

Part I

INTRODUCTORY OVERVIEW

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Chapter One

HEALTH PSYCHOLOGY: SOME INTRODUCTORY REMARKS

Ad Kaptein and John Weinman

'Everyone who is born holds dual citizenship, in the kingdom of the well and in the kingdom of the sick.'

(Sontag, 1979: 3)

Health psychology is concerned with the study of psychological processes in health, illness and health care. Health psychologists study behavioural factors associated with staying healthy, and they examine how patients with health problems can be helped to improve their quality of life. They may also examine individuals in an experimental setting, work with groups in real-life settings, or observe social interactions taking place between health-care professionals and patients in a variety of health-care contexts.

Health psychology is one of the fastest-growing subdisciplines in psychology, if not the fastest. In the next paragraphs we will provide a brief and concise introduction to the area of health psychology, with some illustrations of its main foci of interest, both theoretically and empirically.

HEALTH PSYCHOLOGY IN CONTEXT

Health and illness have long been the object of scientific and clinical interest for psychologists. The separation between 'psychological' on the one hand, and 'physical, medical or somatic' on the other, is quite superficial and unhelpful – modern developments in the area of psycho-neuro-immunology, for example, or in the area of interrelationships between genetic and behavioural factors in staying healthy or becoming ill, are just some illustrations of this statement.

The relatively successful application of learning-theory principles to patients or clients with psychological problems (e.g. phobias, neurotic symptoms) inspired psychologists to apply these principles to patients with various physical disorders, and examine the effects of those interventions (see the special issue of *Journal of Consulting and Clinical*

Psychology (1982) on 'Behavioral Medicine' (Blanchard, guest editor) and the special issue on 'Behavioral Medicine and Clinical Health Psychology' published 20 years later (Smith, Kendall, & Keefe, guest editors, 2002) to gauge the progress made). The development of health psychology was also greatly stimulated by publications that demonstrated the impact of behaviour on health status. Physicians and governments were quick in involving psychologists in programmes aimed at encouraging populations and individuals to adopt lifestyles that are conducive to health (Conner & Norman, 2001).

Most authors of the chapters in this book are too old to have had the relative luxury of being able to buy books on health psychology or read journals focusing specifically on health psychology when they were students or postgraduates, as they simply did not exist prior to the 1980s. Relevant knowledge had to be discovered, and was hidden in books and papers on clinical or social psychology, or, for instance, endocrinology, neurology or sociology. Health psychology was first used in a book title in 1979 (Stone, Cohen & Adler). Some 25 years on, one would need a large bookcase to hold all the books that have 'health psychology' in their titles or that belong to the category of health psychology. The year 1979 was an important year for the formal establishment of the subdiscipline. The book by Stone et al. (1979) was published, and in September 1979, Matarazzo presented his presidential address to the Division of Health Psychology at an APA meeting. The title of his address was 'Behavioral Health and Behavioral Medicine – Frontiers for a New Health Psychology' (Matarazzo, 1980). He defined health psychology as '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, and the identification of etiologic and diagnostic correlates of health, illness, and related dysfunction' (p. 815). In the 1982 definition, the following text was added: '... and to the analysis and improvement of the health care system and health policy formation' (Matarazzo, 1982: 4).

Health psychology is sometimes confused with a number of related disciplines (Weinman & Petrie, 2000). Figure 1.1 summarizes the position of health psychology and those disciplines in a grid with 'psychology–medicine' on the *x*-axis, and 'mental disorders–physical disorders' on the *y*-axis. Of course, separating 'mental problems' from 'physical disorders' is artificial, and the allocation of the different disciplines into their positions in the four quadrants may be somewhat forced.

The quadrant with 'psychology' and 'physical disorders' constitutes *health psychology*. As we will discuss in detail in the next section, in health psychology, psychological theories and methods are applied in order to examine how to ensure that people stay healthy or achieve better adaptation to or recovery from illness.

Clinical psychology focuses on patients, or clients, with mental health problems (e.g. phobias, anxiety disorders, depression, substance abuse problems). The theoretical models and interventions that clinical psychologists apply to clients with these problems have been shown to be quite effective (White, 2001). This has encouraged clinicians and researchers to apply these models to individuals with physical health problems as well. In this sense, health psychology and behavioural medicine were influenced

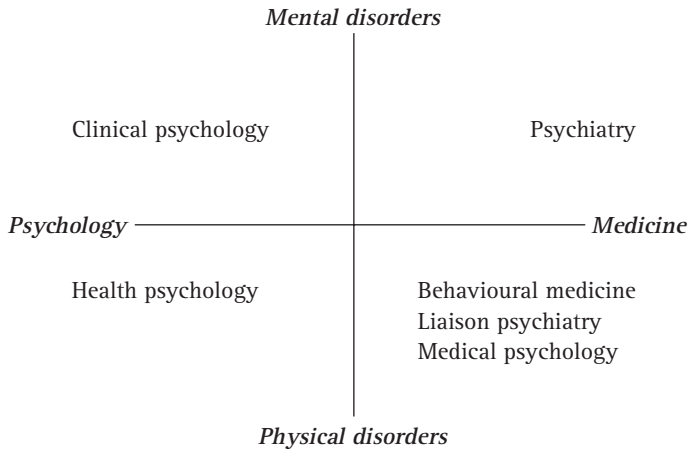


Figure 1.1 Health psychology and related disciplines

and shaped by clinical psychology, and there are now many clinical psychologists who work in the area of clinical health psychology (e.g. Bennett Johnson, Perry & Rozensky, 2002; Llewelyn & Kennedy, 2003).

Psychiatry also focuses on patients with mental health problems. Psychiatrists mainly adopt a biomedical approach to patients with such disorders, applying medication and medical treatment. Currently, psychiatry appears to be dominated by biomedical, genetic and molecular views on disturbed behaviour: the journal *Molecular Psychiatry*, for instance, has one of the highest impact factors in the psychiatry field. However, within psychiatry there are practitioners who make use of psychological treatments, either on their own or more commonly in conjunction with medical approaches.

Behavioural medicine, liaison psychiatry and medical psychology are in the quadrant 'physical disorders' and 'medicine'. These three disciplines all focus on physical disorders and diseases, although there are differences in their emphasis and theoretical background. *Behavioural medicine* is defined as 'the interdisciplinary field concerned with the development and integration of behavioural, psychosocial, and biomedical science, knowledge and techniques, relevant to the understanding of health and illness, and the application of this knowledge and these techniques to prevention, diagnosis, treatment and rehabilitation' (Outlook SBM, 1995: 1). In an earlier definition of Behavioural Medicine, a sentence was added to the definition: 'Psychosis, neurosis and substance abuse are included only insofar as they contribute to physical disorders as an endpoint' (Schwartz & Weiss, 1978: 249), clearly delineating clinical psychology and behavioural medicine. Central to behavioural medicine is its interdisciplinary nature, and the emphasis on integration of behavioural and biomedical knowledge. In addition, although behavioural medicine also incorporates (primary) prevention, just like health psychology, behavioural medicine's emphasis is more on treatment and rehabilitation. A comparison of the content of the major journals in behavioural medicine (*Annals of Behavioral Medicine*, *Behavioral Medicine*, *International Journal*

of *Behavioral Medicine, Journal of Behavioral Medicine*) with the major journals in health psychology (*Health Psychology, British Journal of Health Psychology, Psychology & Health*) easily demonstrates this point.

Liaison psychiatry is a subspecialty within psychiatry, focusing on patients in a medical setting whose responses to illness – for medical or psychological reasons – lead to problems for the patient themselves and/or the medical staff. Although liaison psychiatry and health psychology have developed over a similar period of time with a number of overlapping interests and concerns, there are some important differences between the two fields. Whereas liaison psychiatry has its major focus on patients with physical health problems and who are experiencing psychological difficulties, health psychology has a much broader remit since it is concerned with all behaviours which influence health and illness in all individuals. Thus, while health psychology has focused on the development of theoretically based explanations and interventions for health-related and illness-related behaviours, liaison psychiatry has been concerned primarily with the diagnosis and treatment of people with either unexplained symptoms or with psychiatric disorders occurring in the context of a physical health problem.

Medical psychology used to be the term for describing the disciplinary area for psychologists who worked in medical settings (medical schools and hospitals), and who diagnosed and managed patients with physical health problems and were often involved with teaching and training of medical students and staff about psychology as applied to health and illness. However, this term is used much less frequently now, as most psychologists working in these contexts tend to be called health or clinical health psychologists.

HEALTH PSYCHOLOGY AND ITS FOUR FIELDS

We now move on from defining and demarcating scientific disciplines to illustrations of the four core elements of health psychology.

The *first* element of health psychology, given Matarazzo's definition, is the promotion and maintenance of health. Studies in this area are aimed at healthy individuals, and where health psychology is instrumental in achieving this aim. Wardle (2000) has labelled this 'public health psychology', and has outlined various areas where health psychology can play a role. These include understanding and modifying health behaviours (cf. Chapter 2 in this book), mass communication about health, or elucidating the pathways through which population-level factors affect health (Hardey, 1998).

Kaplan pointed out how 'promotion and maintenance of health' have very different connotations in medicine and (health) psychology (Kaplan, 2000). Prevention in the medical context pertains to 'identifying an existing disease at an early stage and eliminating the problem before it gets out of control', while prevention in behavioural models pertains to 'maneuvers that reduce the chances that a health problem will ever develop' (Kaplan, 2000: 382). Physicians and others working with a medical model of health and illness define activities that scientists and clinicians who work in a behavioural model would call 'secondary prevention' as 'primary prevention'.

This is a matter that is not only limited to a semantic issue, or to confusion in medical students and behavioural-science teachers when they teach about prevention. As Kaplan emphasizes, 'Secondary prevention is typically based on a traditional biomedical model that requires the diagnosis and treatment of an existing condition and that usually involves one or more of the following: medical diagnosis, surgery, or use of medications. Primary prevention is usually based on a behavioral rather than a disease model. Diagnosis plays a lesser role because there is no disease to diagnose. Intervention is typically behavioral and might include exercise, dietary change, or the avoidance or reduction of alcohol use. Interventions might also include public policy changes' (2000: 383). However, in the context of secondary prevention, reduction of disease risk or progression may be achieved by behaviour changes, such as smoking cessation or dietary changes (see also below). Chapter 2 on health behaviour, Chapter 13 on primary prevention and Chapter 15 on worksite health promotion in this book contain empirical illustrations of this first field of health psychology: promotion and maintenance of health.

The *second* element, prevention and treatment of illness, has some overlap with the first area, but more obviously focuses on people who have been identified to be at risk for disease (e.g. those who have been screened to be at risk for coronary heart disease or stroke from blood pressure screening, or for colorectal, cervical or breast cancer as the result of screening programmes involving testing for faecal occult blood, the cervical smear test and mammography, respectively). Here the aim is to detect risk or early signs of disease at an early enough stage in order to eliminate or slow down its development. Prevention may then be achieved through behavioural changes and/or medical options, such as anti-hypertensive or lipid lowering medication, which also involve a major behavioural component (i.e. adherence to the treatment).

Health psychologists have an excellent track record when it comes to psychological interventions in people who are ill. Meta-analyses, Cochrane reviews, and handbooks on this subject are available. The *Handbook of Clinical Health Psychology*, edited by Millon, Green and Meagher (1982), is the first of a long and impressive list of books in the area of (clinical) health psychology (e.g. Baum, Revenson & Singer, 2001; Bennett-Johnson et al., 2003; Llewelyn & Kennedy, 2003; Sutton, Baum & Johnston, 2004). Many chapters in these books deal extensively with theoretical, methodological and empirical issues in the area of 'chronic somatic disorders – coping, assessment, and interventions'.

If we consider three of the major physical illnesses and some of the best intervention studies from a (clinical) health psychology point of view, a number of important papers illustrate what the field has to offer. Linden, Stossel and Maurice (1996), in a meta-analysis of behavioural interventions in cardiovascular disease, conclude, 'The *addition* of psychosocial treatments to standard cardiac rehabilitation regimens reduces mortality and morbidity, psychological distress, and some biological risk factors' (p. 745). In the area of cancer, Rehse and Pukrop (2003) and Meyer and Mark (1995) present two meta-analyses on the effects of psychosocial interventions on 'quality of life' and other major outcome measures. The conclusions by Meyer and Mark are of the utmost importance: 'it would be an inefficient use of research resources to conduct more studies . . . to ask the simple question: Is there an effect of behavioral,

educational, social support, and non-behavioural counselling and therapy interventions on the emotional adjustment, functional adjustment, and treatment- and disease-related symptoms of cancer patients? These interventions have a consistent beneficial effect on all three areas' (p. 106). In the area of the third leading cause of death in developed societies, chronic obstructive pulmonary disease (COPD), Lacasse et al. (2003) in a Cochrane review conclude that psychosocial interventions 'relieve dyspnea and fatigue, and enhance patients' sense of control over their condition. These improvements are moderately large and clinically significant' (p. 1; see also Kaptein & Creer, 2002).

Two issues deserve discussion. The first has to do with the kind of outcome measures which health psychologists choose as dependent variables in the intervention studies examining effects of psychological or psychosocial treatment on various conditions. As outlined by Kaplan (1990) in his important paper 'Behavior as the Central Outcome in Health Care', choosing observable outcome measures which make sense in the real world is his preferred type of dependent variable. It is important to consider Kaplan's views when planning a study, or when studying the research literature in health psychology. All too often, health psychologists fall victim to the 'self-report predicts self-report trap', and so it is no surprise to find high correlations between self-reports of, for example, self-efficacy, and self-reported quality of life. Self-reports are highly susceptible to self-presentation bias and it is equally important to try and predict more 'objective' indicators, such as survival, resumption of work and social activities (Petrie et al., 2002). Secondly, various authors, health psychologists themselves, increasingly publish critical papers on various major issues in health psychology. For example, Ogden (2003) has critically reviewed the social cognition theories developed in the health psychology domain, and concluded that 'If social cognition models are to be given the status of theories, then it is recommended that the critical eye that psychologists place on other areas of research also be cast on this one' (p. 427). Similarly, Salmon and Hall (2003) have critically reviewed one of the pet concepts of health psychologists ('patient empowerment and control') – these papers illustrate the coming of age of health psychology: the area is being criticized by scientists who contribute to the further development of health psychology.

The *third* element of health psychology in Matarazzo's definition is 'etiologic and diagnostic correlates of health and illness'. Illustrations of these two topics can be found in almost any recent issue of a health psychology journal. Appels' work on 'vital exhaustion' as a contributor to the incidence of myocardial infarction is a very good example of the role of a psychological factor in the aetiology of a major illness (van Diest et al., 2002). A study on patient-controlled analgesia is an example of 'diagnostic correlates of health and illness' (Lang et al., 2000). Patients who had to undergo invasive diagnostic procedures were randomized into three groups: (a) standard care, (b) structured attention, and (c) self-hypnotic relaxation. Pain, anxiety, analgesia use and 'theatre time' were all significantly lower in the structured attention condition.

The *fourth* and final element is 'health care system and health policy'. Health psychology research aiming at examining or changing the health-care system and/or health policy is rather scarce. The *Journal of Health Psychology* is an important source of debate on this issue. The topic of 'critical health psychology' (Radley & Chamberlain,

2001) is dealt with in that journal quite frequently. The journal *Sociology of Health and Illness* publishes important papers on this fourth element of health psychology, albeit – of course – with a sociological emphasis.

TYPES OF HEALTH PSYCHOLOGY RESEARCH

As in every other area of psychology, there are very different types of research conducted within health psychology. A broad distinction can be made between four broad categories of study, namely those which are descriptive, explanatory, predictive or intervention-based.

At the most basic level are the *descriptive studies*, which represent a very useful first step in research since they provide accounts of the nature and range of key behaviours or other psychological processes. For example, descriptions of the levels of engagement in different health behaviours such as daily exercise or dietary intake (see Chapter 2, by Steptoe & Wardle, in this volume), or of the ways in which people cope with stressors, including major health problems (e.g. Scharloo et al., 1998) provide an important database for the discipline. Thus descriptive research in health psychology may involve accounts of types of different health or illness behaviours (see for example Chapters 2 and 4 in this volume), or descriptions of processes, such as doctor–patient communication (see Chapter 11, this volume).

However, more valuable for the long-term progress of the discipline are the insights and the potential provided by explanatory, predictive and intervention studies. Typically, *explanatory and predictive studies* will involve either the development or application of psychological theories (see the next section below). A large number of theories have been developed for explaining variations in health- and illness-related behaviour, and these continue to be refined in order to improve their explanatory and predictive power. Theories have been borrowed from other areas of psychology, particularly from social psychology, and applied to the explanation of different health behaviours. For example, the theory of planned behaviour (TPB) (Ajzen, 1991), a general theory developed for showing how individual and social contextual attitudes explain variations in behaviour, has been successfully adopted for explaining a wide range of health behaviours (Godin & Kok, 1996). Similarly, self-regulation models, which have been developed to explain goal-directed, adaptive responses to general threats (e.g. Carver & Scheier, 1998), have also been derived in very specific formats to explain patterns of response to health-related threats (e.g. Leventhal, Nerenz & Steele, 1984). In a discussion of general and health-specific models of self regulation, Cameron and Leventhal (2003) draw attention to the importance of having models which capture the unique aspects of the illness experience, such as the primary role of symptoms, the major threats of illness and the complexities of decision-making associated with treatment adherence. Nevertheless, they also point to the important interchange between general and health-specific models, and the potential which this can offer for enhancing the flow of information between the fields of social cognition and personality and health psychologies. In this way health psychology research can effectively

inform the development of theory in these other fields; and so the fields can develop in synchrony.

Despite the importance of descriptive and explanatory studies for establishing the empirical and theoretical basis of health psychology, a more definitive test of theory or of a proposed explanatory model needs to involve experimental or quasi-experimental methodologies. Increasing levels of confidence in explaining health and illness behaviour can be gained from studies in which independent variables (e.g. arousal, emotion, knowledge, beliefs, etc.) are experimentally manipulated in order to see whether this results in predicted/hypothesized changes in behaviour or other outcomes, including health. This can be achieved using laboratory-type experimental methods where tight control can be exercised over the manipulation of independent variables and where dependent variables can be observed and/or measured with precision. For example, psycho-physiological studies have been conducted to establish relations between such factors as stressors and both physiological (e.g. blood pressure; salivary control; immune function) and psychological outcomes (e.g. mood; information processing). Similarly there is increasing use of analogue or vignette studies, which not only allow the researcher to investigate how individuals respond to imagined scenarios (e.g. being provided with a genetic test result – Senior et al., 1999) but also to see how responses are affected by the manipulation of specific variables, such as the type of information presented or the way in which it is framed. Inevitably these types of study can be criticized as not being real or as lacking in ecological validity (Parkinson & Manstead, 1993), but there is now increasing evidence about their utility (e.g. Lanza et al., 1997).

In the longer term, the most valuable types of experimental or quasi-experimental study in health psychology will be those involving *interventions* based on the findings from earlier explanatory studies. For example, building on the growing evidence that beliefs play an important role in explaining difference in health- or illness-related behaviour, there are now a small but growing number of intervention studies designed to modify beliefs as a basis for changing behaviour and related outcomes (see Petrie et al., 2002; Rutter & Quine, 2002). These not only provide a test of the intervention but can also allow the researcher to assess the role of the underlying theory.

Another important distinction in health psychology research is between the use of qualitative and quantitative research methods, which can differ considerably in their approach and function. Quantitative approaches typically involve the use of structured methods for measuring and/or manipulating variables, and for defining relationships between them in order to describe processes, test hypotheses or examine the impact of an intervention. In contrast, qualitative research is more concerned with understanding the meaning of experience or situations as they are interpreted by the individuals participating in a study.

Traditionally, psychology research, and health psychology research in particular, have relied more on theory-based quantitative methods, but there is increasing use of qualitative methods for guiding research and developing theory (e.g. Murray & Chamberlain, 1999). There is not space here to discuss the assumptions underlying qualitative research or to map out the range of approaches, which can be used for data

collection or analysis. Nevertheless it is important to note that many methods exist, including interview, focus groups and observational methods, and these typically but not exclusively involve the use of audio- or video-recording for the collection of data. For example, many of the studies of doctor-patient interaction referred to in Chapter 11, by Bensing and Verhaak, in this book, are based on audio or videotaped analyses of medical consultations. These can be analysed either quantitatively by counting the frequency of different types of utterance, or qualitatively by examining the ways in which doctor and patient interact or interpret their roles. Most commonly, qualitative research involves the use of in-depth interviews or focus group discussions to generate data, which then can be analysed in a range of ways, which vary in their level of imposed structure and their underlying assumptions.

The qualitative/quantitative distinction is sometimes presented or perceived as a competitive, either-or issue, and this is both absurd and pointless. The two approaches differ in their intent and underlying assumptions, and researchers need to be clear about the overall aims of their research in order to select the appropriate method. While there are some research questions in health psychology where one particular approach is clearly most appropriate, there are many others which can be answered by either method or both. Thus one is not superior to the other but it is important to recognize the value of both and to make choices according to the nature and scope of the research question.

THEORY IN HEALTH PSYCHOLOGY

A core part of the evolution of any discipline involves the development, application and evaluation of theory in order to be able to explain why and in what circumstances specific phenomena occur. Theories are crucial not only for providing agreed structural descriptions of key processes, but also for providing guidelines for designing research studies at all the levels outlined in the previous section. Hence theories can and should shape the design of research, as well as providing frameworks for the interpretation of research findings which, in turn, provide evidence for assessing the adequacy of theory.

Early work in health psychology often made reference to the importance of the bio-psychosocial model (Schwartz, 1982) as the basis for developing research or intervention studies. At that time, this broad concept might have been helpful to make a contrast between the aims and approaches which needed to be adopted in health psychology and those used in medicine, but this model does little more than highlight the broad domains which need to be considered.

A wide range of theories of differing levels of specificity and complexity have now been developed within health psychology. This range is very much reflected within the chapters in this book, where many different types of theory are alluded to, or presented in some detail. Some of these have been developed specifically for use in health behaviour research, whereas others have been developed and used more broadly in psychological research.

Some areas of health psychology, such as the investigation of health-related behaviour (Conner & Norman, 1996), have been dominated by theoretical approaches, and this has allowed health psychologists to evaluate and compare the explanatory or predictive value of different theories. This, in turn, has led to very active theory testing and development in order to improve the explanatory power of the theories. The proliferation of social cognition theories for explaining health-related behaviour has recently resulted in attempts to categorize or group the theories according to the stage or component of the behavioural process which the theory is attempting to explain. For example, Armitage and Conner (2000) have presented a three-way classification of the social cognition models which have been used in health behaviour research. They distinguish between motivational, behavioural-action and multi-stage models, and then attempt not only to evaluate the contribution of each type but also to determine the extent to which core constructs can be identified and integrated across the models.

In contrast, other research areas in health psychology, such as the investigation of health-care practitioner-patient communication, or the study of effects of stress on immunity, have been less dominated by theoretical development and may involve studies with little or no theoretical basis. The absence of theory in research is generally to be regretted since this creates inherent difficulties for developing and evaluating research, as well as for assessing the progress made within any research field. In this latter sense, the evaluation of theories is one way of providing a record of the progress made in developing adequate explanation and prediction.

Theories in health psychology incorporate a wide range of explanatory variables within models with very different levels of complexity. Some, such as social cognitive theory (Bandura, 1986), place a major explanatory emphasis on a small number of key variables, for which well-developed measures are available. Others, such as Leventhal's self-regulation model (Leventhal et al., 1984), incorporate more variables within a looser framework. Although many theories acknowledge the importance of cultural and social contextual variables, very few have made serious attempts to incorporate these in meaningful ways. Nevertheless, a very wide range of explanatory constructs can be found in the theories currently used in health psychology. These include very specific constructs such as reinforcement from behavioural theory, social cognitive variables with a focus on beliefs and attitudes, as well as other major processes such as emotions, self-goals and broad dispositional variables such as personality and intelligence. In this way, the explanations of health and illness behaviours are informed by explanations and general theories of behaviour in order to capture the diversity of factors which determine how people respond in health and illness contexts.

As better ways of explaining processes, behaviours and outcomes in health psychology are developed, this should inform the development of more effective interventions. Theory-based interventions should result in more structured and informed approaches for modifying health or illness behaviours, provided that the theory on which they are based has been shown to have sufficient explanatory power. As we discussed earlier, many interventions in clinical health psychology have been based on the cognitive-behavioural theories and methods originally developed in clinical

psychology. However, with the development of more elaborate social cognition and self-regulatory models in health psychology, there is now a greater possibility for using constructs from these models for refining interventions and for explaining how interventions do or do not achieve their effects.

Using theory for creating new interventions to change health or illness behaviours should be a careful process involving a number of steps and stages (e.g. see Campbell et al., 2000) in order to ensure that the intervention is developed and will work in a true theory-based way. Although attempts have been made to develop theory-based interventions (see Hardeman et al., 2002; Rutter & Quine, 2002), work in this area is still at a very early stage. An additional problem arises from the fact that many interventions which have been used in health psychology involve multiple components to achieve a range of outcomes. For example, interventions which have been developed to improve coping or self-management in patients with a chronic illness, such as rheumatoid arthritis, typically involve a package with components such as goal-setting, teaching cognitive coping skills and stress management amongst others (see Astin et al., 2002). With these it is often very difficult to tease out why and how the intervention has or has not been effective, and to identify the key ingredients of a successful intervention on either theoretical or empirical grounds.

There is still much to be learned about the best ways of structuring interventions to incorporate theoretical constructs, which are presumed to be explaining a particular health or illness behaviour. As yet, we know relatively little about the most effective ways of modifying social-cognitive or self-regulatory processes in ways which will result in long-term changes in behavioural, emotional, symptomatic or other health outcomes. This is particularly true in areas of health psychology such as psychoneuro-endocrinology, where theory is much less developed and where attempts to use psychological intervention to enhance immune function have so far proven rather inconclusive (Miller & Cohen, 2001).

JOURNALS AND BOOKS IN HEALTH PSYCHOLOGY

A growing number of journals focusing on health psychology have been established in the past 10 to 20 years, helping the field to develop. *Health Psychology* is the subdiscipline-linked journal with the highest number of subscriptions of all APA (American Psychological Association) journals, and it has the highest impact factor score of journals in the specific health psychology area (American Psychologist, 2003; <http://isi4.newisiknowledge.com>). The other key journals include *Psychology & Health*, *British Journal of Health Psychology*, *Journal of Health Psychology*, and *Psychology, Health & Medicine*. In addition, health psychologists publish papers in journals with a more or less explicit multi-disciplinary focus such as *Journal of Psychosomatic Research*, *Psychosomatic Medicine*, *Social Science & Medicine*, *Behavioral Medicine*, *Patient Education & Counseling*, *Quality of Life Research*, or in general psychology or medical journals (e.g. *Psychological Bulletin*, *Lancet*, *Archives of Internal Medicine*). Some non-English-language national journals publish important health psychology

papers as well. These include *Zeitschrift für Gesundheitspsychologie* (Journal of Health Psychology) in Germany, and *Gedrag & Gezondheid* (Behaviour & Health) in the Netherlands.

Books on health psychology are published at an impressive rate (e.g. Bennett Johnson, Perry & Rozensky, 2002, *Handbook of Clinical Health Psychology*; Johnston & Johnston, 2001, *Health Psychology*; Llewelyn & Kennedy, 2003, *Handbook of Clinical Health Psychology*; Nezu, Nezu & Geller, 2003, *Health Psychology*; Sutton, Baum & Johnston, 2004, *Handbook of Health Psychology*). The present volume is another illustration of the virtual explosion of information in the area of psychology as applied to health and illness. Universities all over the world have initiated health psychology tracks, including Masters of Science Health Psychology courses. Societies for Health Psychology have been established in the USA (Division 38, APA; www.health-psych.org), Europe (European Health Psychology Society; www.ehps.net), and in the UK (the Division of Health Psychology within the British Psychological Society; www.health-psychology.org.uk).

HEALTH PSYCHOLOGY – DISCIPLINE OR PROFESSION?

In recent years, health psychology has developed strongly as a discipline, but there is still uncertainty about the nature of the professional roles and training needs of health psychology practitioners. One important step in this process was the publication of *Health Psychology: A Discipline and a Profession* (Stone et al., 1987), a collection of papers from a conference which brought together leading US health psychologists in a discussion of training-related issues. The contributors attempted to define the knowledge and skills base of health psychology, as well as identify the contexts where these could be applied. This early volume is therefore something of a landmark in the attempt to map out the disciplinary and professional basis of health psychology.

Earlier in this chapter we outlined the emergent knowledge base of health psychology, and we also referred to the many textbooks and journals devoted to the discipline which provide strong evidence of its scope and quality. The professional development of health psychology has inevitably taken longer, but this is now clearly beginning to happen in many countries. Textbooks in clinical health psychology (e.g. Bennett Johnson et al., 2002) and on health-psychology-based interventions (e.g. Rutter & Quine, 2002) provide clear indications of the ways in which health psychology approaches can be applied in preventive or clinical settings. Despite this, there is still a lack of consensus as to the best way to train psychology graduates for the professional roles which are now recognized within health psychology.

One example of a training model is the tripartite approach to professional training in health psychology which originated in the UK, with its view of professional practice in terms of research, teaching and training, and consultancy, and this has been mapped out and developed in a companion volume by Michie and Abraham (2004). In addition to these three core areas of professional practice, there are a range

of other roles involving interventions at all sorts of levels from delivering primary prevention to providing support and behaviour change initiatives in people with major health problems, as we have outlined earlier in this chapter.

Within Europe there have been attempts to define the core areas of training for professional health psychology, and some common themes are emerging (Marks et al., 1998; McIntyre et al., 2000). As the key aims and methods of professional training in health psychology are mapped out, and as professional roles emerge, there will be a greater understanding of what health psychologists can and should be doing to improve health and health care.

In this book, we have been very fortunate in obtaining very high-level contributions on the main areas of health psychology from major experts in the field. In addition to providing current, critical overviews of these key areas, many have also provided excellent examples of the wide range of professional roles which are possible for health psychologists. Over the next few years, there will need to be further development and agreement about the content and best methods for implementing professional health psychology training. As health psychologists branch out and apply their knowledge and skills more widely to the improvement of health and health care, this will provide an excellent real-world test of the adequacy and applicability of their knowledge and theoretical base. Inevitably the result is that we will become more aware of the gaps in the knowledge base as well as the limitations in the explanatory value and relevance of current theories. This, in turn, will provide the impetus for further work incorporating refinements in research methods and theoretical models, in the continuing attempts to improve our understanding of the role of psychological factors in health, illness and health care. Although health psychology is still in its relative infancy, so much has already been achieved and there is the promise of so much more to follow. We very much hope that the present volume provides both a representative account of the progress in the discipline and serves as a foundation for the development of professional roles and training.

DISCUSSION POINTS

1. Summarize the reasons underlying the emergence of health psychology, and relate these to the limitations of a narrowly biomedical view of health and health care.
2. Write down in a few sentences how the disciplines in figure 1.1 would conceptualize myocardial infarction, how each of the disciplines would go about reducing distress in patients with a myocardial infarction, and which theoretical approach each discipline would be using.
3. Find out what the most important journals are respectively for the six disciplines (figure 1.1), based on SSCI and SCI impact factors.
4. Find, study and critically review an empirical paper on what health psychologists would designate 'primary prevention'. Find, study and

- critically review an empirical paper on what physicians would designate 'primary prevention'. Analyse similarities and differences.
5. Design the outline, by giving chapter titles, of a book that introduces health psychology to undergraduate psychology students; design the outline, by giving chapter titles, of a book that introduces health psychology to graduate psychology students; and a book that introduces health psychology to medical students.

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