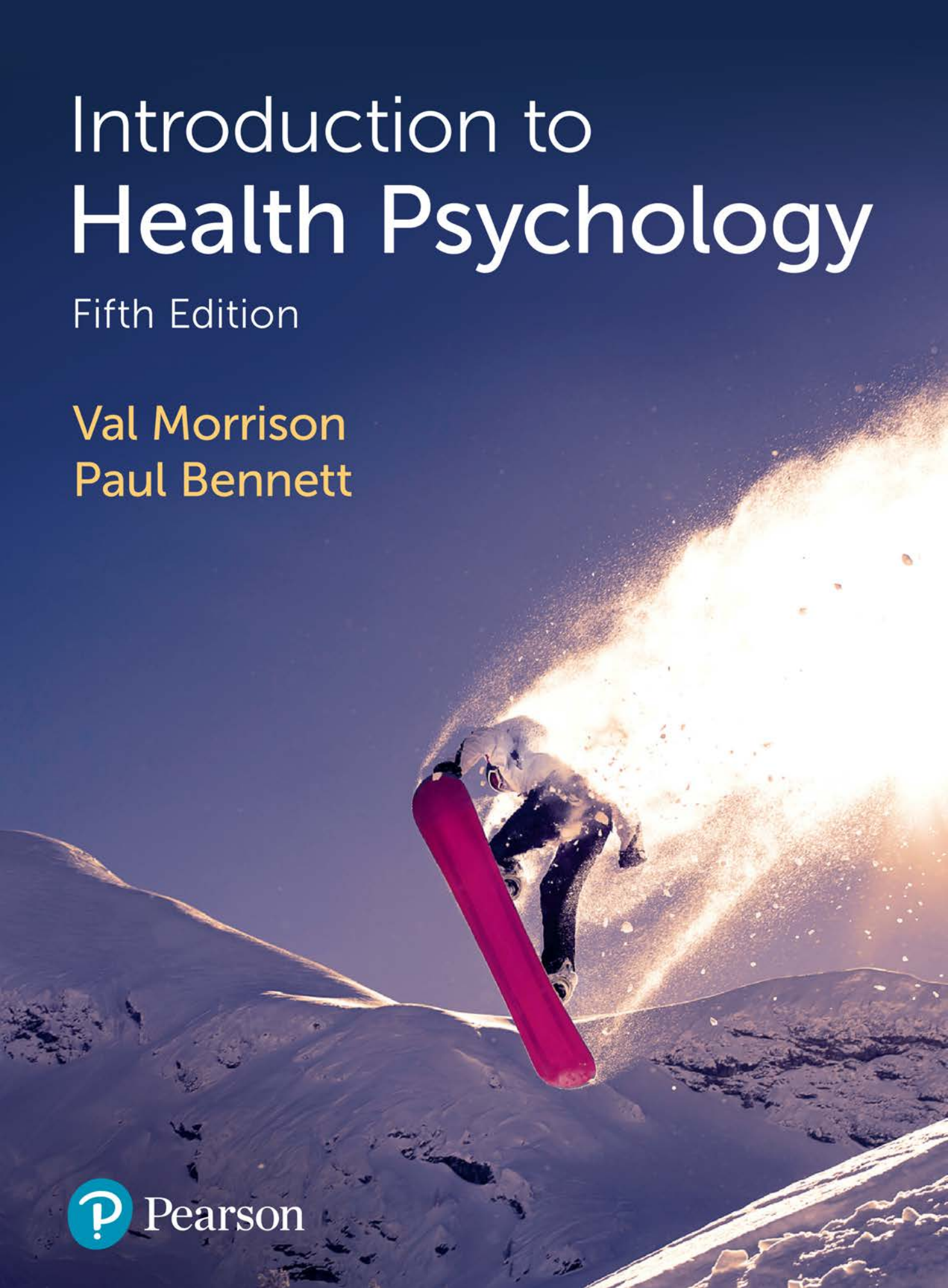
Introduction to Health Psychology

Fifth Edition

Val Morrison
Paul Bennett



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An Introduction to
Health Psychology

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Val Morrison and Paul Bennett

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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, a new edition offers authors an opportunity to update, revise and generally 'improve' the text. This time however the text has faced additional needs for new material in order to reflect the impact of the most challenging health threat to the world experienced in this century: COVID-19. This condition has inspired significant medical developments and has also presented several challenges to health (and clinical) psychologists, to public health professions, and to health practitioners in primary, secondary, and tertiary care across the globe. Our readership includes students of all these specialties. Questions have ranged from those at a population level e.g. how do we influence the health or safety behaviours of entire populations?, to those at an individual level e.g. What is the psychological impact of the pandemic and how might we meet the psychological needs of people who have experienced COVID-19 or been involved in their care? Each of these, and other, issues are addressed within a book that comes at a time where health psychologists are advising governments and influencing policy and practices perhaps more than ever before – thus it is an exciting time to bring this to you.

Edition 5 of our book is not just an update on previous editions, but has seen a number of significant revisions, reflecting changes in the developing research base, the academic provision of health psychology teaching in university courses, and in the practice of health psychology. We remain true to our original beliefs i.e. 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 healthcare 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 and illness prevention, but gave equal attention to issues in health differentials, in illness experience, and in healthcare practice and intervention. In addition, we believed that healthcare 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 death, behaviour change, distress and emotional growth, challenges to coping, potential for recovery, involvement in healthcare and involvement with health professionals. We stick to this ideology; as clearly supported by many other people, because we have been asked to produce this fifth edition. Thank you!

We have maintained our comprehensive coverage of health, illness and healthcare, 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! We believe an understanding of the real-life use of health psychology theory and principles is key to fully understanding its benefits, and as our readership includes many people already involved in (or considering) training for health professional roles we have integrated a lot of experiential qualitative findings and several case studies into the chapters 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, health behaviour, and health and illness outcomes, we include key topics such as socio-economic influences on health, biological bases, individual and cultural differences, the impact of illness on family and carers, and psychological interventions in health, illness and healthcare. These are all essential to the study of health psychology.

In this edition, after some deliberation about alternatives, 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. 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. As well as significant others being addressed in the chapters relating to influences on dietary or smoking behaviour, or in providing support during times of stress, the focus on the role of family and wider social circle in the illness experience has been one of this textbook's unique features since 2006. Although other mainstream health psychology texts are now better at acknowledging carers and family role in the illness experience, in this 5th edition we continue to devote all of Chapter 15 to this topic.

Another goal of ours was to acknowledge that Western theorists should not assume cross-cultural similarity of health and illness perceptions or behaviours. Our models may not generalize or be upheld when we access research samples more inclusively. Therefore, from the first edition to this current edition we have integrated culturally inclusive examples of theory and research 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 previous editions, our commitment to this is clearly seen in the inclusion of a whole chapter devoted to socio-economic differentials in health (Chapter 2).

Structure of this textbook

The textbook continues to be structured into three broad sections, because they seem to work and have been well received since we started out in 2006!

The first, *Being and Staying Healthy*, contains seven chapters. In Chapter 1 we consider what is meant by 'health' or considered as 'being healthy' and examine societal and interpersonal (cognitive, and emotional) factors that contribute to this. We present 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 postcode can affect one's health, behaviour and access to healthcare. 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. Many of today's 'killer' illnesses, such as some cancers, heart disease and stroke, have a behavioural component and in Chapters 3 and 4 we describe how behaviours such as self-screening or exercise have health-protecting or enhancing effects whereas others, such as non-adherence to medicines, smoking or the use of illicit drugs, have health-damaging effects. These behaviours have been examined by health and social psychologists over several decades, drawing on several key theories such as social learning theory and socio-cognitive theory. In Chapter 5 we describe several dominant models which have been rigorously tested in an effort to identify which beliefs, expectancies, attitudes, control and normative factors contribute to health or risk behaviour. By presenting evidence of the link between behaviour and health and illness, we highlight that health psychologists have much to offer in terms of understanding or advising on individual factors to target in interventions. The section therefore ends with two chapters on intervention. Chapter 6 focuses on theories of behavioural change, setting them within the context of wider, strategic, approaches to changing behaviour. The first of these, the PRECEDE-PROCEED model is now a well-instituted public health approach to determining the targets for health behaviour change involving entire populations. The second, the 'Behaviour Change Wheel', is a more psychologically sophisticated framework for instituting change at both the individual and population level developed by Michie and colleagues. Chapter 7 goes on to consider how these theories and frameworks 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.

The second section, *Becoming Ill*, contains six chapters which take the reader through the process of becoming ill: from the physiological systems that may fail in illness, that first detection of bodily change that takes us to symptom perception, interpretation and response, whether that be self-medication, lay referral behaviour or presentation to healthcare; and the psychosocial factors that may contribute to the process of becoming ill. We describe theories of coping with life stress more generally, and in examining influences on the stress experience, describe various

methods of managing stress. Chapter 8 opens this section with a whole chapter dedicated to describing biological and bodily processes relevant to the physical experience of health and illness. Chapter 9 describes how we perceive, interpret and respond to bodily signs and symptoms, highlighting individual, sociocultural and contextual factors that influence the process of healthcare-seeking behaviour, including the use of lay and online referral systems (how many of us have not 'googled' our symptoms at some point?). 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 decision-making 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. 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 (e.g. optimism, conscientiousness), to specific coping styles and strategies. 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 cognitive-behavioural approaches.

In the third section, *Being Ill*, four chapters are presented which draw heavily on patient and family experience derived from qualitative research as well as quantitative findings. Chapter 14 reviews the impact of illness and associated treatments on the emotions, well-being and quality of life of the individual affected, identifying the potential presence of positive as well as negative outcomes. Chapter 15 is dedicated to addressing the impact of illness and the associated treatments on the family and caregivers of these individuals – perhaps unique to health psychology textbooks. 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, healthcare 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 fifth edition of this text in the same way we closed the first, with Chapter 18, which we have called From theory to practice. 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'.

Key changes from earlier editions of this book include increased opportunity for students to engage in critical reflection and many areas of content development. To start with, major epidemiological updates and greater consideration of global health issues (such as and cultural influences on health and health behaviour are found in Chapters 1–5. In Chapter 2 we have tried to reflect more of this diversity of influences in relation to inequalities in health. In Chapters 3 and 4, as well as copiously updating the epidemiological statistics regarding health risk and health-protective behaviours (which are continually updating) and outlining current health policy and targets where they exist, we continue to describe evidence of individual, lifespan, cultural and gender differentials in health behaviours. In Chapter 4, for example, more attention is paid to global health, and to influences on immunization and screening behaviour, in part in relation to the COVID-19 pandemic. In considering theories of health and health behaviour change in Chapter 5 we give fuller consideration to the temporal dynamics of human behaviour, drawing from longitudinal data where possible to demonstrate the complexity of influences, personal, cognitive, emotional, social, on our health-related behaviours. In particular we build on predominantly socio-cognitive models to more fully address the role of emotion and how regulating our mood (or not) plays an important role in our health behaviour. Chapter 6 of the new edition has also been radically

updated, with, for example, significantly more detailed coverage of the 'Behaviour Change Wheel', use of which has grown in popularity since the last edition.

In terms of covering the illness experience, Chapter 8, in addressing physiological processes, covers a broader range of illnesses, including COVID-19, updates a range of treatments, considers some individual case study examples and, in response to reviews, provides more signposts to relevant psychological content presented elsewhere in the book. In Chapter 9 we incorporate further consideration of the symptom response process, particularly how people use their 'lay referral networks'or the media when deciding whether to seek healthcare or not – the importance of this has also been highlighted during the recent COVID-19 pandemic. The general updating means that longitudinal studies of the dynamic and changing nature of illness perceptions and responses which more fully address the underlying theoretical assumptions are considered. In locating illness within a discussion of wider stress, Chapters 11 and 12 have, as elsewhere, increased coverage of cultural influences, lifespan issues and of affect regulation, and in response to reviews, occupational stress is used more often to illustrate stress processes and potential outcomes, including PTSD or burnout. We also incorporate a more positive view of stress and wellbeing, focusing on the concepts of 'positive psychology', resilience and wellbeing. Discussion of positive emotions as moderators of the stress or illness experience link us onwards to Chapter 13 where the increasingly valued concept of mindfulness and mindfulness-based interventions is introduced. In fact, positive beliefs become a recurring theme and are seen again in Chapters 14 and 15. This fifth edition further highlights research that examines the dyad's experience of health, illness and healthcare (patient–spouse most typically) demonstrating how such studies can add to our understanding and to our interventions. New to this edition is detailed consideration of caregiving motivations or willingness to care, something we need to understand better in an ageing society facing a significant 'Care Gap'. Chapters 14–17 have also seen major general updates given the wealth of research being conducted in this arena since 2016!

Given all the above, 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 undertaking, conducted to a large extent while we have been home working during a global pandemic. Thank goodness for technology. The revisions have required the reading of literally hundreds of empirical and review papers published by health, social and clinical psychologists as well as ever changing statistical reports from across 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.

Many thanks also to the indomitable editorial team at Pearson Education, who have also faced many changes in recent years. Several development editors have taken their turn at the helm and guided us through tricky times where juggling academic demands and our own research has prevented us from spending time on 'the book'. Thank you to all who have pushed, pulled, and advised us up to the point where we hand over to the production team, and thanks also to the production team for meeting our image briefs and in particular that which led to our 5th cover image – readers seem to enjoy our covers and so again we stick to our theme of getting outdoors and being active. Even if some of these activities carry some risk, the goal is wellbeing and health!

Val Morrison & Paul Bennett,
October 2021

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 and current global health challenges**
- **historical models of health, illness and disability, including the mind–body debate**
- **perspectives offered by biomedical and biopsychosocial models**
- **the contribution of psychology, and specifically the discipline of health psychology, to understanding health, illness and disability**
- **the influence of lifestage, culture and health status on lay models of health and illness**
- **how health is more than simply the absence of physical disease or disability**

Health is global

By definition, global health approaches require an understanding of health, illness and healthcare in an international context, recognising the growing diversity of national populations and the shifts in population health, depending on national policy context and healthcare investment, innovation and availability. Global health approaches recognise that significant increases in international air travel (which 'opens the world up' for individuals), brings with it a need for global health security and awareness of non-typical illnesses emerging in new contexts, e.g. symptoms of tropical disease presenting in an individual in the UK may be more slowly recognised than symptoms of a commonly seen condition.

Population diversity also calls for greater cultural sensitivity and recognition of the different explanatory models and beliefs around behaviour, health, illness and healthcare that can exist across cultures and microcultures. All of this became very evident in the context of the emergence of a novel and severe acute respiratory syndrome coronavirus (SARS-CoV-2) in winter 2019 which most readers will know is the virus leading to COVID-19 infection. Just prior to this virus emerging, the World Health Organization (WHO) had launched its new five-year strategic plan – the 13th General Programme of Work – which recognised that:

> 'The world is facing multiple health challenges. These range from outbreaks of vaccine-preventable disease like measles and diptheria, increasing reports of drug-resistant pathogens, growing rates of obesity and physical inactivity, to the health impacts of environmental pollution and climate change and multiple humanitarian crises.' (WHO, 2019).

The WHO called for society to address ten major threats to health: pollution and climate change; the rise in non-communicable diseases (e.g. diabetes, cancer, heart disease) and the role played by physical inactivity; a global influenza pandemic; antimicrobial resistance (reduced effectiveness of antibiotics); outbreaks of Ebola and high-threat pathogens; weak primary healthcare; vaccine hesitancy causing outbreaks of infectious diseases such as measles; fragile environments facing drought, famine, conflict; uncontrolled Dengue fever; continuing HIV infection. They called for these to be addressed from multiple angles and stressed that global health policies and practice should be based on sound evidence drawn from a range of disciplines: epidemiology, medicine, public health and, of course, psychological studies of human behaviour. Few readers will fail to see how this has been exemplified during the COVID-19 pandemic.

While these threats to health may vary in size and salience around the world, without doubt many will have relevance to each of us, with clear implications for human and social behaviour.

This textbook has had to quickly integrate new and emerging evidence from studies of the global COVID-19 pandemic with longer-standing evidence relating to other health threats. Across the world, common diseases, with behavioural underpinnings, are killing people in large numbers. While health and illness is primarily a personal experience, the geographical, cultural and social economic setting, the dominant government and its health policies, and even the time in which we live, all play a part in wider personal and social wellbeing.

The relevance of global health to an opener in a health psychology textbook is that the health and wellbeing challenges society faces call for evidence to inform effective intervention. We hope here to bring together evidence that can not only educate the aspiring health psychologist, but can also help inform health policy and practice – the extent to which we achieve this impact will depend on what we 'do' with our evidence as described in the final chapter.

Chapter outline

Around the world, in spite of huge differences in life expectancy, there is reasonable consistency in the 'top killers' in terms of disease. It is acknowledged that most, if not all, of these diseases have a behavioural component and thus potentially fall within individual influence. Knowing this does not mean behaviour will change, because humans are complex in their thoughts, emotions and actions with regards to their health behaviour.

This chapter introduces the common causes of mortality, before providing an historical overview of the health concept. It introduces an evolving understanding of how the mind and body interact throughout history, and the reader will learn of key models on which our discipline is founded – the biomedical and the biopsychosocial models of illness. We also illustrate how health and illness belief systems vary according to factors such as age and developmental differences, culture and cultural norms and health status. To conclude the chapter we outline the field of health psychology and highlight the questions health psychology research can address.

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.

United Nations figures show that, in 2018, worldwide the average life expectancy at birth is 72.56 years (70.39 for males, 74.87 for females), with significant and sometimes shocking variation between countries (World Bank, 2019) (see Table 1.1). Notably, within the EU this life expectancy figure is almost ten years higher, at 81 years (Eurostat, 2019). Table 1.1 presents a selection from the top and bottom of the 'league tables' with the World Bank data drawing from United Nations data and a range of national data sources. The most long-lived population continues to be located in Japan, although the figures have dropped by a couple of years over the past decade and the gender differential has widened. In Russia, the gender differential exceeds ten years. UK life expectancy at birth has increased from 47 years in 1900 to over 81 years in 2015, and is now in the top 20, which is a huge change in a relatively short period of time (WHO, 2016). Exposure to health risks and behavioural factors are thought to account for gender differences (including earlier healthcare-seeking behaviour among females) (see Chapter 9 ☛).

At the other end of this 'league table' average life expectancy drops dramatically from the low–mid 70s through to a fairly horrendous average life expectancy of just 53 years, with little gender difference, in Sierra Leone and in many other African nations.

Such life expectancy at birth statistics tell us that, in some countries, reaching a 60th birthday is simply not typical. These cultural variations can be explained to a large extent by political and environmental challenges, for example years of war or famine in some African countries, or for example in Mozambique, high HIV prevalence.

Table 1.1 Life expectancy in selected global countries (2018)

	Overall (years)	Male (years)	Female (years)
Japan	84.2	81.1	87.1
Spain	83.0	81.0	86.0
Australia	83.0	81.0	85.0
Greece	82.0	79.0	84.0
Sweden	83.0	80.6	84.1
Netherlands	82.0	80.0	83.2
UK	81.0	80.0	83.2
USA	79.0	76.0	81.0
Serbia	76.0	74.0	78.0
Hungary	76.0	73.0	80.0
Bulgaria	75.0	72.0	79.0
Russia	73.0	68.0	78.0
Bangladesh	72.0	71.0	74.0
Myanmar	67.0	64.0	70.0
Ethiopia	66.0	64.0	68.0
Afghanistan	64.0	63.0	66.0
Mozambique	60.1	57.7	63.0
Nigeria	54.0	53.0	55.0
Sierra Leone	53.1	52.5	55.0

Source: World Bank, 2021.

Differences in lifestyle and diet also play a role (Chapter 3 ☛). There is some concern around rising obesity among children and the consequent health effects that may be seen in adulthood and in terms of a life expectancy a decrease in future generations. This would disproportionately affect developed countries such as the UK and the USA which have high levels of obesity and inactivity (Chapter 3 ☛). In fact, the gains in life expectancy achieved every decade within EU countries have been slowing since around 2011, with decreases seen in 19 EU countries by 2015, including UK, France, Germany and Italy. In Wales there has been a 0.1 year decline in life expectancy for both sexes since 2010 (ONS, 2017). More research is needed to explain this slowdown, as multiple factors may be at play, for example some point to the damaging effects of austerity in health spending within the UK for example (Raleigh, 2018).

It is worth noting that life expectancy is not the same as healthy life expectancy – the latter relates to whether gains in life expectancy are lived in good health as opposed to in a state of poorer health, with some illness or disability. Obviously the older you get, the lower the ratio of healthy: not healthy years a person has, for example, in Europe it is predicted that we live, from birth, about 80 per cent of our lives without disability, whereas once we are 65, only about 50 per cent of our remaining years will be lived in health (OECD, 2017). Of course, the measure of 'healthy' relies often on self-report, varies across countries and within individuals, as we discuss later in this chapter ('What does being healthy mean?').

Much of the fall in annual **mortality** rates (all causes) seen in the developed world preceded the major immunisation programmes and likely reflect public health successes following wider social and environmental changes over time. These include developments in education and agriculture, which led to changes in diet, or improvements in public hygiene and living standards (see also Chapter 2 ☛). Mortality rates within the European Union have shown an overall 25 per cent reduction since the mid-1990s, with some variations seen between Western, Eastern and central regions (and with a 'blip' increase in 2015, attributed to deaths among over-75s). Declines in some countries, for example Ireland which has seen a decline of over 30 per cent, have been attributed mainly to reductions in deaths from cardiovascular and respiratory disease, which in turn may reflect improved living standards and healthcare investment. In countries where the decline has been closer to 20 per cent, for example in Belgium, Greece and Sweden, the countries had lower rates to start with.

The physical causes of death have changed dramatically also. If people living in 1900 had been asked what they thought being healthy meant, they may have replied, 'avoiding infections, drinking clean water, living into my 50s/60s'. Death then frequently resulted from highly infectious disease such as pneumonia, influenza or tuberculosis becoming epidemic in communities unprotected by immunisation or adequate sanitary conditions. However, at least in developed countries over the last century, there has been a downturn in deaths resulting from infectious disease, and the 'league table' makes no mention of tuberculosis (TB), typhoid, tetanus or measles. In contrast, circulatory diseases such as heart disease and stroke, lung and respiratory disease are the 'biggest killers' worldwide (along with 'accidents'). These causes have been relatively stable over the past few decades. Alzheimer's disease and the dementias accounted for 12.5 per cent of deaths in England and Wales in 2019, with a higher proportion seen among females than males, explained by females living longer (Office for National Statistics, 2020).

Worldwide in 2019, the top ten leading causes of death (all ages) were recorded as listed below, with circulatory diseases, such as heart disease and stroke and other non-communicable disease (lung cancers, COPD, kidney disease, dementias, diabetes), accounting for over 44 per cent of global deaths and rising; they now make up 60 per cent of all EU deaths. Lower respiratory tract infections are the most lethal communicable disease; however these are declining, as are global deaths from neonatal conditions and diarrhoeal disease – likely due to advances in healthcare. Likewise deaths from HIV/AIDS have fallen by 51 per cent during the last 20 years, moving from the world's 8th leading cause of death in 2000 to the 19th in 2019. In contrast, diabetes has entered the global top 10 for the first time; this can largely be attributed to obesity (see Chapter 3 ☛).

mortality
(death): generally presented as mortality statistics, i.e. the number of deaths in a given population and/or in a given year ascribed to a given condition (e.g. number of cancer deaths among women in 2020)

Although statistics are not recorded similarly in all cases, we present comparable EU figures below (available for 2017; Eurostat, 2020). See also Figure 1.1.

Within these figures is large geographic variation (see Figure 1.1), but circulatory diseases are consistently the main causes of death. With the exception of lung cancer,

Worldwide (WHO 2020, million)	Europe (Eurostat 2020)
Ischaemic heart disease (8.9 m)	Circulatory disease (1.7 million, heart disease and stroke; 37% of all deaths)
Stroke (6.2 m)	Cancers (1.2 million; 26% of all deaths)
COPD (3 m)	Respiratory diseases (COPD, pneumonia) 0.37 million; 8% of all deaths)
Lower respiratory infection (2.6 m)	Alzheimers disease and dementias (5% of all deaths)
Neonatal conditions (2.1 m)	
Trachea, Bronchus, lung cancer) (1.8 m)	Accidents (including suicide) (5% of all deaths)
Alzheimer's Disease and dementias (1.7 m)	Diabetes (2% of all deaths)
Diarrhoeal diseases (1.5 m)	
Diabetes mellitus (1.4 million)	
Kidney disease (1.3 m)	

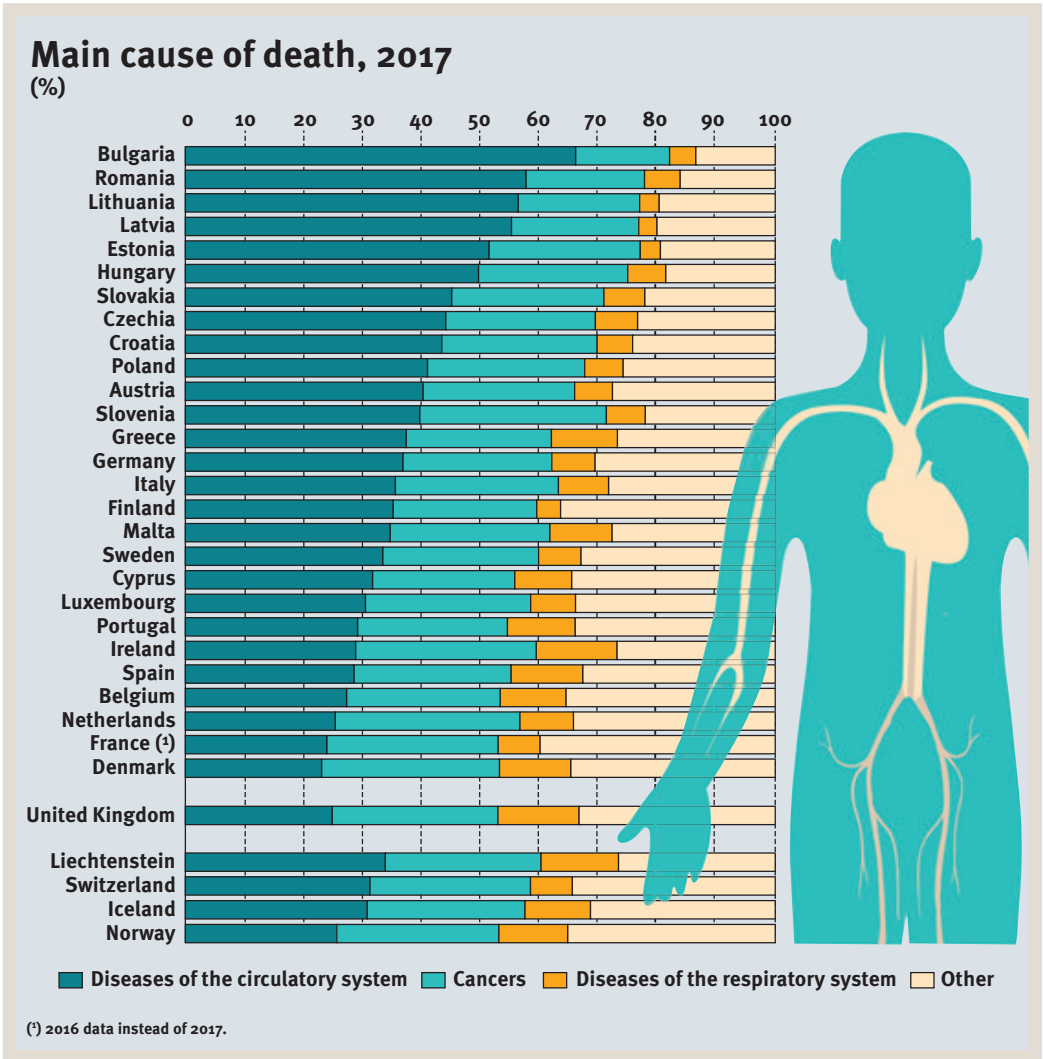

Figure 1.1 Main causes of death in EU country, 2017

Source: Causes and occurrence of deaths in the EU, Eurostat.

cancer does not appear in the top ten globally; however within more developed countries, including Australia, USA and the EU, cancer is consistently placed in the top five causes of death. In some countries, for example in Denmark, Ireland, France and the Netherlands, cancers were the main causes of death (Eurostat, 2020; see Figure 1.2). EU figures attribute 26 per cent of all deaths to cancer in 2017 (23 per cent of female deaths, 29 per cent of male deaths, OECD/EU, 2020).

What has perhaps become obvious in reading this is that the leading causes of death have a behavioural component, linked, for example, to smoking, excessive alcohol consumption, sedentary lifestyles and poor diet/obesity. The higher **incidence** of cancer deaths among men are attributed to lifestyle – behaviours such as smoking and drinking plus poorer screening uptake – however, given that cardiovascular/circulatory disease deaths are in fact now higher in women, some risk behaviours in women may in fact be higher (see changes in smoking, Chapter 3 ☛). It has been known for several decades now that a significant proportion of cancer deaths are attributable, in part at least, to our behaviour, from early estimates of up to 75 per cent of those deaths (e.g. Peto and Lopez, 1990) to a more currently estimated 40 per cent (Cancer Research UK, 2021). The upturn in cancer deaths seen over the last century is also, however, due to people living longer with other illnesses they previously would have died from; thus they are reaching ages where cancer incidence is greater.

There is room for optimism, however, as awareness of behavioural risks grows and behaviour changes are made (see Chapters 3 and 4 ☛) along with medical advances in treatment- UK statistics point to a significant decline (over 40 per cent for both genders) in age-standardised deaths from circulatory (heart) diseases over the past 20 years and a lower but significant (13–15 per cent) fall for cancer and for respiratory disease, (20–26 per cent) (Office for National Statistics 2020).

> **incidence**
> the number of new cases of disease occurring during a defined time interval – not to be confused with **prevalence**, which refers to the number of established cases of a disease in a population at any one time

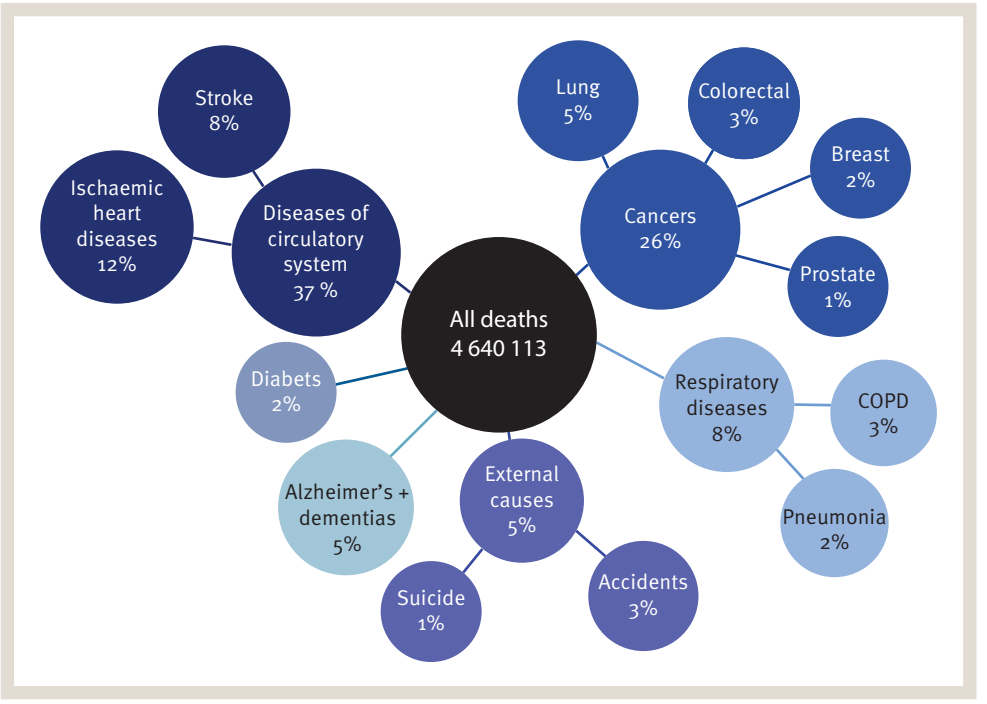

Figure 1.2 Main causes of mortality in EU, 2017 (2016 for France)

Source: EU Eurostat Database 2018.

WHAT DO YOU THINK?

As stated above, the world is facing multiple health challenges. The COVID-19 pandemic has brought the need for investment and cooperation in responsive public health initiatives (testing, tracing, immunising), in biomedical science (vaccine and treatment development) and in our health and social care systems. To what extent do you think psychology has, and can continue to, contribute to these initiatives and our responses to them?

So, if as a reader you have been asking yourself, 'why do all these figures matter?' the answer should now be clear. Our own behaviour contributes significantly to our health and mortality. As health psychologists, gaining an understanding of why we behave as we do and how behaviour can change or be changed, is a core part of our remit. It therefore is something we discuss a lot in this and the subsequent six chapters! Key behaviours are explored more fully in Chapters 3 and 4 ☛, but the increased recognition of the role individual behaviour plays in the experience of illness is a critical starting point in this health psychology text.

First we address the evolving way of thinking about the relationship between the human mind and the human body and the dominant models of thinking about health, illness and function.

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. Potential differences in perspectives on health can present challenges to those concerned with measuring, protecting, enhancing or restoring health. The root word of health is 'wholeness', and indeed 'holy' and 'healthy' share the same root word in Anglo-Saxon: this is perhaps why many cultures associate one with the other: e.g. medicine men have both roles. Having linguistic roots in 'wholeness' also suggests the early existence of a view of health that included mental and physical aspects; however as we describe below, this broad view has not held dominance throughout history.

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 was 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 ☛, similar beliefs remain today in some cultures. Understanding such variations in belief systems is therefore extremely important to our understanding of individuals' response to illness. Also important however is the shaping, over time, of views of the association between the mind and the body.

Mind–body relationships

Humans have physical bodies formed of molecular, genetic, biological, biochemical and measurable components that enable the 'machine' to work, and within those they have a physical brain. However a broader concept, that of the 'mind' has been considered to be non-physical, reflecting our consciousness, thoughts and emotions that have no physical properties per se. The extent to which history has seen these existing as separate, independent entities (**dualistic** thinking) with either the body influencing the mind or the mind influencing the body, can be seen in part as the story of the development of health psychology.

The ancient Greek physician Hippocrates (*circa* 460–377 BC) considered the mind and body as linked. His humoral **theory** of illness attributed health and disease 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

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