Qualitative research: Part two – Methodologies

David Nicholls

Background: There are still many practitioners, academics and researchers who are bemused by the principles and practices of qualitative research. The second paper in this three part series on qualitative research explores the important question of research methodologies.

Content: Focusing on four of the more common methodologies – phenomenology, grounded theory, ethnography and discourse analysis – the article shows how each represents a distinctively different view of reality (a feature of qualitative research that was unpacked in the first article in the series).

Conclusions: These methodologies are then used to highlight some of the fundamental methodological differences between quantitative and qualitative research. Having set down these principles, I move on, in the third article, to discuss qualitative methods of data collection and analysis.

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I n an article in IJTR (**16**(10): 526–533) last month, I made a case for a more sophisticated understanding of the philosophies that underpin research. I set out how qualitative research is based on a belief in multiple realities – an idea that will be familiar to most health professionals, since most of us would agree that each of our patients is unique. I then explained how this view has come to challenge the hegemony of positivism, which favours a detached, objective view of health and illness (Giddings, 2002). I argued that an understanding of the concept of 'theory' plays a vital role in our understanding of research, and explored the differences between inductive reasoning (common to qualitative research) and deductive reasoning (common to quantitative research). In this article I extend the discussion beyond the somewhat abstract theorizing involved in thinking about ontology (the nature of reality) and epistemology (how we come to know what we know) (Willig, 2009), to begin thinking about qualitative methodologies.

Within each of the main philosophical frameworks mentioned in the first article (interpretivist, radical/critical, postmodern/poststructural), there are a plethora of distinct methodological approaches, each offering their own view of the world. Because each of us is different – with our own unique social networks, cultures and life narratives – it is theoretically possible to imagine that we might devise as many methodological approaches as there are researchers. Consequently, to avoid confusion, methodologies are commonly organized around the philosophies that they relate to. Feminist and Marxist methodologies, for instance, are commonly considered to be radical/critical approaches because they advocate for change. They not only attempt to uncover the hidden structures of power operating in society (and for this reason they are often called 'structural' methodologies), they also seek to overturn them – to emancipate victims of oppression – and, effectively, create a new world order. Discourse analysis, on the other hand, shares an interest in power and its operations in society, but is less interested in taking sides. This is not to imply that discourse analysis is apolitical – see, for instance Wetherell and Potter's (1992) classic study of racist discourse, or Swain et al's (2003) critique of professional practice and disability – only that it resists the temptation to replace one bad or corrupt way of thinking with something that might be considered better. In this way, discourse analysis sits more comfortably within postmodern/relativist philosophy (Edwards et al, 1995).

There are library shelves full of books exploring the complexities of each of these methodologies, and it is not my intention here to help you become a proficient phenomenologist, *per se*. I will, however, begin by setting out four of the more common methodological frameworks used in health care to illustrate how their world-views differ. From here I will bring us back to the essential differences between qualitative and quantitative research, and present a comparative analysis of their methodological features. This leads into the final article in the series, which asks 'how exactly do you do qualitative research?'

QUALITATIVE METHODOLOGIES

People are often confused by methodology. They have read scientific papers which include a research methodology section and, as a result, think that methodology is about the way the research study was conducted – how the subjects were sampled, how the tests were undertaken, what equipment was used, etc. But what the researchers are actually talking about here are the research methods, not the methodology. Hammell defined methodologies as 'a specific philosophical and ethical approach to developing knowledge; a theory of how research should, or ought, to proceed given the nature of the issue it seeks to address' (Hammell, 2006: 167), but even this definition can be a little vague. This is, in part, due to the fact that the boundaries between philosophy, methodology and methods are quite porous and there is a lack of consistency in the published literature over the use of these terms. In order to clarify the position I have taken in this article, therefore, I will illustrate some of the differences with a simple analogy.

A belief in God is a defining feature of many people's sense of who they are. But there are many faiths, each with their own philosophical framework. Thus, one can distinguish Judaism from Catholicism, and Islam from Buddhism. For the purposes of my analogy, these different faiths represent the different philosophies mentioned in the first article of this series, published in October. Within each of these faiths, there are everyday practices that people follow – prayer, rituals, ceremonies, sermons and readings, etc., that are the methods by which the religion is practiced, and distinguish, in some respects, one religion from another. Holy Communion, for instance, is particular to the Christian church, whereas a pilgrimage to Mecca is a practice particular to Muslims.

Between the philosophical level and the everyday practices of the religion, are an array of guiding principles, rules, prescriptions and imperatives that define how the daily practices of faith should be exercised: liturgies, sacraments, texts, hierarchies, customs and symbols that define the form that the particular religious observance should take. These are the methodologies of that faith – the conventions and mores that frame the way the faith is thought and practised. They are not the methods themselves; they are the principles that explain why one has Holy Communion, not the communion practice itself.

Within qualitative research there are numerous methodological frameworks (e.g. Denzin and Lincoln, 2005), each relating to an over-arching philosophy, and each governing a particular set of practical methods. I will concentrate here on only four of the more common methodologies: phenomenology, grounded theory, ethnography, and discourse analysis. Importantly, some of these methodologies are closely associated with a particular philosophical framework – phenomenology, for instance, is solidly aligned with interpretivism – while others, like ethnography, have greater capacity to move between a number of different philosophies. Having said that, once you have a grasp for the essential features of each of these methodologies, you will be able to see that they are, in fact, quite distinctive, and you should have no problems differentiating between them.

Phenomenology

Phenomenology sits firmly within the philosophy of interpretivism, or hermeneutics (which derives from the Greek word to 'interpret'). Interpretivism is concerned with what it meant to 'be' human. Phenomenology shows us how we should approach this question. You will not be surprised to read that there are a number of different forms of phenomenology, largely depending on the philosopher from whom they take their name. Thus there are Heideggerian phenomenologists, after Martin Heidegger, and Gadamerian phenomenologists, after Hans-Georg Gadamer, and others who follow the work of Sartre, Husserl or Merleau-Ponty (Moran, 2002). We need not concern ourselves with the subtleties of these various approaches at this stage.

Phenomenology tells us that we should view each person as unique, and that if we are to understand the unique experiences each person has, we should concern ourselves with their particular world-view. Phenomenologists believe humans are self-determining. This means that each of us interprets our world in our own unique way, and what comes to be considered 'real' is entirely idiosyncratic. To study the meaning of reality 'phenomenologically', demands, therefore, that one goes through an exhaustive journey of exploration
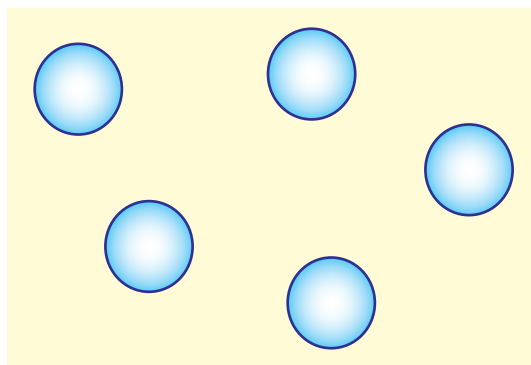
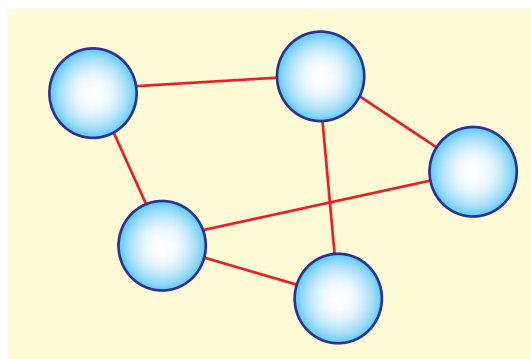**Figure 1. Graphical representation of phenomenology**

Figure 2. Graphical representation of grounded theory

into the meaning the participant in the study gives to particular facets of reality. Phenomenologists ask questions like 'what does it mean to be a person with multiple sclerosis?' (here, of course, the critical distinguishing feature of phenomenology is carried in the phrase 'what does it mean to be') (Holloway and Wheeler, 1996). I have represented phenomenology visually here as a set of isolated shapes. What I am attempting to show here is that the researcher approaches each participant in a study as a unique entity, distinct and pronounced in their individuality (*Figure 1*).

Grounded theory

Qualitative researchers have quite a few problems explaining grounded theory – principally because it is not strictly qualitative. Devised in the 1960s by Barney Glaser (a traditional positivist) and Anselm Strauss (a classical sociologist), grounded theory is as close as you can get in qualitative research to a quantitative methodology (Glaser and Strauss, 1967). Based on the principles of symbolic interactionism (simply, that it is the symbolic interactions between people that give meaning to our world), grounded theory attempts to establish robust, reasoned theory in places where sound theory is absent. Inductive though it is, grounded theory makes use of a range of quantitative and qualitative principles to demonstrate that the theories that derive from it are robust. It is

highly systematic (some would say dogmatically so) (Flick, 2009), ordered and structured. Not surprisingly, it has become a very popular research tool within health care, and many researchers new to qualitative research like its positivistic leanings (Denzin and Lincoln, 2003). In *Figure 2*, you will see that the phenomenological concentration on each person as an island unto themselves has now shifted to a concern for the interconnections between people; the ways that meaning is derived not by individuals, but by symbolic interactions among communities (this could be communities of people with arthritis, communities of health practitioners, or any other collective for that matter), and for the production of theory fundamentally grounded in the data (Charmaz, 2006).

Ethnography

If phenomenology is concerned with understanding the individual's experience of 'being', and grounded theory focuses instead on the way interactions between people generate meaning, then ethnography is concerned with culture; particularly those things that define us as being part of a particular cultural group (Streubert and Carpenter, 1999). Here, we should not make the mistake of confusing 'culture' only with 'ethnicity', because, in this context, they mean quite different things. To an ethnographer, 'culture' is anything that binds a group of people together, for example shared values and interests, a common birthright, or allegiance to a particular code (Holloway and Wheeler, 1996: 82–4). Supporters of a particular football team share a particular culture that is displayed on their team shirt, in their shared experiences and their collective consciousness. Speech and language therapists share a common culture that is unique to them. In their own way so do steelworkers, primary school children, and people who collect stamps. Ethnography is concerned with understanding how these cultures allow people to ascribe meaning to everyday life. In health care, there are many cultures; some are created by diagnostic labels, others by naturally occurring synergies between people meeting in chance encounters. The internet has opened up a space for the emergence of a vast array of community networks among patients and health care workers; all fertile ground for the ethnographer.

In *Figure 3*, I have represented ethnography as a house. In doing so, I have attempted to show that the analysis of culture often concerns the way we define ourselves by the cultural objects that surround us, cultural practice, ideas and beliefs (Denzin, 1997). Ethnographers

put great emphasis on understanding the cultural value we place on things, as well as the practices that define us as part of a particular cultural group.

Discourse analysis

The fourth and final methodology I will outline here falls under the postmodern/poststructural philosophies and is one of the newest methodologies (particularly in allied healthcare, although it has been used extensively in nursing and psychology). Firstly, there are two types of discourse analysis that are quite distinct. The older form is derived from linguistics and semiotics. These approaches are concerned with language and how words are used to give meaning to our experiences (Halliday and Hasan, 1989). Linguistic methodologies place a great deal of emphasis on what words mean when we use them (Rapport, 2004). The other form of discourse analysis (and the more postmodern/poststructural form) is concerned less with what words mean, and more with what words do (Arribas-Ayllon and Walkerdine, 2008). This form of discourse analysis is primarily concerned with the way knowledge is a product of power relations operating in society, and by exposing the machinery that values certain forms of knowledge over others, we can better understand how we have come to place higher value on some ways of thinking and acting over others (Nicholls, 2009).

In health care, for example, biomedicine is a discourse that has a major influence on how we think about health and illness. It provides us with a particular vocabulary, it governs the way we are trained, it defines people by labels and excludes those who can not, or choose not to, exercise its disciplines (Samson, 1999; Gabe et al, 2005). Importantly, this is not achieved through force or coercion, but through a happy acceptance that biomedicine is basically right and proper. Discourse analysis provides a methodology that challenges what might be called this 'docile' thinking (Pryce, 2000). In *Figure 4,* I represent this as a set of rays shining down on the house. These rays represent the subtle, non-material nature of many discourses; their ability to illuminate some things and cast others into shade.

In highlighting these four methodologies I have illustrated two important points about qualitative research: firstly, that methodologies are a feature of a particular philosophical viewpoint, but that they are clearly not methods used to gather or analyse data; and secondly, that methodologies provide a particular lens through which we may approach the questions
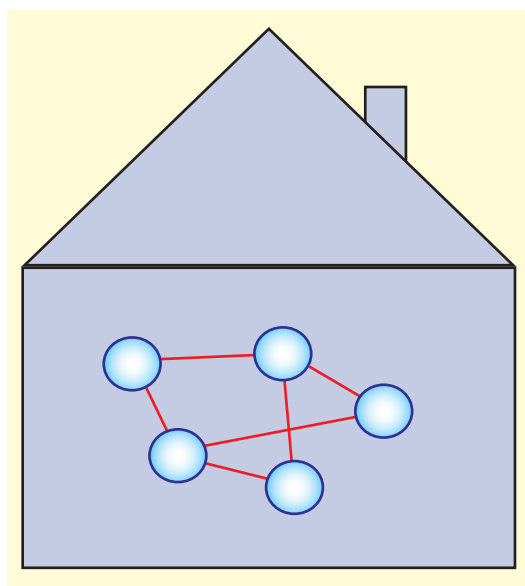

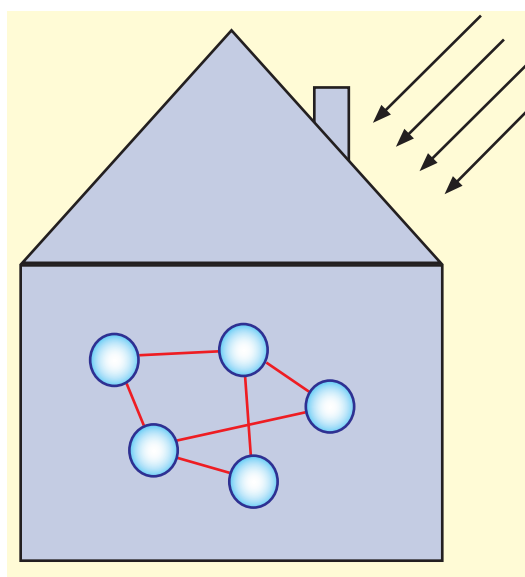**Figure 3. Graphical representation of ethnography**

Figure 4. Graphical representation of discourse analysis

posed by our desire to understand the nature of reality. Different lenses suit different people, and once you have accepted that there are more ways to view the world than that offered by the rigid constraints of positivism, you may begin a journey of discovery to find the philosophy and methodological framework that satisfies your world-view. This framework will then provide you with guidance when you ask questions about your experiences, those of your patients and the communities around you. Having explored some of the key qualitative methodologies, I will now begin to close in on some of the ways in which qualitative research is actually performed, by contrasting qualitative and quantitative methodological approaches.

QUALITATIVE METHODOLOGICAL PRINCIPLES

Having argued that qualitative research follows a process of inductive reasoning (where theory is developed) and quantitative research is commonly deductive (where theory is tested), it should be reasonably clear that the principles that govern how the two paradigms operate (their methodologies) should be distinctively different. Qualitative research often begins with a small sample size (sometimes an individual participant, a solitary text document or a small group), and follows a rigorously applied but loosely defined pathway. Quantitative researchers, on the other hand, use detailed inclusion and exclusion criteria to sample often large numbers of participants with comparable traits. By the same token, there is no hypothesis to be tested in qualitative research, only a problem or research question to explore. New problems commonly emerge as you realize that the original ideas were misguided, and so a new pathway is taken through new territory. With quantitative research, you commonly begin with the question you want answered, and the study is never allowed to stray from its original purpose (Broom and Willis, 2007).

In setting out some of these methodological differences, it might be possible to see some of the vital distinctions that can be made between qualitative and quantitative research. The first distinction is that qualitative research allows the study to evolve naturally, rather than imposing a rigid methodological approach on it from the outset. The second is that qualitative researchers analyse their data as they are collecting it, as opposed to quantitative researchers who gather it first and analyse it later. A third difference is that many qualitative researchers look to hand over control of the study (to a greater or lesser extent) to their participants, allowing them to define what matters to them and what is superfluous. Contrast this with the detached and (supposedly) unbiased relationship that is meant to permeate quantitative research studies (Carpenter and Suto, 2008).

The relationship between researcher and participants

In qualitative research, the relationship between the researcher and their participants is a natural one that develops with the study (Holloway and Wheeler, 1996). The questions of bias that plague experimental studies and threaten the reliability and validity of their test measures are turned on their head and made into a virtue of the study not a vice. In quantitative research, the problem of researcher bias is addressed by both a scrupulous attention to the separation between the researcher and the participants, and a comprehensive attempt not to influence the outcome of the study. In qualitative research, however, personal bias is acknowledged as an inevitable feature of our humanity, and one that is vital if we are to explore the feelings, meanings and the personal context of our participant's lived experiences and reflect on their meaning for us. So while qualitative researchers are equally as scrupulous in showing that their findings are trustworthy, they approach the question of bias very differently. Underpinning this approach to the question of bias lies a fundamental difference in the way qualitative researchers view research participants. Even the word 'participants' reflects an attempt to co-construct meaning; something that is clearly not present in the rather cold, depersonalized word 'subject' that was traditionally favoured by quantitative researchers (Streubert and Carpenter, 1999).

These various approaches are justified because the essence of the work of a qualitative researcher is to uncover the meaning we give to things individually and collectively. To do this wearing a white lab coat, carrying a clipboard and asking pre-defined questions with pre-defined answers would be illogical (indeed there are many qualitative researchers who have written that the detached, value-neutral approach adopted by quantitative researchers is highly problematic; designed, as it were, to exert power over the subject; a very andro-centric expression of authority) (Denzin and Lincoln, 1994; Silverman, 1997; Gubrium and Holstein, 2002).

Qualitative sampling

Sampling in qualitative studies is based on qualities rather than quantities, with the researchers searching for participants who might offer rich, 'thick' descriptions of the phenomena under study (Geertz, 1973; Holloway and Wheeler, 1996). So where much quantitative research operates by taking vast swathes of the population and grouping like variables together, qualitative research assumes from the outset that no two people are alike, and concentrates instead on sampling those that can enrich our understanding of the emergent theory (Crabtree and Miller, 1992; Finlay and Ballinger, 2006). Many people misunderstand this point and argue, as was the case with the doctoral student mentioned at the beginning of the previous article, that a sample of five people cannot possibly be representative of the background population. Qualitative researchers do not disagree. As we have seen, qualitative researchers believe that everyone is different, and so they would argue that it is never actually possible to represent the background population (for many qualitative researchers, even the idea of a 'back-

TABLE 1.
Overview of differences between quantitative and qualitative research

	Quantitative	Qualitative
Purpose	Test theories Establish facts Show causal relationships Predict outcomes Generalize results to specific populations	Develop concepts Explore meaning Describe multiple realities Critique multiple perspectives Produces generalizable theory
Design	Predetermined Structured Unchanging Prescriptive Reproducible	Evolve through the study Continually under review Rigorous application Unreproducible Unstructured
Data	Numerical Quantifiable Statistical Measurable Pre-defined variables	Deals with qualities Extensive Wide-ranging 'Texts' emerge throughout Limited use of numerical information
Sampling	Subjects Large numbers Structured selection Represent population Control groups and placebo	Participants Small numbers Purposive and theoretical sampling No effort to represent No control groups/placebo
Participant relationships	Detached Distant Objective, try to be free from bias No interaction or influence Research done 'on' subjects	Participatory Trusting and close Subjective, biases incorporated Acknowledge influences Research done 'with' people
Methods	Experiments Quasi-experiments Surveys Questionnaires Incidence studies	Interviews Observation Focus groups Document analysis Theoretical
Instruments and tools	Scales Tests Inventories Hardware; goniometers, dynamometers	Researcher Recording equipment Schedules
Data analysis	Attempt to falsify experimental hypothesis At end of data collection Deductive Statistical manipulation Computer packages	Theory builds throughout On-going Occurs throughout Repeated re-analysis Inductive
Outcome	Answer specific hypothesis Statistical analysis Compare findings to other studies Often results in guidelines to follow Tests established theory	Critique problems Narrative/linguistic analysis Words not numbers Thick description Development of new theory
Problems	Controlling variables Relevant to reality Bias Reductionist Western	Non-standard procedures Large volume of words Intensity Doesn't give you a simple answer Time-consuming

ground population' is something of a fiction). No one can represent anyone else, since our experiences through our life are entirely unique to us: our sense of 'self' simply cannot be cloned.

Qualitative research does not set out to 'represent' variables possessed by the background population. This idea is entirely positivistic (Denzin and Lincoln, 2005). Instead, qualitative research attempts to build theory, and it is this theory that is generalizable to others. For example, if I derive from my research that shame is a major problem for people with chronic lung disease, is it not reasonable to explore how shame influences other people in the course of their illness? Can I not argue that shame is something we should be aware of when we practice rehabilitation with our patients, organize community events around them, or bring them into public spaces? It is this ability to define theory that is generalizable to others that defines one of the hallmarks of good qualitative research. There is plenty of published research (in both qualitative and quantitative research) that may be described as 'descriptive', but this will never have the power of explanation if it does not engage, at some level, with theory. High quality qualitative research builds robust theory through a transparent, rigorously applied process of analysis, and it is this that carries the qualitative weight of argument to influence what we know and understand about health and illness.

CONCLUSIONS

It is fair to say that qualitative research is not only different in its underlying philosophical framework (positivism *vs* interpretivism, radicalism, postmodernism, etc.), and its form of reasoning (inductive *vs* deductive), but that these differences also permeate down through the variety of methodological approaches that qualitative researchers deploy in guiding the conduct of their studies. These differences are summarized in *Table 1*.

In the final article in this series, I will take these methodological imperatives and unpack the methods of data collection and analysis that are particular to qualitative research. **IJTR**

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KEY POINTS

■ Methodology is an important feature of qualitative research because it links philosophy with methods.

■ Qualitative researchers make an important distinction between philosophy, methodology and methods.

■ Different methodologies represent different ways of viewing the nature of reality.

■ Qualitative researchers share a common set of methodological values and principles that distinguish them from quantitative researchers.