# Introduction to Health Psychology

Fourth Edition

Val Morrison and Paul Bennett

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An Introduction to Health Psychology

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# An Introduction to Health Psychology

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### Companion website

For open-access student resources specifically written to complement this textbook and support your learning, please visit **www.pearsoned.co.uk/morrison** 

#### Lecturer resources

For password-protected online resources tailored to support the use of this textbook in teaching, please visit **www.pearsoned.co.uk/morrison** 

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# Preface

# Background to this book

Well, it's that time again . . . time to bring out another edition of the book. As always, this time provides an opportunity to update, revise and generally 'improve' the text. And this edition certainly achieves these goals. It is not just an update on previous editions, but has a number of significant revisions, reflecting changes in emphasis in both the practice of health psychology and its developing research base. Despite these changes, we remain true to our original goal and beliefs. We believe health psychology is an exciting and vibrant discipline to study at both undergraduate and postgraduate level. It has developed into an exciting professional discipline with a defined training pathway and increasing numbers of relevant jobs both in health-care systems and other contexts.

We wrote the first edition of the book because we believed that a comprehensive European-focused textbook was required that didn't predominantly focus on health behaviours, but gave equal attention to issues in health, in illness, and in health-care practice and intervention. In addition, we believed that health-care training textbooks should be led by psychological theory and constructs, as opposed to being led by behaviour or by disease. Diseases may vary clinically, but, psychologically speaking, they share many things in common; the potential for life or behaviour change, distress and emotional growth, challenges to coping, potential for recovery, involvement in health care and involvement with health professionals. We stick to this ideology; as clearly do many other people, because we have been asked to produce this fourth edition. We have maintained our comprehensive coverage of health, illness and health care, while updating and including reference to significant new studies, refining some sections, restructuring others, and basically working towards making this new edition distinctive and (even) stronger than the last! Our readership includes many medical students and therefore we have integrated several case studies to bring the human and clinical perspective even more to life.

### Aims of this textbook

The overall aim of this textbook is to provide a balanced, informed and comprehensive UK/European textbook with sufficient breadth of material for introductory students, but which also provides sufficient research depth to benefit final year students or those conducting a health psychology project including at Masters level. In addition to covering mainstream health psychology topics such as health and illness beliefs, behaviour and outcomes, we include topics such as socio-economic influences on health, biological bases, individual and cultural differences, the impact on family and carers, and psychological interventions in health, illness and health care, as these are all essential to the study of health psychology.

In this edition, we have stuck to a format in which chapters follow the general principle of issue first, theory second, research evidence third, and finally the application of that theory and, where appropriate, the effectiveness of any intervention. We first examine factors that contribute to health, including societal, cognitive, emotional and behavioural factors, and how psychologists and others can improve or maintain individuals' health. We then examine the process of becoming ill: from the first perception of symptoms through their interpretation and presentation to health care. We examine the physiological systems that may fail in illness, psychosocial factors that may contribute to the development and impact of illness, how we and our friends and families cope with illness, and how the medical system copes with us when we become ill. Finally, we examine a number of psychological interventions that can improve the well-being and perhaps even health of those who experience health problems.

This text is intended to provide comprehensive coverage of the core themes in current health psychology but it also addresses the fact that many individuals neither stay healthy, nor live with illness, in isolation. The role of family is crucial and therefore while acknowledging the role of significant others in many chapters, for example in relation to influencing dietary or smoking behaviour, or in providing support during times of stress, in this 4th edition we devote all of Chapter 15 to the impact of illness on the family and caregivers of people who are ill. Another goal of ours in writing this textbook was to acknowledge that Western theorists should not assume cross-cultural similarity of health and illness perceptions or behaviours. Therefore from the first edition to this current edition we have integrated examples of theory and research from non-Westernised countries wherever possible. Throughout this text runs the theme of differentials, whether culture, gender, age/developmental stage, or socio-economic, and, as acknowledged by reviewers and readers of the first three editions, our commitment to this is clearly seen in the inclusion of a whole chapter devoted to socio-economic differentials in health.

### Structure of this textbook

Key changes from earlier editions of this book include greater consideration of personality and cultural influences on health behaviour in Chapters 3-5, and the addition of a chapter focusing completely on theories and mechanisms of behavioural change. These developments are reflected in Chapter 6 of the new edition which is now devoted entirely to exploring the nature of these behavioural change strategies and the theories from which they are derived. Chapter 7 then considers how these strategies can be used in preventing disease both through working with individuals and at a population level. In terms of the chapters addressing the illness experience, in Chapter 14 we now consider the impact of illness on a range of outcomes directly impacting on the individual affected, while Chapter 15 is now devoted to the impact on the family and caregivers of these individuals. Chapter 17 considers the implementation of strategies of change or emotional regulation in people who have already developed disease. In addition to these structural changes, we have incorporated more discussion of health psychology in the context of younger people and more qualitative research.

The textbook continues to be structured into three broad sections. The first, *Being and Staying Healthy*, contains seven chapters, which first examine factors that contribute to health, including societal and behavioural factors, and then describe how psychologists and others can improve or maintain individuals' health. Chapter 1 considers what we actually mean when we talk about 'health' or 'being healthy' and presents a brief history to the mind-body debate which underpins much of our research. We consider the important influence of current health status, lifespan, ageing and culture on health, and in doing so illustrate better the biopsychosocial model which underpins health psychology. Chapter 2 describes how factors such as social class, income and even post-code can affect one's health, behaviour and access to health care. Indeed, the health of the general population is influenced by the socio-economic environment in which we live and which differs both within and across countries and cultures. We have tried to reflect more of this diversity in the present volume.

Many of today's 'killer' illnesses, such as some cancers, heart disease and stroke, have a behavioural component. Chapters 3 and 4 describe how certain behaviours such as exercise have health-enhancing effects whereas others, such as non-adherence to medicines, smoking or the use of illicit drugs, have health-damaging effects. More detail has been added regarding two groups of behaviours - over-eating, and illicit drug use. As well as updating the epidemiological statistics regarding such health behaviours and outlining current health policy and targets where they exist, we continue to provide evidence of individual, lifespan, cultural and gender differentials in health behaviours. These behaviours have been examined by health and social psychologists over several decades, drawing on several key theories such as social learning theory and sociocognitive theory. In Chapter 5 we describe several models which have been rigorously tested in an effort to identify which beliefs, expectancies, attitudes and normative factors contribute to health or risk behaviour. More coverage of adherence behaviour has been added as has greater discussion of some of the broader determinants of behaviour. This chapter has also been reworked to provide students with the opportunity for more critical reflection. This section of the book, therefore, presents evidence of the link between behaviour and health and illness, and highlights an area where health psychologists have much to offer in terms of understanding or advising on individual factors to target in interventions. The section ends with two chapters on intervention. Chapter 6 now focuses entirely on theories of behavioural change, while Chapter 7 considers how these may be applied, and with what success in interventions designed to prevent people developing illness and poor health. It addresses interventions targeted at both individuals and whole populations, in a strategy known as public health intervention.

The second section, Becoming III, contains six chapters which take the reader through the process of becoming ill: the physiological systems that may fail in illness, the psychosocial factors that may contribute to symptom perception, and report and how we communicate with the medical system. We start with a whole chapter dedicated to describing biological and bodily processes relevant to the physical experience of health and illness (Chapter 8). In this fourth edition, this chapter covers a broader range of illnesses as well as some individual case study examples and more signposts to relevant psychological content to be found elsewhere in the book. Chapter 9 describes how we perceive, interpret and respond to symptoms, highlighting individual, sociocultural and contextual factors that influence the process of health-care-seeking behaviour, including the use of lay and online referral systems (how many of us have not 'googled' our symptoms at some point?), and has seen general updating in order that the increasing number of studies addressing medically unexplained symptoms (MUS) are addressed and that studies of the dynamic and changing nature of illness perceptions and responses which more fully address the underlying theoretical assumptions are covered. In Chapter 10 presenting to, and communicating with, health professionals is reviewed with illustrations of 'good' and 'not so good' practice. The role of patient involvement in decisionmaking is an important one in current health policy and practice, and the evidence as to the benefits of patient involvement is reviewed here. The chapter also considers how health practitioners arrive at clinical decisions under time pressure and information poverty: and why they sometimes get them wrong.

Chapters 11 and 12 take us into the realm of stress, something that very few of us escape experiencing from time to time! We present an overview of stress theories, where stress is defined either as an event, a response or series of responses to an event, or as a transaction between the individual experiencing and appraising the event, and its actual characteristics. We also focus on aspects of stress beyond the individual, with consideration of occupational stress, and how stress impacts on health through consideration of the growing field of psychoneuroimmunology. In both this and the subsequent chapter greater consideration of gender, personality and lifespan issues are included. Chapter 12 presents the research evidence pertaining to factors shown to 'moderate' the potentially negative effect of seemingly stressful events, from distal antecedents such as socio-economic resources, social support and aspects of personality which we have increased coverage of (e.g. optimism, conscientiousness), to specific coping styles and strategies. We also include a more positive view of stress and well-being, focusing on the concepts of 'positive psychology'. In fact, positive beliefs become a recurring theme and also arise in Chapters 14 and 15. Chapter 13 turns to methods of alleviating stress, where it becomes clear that there is not one therapeutic 'hat' to fit all, as we describe a range of cognitive, behavioural and cognitivebehavioural approaches. The increasingly valued concept of mindfulness and mindfulness-based interventions is also introduced.

In the third section, Being III, we turn our attention to the impact of illness on the individual and their families across two chapters. Chapter 14 is devoted to the impact of illness on the ill individual, focusing on both negative and positive outcomes. Perhaps unique to this textbook, is a whole chapter, Chapter 15, devoted to the impact of providing care for a sick person within the family. This fourth edition further highlights research that considers the dyad (patient-spouse most typically) demonstrating how such studies can add to our understanding of illness experiences and health outcomes. Chapter 16 addresses a phenomenon that accounts for the majority of visits to a health professional - pain - which has been shown to be much more than a physical experience. This chapter is the only disease-specific chapter in our text, but we chose to contain a chapter on pain and place it at this point towards the end of our book because, by illustrating the multidimensional nature of pain, we draw together much of what has preceded (in terms of predictors and correlates of illness, health-care processes, etc.). Pain illustrates extremely well the biopsychosocial approach health psychologists endeavour to uphold. In a similarly holistic manner, Chapter 17 looks at ways of improving health-related quality of life by means of interventions such as stress management training, the use of social support, and illness management programmes.

Finally, we close the fourth edition of this text in the same way we closed the first, with Chapter 18, which we have called Futures. This chapter has changed significantly over time in that it now has three key foci: (i) how a number of psychological theories can be integrated to guide psychological interventions, (ii) how the profession of health psychology is developing in a variety of countries and the differing ways it is achieving growth, and (iii) how psychologists can foster the use of psychological interventions or psychologically informed practice in areas (both geographical and medical) where they are unused. This ends our book therefore by highlighting areas where health psychology research has or can perhaps in the future, 'make a difference'.

We hope you enjoy reading the book and learn from it as much as we learned while writing it. Enjoy!

# Acknowledgements

This project has been a major one which has required the reading of literally thousands of empirical and review papers published by health, social and clinical psychologists around the globe, many books and book chapters, and many newspapers to help identify some hot health issues. The researchers behind all this work are thanked for their contribution to the field.

On a more personal level, several key researchers and senior academics also acted as reviewers for our chapters, some of whom have been with us from the first edition and have shown great commitment and forbearance! At each stage they have provided honest and constructive feedback and their informed suggestions have made this a better book than it might otherwise have been! They also spotted errors and inconsistencies that are inevitable with such a large project, and took their role seriously.

Many thanks also to the indomitable editorial team at Pearson Education, with several development editors having taken their turn at the helm and guided us through a few bad patches where academic demands and our own research prevented us from spending time on 'the book'. Particular thanks go to Lina Aboujieb who has been indomitable in her support and has pushed, pulled, advised and cajoled us up to the point where we hand over to the production team.

> Paul Bennett and Val Morrison June 2015

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### Figures

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### Tables

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# Text

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# Part I Being and staying healthy

# Chapter 1 What is health?

### Learning outcomes

By the end of this chapter, you should have an understanding of:

- key perspectives on health, illness and disability, including the biomedical and biopsychosocial models
- the influence of lifestage, culture and health status on health and illness concepts
- a range of influences on the domains of health considered important
- the role of psychology, and specifically the discipline of health psychology, in understanding health, illness and disability
- how health is more than simply the absence of physical disease or disability



### Health is global

In August 2014 Rome was converged upon, not by tourists (although they were there too!), but by plane-loads of scientists from industry and academic institutions, those working in health informatics, and possibly some health psychologists, to attend the Third International Conference on Global Health Challenges. Of relevance here is that the Rome conference addresses how best to record and analyse global data relating to disease, death, lifestyle and population change, the 'big data' that helps guide public health policies for the future. In the conference, as in this chapter, it was essential to acknowledge inequities in these data within and between countries. The conference also addressed how health and mobile technologies can be best used to promote individual and population health through changes in clinical practice, increased health monitoring or behaviour change 'nudging', and how, globally, we can prepare for pandemics and an ageing population.

In 2011 the UK report 'Health is global: an outcomes framework for global health 2011–15' highlighted a need to promote health equity within and between countries through our foreign and domestic policies, particularly through action on the social determinants of health. There is a need to base our global health policies and practice on sound evidence, whether it is drawn from public health evidence or from psychological studies of human behaviour. We need to work with others to develop evidence where it does not exist. The attention being paid to global issues highlights that whilst we as individuals experience health and illness at a personal level, the cultural and social economic setting, the dominant government and its health policies, and even the time in which we live, all play a part. Health psychology contributes an important part to the jigsaw that is health and well-being.

Around the world many of us attend conferences such as that happening in Rome, in order to get a sense of what is 'new', what is cutting edge, what is the exciting science that can perhaps have an impact on future health. This textbook brings together evidence that can not only educate the aspiring health psychologist but can also hopefully help inform such policy and practice. Whether we achieve it will depend on what we as health psychologists 'do' with our evidence as described in the final chapter. Hopefully over the course of the next 18 chapters you will get a good sense of our successes, and the challenges ahead nationally and internationally.

# **Chapter outline**

What do we mean by health, and do we all mean the same thing when we use the term? This chapter considers the different ways in which people have been found to define and think about health, illness and disability: first, by providing an historical overview of the health concept that introduces the debate over the influence of mind on body; and, second, by illustrating how health and illness belief systems vary according to factors such as age, culture and health status. We will introduce the issue of developmental differences in health perceptions and examine whether children define and think about health differently to a middle-aged or elderly person. Against this backdrop of defining health and related belief systems, we introduce the reader to key models on which our discipline is founded—the biomedical and the biopsychosocial models of illness. To conclude the chapter we introduce the field of health psychology and, by outlining the field's key areas of interest, highlight the questions health psychology research can address.

# What is health? Changing perspectives

Health is a word that most people will use without realising that it may hold different meanings for different people, at different times in history, in different cultures, in different social classes, or even within the same family, depending, for example, on age or gender. Stone (1979) pointed out that until we can agree on the meaning of health and how it can be measured we are going to be unable to answer questions about how we can protect, enhance and restore health. The root word of health is 'wholeness', and indeed 'holy' and 'healthy' share the same root word in Anglo-Saxon, which is perhaps why so many cultures associate one with the other: e.g. medicine men have both roles. Having its roots in 'wholeness' also suggests the early existence of a broad view of health that included mental and physical aspects. This view has not held dominance throughout history, as described below.

Early understanding of illness is reflected in archaeological finds of human skulls from the Stone Age where small neat holes found in some skulls have been attributed to the process of 'trephination' (or trepanation), whereby a hole is made in order to release evil spirits believed to have entered the body from outside and caused disease. Another early interpretation of disease seen in Ancient Hebrew texts is that disease was a punishment from the gods (1000–300 BC). As will be described in Chapter 9  $\textcircled{\bullet}$ , similar beliefs remain today in some cultures, and understanding such variations in belief systems is extremely important to our understanding of individuals' response to illness  $\textcircled{\bullet}$ . Also important however is the shaping, over time, of our understanding of the association between mind and body.

### Mind-body relationships

It is in the writings from Ancient Greece (*circa* 500 BC) that we see differing explanations of health and disease to that seen in earlier times. Instead of attributing illness to evil spirits or gods, the ancient Greek physician Hippocrates (*circa* 460–377 BC) attributed it to the balance between four circulating bodily fluids (called humours): yellow bile, phlegm, blood and black bile. It was thought that when a person was healthy the four humours were in balance, and when they were ill-balanced due to external 'pathogens', illness occurred.

The humours were attached to seasonal variations and to conditions of hot, cold, wet and dry, where phlegm was attached to winter (cold-wet), blood to spring (wet-hot), black bile to autumn (cold-dry), and yellow bile to summer (hot-dry). Hippocrates considered the mind and body as one unit, and thus it was thought that the level of specific bodily humours related to particular personalities: excessive yellow bile was linked to a choleric or angry temperament; black bile was attached to sadness; excessive blood was associated with an optimistic or sanguine personality; and excessive phlegm with a calm or phlegmatic temperament. Healing involved attempts to rebalance the humours, for example, through bleeding or starvation, or special diets and medicines. Even this far back in time, eating healthily was considered helpful to the balance of the humours (Helman 1978). This humoral theory of illness attributed disease states to bodily functions but also acknowledged that bodily factors impacted on the mind.

This view continued with Galen (*circa* AD 129–199), another influential Greek physician in Ancient Rome. Galen considered there to be a physical or pathological basis for all ill health (physical or mental) and believed not only that the four bodily humours underpinned the four dominant temperaments (the sanguine, the choleric, the phlegmatic and the melancholic) but also that these temperaments could contribute to the experience of specific illnesses. For example, he proposed that melancholic women were more likely to get breast cancer, offering not a psychological explanation but a physical one because melancholia was itself thought to be underpinned by high levels of black bile. This view was therefore that the mind and body were interrelated, but only in terms of physical and mental disturbances both having an underlying physical cause. The mind itself was not thought to play a role in illness aetiology. This view dominated thinking for many centuries to come but lost predominance in the eighteenth century when organic medicine, and in particular cellular pathology, developed and failed to support the humoral underpinnings. However, Galen's descriptions of personality types were still in use in the latter half of the twentieth century (Marks et al. 2000: 76-7).

During the early Middle Ages however (fifth–sixth century), Galen's theories had lost dominance when health became increasingly tied to faith and spirituality. At this time illness was seen as God's punishment for misdeeds or, similar to very early views, the result of

evil spirits entering one's soul. Individuals were thought to have little control over their health, whereas priests, in their perceived ability to restore health by driving out demons, did. The Church was at the forefront of society at this time and so science developed slowly. The mind and body were generally viewed as working together, or at least in parallel. However the prohibition of scientific investigation such as dissection, limited medical progress and advancements in understanding and therefore mental and mystical explanations of illness predominated. Such causal explanations elicited treatment along the lines of self-punishment, abstinence from sin, prayer or hard work.

These religious views persisted until the early fourteenth and fifteenth centuries when a period of 'rebirth', a Renaissance, began. During the Renaissance, individual thinking became increasingly dominant and the religious perspective became only one among many. The scientific revolution of the early 1600s led to huge growth in scholarly and scientific study and developments in physical medicine. As a result, the understanding of the human body, and the explanations for illness, became increasingly organic and physiological, with little room for psychological explanations.

During the early seventeenth century, the French philosopher René Descartes (1596–1650), like the ancient Greeks, proposed that the mind and body were separate entities. However, Descartes also proposed that interaction between the two 'domains' was possible, although initially the understanding of how mind–body interactions could happen was limited. For example, how could a mental thought, with no physical properties, cause a bodily reaction (e.g. a neuron to fire) (Solmes and Turnbull 2002)? This is defined as **dualism**, where the mind is considered to be 'non-material' (i.e. not

#### theory

a general belief or beliefs about some aspect of the world we live in or those in it, which may or may not be supported by evidence. For example, women are worse drivers than men.

aetiology

(etiology): the cause of disease.

dualism

the idea that the mind and body are separate entities (cf. Descartes).

objective or visible, such as thoughts and feelings) and the body is 'material' (i.e. made up of real mechanical 'stuff', physical matter such as our brain, heart and cells). Dualistic thinking considers the material and the non-material to be independent. Physicians acted as guardians of the body – viewed as a machine amenable to scientific investigation and explanation - whereas theologians acted as guardians of the mind – a place not amenable to scientific investigation! The suggested communication between mind and body was thought to be under the control of the pineal gland in the midbrain (see Chapter 8 (), but the process of this interaction was unclear. Because Descartes believed that the soul left humans at the time of death, dissection and autopsy study now became acceptable to the Church, and so the eighteenth and nineteenth centuries witnessed a huge growth in medical understanding. Anatomical research, autopsy work and cellular pathology concluded that disease was located in human cells, not in ill-balanced humours.

Dualists developed the notion of the body as a machine (a **mechanistic** viewpoint), understandable only in terms of its constituent parts (molecular, biological, biochemical, genetic), with illness understood through the study of cellular and physiological processes. Treatment during these centuries became more technical, diagnostic and focused on the physical evidence obtainable, with

#### mechanistic

a reductionist approach that reduces behaviour to the level of the organ or physical function. Associated with the *biomedical model*.

biomedical model

a view that diseases and symptoms have an underlying physiological explanation.

individuals perhaps more passively involved than previously (when at least they had been expected to pray or exorcise their demons in order to return to health). This approach underpins the **biomedical model** of illness.

### **Biomedical model of illness**

In this model, health is defined as the absence of disease, and any symptom of illness is thought to have an underlying pathology that will hopefully, but not inevitably, be cured through medical intervention. Adhering rigidly to the biomedical model would lead to proponents dealing only with objective facts and assuming a direct causal relationship between illness or disability, its symptoms or underlying pathology (disease), and adjustment outcomes (see 'In the spotlight' for a discussion of changing models of disability). The assumption is that



**Photo 1.1** Having a disability does not equate with a lack of health and fitness *Source*: Fotolia.com/flysnow.

removal of the pathology through medical intervention will lead to restored health, i.e. illness or disability results from disease either originating outside the body (e.g. germs) or through involuntary internal changes (e.g. cell mutations). This relatively mechanistic view of how our bodies and its organs work, fail and can be treated allows little room for subjectivity. The biomedical view has been described as reductionist: i.e. the basic idea that mind, matter (body) and human behaviour can all be reduced to, and explained at, the level of cells, neural activity or biochemical activity. How then would we deal with evidence of debilitating, but medically unexplained symptoms? (see Chapter 9, **(**).

Reductionism also tends to ignore evidence that different people respond in different ways to the same underlying disease pathology because they vary in, for example, personality, cognition, social support resources or cultural beliefs (see later chapters).

Whilst the biomedical mode underpins many successful treatments including immunisation programmes which have contributed to the eradication of many lifethreatening infectious diseases, significant challenges to a purely biomedical approach exist, as described below.

### Challenging dualism: psychosocial models of health and illness

In terms of mind-body associations, what is perhaps closer to the 'truth', as we understand it today, is that there is one type of 'stuff' (monist) but that it can be perceived in two different ways: objectively and subjectively. For example, many illnesses have organic underlying causes, but also elicit uniquely individual responses due to the action of the mind, i.e. subjective responses. So, while aspects of reductionism and dualistic thinking have been useful, for example, in furthering our understanding of the aetiology and course of many acute and infectious diseases (Larson 1999), the role of the 'mind' in the manifestation of, and response to, illness is crucial to furthering our understanding of the complex nature of health and illness. Consider, for example, the extensive evidence of 'phantom limb pain' experienced in amputees - how can pain exist in an absent limb? Consider the widespread acknowledgement of the placebo effect - how can an inactive (dummy) substance lead to reported reductions in pain

or other symptoms which are equivalent to reductions described by those receiving an active pharmaceutical substance or treatment? (Chapter 16 ). Subjectivity in terms of beliefs, expectations and emotions interact with bodily reactions to play an important role in the illness or stress experience (see Chapter 9 in terms of symptom perception, and Chapter 11 in terms of stress reactivity ).

Evidence of changed thinking was illustrated in an editorial in the British Medical Journal (Bracken and Thomas 2002) suggesting a need to 'move beyond the mind-body split'. The authors note that simply because neuroscience enables us to explore the 'mind' and its workings 'objectively' by the use of increasingly sophisticated scanning devices and measurements, this does not mean we are furthering our understanding of the subjective 'mind' - the thoughts, feelings and the like that make up our lives and give it meaning. They comment that 'conceptualising our mental life as some sort of enclosed world living inside our skull does not do justice to the reality of human experience' (p. 1434). The fact that this editorial succeeded in being published in a medical journal with a traditionally biomedical stance is evidence of a weakened Descartian 'legacy'.

As our understanding of the bidirectional relationship between mind and body has grown, dualistic thinking has lessened, and psychology has played a significant role in this altering perspective. A key role was played by Sigmund Freud in the 1920s and 1930s when he redefined the mind-body problem as one of 'consciousness' and postulated the existence of an 'unconscious mind' seen in a condition he named 'conversion hysteria'. Following examination of patients with physical symptomatology but no identifiable cause, and by using hypnosis and free association techniques, he identified unconscious conflicts which had been repressed. These unconscious conflicts were considered to 'cause' the physical disturbances including paralysis and loss of sensation in some patients where no underlying physical explanation was present (i.e. hysterical paralysis, e.g. Freud and Breuer 1895).

Freud stimulated much work into unconscious conflict, personality and illness, which ultimately led to the development of the field of *psychosomatic medicine* (see later section). As a discipline, psychology has highlighted the need for medicine to consider the role played in the aetiology, course and outcomes of illness, by psychological and social factors.

#### IN THE SPOTLIGHT

# Models of disability: from biomedical to biopsychosocial

Reflecting biomedical thinking, the World Health Organization's 1980 International Classification of Impairment, Disabilities and Handicaps (also the classification of the consequences of disease), introduced a hierarchical model which was utilised in a large body of research exploring responses to disease. In the WHO IC I-D-H model, impairments (abnormalities or losses at the level of a person's organs, tissues, structures or appearance), lead to disability (defined as a restriction or inability to function as 'normal for a human being') which in turn create individual handicap (whereby a person experiences disadvantage in fulfilling their normal social roles).

In this model, disability is placed within the individual and is considered an inevitable consequence of some form of impairment, and an inevitable precursor of handicap. How then, within this model, do we accommodate the Paralympian who in spite of sensory of physical impairments, functions at a level of physical performance many of us without such impairments perform? How do we describe the person with juvenile diabetes who has 'impairment' in terms of pancreatic dysfunction (see Chapter 8), but as long as they adhere to medication, function as any typical adolescent, without any evidence of disability? This same juvenile may, however, skip school as a result of perceived stigma and therefore miss out on the associated social relationships and potential long-term employment benefits (i.e 'handicap' without disability). What then are the implications of such a medical and positivistic/functionalistic view for the treatment of impairments (especially if we believe in a need to normalise)? For example, are cochlear implants for those with hearing impairments a more appropriate response than those around the individual with hearing difficulties learning sign language? Whose 'problem' is hearing impairment?

For some people, acquiring a disability signifies the end of life, an exclusion from normal function and roles, and, as many studies have shown, increased depression. For others, disability presents a challenge, a fact of life to be lived with, rather than something which prevents them living fully (see Chapter 14 (

Yet again, as seen in relation to developing concepts of illness, evidence of individual variation in the response to impairment and disability challenges biomedical thinking and opens the door for biopsychosocial thought! People do not inevitably become equally or similarly 'disabled' or 'handicapped' even where impairment is similar (e.g. Johnston and Pollard 2001).

Reflecting this, the subsequent WHO model, the International Classification of Functioning, Disability and Health (WHO 2001), which emerged out of a series of studies including 2,000 live 'case' evaluations and 3,500 Case Summary evaluations conducted in 27 languages across 61 countries, takes a broader approach. The ICF presents a universal, dynamic and non-linear model whereby alterations in bodily structure or function (replaces impairment); activities and limitations therein (replaces disability), and participation or restrictions therein (replaces handicap) can potentially all affect each other. Furthermore, the ICF recognises that the relationship between structures, activities and participation are influenced by both environmental and personal factors. A person's ability to perform at 'capacity' i.e. at the best possible, given their physical status, is not solely due to the level of impairment. Disability no longer resides within the individual, but is a response to other factors including the physical, social and cultural environment the person is trying to function within, and on their own personal characteristics, behavioural and illness related beliefs and feelings (Quinn et al. 2013, and see Chapter 9 ().

#### biopsychosocial

a view that diseases and symptoms can be explained by a combination of physical, social, cultural and psychological factors (cf. Engel 1977).



Figure 1.1 The international classification of functioning, disability and health. *Source:* WHO (2002b).

As a result of these shifts in thinking, this textbook reflects a biopsychosocial perspective on health, illness AND disability/activity limitation which offer up opportunity for a range of interventions, not solely targeting the pathology or physical symptomatology.

### **Biopsychosocial model of illness**

The biopsychosocial model signals a broadening of a disease or biomedical model of health to one encompassing and emphasising the interaction between body and mind, between biological processes and psychological and social influences (Engel 1977, 1980). In doing so, it offers a complex and multivariate, but potentially more comprehensive, model with which to examine the human experience of illness.

As a result of the many challenges to the biomedical approach described above, the biopsychosocial model is employed in health psychology as well as in several allied health professions, such as occupational therapy. Although also increasingly assimilated within the medical profession (Turner et al. 2001; Wade and Halligan 2004), there exists some pessimism that it is feasible, no matter how valuable, given constraints facing our healthcare systems (see editorial by Lane, 2014). Health is, however, more than simply the absence of disease and therefore this text will illustrate that psychological, behavioural and social factors can add to the biological or biomedical explanations and, rather than replacing these explanations of health and illness experiences, build on them. In parallel with the above shifts in ways of thinking about health and illness is the increased recognition of the role individual behaviour plays in that experience. It is to that we turn attention now, with key behaviours explored more fully in Chapters 3 and 4 (-).

### Behaviour, death and disease

The dramatic increases in life expectancy witnessed in Western countries in the twentieth century, partially due to advances in medical technology and treatments, led to a general belief, in Western cultures at least, in the efficacy of traditional medicine and its power to eradicate disease. This was most notable following the introduction of antibiotics in the 1940s (although Fleming discovered penicillin in 1928, it was some years before it and other antibiotics were generally available). Such drug treatments, alongside increased control of infectious disease through vaccination and improved sanitation, are partial explanations of increases in life expectancy seen globally.

World Health Organization figures show that worldwide the average life expectancy at birth is 71 years (68.5 for males, 73.5 for females), with significant and sometimes shocking variation between countries. Table 1.1 presents a selection from the top and bottom of the 'league tables'. UK life expectancy at birth has increased from 47 years in 1900 to 81 years in 2013, which is a huge change in a relatively short period of time (WHO 2013). The most long-lived population is located in Japan with a small gender difference only, whereas in Australia,