels of practitioners in the school setting, from unlicensed personnel to doctorally prepared school nurses. An examination of these relationships from a historical perspective would provide an understanding of many of the factors that have an impact on the professional environment of today’s school nurse.

**Other Qualitative Designs**

Case studies have been described as research strategies, reporting modes, teaching techniques, and evaluation strategies. They have been used in multiple disciplines at various levels of complexity, but are recognized as a valid, rigorous qualitative method that can be used to provide an “intensive and detailed study of one individual or group as an entity, through observation, self-reports, and other means” (Tesch, 1990, p. 39). The design may include a single case or multiple cases. Advantages of this design are that it provides in-depth, rich description and paints a realistic picture of situations in a holistic, lifelike manner (Gerrish & Williamson, 2004). Case studies integrate a large, diverse amount of information in a manner that illuminates meaning and increases understanding.

Action research is a strategy that aims to bridge the gap between theory and practice. As a method, it involves the implementation of a change in the practice setting as an integral part of the research process (Jenks, 1999). The methodology involved in action research follows that of the traditional nursing process: practitioners collaborate with researchers to assess the need for change in a practice setting, plan possible solutions, take action to implement the change, and then carefully evaluate the outcomes to determine whether the desired result has been achieved. As a result of action research, practical knowledge is generated that relates directly to a particular setting with the goal of improving practice. The change is more likely to be a permanent part of practice, because practitioners become committed to the desired change as a result of the collaborative effort with researchers.

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Some phenomena are studied best through the combination of both qualitative and quantitative methods. According to Packard and Polifroni (1991), a combined approach can strengthen the comprehensiveness and rigor of a study. The combination of both qualitative and quantitative methodologies in a single study is referred to as triangulation (Shih, 1998). For example, researchers can collect large amounts of empirical, quantifiable data via questionnaires and/or surveys; interviews also may be conducted with a subset of the sample to obtain more in-depth understanding of the research topic(s) from the perspective of the participant rather than the researcher. In some cases, qualitative data may be obtained through the use of open-ended questions on the questionnaires rather than interviews. Triangulation allows the researcher both verification (quantitative) and discovery (qualitative), resulting in a conceptualization that captures the multifaceted complexity of human situations and responses of interest to nursing research.

A study by Liller and colleagues (2003) provided an example of triangulation in school nursing research. The purpose of the study was to evaluate a firearm safety lesson, with the method consisting of administration of a pretest and a posttest, which each included 10 multiple-choice questions. The posttest also contained open-ended questions that focused on what the students liked most about the lesson, two or more things they learned from the lesson, whether or not they talked to their parents about the lesson, and if so, what was discussed. The responses to the multiple-choice questions were analyzed with a computer-based statistical program. The qualitative data were recorded and were analyzed for common themes. Quantitative results indicated increased knowledge about firearm safety. Qualitative findings showed that students enjoyed the lesson, learned information that they perceived as pertinent, and discussed the lessons with their families.

**ETHICAL CONSIDERATIONS IN QUALITATIVE RESEARCH**

Research studies using qualitative and quantitative methods must adhere to sound ethical principles. However, qualitative designs bring with them unique ethical considerations, involving informed consent, anonymity and confidentiality, data generation and treatment, and participant-researcher relationships. Informed consent implies that participants are fully aware of both the benefits and the risks of participating in the study. With qualitative studies, neither the researcher nor participant can predict exactly how data will present through interviews and/or participant observation. Therefore, consent that is truly informed may not be possible. Munhall (1988) suggested process informed consent or consensual decision making, which requires that at various points in the research process, researchers reevaluate participants’ consent to participate in the study. This ongoing process allows for renegotiation if unexpected events or consequences occur.

Confidentiality and anonymity present challenges with qualitative designs due to the nature of data collection. The one-to-one personal interaction that occurs during interviews and participant observation make anonymity impossible. Also, small sample sizes and descriptions, as well as reporting of findings rich in participants’ comments, present challenges in maintaining confidentiality. It is imperative that the researcher make every effort to protect the identity of participants and ensure that confidentiality is maintained.

In qualitative studies, the participant and the researcher often develop close, personal relationships, resulting in the blurring of boundaries and role confusion. Participants may confuse the role of the researcher with that of a counselor or therapist. The researcher must recognize this and make referrals to appropriate professionals as needed. Protection of the participant’s welfare must take precedence over the goals of the research study.

When interpreting data, the researcher must make every attempt to put aside personal biases, judgments, and ideas, a concept referred to as bracketing. From an ethical standpoint, this is imperative if there is to be confidence findings. Having a second researcher review the findings, as well as returning final descriptions to participants for their validation, minimizes the chances that findings have been unduly influenced by the researcher’s biases.

The ethical picture of qualitative research is more complicated than that of quantitative methods. Therefore, researchers must closely examine ethical guidelines for research from a different perspective, making every effort to design studies that protect participants and provide findings that are morally and ethically sound.

**RIGOR IN QUALITATIVE RESEARCH**

Traditional, quantitative research studies are evaluated for scientific rigor in reference to their reliability and validity. This allows the consumer of the research to use empirical means to assess the validity of the study findings, as well as the generalizability of the results. However, with qualitative studies, these concepts do not apply. According to Guba and Lincoln (1989), in qualitative designs rigor is evident in a study’s credibility, confirmability, auditability, and transferability. Credibility is achieved through prolonged engagement with each participant, as well as by the researcher’s repeated analysis and comparison of each interview, providing a check on validity. Also, participants are given the opportunity to validate the findings as true to their experiences (Yonge & Stewin,
SUMMARY

Denehy (2003) stressed the need for carefully designed research studies that can be used to direct school nursing practice. As qualitative research studies become more common in the nursing literature, school nursing researchers can use these designs to gain a better understanding of the issues that affect their practice. Integration of both qualitative and quantitative studies will help develop a broad base of nursing knowledge that can be used in the day-to-day practice of school nursing to enhance the effectiveness of the care that is provided to the school community.

REFERENCES


