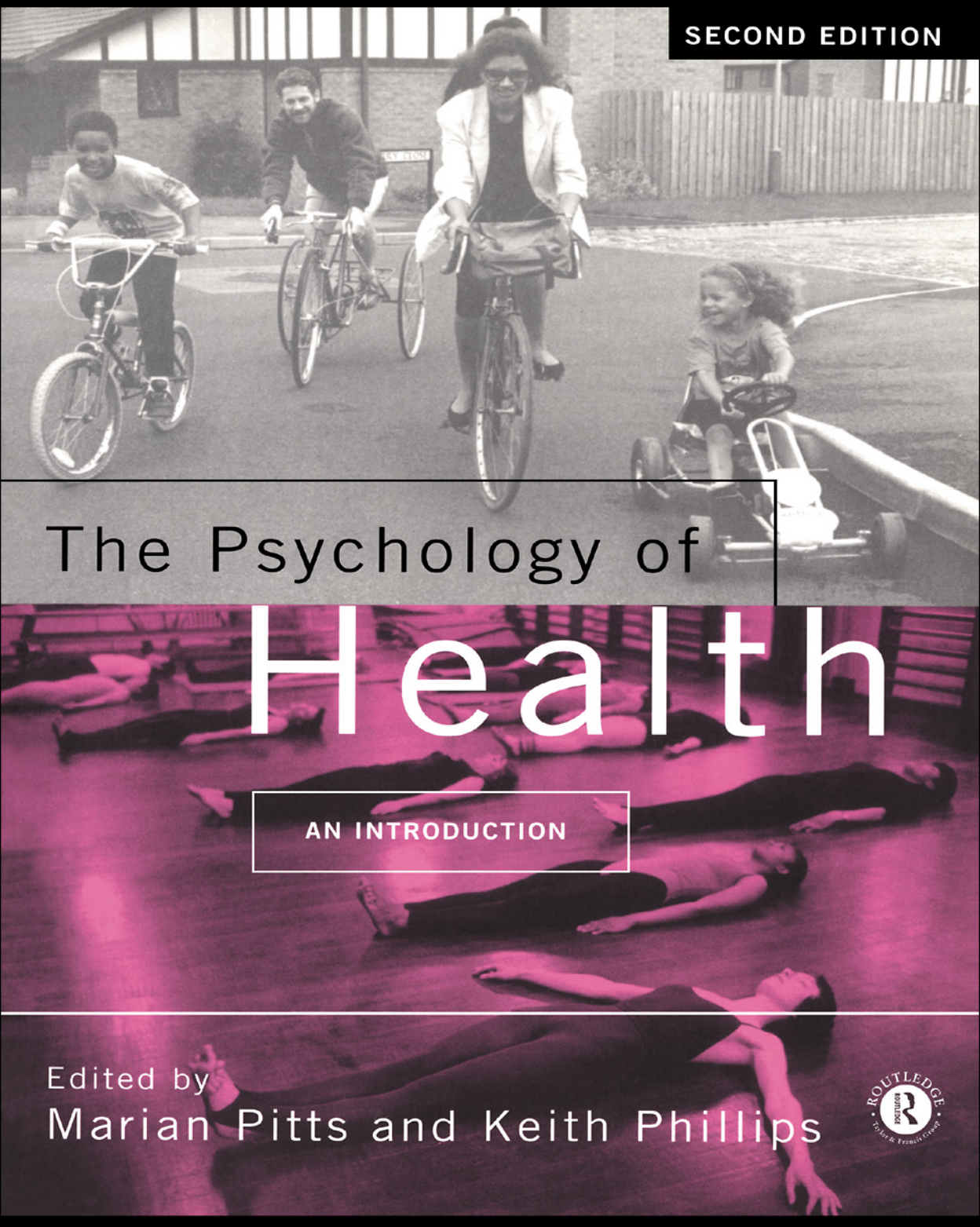

SECOND EDITION

# The Psychology of Health

## AN INTRODUCTION

Edited by
Marian Pitts and Keith Phillips

ROUTLEDGE
Taylor & Francis Group

**Also available as a printed book**
**see title verso for ISBN details**

# The Psychology of Health

> Its scope and accessibility make it an ideal introduction to health psychology for undergraduate students. The overall tone is sensible, friendly, and even at times humorous, combining detached, rational appraisal of psychological theory and research with reflective comments and questions…. Chapters have been updated with reference to recent research and the 'Social Circumstances, Inequalities and Health' chapter reflects the shift towards a greater awareness of the importance of gender, class and ethnicity.
>
> Lucy Yardley, *University College London*

Health psychology is one of the fastest growing areas of the behavioural sciences. As such it occupies an increasingly important place in undergraduate and postgraduate courses. Students in other disciplines, such as nursing, social work, physiotherapy and occupational therapy, also need to learn about the role of psychology in understanding health and the treatment of illness.

The first edition of *The Psychology of Health* was very well received and has become the standard recommended text for many courses. This completely revised and updated second edition contains new material in all chapters and has several additional chapters on such topics as cancer, nutrition and exercise, social drugs, and the impact of social inequalities upon health. This edition also contains annotated further reading, a glossary of key terms, boxes with ideas and questions for seminar topics, helpful revision points in chapter summaries and an extensive bibliography. *The Psychology of Health* will continue to be invaluable for students of health psychology and related behavioural and health sciences, including nursing, community care and health studies.

**Marian Pitts** is Professor of Psychology at Staffordshire University. Previously she worked in Africa and has taught at the universities of East London, Tennessee and Zimbabwe. She is author of *The Psychology of Preventive Health* (1996).
**Keith Phillips** is Professor of Psychology and Head of the School of Social and Behavioural Sciences at the University of Westminster. Both have published widely in the area of health psychology.

Comments on the first edition:

'I do not know of a better book in this field.'
*Health Education*

'This is a very thorough and well-compiled text which should be on student reading lists for a good few years to come.'
*Journal of Occupational and Organizational Psychology*

'Pitts and Phillips have given introductory-level health psychology teachers a valuable basic tool…. The editors and authors who came together to produce this fine volume have shared their extensive knowledge of health psychology and successfully conveyed their own excitement and enthusiasm about its goals and progress.'
*Contemporary Psychology*

'An interesting and worthwhile contribution to important topics often neglected by other books.'
*Stress News*

'A valuable overview text, pulling together a wide range of material which will aid students' understanding of the health dimension of social work. Offers a broad range of foundation knowledge for first year post-graduate social work students.'
Sandra Butler, School of Social Studies, *Nottingham University*

'Presents an issue-based approach to health psychology, therefore very useful for practitioners working in these specific areas.'
Frank Jacob, Faculty of Health and Community Care, *University of Central England*

'A thorough and up-to-date text in a new and growing field of study.'
Yvonne Crome, School of Health and Applied Sciences, *University College Suffolk*

'Ideal for nurses who are updating skills to degree level.'
Martin Johnson, Department of Psychology, *Teeside University*

'Excellent overview with substantial reference list.'
John Wilson, Social and Professional Studies, *Humberside University*

'Highly accessible to undergraduate students. The range of topics is highly relevant to a wide range of health care professionals.'
Lynette Rentoul, Nursing Studies Department, *Kings College London*

'Brings together various strands of psychology into a very useful and readable text.'
Peter Wybrow, Social Sciences Faculty, *Southampton H.E. Institute*

# The Psychology of Health

## An introduction

**Second edition**

Edited by
**Marian Pitts and Keith Phillips**

ROUTLEDGE


First edition published 1991
by Routledge

Second edition published 1998
by Routledge
11 New Fetter Lane, London
EC4P 4EE

Simultaneously published in the
USA and Canada
by Routledge
29 West 35th Street, New York,
NY 10001

*Routledge is an imprint of the
Taylor & Francis Group*

This edition published in the Taylor & Francis
e-Library, 2003.



*British Library Cataloguing in
Publication Data*
A catalogue record for this book
is available from the British
Library.

*Library of Congress Cataloguing in
Publication Data*
The psychology of health: an
introduction/edited by
Marian Pitts and Keith
Phillips.—2nd ed.
p. cm.
Includes bibliographical
references and indexes.
1. Clinical health psychology.
2. Medicine and psychology.
I. Pitts, Marian, 1948–. II.
Phillips, Keith, 1951–.
R726.7.P794 1998
616'.001'9–dc21 97–40283

ISBN 0-203-44174-5 Master e-book ISBN

ISBN 0-203-74998-7 (Adobe eReader Format)
ISBN 0-415-15023-X (hbk)
ISBN 0-415-15024-8 (pbk)

To
Gina, David and Sheila
and
Rosa and Bernard

# Contents





# Figures

# Tables

# Contributors

**Jacqueline Barnes** Senior Lecturer and Honorary Senior Psychologist, Leopold Muller University Department of Child and Family Mental Health, Royal Free Hospital School of Medicine and the Tavistock Clinic, Hampstead, London.

**Mary Boyle** Professor of Psychology and Course Director for Clinical Psychology, Department of Psychology, University of East London.

**Philip Evans** Professor of Psychology and Director of the Psychophysiology and Stress Research Group, Department of Psychology, School of Social and Behavioural Sciences, University of Westminster.

**Paula Hixenbaugh** Department of Psychology and Member of Health Psychology Research Group, School of Social and Behavioural Sciences, University of Westminster.

**Andrew Parrott** Reader in Psychology, Department of Psychology, University of East London.

**Keith Phillips** Professor of Psychology, Member of the Health Psychology Research Group, and Head of School of Social and Behavioural Sciences, University of Westminster.

**Marian Pitts** Professor of Psychology, Division of Psychology, Staffordshire University.

**Hartwin Sadowski** Lecturer and Honorary Senior Registrar, Leopold Muller University Department of Child and Family Mental Health, Royal Free Hospital School of Medicine and the Tavistock Clinic.

**Tara Symonds** Lecturer in Health Psychology, Division of Psychology, Staffordshire University.

**Laura Warren** Research Associate, Department of Psychology, School of Social and Behavioural Sciences, University of Westminster.

**David White** Professor of Psychology, Division of Psychology, Staffordshire University.

# Preface

The initial stimulus for this book came from the many students whose obvious enthusiasm for health psychology caused us to undertake writing the first edition. At that time we (the editors) could not find a book that was suitable to recommend to our students as a standard text. Those texts that did exist were written by American academics who had different experiences and were writing from knowledge of a different health system. We were encouraged by colleagues and students to compile a book that would be relevant to UK students and teachers. The contribution of those students was great and we hope that they will gain some satisfaction from realising their part in the appearance of the first edition.

This, the second edition, builds upon the first, which we are gratified to say was well received and has become the standard recommended text for many courses in the UK. It has been updated by the addition of new material in all the chapters and by the addition of entirely new chapters, including those on cancer, nutrition and exercise, and the impact of social inequalities upon health.

Since the first edition was published in 1991, learned societies for the study of health psychology have been established and several new journals have begun to publish research in this new and exciting area of psychology. Courses dedicated to the study of health psychology have been developed in our universities and colleges, and many areas of the health and nursing sciences include health psychology as part of their curriculum.

The book is divided into four parts. Part One provides an introduction to health psychology, including its definition and an overview of its scope and ambitions. There is a discussion of the principles and techniques of psychophysiology and consideration of an area that has been central to the understanding of individuals' health, namely stress and coping. This section concludes with an update on the developing area of psychoneuroimmunology.

Part Two considers studies that are relevant to the experiences of illness, hospitalisation and the management of disease. Part Three contains topics of significance for health psychologists. These have been chosen to reflect the diversity of health issues studied by health psychologists, including acute and chronic illness, primary prevention of illness, and health promotion. Many of these have been highlighted by the UK government's Health of the Nation programme. Part Four broadens the book's perspective, moving beyond an individualistic approach to consider the importance of family and wider social contexts for health.

In this edition you will find a glossary, boxes with ideas and questions about the contents of each chapter, helpful revision points in the key summaries, suggestions for further reading, indexes, and an extensive bibliography.

The book is aimed at advanced undergraduates in psychology and related disciplines, especially the behavioural and health sciences, including nursing, community care, and health studies. It does not assume that you will have extensive prior knowledge of psychology. However, we hope too that some of the ideas contained in the chapters will provoke thought among those of you who are embarking upon postgraduate study in health psychology.

We hope that you will find the book readable, interesting and challenging, but most of all that it will excite you to read more about health psychology and perhaps become a health psychologist yourself. Whatever your reasons for choosing to read this book we hope that you will find within it something of value to you.

*Marian Pitts*
*Keith Phillips*
*July 1997*

# Acknowledgements

The editors would like to thank first the contributors, who adhered to their deadlines and helped us in many ways throughout the preparation of this book. We would like also to acknowledge the support given to us by our colleagues and friends in our respective departments in Staffordshire and Westminster. We have received advice from many friends; all errors remain, unfortunately, our own.

We also thank those students whose enthusiasm for health psychology caused us to compile the first edition and the many groups of students since whose feedback has encouraged us to undertake this second edition.

Again we also owe great thanks to our partners and families for their support during the period of production of the book; their tolerance, good humour and general assistance throughout the project has done much to ensure its final delivery. We owe particular thanks to Carol Austin and Qazi Rahman, who have been very helpful in tracking down elusive references and compiling the index, and to Sheelagh Rowbottom, Social Sciences Librarian at Staffordshire, who was always eager to provide help.

All photographs were supplied by Photofusion:

Part one (page 2)
Marylebone Station, copyright Steve Eason
Dance and exercise class, copyright Bob Watkins

Part two (page 70)
GP and patients, copyright Reen Pilkington
Ambulance, copyright Sam Tanner

Part three (page 130)
Beer belly, copyright David Montford
Active elderly man, copyright Tim Dub

Part four (page 286)
Bengali children playing on Whitechapel Estate, copyright Crispin Hughes
School nurse discussing anti-smoking campaign project with pupils, Surrey Docks, copyright Brenda Prince

The following organizations have kindly given permission to use figures: Figure 1.1 Lippincott-Raven Publishers; Figure 1.2 Elsevier Scientific Publishers; Figure 1.4 Open University Press; Figure 4.1 Oxford University Press; Figures 7.2 and 9.1 Carfax Publishing Limited, PO Box 25, Abingdon, Oxfordshire OX14 3UE; Figure 10.1 (adapted from Strasser, 1992), Macmillan Press Limited; Figures 14.1, 14.2 and 14.3 Cancer Research Campaign and its Scientific Yearbook; Figure 15.2 reprinted with permission of the Helen Dwight Reid Educational Foundation. Published by Heldref Publications, 1319 Eighteenth Street, N.W., Washington, D.C. 20036–1802. Copyright © 1967; Figure 15.3 W.B.Saunders Company.

The following organizations have kindly given permission to use tables: Table 8.1 Blackwell Scientific Publications; Tables 15.1 and 15.2 the BMJ Publishing Group.

Every effort has been made to trace copyright holders and obtain permission to reproduce figures and tables. Any omissions brought to our attention will be remedied in future editions.

Finally, we would like to thank Vivien Ward of Routledge for suggesting that we produce a second edition and Jon Reed for his patience, encouragement and assistance throughout the production process.

# Abbreviations

| | |
|---|---|
| ACTH | Adrenocorticotrophic hormone |
| AIDS | Acquired Immune Deficiency Syndrome |
| ANS | Autonomic nervous system |
| APA | American Psychological Association |
| ARC | AIDS-related complex |
| BAC | Blood alcohol concentration |
| BDA | British Diabetic Association |
| BDI | Beck Depression Inventory |
| BPL | Blood pressure level |
| BPS | British Psychological Society |
| BRS | Bortner rating scale |
| BSE | Breast self examination |
| CHD | Coronary heart disease |
| CNS | Central nervous system |
| CO | Carbon monoxide |
| CRF | Corticotropin releasing factor |
| DCCT | Diabetes Control and Complications Trial |
| DFBC | Diabetes family behaviour checklist |
| DQOL | Diabetes quality of life (scale) |
| DUKE | Duke health profile |
| ECG | Electrocardiogram |
| EEG | Electroencephalogram |
| EMG | Electromyogram |
| EORTC | European Organisation for Research on Treatment of Cancer |
| EPIC | European Prospective Investigation of Cancer |
| ESRC | Economic and Social Research Council |

| | |
|---|---|
| 5-HT | Serotonin (5-hydroxytryptamine) |
| FAAR | Family adjustment and adaptation response |
| FAM | Fear avoidance model (of pain) |
| FTAS | Framingham Type A Scale |
| GHP | General health perceptions (scale) |
| GP | General practitioner |
| HAPA | Health action process approach |
| HBM | Health belief model |
| HDL | High density lipoprotein |
| HIV | Human Immunodeficiency Virus |
| HPA | Hypothalamic pituitary-adrenocortical (axis) |
| IBQ | Illness behaviour questionnaire |
| ICU | Intensive care unit |
| IDDM | Insulin-dependent diabetes mellitus |
| ivdu | intravenous drug user |
| JAS | Jenkins Activity Survey |
| JHPS | Johns Hopkins Precursors Study |
| MDMA | Ecstasy |
| MI | Myocardial infarction |
| mmHg | Millimetres of mercury |
| MMPI | Minnesota multiphasic personality inventory |
| MPI | Multidimensional pain inventory |
| MPQ | McGill pain questionnaire |
| MRFIT | Multiple risk factor intervention trial |
| MSPQ | Modified somatic perception questionnaire |
| NIDDM | Non-insulin-dependent diabetes mellitus |
| NK | Natural killer (cell) |
| PCA | Patient controlled analgesia |
| PNI | Psychoneuroimmunology |
| PNS | Peripheral nervous system |
| PVC | Premature ventricular contraction |
| QOL | Quality of life |
| SAM | Sympathetic adrenal medullary (system) |
| SI | Structured interview |
| sIgA | Secretory immunoglobulin A |
| SIP | Sickness impact profile |
| SLM | Social learning model |
| THC | Tetrahydrocannabinol |
| TPB | Theory of planned behaviour |
| TSE | Testicular self examination |
| WCGS | Western Collaborative Group Study |
| WEHS | Western Electric Health Survey |
| WHO | World Health Organization |

# Introduction

PART ONE introduces you to the basic elements underpinning the psychology and experience of health. We need explanations of the ways in which psychological variables interact with biological predispositions of disease, and environmental and social factors such as economic status. These explanations give rise to theories of health behaviour. Chapter 1 reviews the evidence which implicates health behaviours and other psychological variables as major determinants of health; it shows how the causes of ill health and death have changed in the western world over the last century from infectious diseases to those linked to behaviours, including cancers, and circulatory diseases. The approach adopted throughout the book is to view health as a function of biological, psychological and social elements—known as the biopsychosocial approach. Several models are reviewed in Chapter 1, and will be used as the basis for understanding a range of health issues that are covered by chapters in Part Three.

Chapter 2 reviews the biological underpinnings of health and health behaviours. It is necessary to understand how the nervous system, the endocrine and immunological systems together regulate physiological reactions and behaviour. Biofeedback is introduced as an example of the importance of physiological regulation in modifying reactions, and hence to reducing risks associated with psychophysiological disorders. Chapter 3 considers the constructs of stress and coping. Stress has come to be regarded (rightly or wrongly) as one of the major problems of our busy lives. In this chapter we consider carefully the nature of the construct and look at how it has been measured. Philip Evans examines closely the physiological basis of the concept. He then considers the other construct: coping. Coping also needs to be 'unpacked' to understand how it is that we can cope with stress and why some people appear to manage to do so better than others. Finally, the exciting new field of psychoneuroimmunology is reviewed to show how psychology and physiology interact in determining health.

Chapter 1

# An introduction to health psychology

Marian Pitts



chapter 1



## Introduction

This chapter will introduce the area of health psychology. It will outline briefly the historical background to the field, consider the development of our understanding of health behaviours and introduce the major models which have been developed to aid our understanding of people's health-related behaviours. We will look at individual differences and how they impact on health behaviours. Finally, we will consider the methodologies used in health research and the particular ethical problems which accompany research in these areas.

## What is health and what is health psychology?

How are you feeling today? As you read these words are your eyes sore? Does your back ache? How's the head? Do you find your concentration wandering (already?!). It is extremely unlikely that anyone reading this book is entirely and absolutely healthy and free of symptoms. It would be difficult to know what that would mean; we all are 'imperfect machines'. The study of health psychology is concerned with the ways in which we, as individuals, behave and interact with others in sickness and in health. Any activity of psychology which relates to aspects of health, illness, the health care system, or health policy may be considered to be within the field of health psychology. Health psychology deals with such questions as: What are the physiological bases of emotion and how do they relate to health and illness? Can certain behaviours predispose to particular illnesses? What is stress? Can educational interventions prevent illness? And many others. The beginnings of the formal interest of psychologists in these areas can be dated to the convening of a conference in the USA in 1978 and to the creation of a section devoted to health psychology in the American Psychological Association in 1979. The British Psychological Society (BPS) set up a Health Psychology Section only in 1986. This year (1997) the section should become a formally recognised division of the BPS and the profession of health psychologist may be established in the UK.

Some time ago the World Health Organization put forward a definition of health which has been widely quoted. Health is 'a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity' (WHO, 1946). Recently this definition has come under scrutiny and some criticism as representing an unrealistic goal, nevertheless it does emphasise the holistic nature of health involving body and spirit, physical and mental states.

Matarazzo in 1980 offered a definition of health psychology which has become widely accepted:

> Health psychology is the aggregate of the specific educational, scientific and professional contributions of the discipline of psychology to the promotion and maintenance of health, the prevention and treatment of illness, the identification of etiologic and diagnostic correlates of health, illness and related dysfunction, and the analysis and improvement of the health care system and health policy formation.

This definition emphasises the diversity of issues encompassed by the emerging discipline. There is also variety in the approaches brought to those issues. Some health psychologists would see themselves primarily as clinicians, others as psychophysiologists, and others still as cognitive psychologists; some will practise health psychology in the health care settings, others will teach and research in academic institutions—what unifies them is their interest in the areas delineated by Matarazzo and their approaches to these issues.

## *Historical background*

The recognition of health psychology as a clearly designated field is very recent, as we have seen; however, many of the ideas and basic concepts have been around psychology for a great deal longer. The relationship between mind and body and the effect of one upon the other has always been a controversial topic amongst philosophers, psychologists and physiologists. Within psychology, the development of the study of psychosomatic disorders owes much to Freud. Psychologists such as Dunbar (1943), Ruesch (1948) and Alexander (1950) attempted to relate distinct personality types to particular diseases with an implicit causation hypothesis. Work of this type has become more sophisticated in its approach and the chapters in the book on coronary heart disease and cancer are illustrative, and critical, of this orientation. This approach has been largely abandoned by health psychologists in favour of more behavioural or biological approaches which seek to employ interventions derived from behavioural medicine (see the chapters concerning pain (Chapter 6) and hypertension (Chapter 10) as examples of this).

Another important aspect in the development of health psychology has been the changing patterns of illness and disease. If we were to compare 1898 with 1998 we would see that contagious and infectious diseases now contribute minimally to illness and death in the Western world, and other illnesses have become more frequent and are of a different nature. Major breakthroughs in science have reduced the prevalence of diseases such as smallpox, rubella, influenza and polio in the Western world; more deaths are caused now by heart disease, cancer and strokes. Recent studies and theories suggest that these diseases are, in part, a by-product of changes in lifestyles in the twentieth century. Psychologists can be instrumental in investigating and influencing lifestyles and behaviours which are conducive or detrimental to good health. The chapters in this book on AIDS (Chapter 8) and coronary heart disease (Chapter 11) illustrate areas where such interventions are being attempted. Increasingly, then, the major causes of death are those in which so-called behavioural pathogens are the single most important factor. Behavioural pathogens are the personal habits and lifestyle behaviours, such as smoking and excessive drinking, which can influence the onset and course of disease. It is not just the diseases of the 'developed' world which can be affected by behaviour and attitude: combating malaria, schistomiasis and other diseases endemic in different parts of the world can also be greatly helped by psychological input into campaigns to change behaviour. As people the world over live longer, the long-term effects of what Matarazzo (1983) calls 'a lifetime of behavioural mismanagement' can begin to

express themselves as diseases such as lung cancer, and heart and liver dysfunctions.

## Health behaviours

We will now look at behaviours which can be part of maintaining a healthy lifestyle and avoiding ill health. These are known as (protective) health behaviours. Harris and Guten (1979) conducted an exploratory study of 1250 residents in Greater Cleveland, USA. Residents were asked: What are the three most important things that you do to protect your health? Following this free recall, they were presented with statements on cards which described health behaviours and were asked to sort them into those that they did and those that they did not practise. Cluster analyses performed on these data produced categories to account for the various responses obtained by both methods. Categories of health protective behaviours thus found were:

- environmental hazard avoidance—avoiding areas of pollution or crime;
- harmful substance avoidance—not smoking or drinking alcohol;
- health practices—sleeping enough, eating sensibly and so forth;
- preventive health care—dental check-ups, smear tests;
- safety practices—repairing things, keeping first aid kits and emergency telephone numbers handy.

Other studies carried out by Pill and Stott (1986) and Amir (1987) confirm these findings that people can identify behaviours which they carry out to protect health. Amir (1987) developed the General Preventive Health Behaviours (GPHB) Checklist. It consists of twenty-nine items which were selected to represent a range of behaviours thought to be relevant to a British population. Amir carried out the study on elderly (65–75 years) Scottish people and found the following items to be endorsed by more than 90 per cent of respondents:

- Avoid drinking and driving
- Wear a seat-belt when in the car
- Do all things in moderation
- Get enough relaxation
- Check the safety of electrical appliances
- Avoid overworking
- Fix broken equipment around the home
- Eat sensibly

At the other end of the spectrum, only 10 per cent reported taking dietary supplements or vitamins, and only 12 per cent regularly got a dental check-up. It is likely that these percentages would look very different in different age groups (see the discussion topic at the end of this chapter).

There is thus a common-sense notion that a relationship exists between good health and personal habits. Plato said, 'where temperance is, there health is speedily imparted'. Many groups have codified 'good' living habits into their

religions and there is strong evidence of the outcome of healthy living and abstinence in such communities: Mormons in Utah have a 30 per cent lower incidence of most cancers than the general population of the USA, and Seventh-day Adventists have 25 per cent fewer hospital admissions for malignancies (Matarazzo, 1983). Such statistics are powerful indicators that personal lifestyles do much to ensure healthy bodies. This idea was first studied systematically by a much cited study carried out in Alameda County, California and reported initially by Belloc and Breslow (1972). They asked 6928 county residents which of the following seven health behaviours they practised regularly:

- not smoking;
- having breakfast each day;
- having no more than one or two alcoholic drinks each day;
- taking regular exercise;
- sleeping seven to eight hours per night;
- not eating between meals;
- being no more than 10 per cent overweight.

They also measured the residents' health status via a number of illnessrelated questions: for example, how many days they had taken off from work due to sickness in the previous twelve months. They were also interested in physical, mental and social health which they defined as 'the degree to which individuals were functioning members of their community'. Although criticisms have been made of this study, most notably the lack of independence between the questions, some strong and well-replicated relationships were demonstrated. A health *habit* is a health behaviour which is well established and often carried out semiautomatically: do you actually decide each morning and evening to clean your teeth, or do you 'just do it? Adults in the study who engaged in *most* of the health habits reported themselves to be healthier than those who engaged in *few* or *none*. A follow-up study nine-and-a-half years later showed that mortality rates were significantly lower for both men and women who practised the seven healthy habits. Men who had all seven healthy habits had only 23 per cent of the mortality rate of men who carried out none or fewer than three health habits (Breslow and Enstrom, 1980). There were also clear links between physical, mental and social health. These findings reinforce the holistic notion of health proposed by the WHO as a composite of effective functioning, whether physically, mentally or socially.

This original Californian cohort has been studied for twenty-five years. A survey in 1982, seventeen years after the study first began, considered those individuals who had been at least 60 years old at the time of the first survey. It was found that not smoking, taking physical activity, and regular breakfast eating were strong predictors of their mortality (Schoenborn, 1993). The Alameda Study reinforced the idea of 'moderation in all things' as the basis of good health. It also emphasised the role of social and mental aspects in achieving good physical health.

Although most of us are familiar with the need to engage in preventive health behaviours, few of us actually do so. Berg (1976) has stressed that most

people are aware of which health behaviours should be engaged in; however, they frequently do not do so, and furthermore *do* engage in activities which they know to be harmful to their health. It is this cantankerousness which psychologists have spent a great deal of time examining. The dilemma or challenge then is how best to encourage, persuade or coerce people into adopting the healthy habits which it is believed are good for them. This enterprise carries values and expectations which will be examined in the final chapter. The dilemma for health psychologists is to explain why some or many people do not do what they know is in their own best interests to do; and why some people are more amenable to the adoption of healthy habits than others.

A consistent focus has been the role of knowledge in changing behaviours. People need to be informed of the risks to themselves that certain behaviours (or non-behaviours) can engender. Having been apprised of the risks they will then decide, so the argument goes, in a rational manner, to modify their behaviours in the direction of greater health promotion and protection. Studies examining a range of issues relevant to health such as smoking, drug-taking, medical checks and adopting safer sex have fairly consistently shown that knowledge, by itself, does not lead to behaviour change.

Kelley (1979) examined the role of media in improving public health. He pointed out that the use of safety-belts in cars greatly reduces the probability of death and injury following crashes. However, the availability of seat-belts in cars does not guarantee their use. A study conducted in the USA in 1968 recorded only 6.3 per cent of car drivers wearing seat-belts in a city area. Kelley attempted to design and execute a definitive test of mass media effectiveness in increasing seat-belt use. He was able to utilise cable television such that he could have a number of households which would receive advertisements concerning seat-belt use, and another, equivalent number of households which would not. He used six different advertisements, produced professionally, and shown at specific times designed to target specific audiences. The advertisements were shown regularly over a period of nine months. He estimated that the average television viewer in the experimental group saw one or another of the messages two or three times a week over the test period. Observers positioned at designated sites within the area under study recorded seat-belt use and the car licence plate which enabled a trace to be made to indicate which of the two cable television companies was available to that person's house. Kelley's conclusion was depressing: 'The results were clear-cut. The campaign had no effect whatsoever on seat belt use.' There were no significant differences between drivers from households which had received the messages and drivers from the control households. Nor did the drivers from the test group change their seat-belt wearing at all across the test period. Kelley argues very forcefully from this study that mass media campaigns are ineffective and an inefficient means of changing health behaviours. So what else is required, other than knowledge, to persuade people to look after their health? We will now examine suggestions for other factors which could influence health behaviour.

## Models of health behaviour

Early studies of protective health focused upon demographic variables such as age, race and socioeconomic class as determinants of the adoption and practice of health behaviours. This research resulted in descriptions of population groups which did or did not engage in health behaviours. These findings were sometimes contradictory and often did not serve any great purpose—one cannot change one's age, sex or race and there is only limited opportunity to change occupation or alter income. Consequently research has shifted to structural variables such as the cost or complexity of the behaviour, with a view to improving the adoption and practice of preventive health behaviours. There are several theories or models which have evolved in this context. All the models share a common framework in that they exemplify a biopsychosocial approach to health. Such an approach recognises the biological and genetic bases of many illnesses, acknowledges the role of psychological elements such as beliefs, behaviours and cognitions in the development of all illnesses, and recognises that the social, economic and cultural setting will have great impact on health. This approach, first developed by Engel (1977), underpins much of health psychology and will be apparent throughout this book. We will now consider in detail some of the more important models and note their shared characteristics.

### *The health belief model (HBM)*

This is probably the 'oldest' and best known of the models of health behaviour. It is the one against which more recent models have been developed. This model was specified initially by Rosenstock (1966) and was modified by Becker and Maiman (1975). It attempts to explain both health behaviour and compliance. It should be useful in predicting both health behaviour before illness, such as screening for cancer, and compliance with medical regimens once ill. Thus, both sick role behaviour and preventive behaviours should be capable of being predicted. The model proposes that a person's likelihood of engaging in health-related behaviours is a function of several dimensions. An outline of the model is presented in Figure 1.1. It proposes that for a person to take preventive action against a disease, that person must:

- feel personally susceptible to the disease (perceived susceptibility);
- feel that the disease would have at least moderately serious consequences (perceived severity);
- feel that preventive behaviour would be beneficial either by preventing the disease, or by lessening its severity (perceived benefits);
- that barriers, such as pain, embarrassment or expense (costs) should not outweigh the perceived benefits of the proposed health action in order for the preventive health behaviour to occur;
- that cues to action may trigger a consideration of the proposed health action.

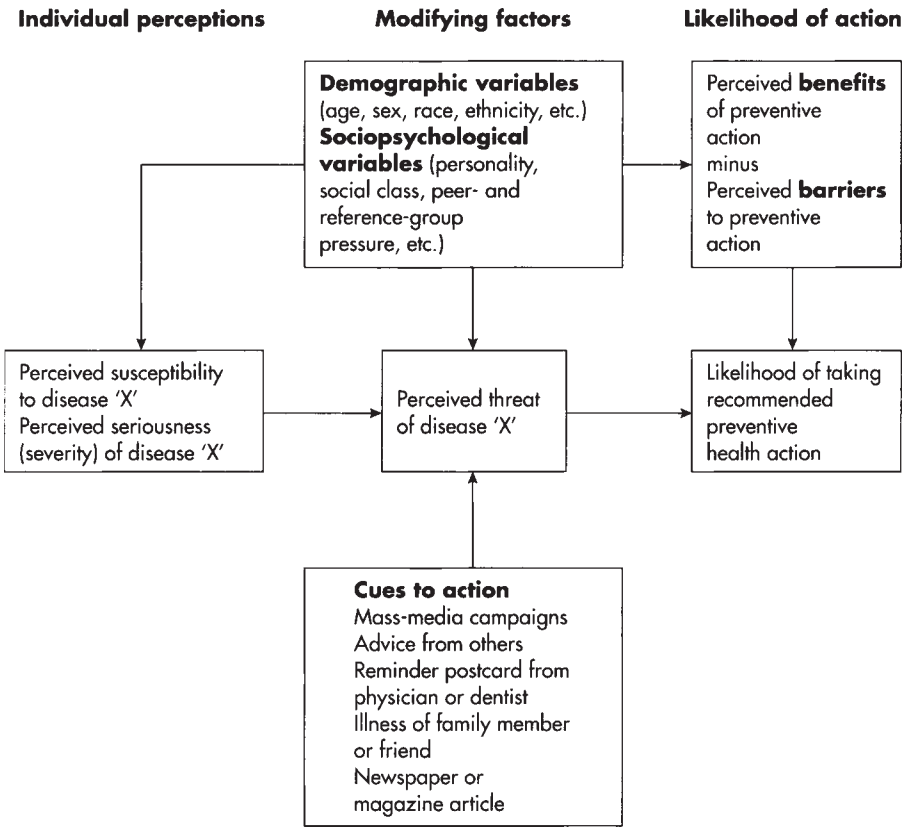


**Figure 1.1** Health belief model

Source: Becker and Maiman (1975). Copyright Lippincott-Raven Publishers.

The model has been used with some success to predict the adoption of several different health behaviours, including vaccinations, screening for cancer and contraceptive behaviour (Harrison *et al.*, 1992; Herold, 1983; Janz and Becker, 1984). For some behaviours, perceived severity may be less important for preventive behaviours than either perceived vulnerability or cost-benefit considerations (Cleary, 1987). There can be problems of response bias when questionnaires which have operationalised the HBM construct are used. This is discussed by Sheeran and Orbell (1996), who recommend several ways of avoiding this problem. Harrison *et al.*'s meta-analytic review of HBM in 1992 originally identified 234 published studies. Of this large number, however, only sixteen had examined all the major components of the model and had included reliability checks. Harrison *et al.* then converted effect sizes of the sixteen studies into correlation coefficients and calculated correlations for susceptibility, severity, benefits and barriers. Whilst all the correlations were statistically

significant they were also rather small, accounting for less than 4 per cent of the variances across the studies. Despite the fact that the model has been around for more than two decades, it is rarely used carefully and with sufficient reliability to be confident of its results. The major problems with it as an account of health behaviours are that it assumes rationality as the basis for an individual's decision making, and downplays the role of emotions, for example, fear and anxiety. It also tends to assume that beliefs are static and, once formed, fairly fixed. Other models which have been developed from the HBM have attempted to incorporate some of these additional elements.

### *Protection motivation theory*

Rogers (1984) examined health behaviours from the point of view of motivational factors; thus it built on HBM by incorporating motivational elements into its basic structure. The protection motivation model suggests that motivation to protect oneself from a health threat is based on four beliefs:

- that the threat is severe (magnitude);
- that one is vulnerable to the threat (likelihood);
- that one can perform the behaviour required to protect against the threat (self-efficacy);
- that the response made will be effective (response-efficacy).

Early research emphasised fear as a motivational factor but Rogers now suggests instead that attempts need to be directed at all four of the elements described above to achieve effective change. It is not clear which of the four elements is more important than the others, nor how to develop a campaign which can adequately address all elements simultaneously.

### *Leventhal's self-regulatory model*

A rather different approach is that of Leventhal and co-workers who have developed a model of illness behaviour and cognitions. This could be characterised as a problem-solving model since it conceptualises the individual as an active problem solver whose behaviour reflects an attempt to close a perceived gap between current status and a goal, or ideal state. Behaviour depends on the individual's cognitive representations of his or her current health status and the goal state, plans for changing the current state, and techniques or rules for assessing progress.

Leventhal's self-regulatory model of illness (Leventhal and Cameron, 1987) defines three stages which regulate behaviour. These stages are:

- Interpretation of the health threat—this concerns the cognitive representation of the threat, which includes dimensions such as symptom perceptions, and social messages such as potential causes or possible consequences.

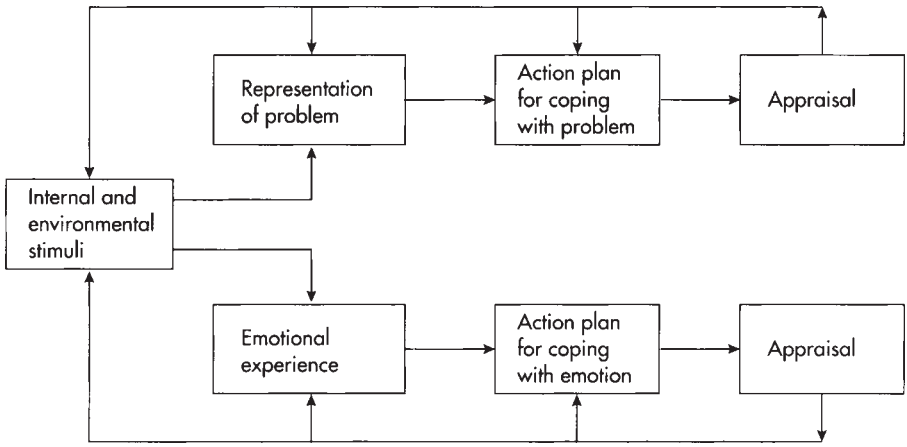


**Figure 1.2** Leventhal's self-regulatory model of illness behaviour
Source: Leventhal and Cameron (1987). Copyright Elsevier Science Ireland Ltd.

- An action plan or coping strategy—this may take a variety of forms; the major ones are an *approach* coping strategy which would include seeking medical attention, self-prescribing, discussing the symptoms with others; or an *avoidance* strategy, i.e. denial that there might be a problem and wishing it away.
- The last stage is the appraisal stage, in which the individual utilises specific criteria to gauge the success of coping actions, with perceptions of insufficient progress leading to modifications.

The model is presented in diagrammatic form in Figure 1.2. The selfregulation comes from the individual's attempts to maintain the status quo and return to the 'normal' state of health. Emotional reactions can be evoked at any stage; cultural or social differences, for instance in symptom perception or illness expectations, can lead to differing representations and different coping structures. An attractive feature of this type of model is that it is active: it stresses the individual and how that person can operate and reflect on his or her actions. This, though, is also its potential weakness; it has not been as amenable to testing, particularly through questionnaire construction, as has the health belief model.

## *The theory of planned behaviour (TPB)*

The theory of planned behaviour derives from social psychology and is a development of an earlier theory of reasoned action. Both models emphasise the role of decision making and seek to explain the suggested relationships between attitudes and behaviours. The theory of planned behaviour has become a major model for health promotion. The models have as their central premise the notion that people make decisions about their behaviour on the basis of a

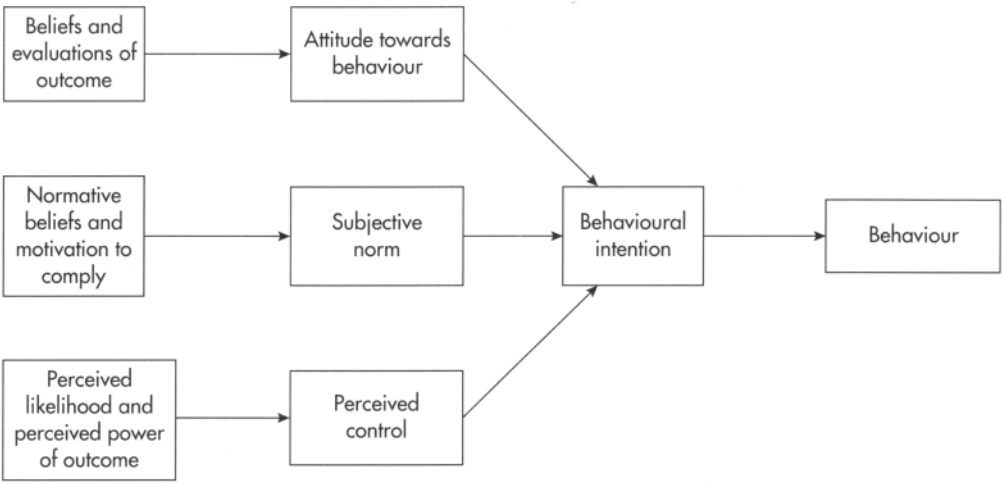


**Figure 1.3** Theory of planned behaviour

reasonable consideration of the available evidence. TPB stresses that behaviour is planned and that the planning is, in part, a function of an individual's intentions. The model identifies intention as the most immediate determinant of behaviour (Ajzen and Madden, 1986; Fishbein and Ajzen, 1975). Intentions are themselves a function of three separate elements—privately held attitudes towards the particular behaviour, a perception of socially determined norms that represent a person's belief that others think he or she should behave in a certain way, and perceived behavioural control, which is a person's belief that they can carry out the planned behaviour, that they have the necessary skills and abilities and that they can overcome potential external barriers (Figure 1.3). The model attaches values to each of these factors. The particular values attached to each factor will depend upon the individual's beliefs and thus in many ways this model is similar to the health belief model.

One difficulty with this model is that it identifies a direct link between intentions and behaviours, but intentions are not always translated into actions. Even when an individual holds an intention towards some behaviour, action does not necessarily result. There may be one or more reasons for not carrying out an intention to act in a particular way that is perceived as beneficial. The action may not be possible in a particular situation or at a particular time, it may be difficult or time consuming or it may simply be suppressed. From the point of view of the promotion of health behaviours, much greater consideration needs to be given to the impact of situational influences of this kind upon adherence to an intention to act in accordance with prevention (see Abraham and Sheeran (1993) for a fuller discussion of this point).

### *Schwarzer's health action process approach (HAPA)*

Schwarzer has been critical of the TPB in that it includes no temporal element and hence is 'static'. He has developed his own model which explores the factors that facilitate the adoption and maintenance of health behaviours. Its basic notion is that 'the adoption, initiation, and maintenance of health behaviours must be explicitly conceived as a process that consists of at least a motivation phase and a volition phase. The latter might be further subdivided into a planning phase, action phase and maintenance phase' (Schwarzer and Fuchs, 1996). See Figure 1.4 for an outline of the model. Schwarzer stresses that perceived self-efficacy (see p. 17) plays a crucial role at all stages of the model.

During the motivation phase the individual develops an intention, and this intention is predicted by self-efficacy and outcome expectancies ('I am confident that I can lose weight and I know that losing weight will improve my health'). Schwarzer suggests that outcome expectancies precede self-efficacy because people make assumptions about outcomes before they ask themselves whether they can perform the action. They then carry out an appraisal of threat or risk—a little like the perceived severity element of HBM. Schwarzer suggests that this element may be minimal in many cases and specifically that fear appeals may have only limited value.

'It is common knowledge that good intentions do not necessarily guarantee corresponding actions' (Schwarzer and Fuchs, 1996): thus the right-hand section of Figure 1.4 consists of three levels: cognitive, behavioural and situational. Here again, self-efficacy plays a role in determining the amount of effort invested in the action and the perseverance with the action phase.

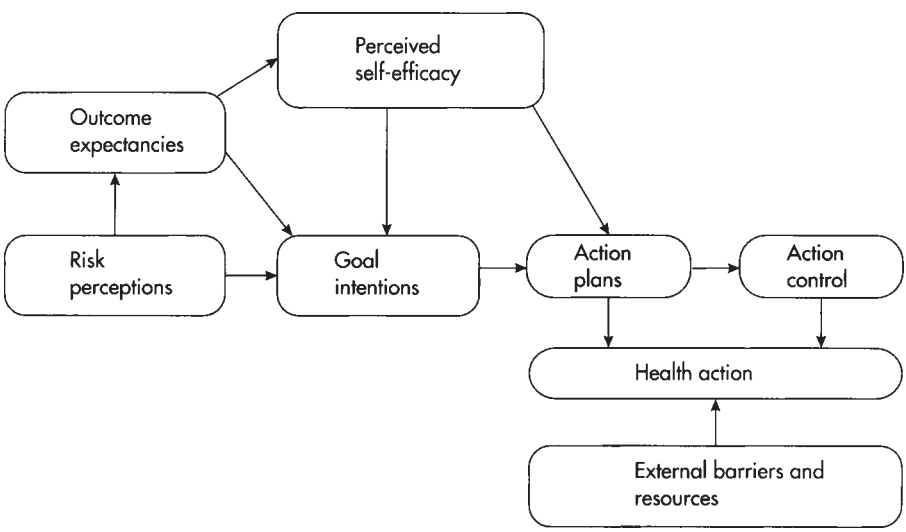


**Figure 1.4** Schwarzer's health action process approach
Source: Schwarzer and Fuchs (1996)

It should be noted that all these models tend to rely on a model of a person as a rational decision maker, subject to motivational forces but essentially making decisions and following them through. Once again, the roles of emotions and of situational variables (for example chocolate in the cupboard, wine in the fridge) are relatively underplayed.

### *The transtheoretical model*

Finally, a rather different approach to health behaviours is that of the transtheoretical model developed by Prochaska and DiClemente (1983, 1992) as an integrative and comprehensive model of *behaviour change*. They suggest that people move through a series of stages in changing their behaviour. They label them *precontemplation, contemplation, preparation, action* and *maintenance*. Using studies on how people begin and maintain an exercise programme as an example, the stages would be like this:

- *Precontemplation:* a period during which a person is not seriously considering the need for regular exercise: 'No problems, I'm fine as I am.'
- *Contemplation:* a period during which a person is seriously considering exercise: 'I can't do what I used to; I need to get fitter.'
- *Preparation:* a period during which a person seriously thinks about beginning an exercise programme, say, during the next month: 'That new gym has opened up nearby; I'll buy myself a track suit.'
- *Action:* a period ranging from nought to six months during which the person is actually exercising 'three times a week in the gym—I'm feeling good.'
- *Maintenance:* a period beginning six months after the start of the exercise programme: 'I'm attending regularly, and rarely miss a session.'

Thus the model is temporal and describes the process of change rather than only identifying the precursors to that behavioural change. The decision-making element associated with the model derives from Janis and Mann's conflict model (1977), which involves a consideration of benefits and costs (pros and cons) associated with a behavioural change.

Prochaska *et al.* (1994b) applied the stages of change to a number of problem behaviours which included: smoking cessation, weight control, quitting cocaine, using condoms, applying sunscreens, and others. Twelve separate samples were drawn on for each of the problem behaviours, yielding a total sample size of 3858. Looking at costs and benefits of behavioural change, the study showed that for all problem behaviours, the cons of changing were higher than the pros for those respondents in the precontemplation stage. The opposite was true for those respondents in the action stage. For seven of the twelve behaviours the cross-over in the balance between pros and cons occurred during the contemplation stage; for the other five behaviours it occurred during the action stage. This suggests that a costs-benefits analysis fits well within this approach.

Prochaska *et al.* (1994a) review studies on the transtheoretical model of change and HIV prevention and conclude that the model is also generalisable

to HIV prevention. They highlight the importance of distinguishing between main sexual partners and casual sexual partners and suggest different factors are operating in decisions to use condoms with these two groups (see Chapters 8 and 9 for a discussion of the issues of contraception and HIV prevention).

### *Comparing the models*

There is a clear need for further empirical studies that test these and other models for the adoption of preventive health behaviours, since interventions based upon them have implicitly accepted their assumptions. If the determinants of precautionary behaviours could be identified this would be a significant step forward in campaigns against behavioural diseases such as AIDS, or smoking-related illnesses. There is little doubt that the principal variables identified by these models—perceived risk, perceived severity of the disease, perceived effectiveness of precautions, social norms, self-efficacy and cost-benefit payoff—are important predictors of preventive health behaviours of many kinds. However, the value attached to each element remains uncertain.

## Individual differences

People vary in how they respond to a health threat or prevention measure. Some of this variation can be accounted for by considering person variables. These variables should begin to account for the differences between people in how they respond to similar health threats.

### *Health locus of control*

In the mid-1960s the concept of 'locus of control' was introduced by Rotter and others (Rotter, 1966). This grew out of a social learning tradition which considered the expectations of individuals and how they related to reinforcements. Individuals with an internal locus of control were more likely to believe that reinforcements were contingent upon their own efforts, whereas those with an external locus of control were likely to regard their life as determined largely by external forces such as fate or 'powerful others'.

A development of this broad construct of locus of control was the health locus of control scale constructed by Wallston *et al.* (1978). Questions reflected the three factors mentioned above—an internal focus for health: 'I am in control of my health'; the powerful others factor: 'Whenever I do not feel well I should consult a health professional', and the role of fate: 'Luck plays a big part in determining how soon I will recover from an illness.' There is some evidence (reviewed by Wallston and Wallston in 1984) that high 'internal scorers' carried out a greater range and number of health behaviours; but differences between internals and externals are not diverse, and the amount of variance accounted for by this measure is frequently small (Pitts *et al.* 1991). Furnham and Steele (1993) reviewed the outcomes of locus of control questionnaires, including those

for health, and also found that they accounted for only a low amount of variance. A number of disease-specific questionnaires has been developed; Bradley and colleagues, for example, have considered locus of control in relation to diabetes (Bradley *et al.* 1984, 1990); others have applied the approach to cancer (Pruyn *et al.,* 1988), and to hypertension (Stanton, 1987). Furnham and Steele point out that the critical practical issue for further research is whether locus of control beliefs can be altered by interventions or whether they are more or less 'fixed' traits. Many researchers make the point that the aim of devising a scale is to identify those people who hold maladaptive beliefs. Very little, however, has developed from these identifications. We have already encountered the next variable to be considered in models of health behaviour.

## *Self-efficacy*

Bandura, again from a social learning perspective, has suggested that self-efficacy is a major factor to be considered in accounting for differences in health behaviours (Bandura, 1977, 1986). It has been applied to helping people to quit smoking and to persuading people to indulge in physical exercise. It examines people's beliefs in their own abilities with questions such as: 'I am confident I could deal efficiently with unexpected events', or 'I can always manage to solve difficult problems if I try hard enough'. It has been studied both as a behaviour specific to a narrow situation and as a more general trait construct.

The model has recently been applied to condom use by Wulfert and Wan (1993). They developed an outline of a model which uses self-efficacy as a common pathway to integrate the effects of several cognitive variables that might predict condom use. The first of these variables is sexual attitudes, the second is outcome expectancies, i.e. what would be the effect of using a condom. Comparison and influences from a peer group were seen as important, as were knowledge and perceived vulnerability about AIDS.

The results from this study support the role of self-efficacy as a mediating variable between factors such as peer influence, knowledge and perceived vulnerability and an actual behaviour. Such studies have prompted attempts to enhance self-efficacy beliefs, especially among young adults. Schwarzer has developed a general self-efficacy scale which aims to measure a broad and stable sense of personal competence to deal effectively with challenges in one's life from a variety of sources. Schwarzer contrasts self-efficacy with the concept of optimism described below. Self-efficacy is restricted to one's beliefs about personal resources, focusing particularly on competence; in contrast, optimism is a broader construct which may incorporate a number of other elements, for example luck. That said, clearly the relationship between the two constructs is very close. Schwarzer has translated the self-efficacy scale into several languages. Cross-cultural comparisons can be very tricky; but there is an interesting finding which emerges from a comparison of the studies in different countries. Sometimes gender differences are found, and sometimes not; but in no country yet studied have women been found to score higher than men (Schwarzer *et al.,* 1997). As Schwarzer *et al.* suggest, research is now needed to

establish whether the scale itself is gender-biased or whether the construct of self-efficacy favours men.

## *Optimism*

A relatively reliable finding in health psychology is that when asked to compare one's own risk of something negative against the risk of others like me, I will tend to underestimate my own risk against others'. Judgements are required for statements such as 'Compared with others of my age, my chances of developing …are greater than/the same as/less than them.' The usual response is to judge oneself at less risk of almost any health threat than one's contemporaries. It appears that most people engage in this social comparison bias with regard to many health issues such as risks of lung cancer, AIDS, traffic accident or heart disease. There is also evidence that this kind of optimism is particularly characteristic of adolescence, where it is known as 'adolescent invulnerability' (Quadrel *et al.,* 1993).

These biases are dysfunctional in terms of health behaviours and health promotion. They are likely to act as defence strategies against behavioural change: 'Others need to change their behaviour, not me.' Other kinds of optimism are, however, more adaptive because they imply coping strategies and behavioural change. Researchers such as Sheier and Carver (1992) have shown that optimists have better health and practise more health behaviours than pessimists; this is possibly linked to the fact that optimists expect good outcomes and hence cope better with short-term distress or discomfort. The links between optimism and self-efficacy are close; each construct is measured by questionnaires which are rarely unidimensional. Dispositional optimism is measured by the life orientation test (Sheier and Carver, 1985). This is a short, twelve-item test, which taps people's approach to life with statements like 'I always look on the bright side' or 'I hardly ever expect things to go my way.'

Wallston (1994) has offered an interesting distinction between 'cautious' and 'cockeyed' optimism. The cautious optimist is 'pretty much in touch with reality'; being fairly confident that things will turn out right, the person nevertheless does everything in his or her power to ensure that it does. Confident of success in my driving test I nevertheless revise the Highway Code the night before. The 'cockeyed optimist'—in the words of Rogers and Hammerstein—is 'Stuck like a dope with this thing called hope', who lives in a world of illusion and hardly raises a finger to help bring about his or her desired outcomes. In the context of health care this results in little change towards healthy habits and avoiding unhealthy ones. Given this, one would predict a curvilinear relationship between optimism and health behaviours with only the cautious optimism items predicting uptake and maintenance of health behaviour. Optimism has generated a great deal of research and is likely to remain a key variable in future work.

## Doing health psychology research

Next we need to consider the ways in which data and evidence are gathered in health psychology. Many of the methods are similar to other areas of psychology—experimental tests undertaken in a carefully controlled setting, psychophysiological measures which are related to behaviour, observational studies, are all examples of standard techniques. However, there are a few methods which are used in health research and are less commonly encountered by those with a background in psychology. Some of these will be introduced briefly here.

Research in health psychology shares many characteristics with all psychological research. These are: that the research usually originates with a question; that it demands clear articulation of a goal, and that it requires a specific plan or procedure. Often a large problem, for example 'How can we best help patients recover from surgery?', becomes divided into smaller problems: 'Which kind of information provision before surgery aids recovery?'

Health psychology research is also guided by hypotheses and endeavours to use objective measures. A method frequently used in health research is that of a *clinical trial,* in which one approach (usually treatment) is compared with another to see which is better. It is imperative that such comparisons are fair and one of the basic ways in which this is achieved is by random allocation of people to one treatment or another. Such random allocation should ensure that any differences found between treatments are genuinely just that, i.e. treatment differences, and are not the outcome of a particular kind of person choosing one treatment over another. Randomised clinical trials are often regarded as 'the gold standard' for health research against which other studies may be assessed.

*Cohort trials* are used when a group of people is followed through an experience (treatment) to see how they may change or improve over time. This is a particularly interesting way of examining a chronic condition, or the outcome of a particular intervention or treatment, say, chemotherapy. It is still important, though, that there should be a comparison group against which changes in the cohort may be compared. This is the only way in which we can be sure that the changes observed in the cohort are not simply the result of time passing.

The survey is probably the most widely used, and abused, method in psychological research. Surveys seek to examine people's attitudes, opinions or beliefs about a health issue. Frequently people are asked to report on their own behaviour. It is important that those surveyed can, in some sense, be compared with a wider group of people. We need to know how people were selected for the survey, what the response rate was and whether the findings can be generalised. Finally, the relationship between self-report and behaviour needs to be carefully examined.

*Focus groups,* favoured by political parties and market researchers, are being used increasingly frequently in health research. Focus groups should allow us to gain a greater psychological understanding of human experience by gathering together the opinions, beliefs and attitudes of between six and twelve individuals who are similar in some way. They are brought together to discuss a specific set

of issues. Focus groups rely on the dynamics of group interaction to stimulate the thinking and contributions of group members. This explicit use of group dynamics is what distinguishes the technique from more general 'group interviews'. Focus groups have been used to investigate a wide range of issues such as people's views on contraception (Barker and Rich, 1992), drink driving (Basch *et al.,* 1989), and media coverage of AIDS (Kitzinger, 1994). The focus must be clearly set—for example via a short video. The group must 'gel'—often achieved via introductions and sharing of common experiences/goals—and contributions must be encouraged, and opposing views as well as consensus examined. There is more than one way to cook a goose, and focus groups are frequently used in conjunction with other methods. Sometimes they are a first method and used as a preliminary tool, for example, before designing a questionnaire. This enables the use of appropriate terms and words in the questionnaire, which otherwise might be imposed by the researcher. Focus groups are usually used when issues are poorly defined, when the *quality* of information to be elicited is vital and participants for the groups can be recruited relatively easily.

*Epidemiology* is the study of how often diseases occur in different groups of people and how disease outcomes can be measured in relation to a population at risk. This population is defined as those people, sick or well, who would be counted as cases if they contracted the disease. A study population might be defined by a shared characteristic such as geographical location, as in the Alameda County study (Belloc and Breslow, 1972), by occupation, as we shall see in the Whitehall studies (Chapter 16), or by diagnosis, i.e. people in a given location who were first diagnosed with a disease in a given period of time.

It is important to remember that, unlike clinical observations which relate to individuals, epidemiological observations determine decisions about *groups*. Its conclusions are frequently based on comparisons between groups of people. It may also estimate the relative risk of a person contracting a disorder by comparing incidences. However, this cannot and does not predict with any degree of certainty that an individual will develop a disease or disorder. You will encounter the results of epidemiological surveys throughout this book.

Finally, there are some general questions which should be asked of any research: these (adapted from Crombie, 1996) can be characterised as follows:

- Was the research worth doing?
- Are the findings substantial or trivial?
- Do they have theoretical and/or practical import?
- Are we the better for them having been done?

## Ethics in health psychology research

Ethical issues must inform all research, but there are particular responsibilities within the area of health psychology. There is nearly always some conflict between the needs of research and the needs of individuals who are 'being researched'. The following quotation makes this tension explicit:

> Social scientists…have a genuine obligation to devise protections for the

> right of privacy and to avoid mere psychic voyeurism. At the same time they have a compelling obligation to collect data: there is an obvious conflict between the need of society to know and the right of the individual to dignity and privacy.
>
> (Stagner, 1967)

Many of the participants in health research are especially 'vulnerable': they may have just received bad news, they may be anxious about impending treatment, they may be children. As such, we have special responsibilities to ensure that we respect their rights when carrying out research; there is a basic edict which is: do no harm. All health research should require that participants give informed consent; in other words, that participants in the research understand what it is that is being asked of them and formally agree to participate. Issues of understanding become central to this process. Participants in research must also understand that the research is separate from their treatment and that a refusal to participate will not jeopardise their chances of the best treatment available. Research that is carried out in medical settings can be particularly problematic in establishing this. Anonymity and/or confidentiality are critical in settings where information can be passed to a fairly wide range of people, and where it can be potentially damaging or embarrassing for the participants.

Finally, issues of creating a comparison group can be extremely difficult to justify to oneself and to participants. If we believe that a particular intervention may be beneficial to patients, how can we withhold it from randomly selected patients allocated to the control condition, to establish its efficacy? This dilemma is usually resolved either by comparing different possible treatments—not really a resolution of the difficulty, but at least countering the 'no treatment' issue; or by offering the treatment to the 'control' or comparison group following completion of the study—again hardly a resolution of the dilemma. Would you withhold treatment from participants to achieve a comparison group?

As researchers in the area of health psychology, we must be aware of these problems and ensure that the research we carry out follows the highest possible ethical standards.

Other chapters in this book will enlarge on much of what has been covered here. Specific problems and issues will be examined in detail in the light of the theories and models described above. We need, though, having examined some of the areas of interest to health psychologists, to consider further its future as a discipline. Marteau and Johnston (1987) have sounded a warning note about the development of the field. They caution that 'the relative neglect of psychological models and paradigms in work considered under the rubric of health psychology, results in approaches to problems in clinical and research contexts that owe more to a medical than a psychological perspective.' Johnston (1988) also suggests that at least five separate kinds of literature on health psychology appear to be developing, according to the problem studied and the journal in which the research is published. It is becoming increasingly difficult for any one person to keep abreast of the literature on the diverse areas of interest that are encompassed by health psychology. It must be hoped that increasingly research and theory building for one particular health issue will more clearly

inform and guide research in other related topics, and that psychological models of health behaviour will give rise to effective interventions for promoting health.

**HEALTH AND BEHAVIOUR**

- Make a list of five things you do to protect your health.
- Now list five things you do which are injurious to your health.
- What do the two lists tell you about health protective behaviours and behavioural pathogens?
- How would you change two of the behaviours on the 'dangerous list'?
- Are there barriers to making that change? What could you do to overcome these?
- How does your analysis compare with any one model of health behaviour outlined in this chapter?
- You may like to compare your lists with that of another person who is different in age or gender from you. Why are your lists similar or different?

## Key point summary

- Any activity which is related to health, illness, the health care system or health policy is within the domain of health psychology.
- Certain health behaviours or habits are related to good health and others can be predictors of mortality. There are wide differences between people in the extent to which they practise such health behaviours.
- Theoretical models incorporate concepts such as risk perception, severity, barriers and motivational aspects which come together with any particular model as an explanation of the process of adopting healthy behaviours, or avoiding unhealthy ones.
- Individual differences are important in predicting health behaviour. Constructs such as self-efficacy, locus of control and optimism have been found to be useful in explaining people's behaviour.
- Health psychologists have a duty to ensure that participants in their studies are protected from harm and able to make informed decisions about their participation.

## Further reading

Conner, M. and Norman, P. (1996) *Predicting Health Behaviour*. Buckingham, Open University Press. This book provides a review of the major models of health behaviour outlined in this chapter and gives good coverage of relevant studies and criticisms of the models.

Karoly, P. (1991) *Measurement Strategies in Health Psychology*. London, Wiley. This is the standard textbook outlining the variety of measures used in health psychology .

Nicolson, P. (1993) A day in the life of a Health Psychologist. *The Psychologist,* 6 (11), 505–509. This article gives an idea of what it is like to work as a health psychologist and the kinds of problems encountered.