

Chapter 1

An introduction to health psychology

Chapter overview

This chapter examines the background against which health psychology developed in terms of (1) the traditional biomedical model of health and illness that emerged in the nineteenth century, and (2) changes in perspectives of health and illness over the twentieth century. The chapter highlights differences between health psychology and the biomedical model and examines the kinds of questions asked by health psychologists. Then the possible future of health psychology in terms of both clinical health psychology and becoming a professional health psychologist is discussed. Finally, this chapter outlines the aims of the textbook and describes how the book is structured.

This chapter covers

- The background to health psychology
- What is the biomedical model?
- What are the aims of health psychology?
- What is the future of health psychology?
- How is this book structured?

The background to health psychology

During the nineteenth century, modern medicine was established. ‘Man’ (the nineteenth-century term) was studied using dissection, physical investigations and medical examinations. Darwin’s thesis, *The Origin of Species*, was published in 1856 and described the theory of evolution. This revolutionary theory identified a place for man within nature and suggested that we were part of nature, that we developed from nature and that we were biological beings. This was in accord with the biomedical model of medicine, which studied man in the same way that other members of the natural world had been studied in earlier years. This model described human beings as having a biological identity in common with all other biological beings.

What is the biomedical model?

The biomedical model of medicine can be understood in terms of its answers to the following questions:

- *What causes illness?* According to the biomedical model of medicine, diseases either come from outside the body, invade the body and cause physical changes within the body, or originate as internal involuntary physical changes. Such diseases may be caused by several factors such as chemical imbalances, bacteria, viruses and genetic predisposition.
- *Who is responsible for illness?* Because illness is seen as arising from biological changes beyond their control, individuals are not seen as responsible for their illness. They are regarded as victims of some external force causing internal changes.
- *How should illness be treated?* The biomedical model regards treatment in terms of vaccination, surgery, chemotherapy and radiotherapy, all of which aim to change the physical state of the body.
- *Who is responsible for treatment?* The responsibility for treatment rests with the medical profession.
- *What is the relationship between health and illness?* Within the biomedical model, health and illness are seen as qualitatively different – you are either healthy or ill, there is no continuum between the two.
- *What is the relationship between the mind and the body?* According to the biomedical model of medicine, the mind and body function independently of each other. This is comparable to a traditional dualistic model of the mind–body split. From this perspective, the mind is incapable of influencing physical matter and the mind and body are defined as separate entities. The mind is seen as abstract and relating to feelings and thoughts, and the body is seen in terms of physical matter such as skin, muscles, bones, brain and organs. Changes in the physical matter are regarded as independent of changes in state of mind.
- *What is the role of psychology in health and illness?* Within traditional biomedicine, illness may have psychological consequences, but not psychological causes. For example, cancer may cause unhappiness but mood is not seen as related to either the onset or progression of the cancer.

The twentieth century

Throughout the twentieth century, there were challenges to some of the underlying assumptions of biomedicine. These developments included the emergence of psychosomatic medicine, behavioural health, behavioural medicine and, most recently, health psychology. These different areas of study illustrate an increasing role for psychology in health and a changing model of the relationship between the mind and body.

Psychosomatic medicine

The earliest challenge to the biomedical model was psychosomatic medicine. This was developed at the beginning of the twentieth century in response to Freud's analysis of the relationship between the mind and physical illness. At the turn of the century, Freud described a condition called 'hysterical paralysis', whereby patients presented with paralysed limbs with no obvious physical cause and in a pattern that did not reflect the organization of nerves. Freud

argued that this condition was an indication of the individual's state of mind and that repressed experiences and feelings were expressed in terms of a physical problem. This explanation indicated an interaction between mind and body and suggested that psychological factors may not only be consequences of illness but may contribute to its cause.

Behavioural health

Behavioural health again challenged the biomedical assumptions of a separation of mind and body. Behavioural health was described as being concerned with the maintenance of health and prevention of illness in currently healthy individuals through the use of educational inputs to change behaviour and lifestyle. The role of behaviour in determining the individual's health status indicates an integration of the mind and body.

Behavioural medicine

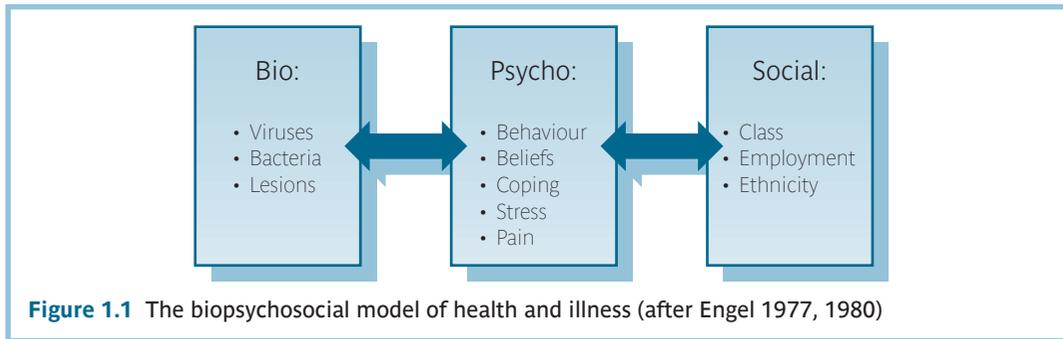
A further discipline that challenged the biomedical model of health was behavioural medicine, which has been described by Schwartz and Weiss (1977) as being an amalgam of elements from the behavioural science disciplines (psychology, sociology, health education) and which focuses on health care, treatment and illness prevention. Behavioural medicine was also described by Pomerleau and Brady (1979) as consisting of methods derived from the experimental analysis of behaviour, such as behaviour therapy and behaviour modification, and involved in the evaluation, treatment and prevention of physical disease or physiological dysfunction (e.g. essential hypertension, addictive behaviours and obesity). It has also been emphasized that psychological problems such as neurosis and psychosis are not within behavioural medicine unless they contribute to the development of illness. Behavioural medicine therefore included psychology in the study of health and departed from traditional biomedical views of health by not only focusing on treatment, but also focusing on prevention and intervention. In addition, behavioural medicine challenged the traditional separation of the mind and the body.

Health psychology

Health psychology is probably the most recent development in this process of including psychology in an understanding of health. It was described by Matarazzo as 'the aggregate of the specific educational, scientific and professional contribution of the discipline of psychology to the promotion and maintenance of health, the promotion and treatment of illness and related dysfunction' (Matarazzo 1980: 815). Health psychology again challenges the mind–body split by suggesting a role for the mind in both the cause and treatment of illness but differs from psychosomatic medicine, behavioural health and behavioural medicine in that research within health psychology is more specific to the discipline of psychology.

Health psychology can be understood in terms of the same questions that were asked of the biomedical model:

- *What causes illness?* Health psychology suggests that human beings should be seen as complex systems and that illness is caused by a multitude of factors and not by a single causal factor. Health psychology therefore attempts to move away from a simple linear model of health and claims that illness can be caused by a combination of biological (e.g. a virus), psychological (e.g. behaviours, beliefs) and social (e.g. employment) factors. This approach reflects the *biopsychosocial model of health and illness*, which was developed by Engel (1977, 1980) and is illustrated in Figure 1.1. The biopsychosocial model represented



an attempt to integrate the psychological (the ‘psycho’) and the environmental (the ‘social’) into the traditional biomedical (the ‘bio’) model of health as follows: (1) the *bio* contributing factors included genetics, viruses, bacteria and structural defects; (2) the *psycho* aspects of health and illness were described in terms of cognitions (e.g. expectations of health), emotions (e.g. fear of treatment) and behaviours (e.g. smoking, diet, exercise or alcohol consumption); (3) the *social* aspects of health were described in terms of social norms of behaviour (e.g. the social norm of smoking or not smoking), pressures to change behaviour (e.g. peer group expectations, parental pressure), social values on health (e.g. whether health was regarded as a good or a bad thing), social class and ethnicity.

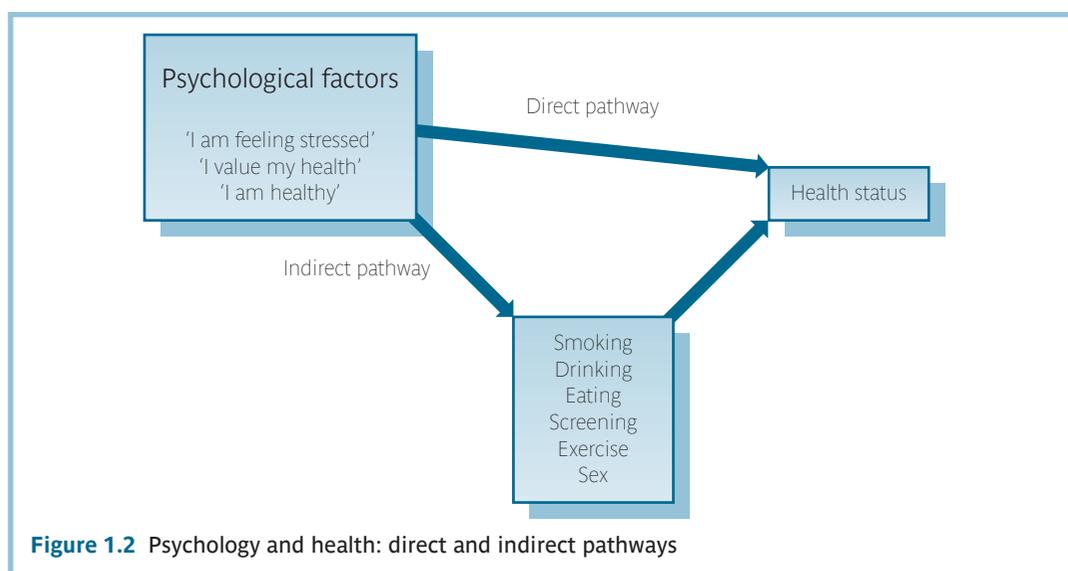
- *Who is responsible for illness?* Because illness is regarded as a result of a combination of factors, the individual is no longer simply seen as a passive victim. For example, the recognition of a role for behaviour in the cause of illness means that the individual may be held responsible for their health and illness.
- *How should illness be treated?* According to health psychology, the whole person should be treated, not just the physical changes that have taken place. This can take the form of behaviour change, encouraging changes in beliefs and coping strategies and compliance with medical recommendations.
- *Who is responsible for treatment?* Because the whole person is treated, not just their physical illness, the patient is therefore in part responsible for their treatment. This may take the form of responsibility to take medication, responsibility to change beliefs and behaviour. They are not seen as a victim.
- *What is the relationship between health and illness?* From this perspective, health and illness are not qualitatively different, but exist on a continuum. Rather than being either healthy or ill, individuals progress along this continuum from healthiness to illness and back again.
- *What is the relationship between the mind and body?* The twentieth century has seen a challenge to the traditional separation of mind and body suggested by a dualistic model of health and illness, with an increasing focus on an interaction between the mind and the body. This shift in perspective is reflected in the development of a holistic or a whole-person approach to health. Health psychology therefore maintains that the mind and body interact. However, although this represents a departure from the traditional medical perspective, in that these two entities are seen as influencing each other, they are still categorized as separate – the existence of two different terms (the mind/the body) suggests a degree of separation and ‘interaction’ can only occur between distinct structures.
- *What is the role of psychology in health and illness?* Health psychology regards psychological factors not only as possible consequences of illness but as contributing to its aetiology. Health

psychologists consider both a direct and indirect association between psychology and health. The direct pathway is reflected in the physiological literature and is illustrated by research exploring the impact of stress on illnesses such as coronary heart disease and cancer. From this perspective, the way a person experiences their life ('I am feeling stressed') has a direct impact upon their body which can change their health status. The indirect pathway is reflected more in the behavioural literature and is illustrated by research exploring smoking, diet, exercise and sexual behaviour. From this perspective, the ways a person thinks ('I am feeling stressed') influences their behaviour ('I will have a cigarette') which in turn can impact upon their health. The direct and indirect pathways are illustrated in Figure 1.2.

What are the aims of health psychology?

Health psychology emphasizes the role of psychological factors in the cause, progression and consequences of health and illness. The aims of health psychology can be divided into (1) understanding, explaining, developing and testing theory, and (2) putting this theory into practice.

- 1 *Health psychology aims to understand, explain, develop and test theory by:*
 - a Evaluating the role of behaviour in the aetiology of illness. For example:
 - Coronary heart disease is related to behaviours such as smoking, food intake and lack of exercise.
 - Many cancers are related to behaviours such as diet, smoking, alcohol and failure to attend for screening or health check-ups.
 - A stroke is related to smoking, cholesterol and high blood pressure.
 - An often overlooked cause of death is accidents. These may be related to alcohol consumption, drugs and careless driving.
 - b Predicting unhealthy behaviours. For example:
 - Smoking, alcohol consumption and high fat diets are related to beliefs.
 - Beliefs about health and illness can be used to predict behaviour.



- c** Evaluating the interaction between psychology and physiology. For example:
 - The experience of stress relates to appraisal, coping and social support.
 - Stress leads to physiological changes which can trigger or exacerbate illness.
 - Pain perception can be exacerbated by anxiety and reduced by distraction.
 - d** Understanding the role of psychology in the experience of illness. For example:
 - Understanding the psychological consequences of illness could help to alleviate symptoms such as pain, nausea and vomiting.
 - Understanding the psychological consequences of illness could help alleviate psychological symptoms such as anxiety and depression.
 - e** Evaluating the role of psychology in the treatment of illness. For example:
 - If psychological factors are important in the cause of illness they may also have a role in its treatment.
 - Changing behaviour and reducing stress could reduce the chances of a further heart attack.
 - Treatment of the psychological consequences of illness may have an impact on longevity.
- 2** *Health psychology also aims to put theory into practice. This can be implemented by:*
- a** Promoting healthy behaviour. For example:
 - Understanding the role of behaviour in illness can allow unhealthy behaviours to be targeted.
 - Understanding the beliefs that predict behaviours can allow these beliefs to be targeted.
 - Understanding beliefs can help these beliefs to be changed.
 - b** Preventing illness. For example:
 - Changing beliefs and behaviour could prevent illness onset.
 - Modifying stress could reduce the risk of a heart attack.
 - Behavioural interventions during illness (e.g. stopping smoking after a heart attack) may prevent further illness.
 - Training health professionals to improve their communication skills and to carry out interventions may help to prevent illness.

What is the future of health psychology?

Health psychology is an expanding area in the UK, across Europe, in Australia and New Zealand and in the USA. For many students this involves taking a health psychology course as part of their psychology degree. For some students health psychology plays a part of their studies for other allied disciplines, such as medicine, nursing, health studies and dentistry. However, in addition to studying health psychology at this preliminary level, an increasing number of students carry out higher degrees in health psychology as a means to develop their careers within this field. This has resulted in a range of debates about the future of health psychology and the possible roles for a health psychologist. To date these debates have highlighted two possible career pathways: the clinical health psychologist and the professional health psychologist.

The clinical health psychologist

A clinical health psychologist has been defined as someone who merges 'clinical psychology with its focus on the assessment and treatment of individuals in distress ... and the content field of health psychology' (Belar and Deardorff 1995). In order to practise as a clinical health psychologist, it is generally accepted that someone would first gain training as a clinical psychologist and then later acquire an expertise in health psychology, which would involve an understanding of the theories and methods of health psychology and their application to the health care setting (Johnston and Kennedy 1998). A trained clinical health psychologist would tend to work within the field of physical health, including stress and pain management, rehabilitation for patients with chronic illnesses (e.g. cancer, HIV or cardiovascular disease) or the development of interventions for problems such as spinal cord injury and disfiguring surgery.

A professional health psychologist

A professional health psychologist is someone who is trained to an acceptable standard in health psychology and works as a health psychologist. Within the UK, the British Psychological Society has recently sanctioned the term 'Chartered Health Psychologist'. Across Europe, Australasia and the USA, the term 'professional health psychologist' or simply 'health psychologist' is used (Marks et al. 1998). Although still being considered by a range of committees, it is now generally agreed that a professional health psychologist should have competence in three areas: research, teaching and consultancy. In addition, they should be able to show a suitable knowledge base of academic health psychology normally by completing a higher degree in health psychology. Having demonstrated that they meet the required standards, a professional/chartered health psychologist could work as an academic within the higher education system, within the health promotion setting, within schools or industry, and/or work within the health service. The work could include research, teaching and the development and evaluation of interventions to reduce risk-related behaviour.

What are the aims of this book?

Health psychology is an expanding area in terms of teaching, research and practice. Health psychology *teaching* occurs at both the undergraduate and postgraduate level and is experienced by both mainstream psychology students and those studying other health-related subjects. Health psychology *research* also takes many forms. Undergraduates are often expected to produce research projects as part of their assessment, and academic staff and research teams carry out research to develop and test theories and to explore new areas. Such research often feeds directly into *practice*, with intervention programmes aiming to change the factors identified by research. This book aims to provide a comprehensive introduction to the main topics of health psychology. The book will focus on psychological theory supported by research. In addition, how these theories can be turned into practice will also be described. This book is now supported by a comprehensive website which includes teaching supports such as lectures and assessments.

A note on theory and health psychology

Health psychology draws upon a range of psychological perspectives for its theories. For example, it uses learning theory with its emphasis on associations and modelling, social cognition theories with their emphasis on beliefs and attitudes, stage theories with their focus on

change and progression, decision-making theory highlighting a cost–benefit analysis and the role of hypothesis testing and physiological theories with their interest in biological processes and their links with health. Further, it utilizes many key psychological concepts such as stereotyping, self-identity, risk perception, self-efficacy and addiction. This book describes many of these theories and explores how they have been used to explain health status and health-related behaviours. Some of these theories have been used across all aspects of health psychology such as social cognition models and stage theories. These theories are therefore described in detail in Chapter 2. In contrast, other theories and constructs have tended to be used to study specific behaviours. These are therefore described within each specific chapter. However, as cross-fertilization is often the making of good research, many of these theories could also be applied to other areas.

A note on methodology and health psychology

Health psychology also uses a range of methodologies. It uses quantitative methods in the form of surveys, randomized control trials, experiments and case control studies. It also uses qualitative methods such as interviews and focus groups and researchers analyse their data using approaches such as discourse analysis, interpretative phenomenological analysis (IPA) and grounded theory. A separate chapter on methodology has not been included as there are many comprehensive texts that cover methods in detail (see Further Reading at the end of this chapter). The aim of this book is to illustrate this range of methods and approaches to data analysis through the choice of examples described throughout each chapter.

The contents of this book

Health psychology focuses on the indirect pathway between psychology and health, and emphasizes the role that *beliefs* and *behaviours* play in health and illness. The contents of the first half of this book reflect this emphasis and illustrate how different sets of beliefs relate to behaviours and how both these factors are associated with illness.

Chapters 2–4 emphasize beliefs. Chapter 2 examines changes in the causes of death over the twentieth century and why this shift suggests an increasing role for beliefs and behaviours. The chapter then assesses theories of health beliefs and the models that have been developed to describe beliefs and predict behaviour. Chapter 3 examines beliefs that individuals have about illness and Chapter 4 examines health beliefs in the context of health professionals–patient communication.

Chapters 5–9 examine health-related behaviours and illustrate many of the theories and constructs that have been applied to specific behaviours. Chapter 5 describes theories of addictive behaviours and the factors that predict smoking and alcohol consumption. Chapter 6 examines theories of eating behaviour drawing upon developmental models, cognitive theories and the role of weight concern. Chapter 7 describes the literature on exercise behaviour both in terms of its initiation and methods to encourage individuals to continue exercising. Chapter 8 examines sexual behaviour and the factors that predict self-protective behaviour both in terms of pregnancy avoidance and in the context of HIV. Chapter 9 examines screening as a health behaviour and assesses the psychological factors that relate to whether or not someone attends for a health check and the psychological consequences of screening programmes.

Health psychology also focuses on the direct pathway between psychology and health and this is the focus of the second half of the book. Chapter 10 examines research on stress in terms

of its definition and measurement and Chapter 11 assesses the links between stress and illness via changes in both physiology and behaviour and the role of moderating variables. Chapter 12 focuses on pain and evaluates the psychological factors in exacerbating pain perception and explores how psychological interventions can be used to reduce pain and encourage pain acceptance. Chapter 13 specifically examines the interrelationships between beliefs, behaviour and health using the example of placebo effects. Chapters 14 and 15 further illustrate this inter-relationship in the context of illness, focusing on HIV and cancer (Chapter 14) and obesity and coronary heart disease (Chapter 15). Chapter 16 focuses specifically on aspects of women's health and Chapter 17 explores the problems with measuring health status and the issues surrounding the measurement of quality of life.

Finally, Chapter 18 examines some of the assumptions within health psychology that are described throughout the book.

The structure of this book

This book takes the format of a complete course in health psychology. Each chapter could be used as the basis for a lecture and/or reading for a lecture and consists of the following features:

- A chapter overview, which outlines the content and aims of the chapter.
- A set of questions for seminar discussion or essay titles.
- Recommendations for further reading.
- Diagrams to illustrate the models and theories discussed within the text.
- A 'focus on research' section, which aims to illustrate three aspects of health psychology: (1) 'testing a theory', which examines how a theory can be turned into a research project with a description of the background, methods used (including details of measures), results and conclusions for each paper chosen; (2) 'putting theory into practice', which examines how a theory can be used to develop an intervention; and (3) 'the experience of . . .', which presents studies addressing the patients' experience. Each 'focus on research' section takes one specific paper that has been chosen as a good illustration of either theory testing or practical implications.
- A 'some problems with . . .' section which describes some of the main methodological and conceptual problems for each area of research.
- An 'assumptions in health psychology' section, which examines some of the assumptions that underlie both the research and practice in health psychology, such as the role of methodology and the relationship between the mind and body. These assumptions are addressed together in Chapter 18.

In addition, there is a glossary at the end of the book, which describes terms within health psychology relating to methodology.

? Questions

- 1 To what extent does health psychology challenge the assumptions of the biomedical model of health and illness?
- 2 Discuss the processes involved in the indirect pathway to health and illness.
- 3 What problems are there with dividing up the pathways into indirect and direct pathways?
- 4 To what extent does health psychology enable the whole person to be studied?
- 5 Design a research study to illustrate the impact of the bio, psycho and social processes in an illness of your choice.

For discussion

Consider the last time you were ill (e.g. flu, headache, cold, etc.). Discuss the extent to which factors other than biological ones may have contributed to your illness.

Further reading

Aboud, F.E. (1998) *Health Psychology in Global Perspective*. London: Sage.

This book emphasizes the cross-cultural aspects of health psychology and locates behaviour and beliefs within the cultural context.

Kaplan, R.M. (1990) Behaviour as the central outcome in health care, *American Psychologist*, 45: 1211–20.

This paper provides an interesting discussion about the aims of health psychology and suggests that rather than focusing on biological outcomes, such as longevity and cell pathology, researchers should aim to change behaviour and should therefore evaluate the success of any interventions on the basis of whether this aim has been achieved.

Kaptein, A. and Weinman, J. (eds) (2004). *Health Psychology*. Oxford: BPS Blackwell.

This edited collection provides further detailed description and analysis of a range of areas central to health psychology.

Michie, S. and Abraham, C. (2004) *Health Psychology in Practice*. Oxford: Blackwell.

This edited collection provides a detailed account of the competencies and skills required to be a chartered health psychologist in the UK. However, the information is also relevant internationally to anyone interested in pursuing a career in health psychology.

Ogden, J. (2007) *Essential Readings in Health Psychology*. Maidenhead: Open University Press.

This is my new reader which consists of 29 papers that I have selected as good illustrations of theory, research, methodology or debate. The book also contains a discussion of each paper and a justification for its inclusion.

For reading on research methods

Bowling, A. and Ebrahim, S. (2005) *Handbook of Health Research Methods: Investigation, Measurement and Analysis*. Buckingham: Open University Press.

This provides an excellent overview of quantitative and qualitative methods including systematic reviews, surveys, questionnaire design, modeling and trials. Its focus is on health research.

Breakwell, G., Hammond, S., Fife-Schaw, C. and Smith, J.A. (eds) (2006) *Research Methods in Psychology* (3rd edn). London: Sage.

This edited book provides a thorough and accessible overview of a range of different qualitative and quantitative research methods specific to psychology.

Jenkinson, C. (2002) *Assessment and Evaluation of Health and Medical Care*. Buckingham: Open University Press.

This is an accessible and detailed account of a range of quantitative research designs including cohort studies, trials and case control studies.

Lyons, E. and Coyle, A. (eds) (2007) *Analyzing Qualitative Data in Psychology*. London: Sage.

This book provides an excellent overview of four different qualitative approaches (IPA, grounded theory, narrative analysis, discourse analysis) and then explores how they can be used and the extent to which they produce different or similar accounts of the data.

Smith, J.A. (2003) *Qualitative Psychology: A Practical Guide to Research Methods*. London: Sage.

This offers a very clear hands-on guide to the different qualitative approaches and is extremely good at showing how to carry out qualitative research in practice.

Willig, C. (2001) *Introducing Qualitative Research in Psychology: Adventures in Theory and Method*. Buckingham: Open University Press.

This is an extremely well-written and clear guide to the different qualitative approaches and offers an accessible overview of their similarities and differences in terms of epistemology and method.

