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Competing Paradigms and Health Research

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INTRODUCTION

From newspaper and television documentaries to web sources and academic journals, research on health abounds. As indicated in Chapter 1, the broad area of 'health research' uses a plurality of research methodologies and related methods, from documentary analysis and unstructured interviews to randomized controlled trials and experimental methods. However, there are differences between particular methodological approaches that are systematic rather than idiosyncratic. In this chapter we make use of the sociological concept of 'paradigms' to illustrate the way in which research methodologies are embedded in particular political and ideological positions. This chapter aims to provide a critical overview of what we might broadly call research paradigms. We explore the nature of a paradigm, examining different types of paradigms in health research, and the implications of using a particular paradigm for knowledge production. Furthermore, by giving the reader a critical understanding of the nature of particular research methodologies and associated methods, we aim to provide a means to establish the most effective way of answering research questions about health and health care.

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In order to do this, we need to have a clear understanding of the epistemological foundations and philosophical roots of particular forms or styles of research. Epistemology in this context refers to the nature of knowledge or how we come to know certain things about the world. In the context of health care, an understanding is necessary of how certain research methods and certain approaches to data collection have emerged from vastly different traditions, and, importantly, how they produce different understandings of the social world.

Within this discussion we examine broad traditions in health research, from positivism to interpretivism, exploring the implications of these traditions and the various methodological approaches derived from them for health research. We seek not to make an argument about which methodological paradigm is best, but rather to provide the reader with a critical understanding of how the methodologies presented in the following chapters have emerged from, and contribute to, the reproduction of particular understandings of the social and natural world. We propose the view, also reflected in subsequent chapters, that certain phenomena, and thus certain research questions, are best explored by drawing on one particular paradigm rather than another. We present the reader with a critical view of each, and how this can be used to inform research design and analysis.

In this chapter, we draw on a particular research study to illustrate the difference. The research study examined the impact of the Internet on health care services, using men and medical specialists' experiences of prostate cancer as a case study. It was conducted by one of the authors for purposes of a higher degree under the supervision of the other (see Broom 2004).

DEFINING TERMS: WHAT IS A PARADIGM?

A paradigm can be defined as an overarching philosophical or ideological stance, a system of beliefs about the nature of the world, and ultimately, when applied in the research setting, the assumptive base from which we go about producing knowledge (Rubin and Rubin 2005). In the context of health care research, a researcher's paradigmatic positioning relates to their understanding of the nature of knowledge (their epistemological standpoint) and of reality (their ontological standpoint). An interpretivist researcher will maintain that knowledge is socially constructed and reality is ultimately subjective. A positivist paradigm, however, will maintain that reality is fixed and that objective knowledge can be produced through rigorous methodology. Methodologies utilized by the former are referred to as qualitative and those by the latter as quantitative.

Health researchers vary greatly in their epistemological and ontological standpoints, and these paradigmatic differences have an important influence

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on their study objective and design, and thus on the type of knowledge they produce from their research. Nonetheless, researchers may actually draw on a number of different paradigmatic positions to achieve the best possible outcome in terms of knowledge production. In fact, the separation of particular ontological and epistemological positions can come across as a somewhat artificial dichotomy, in that health researchers are increasingly pragmatic. They choose the best means to answer a research question and use a mixed-method approach, rather than being explicitly philosophically driven. However, although researchers may embrace disparate methodologies and methods within a single research project, there is a tendency for the actual analysis, including the conceptualization of results, to be derived from one distinct philosophical standpoint and to take a positivist or constructivist/interpretivist approach.

Nevertheless, it is necessary to confront the issue of the extent to which quantitative and qualitative paradigms of research are metaphysically incommensurable. By this we mean the extent to which they are logically inconsistent or mutually exclusive. For example, ontologically speaking, social reality cannot be both objectivist in nature and also a social construction. It is either one or the other. This is another way of saying that these two paradigms of research are in fact incommensurable and that health research cannot be simultaneously quantitative and qualitative. However, it is possible to have separate quantitative and qualitative components, or, as we sometimes say, there may be different 'arms' to a research project.

Traditionally, health researchers have tended to embrace one particular paradigm. The commonest split has been between the positivists and the constructivists. It is these schools of thought that will be examined closely in this chapter. As suggested by Wolfe (1997), this positivist/constructivist split can be seen as the 'two faces of the social sciences'. As such, most of the methods outlined in this book can broadly be seen as philosophically congruent to one of these traditions. In saying this, we argue that positivism and constructivism should be viewed as 'ideal types' in the Weberian sense. An ideal type, according to Weber, is formed by the one-sided accentuation of one or more points of view. Hence although the distinction between positivism and constructivism is useful and important, in practice the boundaries between different paradigms are blurred (De Vaus 1995).

As reflected in the structure of this book, a paradigmatic difference exists between what we call qualitative and quantitative research methods. This is not a matter of study design such as the use of observational methods (for instance, case–control study or survey) versus experimental methods (for example, the randomized controlled trial). Rather, the distinction between qualitative and quantitative approaches lies in the assumptive base that underpins the research design and thus data collection. A general distinction is made between these

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two methodological traditions based broadly on either an *inductive* or a *deductive* approach to research. In the case of induction, the researcher gathers qualitative data (such as on patients' experiences of pain) and then establishes patterns drawing on theory, thereby, for example, establishing how things may be improved for those patients in a health care setting. However, a deductive, quantitative approach involves the researcher testing an existing theory or hypothesis. A hypothesis might, for instance, be that patients who are given pain killers two days after treatment will report no different experiences than those who are not. The research then aims to prove or disprove the hypothesis.

Quantitative and qualitative methodologies are different strategies used by health researchers with quite different visions of the social world. These are the product of a number of very important Western philosophical traditions that have been developing for centuries. As such, social scientists have for long challenged one another – as well as scientists in the natural sciences. Some argue that quantification using a positivist paradigm is essential for an objective and rigorous investigation. Others argue from an interpretivist approach that no description could be complete without a qualitative understanding of the subjective meanings of social actors involved in social interactions (Glassner and Moreno 1989).

Our view is that such arguments are ideological and neither quantitative nor qualitative methods should be viewed as superior. Rather, each serves a particular purpose. Methodologies are not neutral tools and health researchers need to be able to think critically about the ways in which certain methods produce certain types of knowledge. In the twentieth century health research was dominated by positivist approaches to knowledge production epitomized by the randomized controlled trial. This involves randomization of patients into at least two different intervention groups (normally usual care versus experimental treatment) discussed in detail in Chapter 12. However, in recent decades there has been greater scepticism about the positivist methods associated with modern medicine. The aim of the rest of this chapter is to highlight the political and ideological nature of health research by outlining the philosophical underpinnings and paradigmatic bases of the research methods discussed in the following chapters.

POSITIVIST PARADIGM

Roots of positivism

Positivism is a somewhat ambiguous and loaded philosophical idea, but it continues to form the paradigmatic basis for much health research today. The term positivism has represented a means to critique the natural sciences and

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researchers espousing a scientific model within the social sciences. By default, a positivist assumes that reality is concrete and objectivity is achievable – therefore the notion of science being ideologically driven is supplanted by the notion of science as transcending ideology – a rather circular logic. Rather than defining a clear set of practices, positivism represents a broad tradition of thought that assumes that reality is constant. It can be measured, and thus the concepts and methods employed in the natural sciences can be applied to form a 'science of man' (Giddens 1987).

Of course, the immediate dilemma is that what constitutes 'science' within the natural sciences is not an entirely coherent and consistent entity, with a number of internal differences in the conceptual base of each method. Thus, the notion of 'positivism' within the social sciences as the imposition of a natural 'science' model imposed on the social world is at best problematic. Rather, positivism in the social sciences should be seen as a tradition followed by certain social scientists who aim to follow the basic premises of scientific enquiry. This includes the assumption that the researcher is able to collect and interpret social facts objectively; produce laws and models of behaviour from these social facts (Bryman 2001); and view 'scientifically' produced data as ultimately neutral and unbiased (Rubin and Rubin 2005).

Positivism has its roots in a long history of Western philosophy and the agenda for early Enlightenment thinkers was to 'enlighten' the masses. The belief was that human reason could be used to combat ignorance, superstition and tyranny, and, ultimately, be used to build a better world. Gradually scientific method and quantification would come to be seen as the means to improve both the natural and the social worlds (Glassner and Moreno 1989).

The actual notion of positivism per se was first coined by Auguste Comte. Comte saw sociology as the very culmination of positivism: a science of man that would complete the historical evolution of the hierarchy of the scientific disciplines (Giddens 1987). Positivism was thus cemented in sociology through Comte's idea of transforming society on the basis of science. Herbert Spencer's organic theory of society built on this. Spencer conceived of society as an organism and held that human society reflects the same evolutionary principles in its development as biological organisms. The dominance of positivism in the social sciences came to a peak in the post-war United States with the structural functionalist work of Talcott Parsons and Robert Merton, only then to wane in the late twentieth century with the emergence of post-structuralist and postmodernist paradigmatic – a shift discussed later in this chapter.

These philosophical ideas have evolved considerably since Comte and Spencer and still form the basis for much health research today. Of course, there are now much more effective and systematic tools that are used to achieve the so-called 'truth' or produce a 'scientific fact'. However, the basic premise of a

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reality that can be objectively measured, given the right instruments and conditions, still dominates health research in the clinical and social sciences.

Positivism in health research: From randomized controlled trials to social surveys

As we will see in the following chapters on quantitative methods, there are many different methods for advancing our knowledge of health and illness within a positivist framework. Trial designs, and particularly randomized controlled trials, are the most commonly used designs in medical research, although medical researchers are increasingly incorporating social science methods in their studies. Retrospective cohort and cross-sectional designs are also based on a positivist assumptive base and are used to map out such things as aetiology (the characteristics of disease), prognosis (the predicted course of a disease) and prevalence of disease (the extent of spread of a disease within a population), as well as other factors that may influence health outcomes or health behaviour.

These types of approaches have emerged from, and contribute to, the reproduction of the positivist paradigm, focusing on establishing objective scientific facts about disease and the body, through scientific method and quantification. Based on the biomedical model of disease, such studies approach the patient as a physical/mechanistic entity that can be measured, controlled and ultimately manipulated. Assumptions about the objectivity, neutrality and generalizability of data place most biomedical research methods squarely within the realms of a positivist paradigm.

Likewise, quantitative methods commonly used by social scientists – such as structured interviews, surveys and self-completion questionnaires – also seek to test hypotheses by quantifying human behaviour (Bryman 2001), with the objective of creating models that can predict behaviour (De Vaus 1995). An example of this was the pilot research the authors undertook on online communities. This embraced a positivist paradigm in that it sought to establish and quantify patterns in men's experiences of online support groups as opposed to face-to-face support groups. As can be seen below, the knowledge produced through this paradigm is very different from the findings that emerged from more qualitative frames of reference. We will return to this theme later in the chapter.

Although randomized controlled trials and quantitative surveys may have very different foci (for example, disease reoccurrence versus feelings of autonomy), and may utilize different tools for testing their hypotheses (for instance, blood tests versus anxiety scales), they are ultimately commensurable within this broad paradigm. The methods and features associated with this paradigm are as follows:

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- Methods utilizing a positivist paradigm:
  - Epidemiological/analytical design strategies (for example, randomized controlled trials, before and after studies, cohort/incidence studies, cross-sectional studies)
  - Survey research
  - Secondary document analysis (for instance, content analysis)
  - Structured interviewing
  - Systematic reviews (meta-analysis).
- Features of a positivist paradigm:
  - *Determinism*: Phenomena can be predicted from a knowledge of scientific laws.
  - *Objectivity*: The researcher is separate and detached from the patient/participant, maintaining objectivity, assisted by scientific evidence.
  - *Quantification*: Information is derived from what can be quantified.
  - *Reliability*: Through randomization we can know that our findings support or negate the hypothesis in the study and can be extrapolated to a larger population.
  - *Generalizability*: Data are reliable and unbiased and we can therefore generalize our findings to the rest of the population.

There are considerable advantages to using methods that are based on a positivist paradigm, and which seek to use the scientific method to answer important questions about the effectiveness of health care. For example, randomization is an effective means of reducing bias in the assessment of how effective an intervention is as it guarantees, assuming it is carried out properly, that treatment assignment will not be based on patients' prognostic factors. This prevents the investigators from assigning, consciously or unconsciously, patients with a greater likelihood of responding well to a treatment that they hope will be superior. It increases confidence that the study has identified the most effective treatment. Blinding the researchers and their clients is also a method of eliminating bias (Altman 2000). Randomized trials that have not used appropriate levels of blinding tend to show significantly larger treatment effects than blinded studies (Schulz et al. 1995). Thus, although in the process of randomization the patient is effectively reduced to a number, and thus to some degree their individuality is lost, this process has the benefit, amongst other things, of increasing our knowledge of the effects of a drug on an organ, or the effect of a psycho-social intervention when a course of treatment is followed.

Another benefit of a randomized controlled trial design is that consistent and relatively concrete outcome measures are used (as, for instance, pain, recovery time or anxiety). In this way, we know that the study is assessing, albeit in a restricted way, the actual effects of the intervention or the disease process, and not merely recording people's subjective feelings about how they have improved over the course of treatment. We can thus be confident, if we ever get

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ill and need treatment, that we are not merely being treated according to an individual doctor's preference, or on the basis of the outcomes from a group of a typical patients, but as a result of a well-conducted trial. In a similar way, surveys and structured interviews can be extremely useful for assessing such issues as patients' views on the quality of treatment information provided and their experiences of treatment for a particular illness.

Despite the potential benefits of drawing on a positivist paradigm, and utilizing study designs such as clinical trials and surveys, there are also potentially negative implications of which health researchers should be aware.

A critique of positivist approaches to social research

While trial designs and other positivistic research methods have much to offer in health research, their promotion – which is approached with great zeal in some quarters – can be misplaced. Many questions about health care are not amenable to randomized controlled trials. For example, a randomized trial could not research the question of the number of people who die every year as a result of waiting too long with severe chest pain before calling an ambulance for ethical and practical reasons. A randomized controlled trial design cannot answer the question of why – it cannot explore what is going on in a person's life and relationships that may have influenced them to delay seeking help. Herein lies one of the weaknesses of utilizing a positivist, quantitative methodology.

To be more specific, there has been considerable concern, within both academic and lay communities, about the epistemological assumptions that inform the process of categorization in quantitative research. For example, some have argued that positivist quantitative research designs give insufficient attention to a person's lived experience (Rubin and Rubin 2005; Bryman 2001). Sociologists are increasingly arguing that people's experiences are complex, subjective and embedded in specific social and historical contexts (Silverman 2001). Take for example the research undertaken by one of the authors on Australian men with prostate cancer and their use of the Internet (see Broom 2005a; 2005b). Results from the pilot survey showed the numbers of men who were more comfortable expressing their concerns and fears in an online environment. Although useful, this did not give any indication of why this was the case. We needed to know the systems of meaning and cultural understandings that actually shaped these men's perceptions of face-to-face versus online support groups that might influence their use. This was only achievable with a qualitative methodology.

The difficulty is that it is not possible to dissect and categorize social life objectively, through blinding and randomization procedures (Rubin and Rubin 2005). Furthermore, many qualitative social scientists reject the claims of

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natural scientists and quantitative social sciences to objectivity; the mechanisms they use for measuring validity; and their desire for generalizability. They argue that it is impossible to talk about understand or communicate social phenomena without employing a particular language or conceptual scheme and this is not neutral (De Vaus 1995). It can be argued that all representations, like data from a survey, clinical trial or interview-based study, are socially and culturally constructed (Rubin and Rubin 2005). Researchers choose the questions and interpret the results. Ultimately, therefore, all knowledge produced by research is subjective, interpreted, political and, in part, ideological driven. This leads to the consideration of an alternative frame of reference – that of interpretivism or, as it is sometimes called, the constructivist tradition.

INTERPRETIVIST PARADIGM

The constructivist traditions: Dislodging the positivist canon

Although positivist approaches within medicine and the social sciences have maintained their dominance for a significant part of the twentieth century, a strong qualitative or interpretive tradition emerged in the social sciences in the 1960s and 1970s. Grounded theory, symbolic interactionalism and phenomenology, and more recently poststructuralism and postmodernism are part of the interpretivist or constructivist tradition. This is associated with such authors as Glaser and Strauss (1967), Berger and Luckmann (1967), Geertz (1973), Lofland and Lofland (1984) and Rubin and Rubin (2005).

Originating at the Chicago School in the 1920s and 1930s, and gathering momentum in the late 1960s, factions within the social sciences were beginning to diverge from the positivist and deterministic approaches of the classical social scientists, refocusing social science on the ways in which meanings are constructed, negotiated and managed by different individuals and groups within various social and historical contexts. Before this movement, research methods were largely quantitative and firmly based on a positivist paradigm. The interpretive paradigm precipitated the development of the tools we now know as qualitative methods.

The qualitative methodologies, emerging from methods such as in-depth interviewing and observation, sought to establish an understanding of people's lives, experiences and the subjective meanings that could explain the process of decision making and action. Rather than seeking to measure or categorize behaviour or attitudes, interpretivist researchers focused on the understandings of research respondents, pursuing an analysis based on the constructivist

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ontological position that individuals actively negotiate meaning. As ontology refers to the study of the nature of reality, a constructivist ontological view is that reality is constructed rather than 'set in stone'. It is not objectively measurable, and, furthermore, individuals construct their reality by associating 'meaning' with certain events or actions (Bryman 2001).

By approaching an issue from this position, a researcher can establish regular patterns and irregularities in the meanings associated with particular life events. For example, there may be social patterning in terms of whether or not particular signs and symptoms are interpreted as an illness, whether professional help is sought, and how the chance of a cure is perceived. As Rubin and Rubin (2005) suggest, interpretive social research is about figuring out what events mean to research subjects: how people adapt and how they view what has happened to them and around them (see also Bryman 2001). It is identifying this complexity and subjectivity that Ezzy (2002) and others argue should underpin qualitative research projects.

Interpretivist approaches to health research

Researchers who have positioned themselves within an interpretivist, constructivist paradigm tend to use qualitative methods, such as in-depth interviews, focus groups and ethnographic observation. These types of methods are consistent with the interpretivist paradigm, in that they aim to record the types of data that will enable the researcher to reflect on subjective meanings and interpretations; the social and culturally embedded nature of individual experiences; and the relationship between the researcher and the researched (Rubin and Rubin 2005). What we see is a shift in focus from a position where the researcher seeks to observe patterns in group behaviour to a position that seeks to understand individual experiences of interactions, events and social processes and identify patterns in these subjective experiences. The methods and features associated with this paradigm are as follows:

- Methods utilizing an interpretivist/constructivist paradigm:
  - In-depth, semi-structured or unstructured interviews
  - Observation (participatory or non-participatory)
  - Focus groups
  - Secondary discourse analysis.
- Features of an interpretivist/constructivist paradigm:
  - *Interpretivist*: Seeks 'understanding' with a focus on subjective meanings and interpretation.
  - *Naturalistic*: Data are collected in the setting of everyday life.

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- *Subjectivity*: Research practice and knowledge production is not objective or neutral – rather it is gendered and partial.
- *Complexity*: Not so concerned with inference but rather with the depth of analysis.
- *Political*: The position of value neutrality is viewed as misleading as it makes the focus on the research seem independent from social relations.
- *Validity*: High on validity as it draws on the understandings of research subjects, but not necessarily generalizable as it relies on the interpretation of the researcher.

Overall, the advantage of a flexible, descriptive and qualitative approach is that researchers are less likely to become stuck in conventional ways of thinking or particular sets of assumptions – as the qualitative chapters in this book highlight. Rather than merely testing pre-existing ideas, they can make observations that demand the creation of new ideas and categories that might not emerge in quantitative designs (Ezzy 2002; Strauss and Corbin 1998). Good qualitative researchers will adjust their approach in response to data which may contradict their initial assumptions or theories. Within a positivist paradigm, by insisting on a strict protocol for the study design and parameters, based on fixed hypotheses, only those events considered relevant are recorded. Conversely, qualitative studies may begin to uncover the complexity of social processes (Strauss and Corbin 1998).

A qualitative, interpretive approach allows acknowledgement of conflict, ongoing struggle, tension and subjectivity, as well as the situated and co-produced nature of accounts (Rubin and Rubin 2005). Interpretive research is about subjectivity and complexity. It seeks not necessarily to count or reduce, but to represent rich, subjective experience in such a way as to reflect on consistencies and parallels, while retaining the various nuances of the data. As Ezzy (2002) argues, qualitative research is biased to a degree, but all research contains a degree of bias and is thus inherently political. To suggest that something can be biased is by default to suggest that there is an unbiased 'truth' that we could access. The view taken here is that all research is driven by political interests and theoretical models, and qualitative research is no different.

As suggested earlier, qualitative researchers tend to espouse a constructivist ontological view of the world. As a result they are focused less on generalizability or external validity and more on reliability and internal validation – that is, the degree to which the data accurately represent attitudes, perceptions and views of the population being studied. Rather than establishing universal truths about the world, a qualitative study is about gaining an understanding of how some differently positioned actors talk about their experiences and the meanings they associate with particular events, actions and claims. This is a valuable approach because so often the cost of attempting to generalize is that we do not see and investigate those aspects of a process that do not fit our presuppositions about a particular phenomenon.

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A critique of interpretivist approaches

However, there are a number of problems with interpretivist or constructivist approaches when applied to health research, some of which are paradigmatic and some of which relate to methods. As Bryman (2001) notes, first, there is no real consensus among qualitative researchers on appropriate methods for data collection and analysis. Second, qualitative researchers do sometimes attempt to make unjustified generalizations from the accounts of a small number of individuals. It could be argued that there is little value in funding research that cannot be generalized to the larger population. Furthermore, qualitative researchers often adopt convenience sampling strategies, resulting in samples that could be seen to be 'biased' through researcher assumptions and respondent self-selection strategies (Bryman 2001). It has also been argued that informants' accounts are not so much uncovered as created by the researcher (Silverman 2001). If the method adopted is to facilitate an open discussion, for example through unstructured interviews or focus groups, how can the researcher determine which aspect of an account is what a person actually thinks, and which part simply reflects what the researcher prompted the research subject to say?

There are also issues that arise when the constructivist ontological position is taken in researching health and disease. What can be more 'real' than cancer, pain or diabetes? How can it be argued that these phenomena are socially and cultural determined rather than purely physiological conditions? Of course, we come back to the 'ideal type' mentioned earlier. In practice sociologists of health and illness will usually take the middle ground, sometimes called the 'soft constructivist position', and acknowledge that there are both subjective and purely physical aspects to disease and treatment processes.

In terms of the qualitative arm of the Internet study, the objective was to explore the experiences of a specific group of men regarding their use of online communities for social support for prostate cancer. Rather than claiming to map out the experiences of all men with prostate cancer, this study aimed to provide a set of indications as to the possible experiences of other men and the potential benefits of the online support groups as sources of information and support. As such, an in-depth exploratory approach to data collection was taken to document the complex, subjective experiences of the respondents, instead of merely reflecting on, for instance, the frequency of Internet usage, existing sources of information and the type of information and support retrieved. The study focused on understanding the ways in which the online support groups had impacted on the lives of the respondents, building theory from their accounts rather than imposing it on them. What emerged was a process by which men with prostate cancer attempt to negotiate cultural constructions of masculinity and prostate disease, along with particular understandings about the nature of cyberspace. Such subjective processes were analyzed by using positivist designs through quantification and abstraction.

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CONCLUSION

The argument made in this chapter is that health researchers should take a pragmatic approach to research design and data collection. From a methodological perspective, we advocate what could be called a 'horses for courses' approach. However, before such an approach can be taken, researchers must gain a critical understanding of the different kinds of paradigms that inform health research. They should have an appreciation of the complex epistemological and ontological differences between qualitative and quantitative research methods. Previously quantitative, positivist research methodologies have been seen by many stakeholders within the health care community as the only useful way of generating knowledge. Indeed, it is still the case that research funding is more likely to be forthcoming for grant applications demonstrating a quantitative rather than a qualitative methodological approach. However, qualitative research has grown in importance and indeed legitimacy, and increasingly qualitative approaches are being used to inform health care policy and practice. Moreover, some questions can only be answered – or at least will be answered more effectively – by a qualitative design. Ultimately, therefore, we argue that the appropriateness and usefulness of a particular paradigm is inextricably tied to the nature of the research question. This point is tested out in the exercise for the reader below on research into prostate cancer.

Exercise: Different methodological approaches to researching the use of the Internet in the case of men with prostate cancer

Based on what you have read in this chapter, what different sorts of information are yielded by the data sources set out in Boxes 2.1 and 2.2 based on the work conducted by the authors in Australia in the study of men with prostate cancer? Which do you think are the most important? Give reasons for your answer.

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Box 2.1 *A quantitative pilot survey design and example of output*

Selected interview themes:

	1 = strongly disagree 2 = disagree 3 = neutral 4 = agree 5 = strongly agree					
1	It would be easier to share my personal experiences in an anonymous environment like an online (Internet) support group.	1	2	3	4	5
2	In face-to-face support groups, the threat of embarrassment stops some men from sharing concerns about fears, emotional distress, symptoms or complications of treatments.	1	2	3	4	5

Example of data:

- Of the 50 men surveyed 46 per cent agreed that it would be easier to share experiences online.
- Approximately 30 per cent of respondents agreed that face-to-face support groups can deter self-expression.

Box 2.2 *A qualitative in-depth interview study and example of output*

Selected interview themes:

Patients' reasons for decisions over whether or not to use online support groups.
Patients' perceptions regarding the benefits and limitations of online support

Example of data:

Andrew: 'One of the things you find is an amazing openness and frankness about these sort of matters that I'm sure men if they were meeting face-to-face would not talk about … we're doing it through this medium [the Internet] and we can be a lot more frank … There's the anonymity, there's the disembodiment … you're able to project in a way that isn't having any comeback on you.' (Six months' post-treatment, organ-confined disease, Internet user/online support, 40—50 years)

David: 'Some men don't want to be face-to-face. Maybe they're frightened of it; maybe they don't want to travel the distances. Maybe they're scared of being ridiculed or something … all sorts of reasons like that. Maybe they're a bit anxious about having the problem [prostate cancer] and not wanting to share it with other people. I think that's men for you. Some will find it easier to talk online.' (Three years' post-treatment, organ-confined disease, Internet user/online support, 61—70 years)

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RECOMMENDED FURTHER READING

Brown, B., Crawford, P. and Hicks, C. (2003) *Evidence-based Research: Dilemmas and Debates in Health Care*. Maidenhead: Open University Press.

This book focuses on charting the philosophical background and debates surrounding the use of health research methods, including the importance of paradigms.

Daly, J., MacDonald, I. and Willis, E. (eds) (1992) *Researching Health Care: Dilemmas, Designs and Disciplines*. London: Routledge.

This is an older, but now classic, reference with relevant contributions by many leading researchers in the field internationally.

Rice, P. and Ezzy, D. (1999) *Qualitative Research Methods: A Health Focus*. Melbourne: Oxford University Press.

This is an excellent introductory textbook on the use of qualitative methods in researching health.

REFERENCES

Altman, D. (2000) 'Blinding in clinical trials and other studies', *British Medical Journal*, 321: 504.

Berger, P. and Luckmann, T. (1967) *The Social Construction of Reality: A Treatise in the Sociology of Knowledge*. London: Allen Lane.

Broom, A. (2004) 'Virtually he@lthy: the impact of Internet use, by Australian men with prostate cancer, on patient/medical specialist interaction and disease experiences'. PhD thesis, La Trobe University, Australia.

Broom, A. (2005a) 'The eMale: prostate cancer, masculinity and online support as a challenge to medical expertise', *Journal of Sociology*, 41(1): 87–104.

Broom, A. (2005b) 'Virtually he@lthy: a study into the impact of Internet use on disease experience and the doctor/patient relationship', *Qualitative Health Research*, 15(3): 325–45.

Bryman, A. (2001) *Social Research Method.* Oxford: Oxford University Press.

De Vaus, D.A. (1995) *Surveys in Social Research*. Crows Nest, NSW: Allen & Unwin.

Ezzy, D. (2002) *Qualitative Analysis: Practice and Innovation*. Crows Nest, NSW: Allen & Unwin.

Geertz, C. (1973) *The Interpretation of Cultures: Selected Essays*. New York: Basic Books.

Giddens, A. (1987) *Positivism and Sociology*. London: Heinemann.

Glaser, B. and Strauss, A. (1967) *The Discovery of Grounded Theory: Strategies for Qualitative Research*. Chicago: Aldine.

Glassner, B. and Moreno, J. (1989) 'Introduction: quantification and enlightenment', in B. Glassner and J. Moreno (eds), *The Qualitative-Quantitative Distinction in the Social Sciences*. Boston: Kluwer Academic.

Lofland, J. and Lofland, L. (1984) *Analyzing Social Settings: A Guide to Qualitative Observation and Analysis*, 2nd edition. Belmont, CA: Wadsworth.

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Rubin, H. and Rubin, I. (2005) *Qualitative Interviewing: The Art of Hearing Data*, 2nd edition. London: Sage.

Schulz, F., Chalmers, I., Hayes, R. and Airman, D. (1995) 'Empirical evidence of bias: dimensions of methodological quality associated with estimates of treatment effects in controlled trials', *Journal of the American Medical Association*, 273: 408–12.

Silverman, D. (2001) *Interpreting Qualitative Data*. London: Sage.

Strauss, A. and Corbin, J. (1998) *Basics of Qualitative Research*, 2nd edition. London: Sage.

Wolfe, A. (1997) 'The two faces of social science', in K. Erickson (ed.), *Sociological Visions*. Oxford: Rowman and Littlefield.