The role of theory in qualitative health research

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Received 21 April 2009; Revised 14 September 2009; Accepted 2 October 2009.

The role of theory in qualitative research is often underplayed but it is relevant to the quality of such research in three main ways. Theory influences research design, including decisions about what to research and the development of research questions. Theory underpins methodology and has implications for how data are analyzed and interpreted. Finally, theory about a particular health issue may be developed, contributing to what is already known about the topic that is the focus of the study. This paper will critically consider the role of theory in qualitative primary care research in relation to these three areas. Different approaches to qualitative research will be drawn upon in order to illustrate the ways in which theory might variably inform qualitative research, namely generic qualitative research, grounded theory and discourse analysis. The aim is to describe and discuss key issues and provide practical guidance so that researchers are more aware of the role theory has to play and the importance of being explicit about how theory affects design, analysis and the quality of qualitative research.

Keywords. Data analysis, methodology, qualitative research, theory.

Introduction

The quality of a qualitative research study will be influenced by how the researcher attends to theoretical concerns at different stages of the research. Theoretical considerations play a part at all stages of the research process, though this is often not made explicit. The aim of this paper is to describe and discuss how theory both informs qualitative research design and analysis and how theory may be developed from qualitative analysis. There is overlap between these three areas, but for the sake of simplicity, they will be considered here as three separate aspects of the research process as outlined in Figure 1. Reference will be made to hypothetical examples of qualitative research on asthma management to illustrate the issues discussed.

The level of complexity of research study designs and analysis varies. Questions about theory often arise when researchers begin to identify research questions that require more complex analysis and need to dig deeper into their data to explore how illness and health care are conceived or practised. Taking the asthma study example, a study may generate and address a range of research questions. However, due to resource issues (time, training and money) data analysis is often limited to surface-level description of what people say and data are often not mined at a deep level. As Sharrock (quoted in Roulston) points out, it is hard work making studies do what you can’t realistically be expected to realize. Given the way things work, they are usually first and last stabs'.

When researchers do decide to undertake more detailed analyses, they often struggle with the literature on qualitative research that debates the relative merits of conceptual models and contentious debates as to how these approaches should be applied. This is often the place where theory pokes its head out from under the covers and raises questions for researchers that require explicit attention. In particular, how do researchers decide when to move beyond surface-level description to more in-depth analysis and how do they go about it?

In order to address these questions, it is necessary to consider how theory underpins decisions about research design or what will be studied and how it will be studied.

Research design

Social science is focused on making sense of human activity, with theoretical perspectives deriving from disciplines such as sociology, psychology and anthropology. Disciplines are branches of knowledge that provide frameworks for understanding phenomena. In this sense, they are theoretical. In line with the natural sciences, social sciences aim to develop what is already known about a topic by adding to a cumulative body of knowledge on given topics, with findings usually assessed in relation to the theoretical perspectives from which they derive and to which they may contribute.
Theories arrange sets of concepts to define and explain phenomena, enabling us to move beyond basic description to in-depth description, interpretation and explanation. An example of this is Darwin’s theory of evolution, which he developed following detailed empirical observation of dead and living organisms. Darwin’s work sits within the discipline of biology, which provided him with a framework for conceptualizing and understanding the nature of life. Theory contributes to research by helping us to stand back and view phenomena critically.

The importance of theory for researching primary care is discussed by Crabtree and Miller who argue that clinicians have tended to ignore theory because they believe they are working directly with reality: ‘Blood is blood and diabetes is diabetes ... We readily acknowledge the existence of real blood, but we can only see it, talk about it and relate to it as we have learnt from our culture ... There will always be a cultural filter between us and reality’ (p. xv). Qualitative research recognizes the biomedical view of the world that focuses on the objective nature of things such as blood and diabetes and their quantitative measurement. However, qualitative research makes it possible to understand the different cultural filters of patients, lay people and professionals for understanding health issues such as asthma and its management. It cannot be assumed that one model fits all.

When setting up a research study, how a research question is asked will be informed by our disciplinary approach, including the methods used and the context in which the study is conducted. Even if a research study begins with quite an open question, such as ‘How do patients describe asthma management?’, the terms ‘patient’, ‘asthma’ and ‘management’ all imply particular understandings of asthma that are related to particular bodies of knowledge. Asthma can be considered conceptually as a research problem in numerous ways, for example, we could conceive it clinically in terms of the patient’s lung function or exercise tolerance or alternatively in terms of the effect it has on the patient’s home and work life. Both of these conceptions are equally valid but involve different theoretical models of what asthma looks like. Such models are often taken for granted in research but have implications for research design, analysis and application of findings.

Research should be located in relation to current understandings of a topic, e.g. the literature on patient views of asthma management. In qualitative research, a preliminary literature review is usually undertaken at the planning stage. However, different literatures may need to be reviewed during the analysis and writing up stages of the research as the data analysis may highlight the relevance of new and unexpected issues. The asthma study may start off with a review of the literature on patient satisfaction with asthma care and asthma management strategies, but data analysis may reveal that people talk a great deal about whether they see themselves as having asthma or not; therefore, the literature on identity and chronic illness may become relevant. Researchers often go backwards and forwards between the literature and research question during the course of a study.

Analyzing and interpreting data

What is the difference between ‘method’ and ‘methodology’ and why is the distinction important? Methods are the technical tools used to conduct your research, e.g. interviews, focus groups, coding. Methodology refers to the theory that underpins research design. In the asthma example, methodology defines the rationale for how we will go about studying asthma, how the analysis will be done and the findings understood.

In applied research, the emphasis is often placed on describing methods with relatively little formal attention given to methodology. This is influenced by the emphasis on concise, clear descriptions of methods and findings in which the implications for practice are made clear. In order to consider how methodology might influence research, let us consider how asthma management in primary care may be investigated using three popular qualitative methodologies: generic qualitative research; grounded theory and discourse analysis.

**Generic qualitative research**

Much qualitative health research, including primary care studies, can be said to fall into the category of ‘generic qualitative research’ that is also often referred to as ‘thematic analysis’. It may involve a relatively surface-level analysis of the content of the data or be a preliminary exercise to gain a general overview.
of an issue, such as patients’ views about asthma manage-
ment. This research is often referred to as ‘applied re-
search’ or ‘health services research’ and the aim is usu-
ally to produce findings that can be applied fairly rapidly to practice. Such studies usually make little refer-
cence to theory in research reports. An example of a simple design for a research study that sets out to
generate knowledge about patients’ experiences and attitudes regarding asthma services in primary care
can be seen in Figure 2.

Qualitative data analysis proceeds by categorizing
and organizing observations. This process has two
aims: to identify recurrent patterns present in the data
and to explore the meanings and processes associated
with the observed categories of behaviour. The initial
stage of this process is carried out in generic qualita-
tive research. A systematic analysis of the content is
conducted leading to the identification of key themes
that form the basis for structuring the findings. Taking
the asthma study example, the design may be set out
in the research proposal with little mention of method-
ology beyond describing the methods and stating that
it is a qualitative research study.

Snape and Spencer describe generic qualitative
research as ‘research which appears to have been car-
rried out without reference to other qualitative research
traditions and where the beliefs of researchers and their
relationship to their research are never explicitly dis-
cussed.’ (p. 19) Generic qualitative analysis may be an
end in itself as it is in much applied research or it may
be the first phase of analysis. Applied research often
stops at the generic qualitative research stage due to
resource considerations. This is a pragmatic (though
often frustrating) reality and good generic descriptive
studies have great value in helping us to appreciate
health issues. However, such studies usually describe
what people say about a health issue such as asthma
but do not attempt to stand back from the data in order
to undertake more detailed interpretation that may lead
to explanation or theory, about the issues described. In
other words, such studies pay limited attention to the
second phase of the qualitative research process de-
scribed above, of exploring the meanings and processes
associated with the categories of behaviour observed.

The initial thematic analysis conducted in a generic
qualitative research study may highlight new research

Study aim: To describe patient perspectives on asthma management in primary
health care.

Objectives:

1. Review literature on patient perspectives on asthma management in
   primary care
2. Develop interview topic guide
3. Recruit three practices in east London
4. Conduct qualitative interviews with 30 patients (a purposive sampling
   strategy to include 30 men and 30 women in three age bands, 18-30
   years, 31-65 years; over 65 years)
5. Conduct thematic analysis
   - Identify content based on readings of a number of data transcripts
   - Develop a coding frame
   - Code transcripts
   - Identify key themes
5. Write up and disseminate findings

Figure 2 Simple study design for a generic qualitative research study
questions that can be explored in more depth using the same data set. Exploration of meanings and processes associated with the observed patterns of behaviour usually involves the identification of more specific research problems. Researchers may initially be interested in describing people’s experiences of asthma but then want to move on from this to gain a deeper understanding of experiences of asthma. This will entail moving beyond basic description of data content to a richer more in-depth analysis of research problems. For example, initial analysis may indicate that patients perceive that clinicians talk about asthma in terms of physiological markers like peak flow readings, whereas patients are more concerned about how it affects what they can do in their day-to-day lives. This may lead to a research question about the ways in which patients conceptualize asthma and the implications this might have for patient–clinician discussions of management. Efforts to move beyond generic qualitative research lead to an array of qualitative methodologies including ‘grounded theory’ and ‘discourse analysis’. Examples of hypothetical studies of asthma management using different analytic approaches are outlined in Table 1.

Grounded theory

Grounded theory is a strategic approach to data collection and analysis developed by Glaser and Strauss\textsuperscript{10,11} in the 1960s that incorporates a package of procedures, techniques and assumptions connected to the discovery of practical theory.\textsuperscript{12} These techniques include analytic induction, constant comparison and the search for deviant cases. They are drawn upon by all qualitative research approaches to a greater or less extent to ensure research quality. Glaser and Strauss\textsuperscript{11} started off with a simple research question about how people die in hospitals and through their observation and interviews developed a research problem about the patient’s awareness of their terminal prognosis and how it affected the social organization of communication between patients, staff and relatives. This enabled a theory to emerge about ‘awareness of dying’ in hospitals.

Many qualitative research studies use grounded theory, albeit often in different ways. Data analysis starts with basic coding of the data and then moves to conceptual ordering and later to theory development, such as new models for understanding phenomena such as asthma. The initial coding stage will usually highlight a range of possible research questions to explore further through more detailed coding. The key elements of the methodology are the analytic processes of coding the data and of constant comparison of data relating to the research questions that have been identified. This enables theory to emerge from the whole process. A possible grounded theory study of asthma is outlined in Table 1.

Discourse analysis

This is a research approach that can be seen as broadly constructivist in the sense that those who use such an approach see social phenomena and their meanings as created in social interaction.\textsuperscript{13} The aim of discourse analysis as applied to health and health care is to look at the ways in which health, illness and medicine are constructed or produced, as social phenomena. Shaw and Bailey\textsuperscript{14} describe and discuss discourse analysis and different ways in which it has been applied in primary care. This ranges from macro-level studies of health care institutions to micro-level research on clinician–patient interaction.

Studies adopting a macro approach are influenced by the work of writers such as Foucault, with the aim being to analyse discourses about the nature and emergence of social institutions such as health care. An underlying assumption is that ‘scientific knowledge and biological discourses about the body, health and illness are produced through subjective, historically determined human interests and are subject to change and reinterpretation’\textsuperscript{15} (p. 130). An example of this is Armstrong’s\textsuperscript{16} study of the organization of medicine. He analyzed documents about health and health care and shows how the explosion in the epidemiological identification of risk factors has led to a new form of medical practice, ‘surveillance medicine’, in which people are given medicines on the basis of risk of disease rather than actual illness. Surveillance medicine is particularly relevant to primary care with the increasing emphasis on prevention of illness. This form of discourse analysis could be used to investigate asthma management policy as shown in Table 1.

Analysis of discourse at the micro-level of social interaction usually involves analysis of communication between clinicians and patients. Attention is given to uncovering the social skills used by participants in doing the work of the consultation. For example, detailed study of the way in which clinicians ask questions and patients respond in consultations may produce better understandings of good and poor compliance with recommended treatment regimes.

Discourse analysis adopts a particular approach to the data, with attention being given to how phenomena such as asthma are constituted or how they come about in the data. For example, what type of language is used to describe asthma? Do current policy documents use the language of ‘patient partnership’ or biomedical language? The aim, as with grounded theory, is to minimize any assumptions the researcher may have at the start in order to be open to emerging issues. The key difference is in how research questions are developed and investigated.
Developing (new) theory

Qualitative research can produce theory that explains or improves understanding of an issue. Developing theory might involve engaging with and/or moving beyond existing theory, but most often involves moving from a ‘thematic’ description of content to in-depth description based on detailed analysis or what Morse and Geertz refer to as ‘descriptive theory’ and ‘thick description’. This process can reveal the complexity of phenomena and such in-depth understanding is one of the important benefits of qualitative research.

In order to produce qualitative theory, researchers need to move away from their data to look at it in a different way, in other words, to identify patterns beyond the surface level of the data. This involves shifting to interpretation, moving from the safety zone of the data to doing conceptual work, which is something that qualitative researchers are often reluctant to do. For example, in a study of attitudes to asthma medication, Adams et al. found that patients differed greatly in their acceptance of an asthma diagnosis, falling into ‘accepters’ and ‘deniers’, with significant implications for use of prophylaxis. Adams et al. drew upon existing theory on chronic illness, identity and stigma when developing their analysis, which enabled them to produce a theory of how the concept of identity affects people’s experiences of being asthmatic.

How can we judge the quality of theory? It must be clear, have structure, coherence, scope, generalizability and pragmatic application. It must be relevant and useful. It must also build upon what is already known.

The key indicator is, does it provide a better understanding? As Silverman comments, ‘… without theory, research is impossibly narrow. Without research, theory is mere armchair contemplation’ (p. 107).

Conclusion

Being explicit about the role of theory is part of being transparent to others regarding research design and the analytic process and it is also an important consideration in producing good quality research. The depth and detail of analysis depends upon the focus of the research and available resources, such as time, level of experience and training of the analyst (or research team) and access to expert advice. The benefit of greater attention to theory in qualitative research is that it enables a more sophisticated approach to the data so that a range of different questions can be asked of the data set. Theory helps to define what the strategy for analysis should be, including questions about level of analysis, and how to describe the way decisions about analysis have been made.

It is recommended that primary care researchers consider the different ways theory affects their research design, including data collection and analysis, and that they communicate this to their intended audiences. Many qualitative researchers, both new and experienced, are daunted by theory. However, what is important is to be clear about what is known rather than knowing everything, to be confident about why the research has been carried out, how it has been done and what has been found out.
Acknowledgements

I would like to thank Julia Bailey and Sara Shaw for their valuable comments on the paper.

Declaration

Funding: none.
Ethical approval: none.
Conflict of interest: none.

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