# Qualitative research: a source of evidence to inform nursing practice?

Vivien Coates


## INTRODUCTION

**The fifth paper in this series focuses on qualitative approaches to research. Compared with quantitative research, qualitative research is less widely valued as a source of evidence. However, in nursing, qualitative research may often be the most suitable approach, owing to the nature of the research question being addressed. This paper outlines the main characteristics of qualitative research, considers its application and potential to inform nursing practice, and discusses the principles underlying qualitative interviews as a means of gathering data. The application of qualitative research will be illustrated by the work of Hunt et al (1998), who investigated the way in which the perspectives of patients and clinicians can affect the management of type 2 diabetes. Finally, the extent to which this research could be generalised and used to inform local practice will be discussed.**


There is no universally accepted definition of qualitative research, because it is a field of enquiry rather than a single entity. Qualitative research is a broad term for a variety of research approaches, just as quantitative research is not a single entity but encompasses a variety of research designs, such as clinical trials and surveys. For the purposes of this paper, the definition by Creswell (1998) is included:

> ***'Qualitative research is an inquiry process of understanding based on distinct methodological traditions of inquiry that explore a social or human problem. The researcher builds a complex, holistic picture, analyses words, reports detailed views of informants, and conducts the study in a natural setting.'***

The purpose of the various types of qualitative research is broadly agreed and involves the description and interpretation of human experience so that social situations or human experience can be better understood (Powers and Knapp, 1990). The key principles of such inquiry are that it is conducted in a natural setting, by a researcher who is involved in and may be a part of the data collection process, that the data are usually in the form of words or pictures, not numbers, and that the analysis is inductive (i.e. variables, relationships and theories are constructed after reflecting on the data gathered rather than testing to see if the data support pre-established definitions and theory), focuses on focuses on participants' perspectives, and describes the results using expressive and persuasive language (Creswell, 1998).

Qualitative research has some distinct characteristics (Flick et al, 2004), including:

- there is no single all-encompassing method, but a spectrum of methods from which one can be chosen depending on the research question
- it has a strong orientation to everyday life and events
- data are collected in their natural context; there is no attempt to change the research situation or control it
- the diversity of participant responses is valuable
- the role of the researcher is important: the ability of the researcher to reflect upon what he/she is seeing or hearing is part of the research process rather than something to be excluded
- the crux of the investigation is understanding complex relationships rather than explaining a single relationship; there is no attempt to demonstrate a cause-and-effect relationship
- data are gathered by flexible, open-ended methods; there is no rigid questionnaire or grid
- individual situations may be analysed before group themes or summaries are developed.

### LEARNING POINTS

- Qualitative research is a broad term for a variety of research approaches.
- Data are collected in their natural context by a researcher who is involved in and may be part of the data collection process; there is no attempt to change the research situation or control it.
- The crux of the investigation is understanding complex relationships rather than explaining a single relationship.
- Data are gathered by flexible, open-ended methods; there is no rigid questionnaire or grid, as in quantitative research.

Vivien Coates is a Professor of Nursing Research at Altnagelvin Area Hosptial and the University of Ulster

**LEARNING POINTS**

- In both nursing and qualitative research great store is set by the patient-centred, holistic and human aspects of care.
- Qualitative research seeks to understand an individual's perspectives and daily life; nurses take account of an individual's preferences, and respect and promote the patient's rights, choices and decisions.
- Not all research questions can be about testing cause and effect, because in many areas of care insufficient is known to inform such experiments.
- Once a situation is understood, it is possible to develop theory, and qualitative work is often a valuable means of developing theory in order to test its validity and utility at a later stage.

## Why do we need qualitative research?

According to the hierarchy of evidence developed by Muir Grey (1997), robust experimental designs yield greater evidence than any other form of research. As qualitative inquiry is at the other end of the research spectrum, it is not thought, by some, to produce evidence as powerful as that generated by quantitative work (Morse and Field, 1996). Why then might qualitative research still be deemed important in nursing in these days of evidence-informed healthcare?

According to Parahoo (1997), the reason why this research approach has so much to offer nursing is that both nursing and qualitative research set great store by the patient-centred, holistic and human aspects of care:

- Qualitative research concerns individual experiences and the uniqueness of each individual's responses. Similarly, in nursing we subscribe to the notion that patients have individual needs and ideally should have an individualised plan of care.
- In qualitative research, data are collected from people in their own environment, taking into account their own social and cultural situation. Likewise, in nursing, and particularly non-acute care, we must acknowledge the situation in which an individual is living when planning treatment and interventions.
- Qualitative research seeks to understand an individual's perspectives and daily life. Nurses must also take account of an individual's preferences, and respect and promote the patient's rights, choices and decisions.

Thus, there appears to be an affinity between nursing and the underlying tenets of qualitative research.

The choice of approach depends on the research question under consideration. There is a place for both quantitative and qualitative work in terms of developing our knowledge. Not all research questions can be about testing cause and effect, because in many areas of care insufficient is known to inform such experiments. In many healthcare scenarios, we are only at the stage of trying to understand a situation. However, once a situation is understood it is possible to develop theory, and qualitative work is often a valuable means of developing theory in order to test its validity and utility at a later stage.

As Porter (2000) has suggested:

***'Indeed, it could even be that the use of qualitative research will come to distinguish nursing knowledge from the sort of knowledge that other, more mechanistically orientated, health professionals aspire to.'***

## When should we use a qualitative approach?

Creswell (1998) suggests that the following factors may determine the selection of a qualitative research approach:

- the research topic starts with 'how' or 'what' rather than 'why'
- the variables of interest are not obvious, such as in a complex situation or phenomena where the researcher is not in a position to determine which variables may be important
- a detailed, holistic view of a topic is required, rather than examination of a variable in isolation
- individuals are to be investigated in their natural setting
- the researcher is drawn to writing the research in a literary style rather than in a numerical way.

## Criticisms of qualitative research

The fact that the results obtained from qualitative research are not considered a sufficiently robust form of evidence upon which to base care indicates that, for some, this research approach is seriously flawed. For example, since the researcher is involved in the study, it could be argued that the results are subjective and less objective than those of quantitative research (Morse and Field, 1996; Parahoo, 1997). In qualitative research, the researcher can be involved in and influence the data gathering, in contrast to quantitative research where the researcher is detached and outside of the research situation.

The flexibility of qualitative research is seen as a weakness compared with the use of rigid predetermined schedules, protocols and questionnaires designed to

eliminate bias in quantitative research. Quantitative research is associated with measurement and the generation of *hard* (specific) numerical data, whereas qualitative data are based on words and descriptions (*soft* data). For some, the written form of reporting results appears waffly (Finlay, 1998). Many of the characteristics seen as strengths by qualitative investigators are viewed as weaknesses by those who do not subscribe to this methodology.

What must be remembered is that in order for research to be of good quality, it must be systematic and rigorous. Research, of all kinds, may be defined as:

***'A systematic process of investigation, the general purpose of which is to contribute to the body of knowledge that shapes and guides academic and/or practice disciplines' (Powers and Knapp, 1990).***

It is the systematic approach to the generation of knowledge that makes it a more robust form of evidence than other sources. The need to be systematic and rigorous in the conduct of research applies equally to both quantitative and qualitative approaches.

## Interviews as a qualitative research method

Qualitative research embraces three main approaches:

- Ethnography – in this approach, culture, local customs, social issues and society are highly important, and individuals are studied in this context.
- Phenomenology – another commonly used qualitative approach – focuses upon individuals' perceptions.

***'The researcher's task is to describe phenomena as experienced and expressed' (Parahoo, 1997).***

These two approaches are mainly descriptive, in that the researcher seeks to describe what the individual is doing or thinking or how they are behaving.

- Grounded theory – in contrast to the two former approaches, in this approach the researcher aims to develop theory that is based (or grounded) on the data as they are gathered.

However, not all qualitative research is conducted strictly according to these philosophies; it may also be used as a broad, open-ended, flexible means of inquiry which seeks to explain and describe, rather than following the distinctive methods mentioned above.

A common means of gathering data, which could be applied to any of these research approaches, is the use of unstructured or semi-structured interviews. A qualitative interview has been described as a 'conversation with a purpose' (Burgess, 1984). Morse and Field (1996) warn that researchers conducting a research interview should not confuse their role with that of a talk show host; instead, they should think of the interview as 'an intimate and personal sharing of a confidence with a trusted friend'.

In order to guide the direction of the interview the researcher will have ready a question or a series of questions, depending upon how structured the interview is to be. In an unstructured interview the researcher may have only one broad question to get 'the conversation' started. For example, the researcher may just say, 'Tell me about…'. As the research project progresses, the researcher may become aware of what is important and start to focus upon more specific areas of inquiry. Unstructured interviews are most likely to be used when very little is known about a topic. There may not be any prepared questions because it is simply not possible to judge what would be the pertinent questions to pose.

Alternatively, the interviewer may have several open questions and ask the same questions of each participant. The questions are open ended to enable the individuals to say what they want, in contrast to closed questions in which a range of preselected responses are offered and the respondents are invited to pick the one that best matches their own situation or beliefs. Some specific questions may be asked to obtain demographic data, such as age, but the important issues are not dealt with through preselected answers.

The question or questions to be asked are one part of the interview, but the

### LEARNING POINTS

- Many of the characteristics seen as strengths by qualitative investigators are viewed as weaknesses by those who do not subscribe to this methodology.
- Research, of all kinds, may be defined as: 'A systematic process of investigation, the general purpose of which is to contribute to the body of knowledge that shapes and guides academic and/or practice disciplines.'
- In research, it is the systematic approach to the generation of knowledge that makes it a more robust form of evidence than other sources.
- The need to be systematic and rigorous in the conduct of research applies equally to both quantitative and qualitative approaches.

**LEARNING POINTS**

- A major problem in diabetes care is that patients often fail to carry out treatment recommended by healthcare practitioners.
- Hunt et al (1998) queried whether differences in the perspectives of patients and clinicians might be an important factor in subsequent patient behaviour.
- They therefore set out to 'examine how the different contexts and perspectives of patients and practitioners result in distinct approaches to type 2 diabetes management'.
- The study design was qualitative, exploratory and descriptive, using open-ended interviews and review of patients' case notes. The interviews were semi-structured, and a guide was used to gain unstructured responses to a set of themes.

process of conducting the interview is also of crucial importance.

During an interview the researcher needs to listen actively to encourage the participant to proceed. The researcher will often use prompts to develop a theme further, and non-verbal expressions to encourage an individual to elaborate. However, these should be non-committal as the purpose is to let individuals give their own views.

As the responses are in the form of a conversation, it is usual to record them verbatim using a tape recorder (with the individual's permission). Following the interview, the audio tapes are then converted into written prose in a process known as transcription. This is a time-consuming business as every word is written down; the conversations are also annotated to ensure that non-verbal expressions are captured.

## Patients' and nurses' perspectives on diabetes management: an example of qualitative research

The study by Hunt et al (1998) will be used to illustrate some of the distinctive features of qualitative research. A major problem in diabetes care is that patients often fail to carry out treatment recommended by healthcare practitioners. Hunt et al (1998) noted that previous research had placed great emphasis on trying to understand non-concordance in terms of patient characteristics, such as knowledge and motivation, and wondered whether this emphasis might have been misplaced. They queried whether the differences in the perspectives of patients and clinicians might be an important factor affecting subsequent patient behaviour. The study, therefore, sought 'to examine how the different contexts and perspectives of patients and practitioners result in distinct approaches to type 2 diabetes management'.

Hunt and colleagues interviewed 51 Mexican or Mexican American people in South Texas who had been diagnosed with diabetes for at least a year, had no major complications due to their diabetes and had given informed consent to be interviewed in their own homes. In addition, 35 clinicians (26 physicians, five physician's assistants and four nurses) were interviewed.

There is a major difference in sampling technique between those conducting quantitative research and those conducting qualitative research. In qualitative research, relatively small samples can be sufficient. Rather than being randomly selected from a total patient population, participants can be 'hand picked' because they are thought to have an important story to tell. This selection would not necessarily be seen as introducing bias. Ragin (1987) makes an interesting point when comparing the two research approaches, noting that:

> ***'Quantitative researchers work with a few variables and many cases, whereas qualitative researchers rely on a few cases and many variables'.***

The study design is reported to be qualitative, exploratory and descriptive, using open-ended interviews with all participants, plus a review of participating patients' case notes. The interviews were semi-structured, and a guide was used to gain unstructured responses to a set of themes.

The interviews with the patients focused on such topics as strategies for coping with diabetes and perceived barriers to self-care. We are informed that the interviewers used non-leading, probing techniques to obtain unbiased but complete answers. The doctors and nurses were asked about their experiences in treating type 2 diabetes, the difficulties they encountered, and how they tried to resolve them. The interviews were tape recorded and then transcribed.

The way that the data were analysed is explained. The researchers followed recognised analytical techniques, and although statistical techniques are not involved it is important to note that the data are dealt with rigorously and systematically. In quantitative research, validity and reliability are very important, but these terms are not applicable to qualitative work as it does not involve measurement.

Janesick (2000) refers to the trinity of validity, reliability and generalisability, and notes that they are inappropriate in qualitative work. She suggests that in qualitative work, validity concerns

'descriptions and explanations and whether the explanation of the data is credible'. She also notes that there may be more than one legitimate way of interpreting an event; thus there is no single 'correct' interpretation. However, the issue of credibility of results is important. To defend the quality of qualitative results, terms such as truth, value, applicability, consistency and neutrality can be used and are discussed in some detail by Morse and Field (1996).

Hunt et al (1998) included a brief description of the methods they used to promote the credibility of their results. These involved cross-checking of the data analysis by all members of the research team until a consensus in the coding of the data was reached.

In the results section of the paper, the authors report that they found consensus within each group (patients and practitioners) regarding perspectives, and therefore report this consensus of views. They found three main themes: goals, evaluation and strategies.

Among the practitioners an important goal was 'to achieve and maintain control over type 2 diabetes'. To do this, they emphasised the pathophysiology of the disease and its long-term complications. Practitioners also had a goal of 'inducing patients to control their self-management behaviours… through instruction and motivation'. Emphasis was placed on education and enhancing motivation to follow what was advised or recommended.

A second theme was evaluation. The researchers found that the practitioners tended to evaluate achievement of control in terms of clinical indicators such as blood glucose levels.

The third theme was strategies. A sentiment frequently expressed by practitioners was that if patients could only see things as they did, they would naturally behave differently. Practitioners presumed that high blood glucose levels meant that patients were not trying. A common approach in such cases was to present frightening scenarios about 'devastating complications that might result if they fail to comply'. Doctors and patients alike reported that 'physicians hold insulin out as a threat, to try to inspire patients to follow diets' (Hunt et al, 1998).

In contrast, when investigating patients' perspectives regarding their goals, the researchers found that patients expressed their goals in social terms rather than physiological ones. Patients did not express control in terms of blood glucose levels, but with reference to their behaviour. Similarly, when the researchers were evaluating treatment, patients responded in terms of how well they were feeling and their ability to continue with a normal lifestyle rather than in terms of blood glucose control. When it came to strategies, the researchers learned that the patients' main challenge was to achieve a balance between their diabetes management and other competing factors in their life.

Throughout the results section, the authors compare the patients' experiences and perspectives with those of the practitioners. They found fundamental differences between the way the two groups conceptualised the issues, and hence between their strategies for ongoing management of their diabetes. The researchers report that the strategies fostered by the practitioners were based on presumptions about the patients that they found to be untrue. Thus it was not surprising that the selected strategies were often unsuccessful. The authors conclude:

***'To be attainable and useful to patients with limited social and economic resources, clinical recommendations ought to include choices that patients are able to adapt to fit within the constraints of their resource base.'***

While this would appear to be common sense, the findings of this research indicates that it was not being applied.

## Evidence-informed practice

The importance of appraising the suitability of research that might be used as evidence to inform practice has been discussed in the previous articles in this series. The questions developed by Muir Grey (1997) were cited as one means of appraising evidence. These questions are considered below in relation to Hunt's work.

### LEARNING POINTS

- To ensure credibility of their results, all members of Hunt's research team cross-checked the data analysis until a consensus in the coding of the data was reached.
- The researchers found considerable agreement within each group (patients and practitioners) regarding perspectives.
- Doctors and patients alike reported that 'physicians hold insulin out as a threat, to try to inspire patients to follow diets'.
- However, there were fundamental differences between the way the two groups conceptualised the issues, and hence between their strategies for ongoing management of their diabetes.

**LEARNING POINTS**

- Hunt et al (1998) proposed that health practitioners' and patients' perspectives of diabetes management were different, but the way in which they differed was not known, so an exploratory, descriptive design was appropriate for their study.

- The research was conducted in a structured and systematic way and steps were taken to ensure the credibility of the findings, hence this was a rigorously conducted piece of research.

- Because the sample was drawn from a specific patient group, the results are not directly transferable to other patient groups.

- However, the issues raised and the finding of a potential for diversity between patients' and practitioners' views are transferable.

**Is this the best type of research method for this question?**

The research by Hunt et al (1998) concerned a complex area in which the researchers proposed that healthcare practitioners' and patients' perspectives of diabetes management were different, but that the way in which they differed was not known. Therefore an exploratory, descriptive design was a valuable place to start. While a more structured approach might have been adopted, this would only have been possible if the researchers believed they already understood the important issues. As this was not the case in this study, the research method selected was appropriate.

**Is the research of adequate quality?**

Hunt and colleagues briefly describe their research method and support many of the key methodological processes with reference to appropriate sources. They conducted this research in a structured and systematic manner and took steps to ensure the credibility of their findings. From the details included, this appears to be a rigorously conducted piece of research.

**What is the size of the beneficial effect and the adverse effect?**

As this work was exploratory and descriptive in nature, with no attempt to introduce any changes to normal care, this category does not apply.

**Are the results applicable to the 'local' population?**

This research was conducted among a very specific sample of individuals of Mexican descent. Of the 51 patients in the sample, 23 chose to be interviewed in Spanish. Three-quarters of the sample were unemployed. As these patients belong to a particular ethnic and socio-economic section of American society, it is not possible to recommend that these results be applied to other patient populations.

**Are the results applicable to this patient?**

Not unless your particular patient hails from Texas and belongs to this population. While the results can inform us all of the general principles underlying potential differences in perspectives between health-care professionals and patients, specific results concerning goals, evaluation and strategies cannot be assumed to apply to other patient groups.

## Conclusion

The value of this study is that it carefully elicits views about managing type 2 diabetes from the perspectives of patients and practitioners. While the results are not directly transferable to other patient groups, the issues raised and the finding that there is the potential for diversity between patients' and practitioners' perspectives is transferable. In terms of being provocative, this research raises awareness that healthcare professionals and patients do not necessarily have the same perspectives about goals, evaluation of management and strategies, and this may help each group to appreciate the issues confronting the other group. ■


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