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Over the past decade the education of physiotherapy students has been broadening, and although every course differs, many now include psychology, sociology, health education, philosophy, disability studies and counselling. Practising physiotherapists are increasingly encouraged to continue their education after qualifying and many post-registration courses reflect this wider approach. The role of physiotherapists is also changing as their work shifts from hospital to community settings and as more now work with patients and clients who are mentally ill or have learning difficulties.

This book is aimed to meet the needs of both physiotherapy students and practising physiotherapists. It draws together a wide range of topics, mostly in the fields of psychology and sociology and, where appropriate, attempts to combine psychological and sociological knowledge. The authors, most of whom are physiotherapists, have particular expertise in these areas and have applied the knowledge to physiotherapy practice. Although the book is written for physiotherapists, most of the topics are relevant to other health workers. The book aims to be informative, analytical and stimulating. Every chapter is well referenced to enable the reader to pursue each topic in greater depth. In an attempt to avoid sexist language, physiotherapists and patients are referred to as 'she' on some occasions and as 'he' on others.

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Preface

Most importantly of all, I would like to thank the many physiotherapy students without whose challenges, insights and encouragement over the years, I would never have developed the expertise or the confidence to write or edit this book.

Sally French
Before approximately 10,000 BC people lived as hunter-gatherers, moving around in small groups without any settled agriculture. Although there are few reliable records from this period, it is believed that the infectious diseases were not a common cause of death. Life expectancy was, nonetheless, short due to starvation, hunting accidents and exposure. The first agricultural revolution occurred around 10,000 BC resulting in larger, more settled communities where crops were cultivated and animals domesticated. This increased the density of the population creating favourable conditions for the spread of infectious diseases which were to remain the main health hazard of human beings until recent times. There were frequent epidemics of plague, cholera, dysentery and typhoid, but although these epidemics and pandemics were very dramatic, giving rise to enormous loss of life in an extremely short space of time, they probably had less effect on overall mortality than endemic diseases such as tuberculosis.

Starvation was also a major cause of death, though according to Sharp (1987) it did not occur on a large scale in England after 1625, as by then agricultural practice had resulted in the production of greater supplies of food for the population. Malnutrition, however, was extremely common creating great susceptibility to infection. In addition the low resistance of infected individuals meant that they had the disease for a long period of time resulting in large scale spread.

Malnutrition, poverty and disease are intimately related. Xerophthalmus, which is a common cause of blindness in the Third World, is associated with malnutrition and infectious disease. Sanders (1985) explains that when recovering from diseases such as chicken pox and measles, the body needs greater quantities of vitamin A and if this is not available visual impairment results. Similarly diarrhoea, which is the most common cause of childhood death in many parts of the Third World, is more likely to affect malnourished children and in turn leads to further malnutrition through anorexia and loss of nutrients. Malnutrition and poverty are also 'transmitted': a malnourished mother will tend to have small, sickly babies who will be susceptible to infection. There may also be difficulty with breast feeding. This early deprivation, both before and after birth, can affect the health status of the individual throughout life. In addition, if large numbers of people are ill or seriously malnourished there may be an insufficient workforce to provide enough food to meet the needs of the community.
Physiotherapy: a psychosocial approach

Infections pass from one to another most easily and rapidly in overcrowded conditions. This explains why many diseases in modern industrial societies are not widely prevalent until children go to school, as their first years are spent mainly within the confines of the small nuclear family. In earlier times and in many Third World countries today, diseases such as measles and whooping cough occur in younger children who live in poor and overcrowded conditions. Their immaturity, together with malnourishment, lowers their resistance, leading the diseases to run a more severe course, frequently resulting in death.

Until the latter part of the seventeenth century in Britain, any tendency for the population to increase was kept in check by starvation, malnutrition and the infectious diseases. The birth rate was high but, when in a situation of poverty, this can actually lead to an increase in mortality; it puts pressure on the mother’s health and predisposes to small, sickly babies who will only be breast fed until the next one arrives, leading to malnutrition. Tuberculosis was very common and there were frequent ‘mortality crises’ brought about by famine, pandemics and epidemics. After about 1680 the population started to increase, at first modestly but later very rapidly. Between 1757 and 1841, for example, the population of England rose from 6 to 15 million. The rise in population was due to increased fertility and reduced mortality. Increased fertility was the main factor until 1870 but after that decreased mortality became more important.

There has been much speculation regarding the factors responsible for the rise in fertility at this time, including more marriage, earlier marriage, better nutrition and healthier mothers. Infant survival can also lead to reduced fertility if the mother breast feeds for an extended period, as this inhibits ovulation. Various theories have also been put forward to account for the decline of infectious disease, including more education, improved personal hygiene and medical intervention, but it is commonly believed that improved nutrition and public hygiene were most important. It is interesting to note that at the time of the sanitary reforms it was believed that disease was spread by foul smells and gases, illustrating that theory does not necessarily have to precede effective practice.

Sanders (1985) lists various factors which improved health in Britain after 1850 including purification of water, efficient disposal of sewage, provision of safe milk, improved hygiene, better nutrition, improved living and working conditions and, to a lesser extent, preventative and curative medical measures. The declining virulence of certain organisms, such as those responsible for syphilis and scarlet fever, played a small part, and there is no doubt that increased political awareness and greater opportunity for a larger section of society to become politically active, were very important.

Despite the overall increase in fertility and reduction in mortality, the health status of different sections of society was very uneven, a situation which persists today. Thus health depends not only on wealth but on how that wealth is distributed, who has the power and how society is ordered. Various social changes which eventually reduced poverty and increased wealth caused great hardship to certain sections of society for an extended
period of time. The enclosure of common land in the nineteenth century, for example, resulted in greater production of food but also forced poor people off the land which had been their only livelihood. Similarly the industrial revolution eventually created wealth, part of which was used to improve social conditions, but the centralization of work forced people from cottage industries in the countryside to factories in the cities where they worked long, hard hours for little reward and where overcrowding at home and inhumane work practices created ideal conditions for the development of illness and the spread of infection.

Although reforms were gradually made this did not occur without substantial opposition, and foremost in the minds of many employers was the necessity to maintain a healthy workforce to increase production, rather than any humanitarian concerns. Similarly war in recent British history facilitated the development of medical services in order to be sure that present and future generations would be fit enough to fight. The Emergency Medical Service of the Second World War had a strong influence on the ideology and structure of the National Health Service, and the house building programme which followed the war reduced overcrowding (U205 Course Team, Open University, 1985a).

Sagan (1987), in his controversial book, claims that improvements in health in industrial countries were evident before any improvements in nutrition or public hygiene had taken place. He points out that death rates in premodern societies were just as common where food was abundant as where it was not and that infants from noble families were just as likely to die as those from poor families. This is certainly not the case in much of the Third World, however. Sanders (1985) reports that children from families who own no land are five times more likely to die before the age of 5 years than children whose families own 3 acres of land and that elite groups in the Third World have infant mortality rates similar to those of the industrial world.

Sagan (1987) believes that when people live in a situation of deprivation and scarcity they quite rationally develop a fatalistic and authoritarian view of life. Children are regarded as an economic necessity, rather than individuals to be valued and nurtured, and people are generally mistrustful of each other. He believes that this leads to helplessness, low self-esteem and general psychological debility which, together with low levels of education and poor social integration, give rise to stress, resulting in illness.

In contrast to this, modern society is viewed by Sagan (1987) as relatively free from stress and comprising creative, strong, resourceful individuals who are well equipped to deal with misfortune should it arise. He explains this by reference to parenting styles of the modern nuclear family who are now in a position to cherish, nurture, respect and support their children enabling them to develop high levels of mastery and self-esteem. Sagan believes that this early experience helps people to form strong, supportive social networks, as well as powerful coping strategies, to protect themselves from stress and illness. Similar ideas are expressed by Totman (1987) who believes that health is preserved by purposeful activity and commitment and that illness results from social upheaval and disorientation.
Physiotherapy: a psychosocial approach

Sagan (1987) regards a high level of education within a community as essential for good health and believes that, ‘the statistical association between literacy and health is consistently stronger than that between health and income’. He is supported in this view by Merrick (1985) who found that education had a greater influence on infant mortality in Brazil than clean water. Sagan believes that people learn to deal with stress, and thus prevent illness, through education and supportive social networks and goes as far to suggest that the historical association between grain prices and death had more to do with stress than lack of food.

The notion that psychological state has an influence on health and survival is not new, it is known that stress affects adversely the body’s immune system (Antoni, 1987) and the will to live can be crucial when recovering from illness. Murray Parkes (1975) found that events such as bereavement greatly increase the incidence of illness and death and Broadhead (1983) believes that a supportive social network of relatives and friends helps people to cope in any situation of crisis.

From 1870 there was a rapid decline in mortality from the infectious diseases in Britain and the Western World. This marked the start of the slow move away from infectious diseases towards chronic diseases which comprise the main health problems faced in industrial countries today. The infections did, however, remain a considerable health hazard until recent times and even now they are by no means eliminated. McKeown (1979) points out that many air-borne diseases, such as influenza and measles, still have a high incidence though they rarely give rise to large scale mortality or serious morbidity. Rapid international travel makes the spread of infection easier, however, and new infections still arise as the recent development of AIDS so clearly illustrates.

In Britain and other wealthy countries, the fall in the mortality rate from 1870 coincided with a fall in the birth rate resulting in a gradual slowing of population growth. Since the Second World War it has remained virtually static. The reasons for this decline in fertility remains controversial. It is likely that as child mortality fell parents became more confident that their children would survive, and it has been suggested by Sanders (1985) and Sagan (1987) that various economic and political changes, including compulsory education, restriction of child employment and the development of state benefits, made children less of an economic asset to their parents. How far children were an economic advantage is, however, a matter for debate. The high incidence of infanticide in Europe until the last quarter of the nineteenth century, which Kuhse and Singer (1985) and Turshen (1989) suggest was a way of keeping the population in check, throws doubt on these ideas, as does the large numbers of children abandoned at this time.

Sagan (1987) focuses attention on psychological factors as a possible cause of decreased fertility. He states: ‘The sense of self-efficiency, orientation towards time, social mobility and openness to new experiences, have all been suggested as factors that contribute to declining fertility.’

Education, improved self-esteem, choice and a range of opportunities to
pursue in life, have all been found to reduce the desire for early and prolonged motherhood (The Child Mothers, Horizon BBC, 1990).

HEALTH AND ILLNESS IN BRITAIN TODAY

In Britain today heart disease, respiratory disease and cancer account for about 70% of all deaths. A similar pattern exists in other industrial countries, although there are many interesting differences in the incidence of specific diseases. Most of the increase in the incidence of these diseases is attributable to the altered age structure of the population as they are all basically diseases of old age. This is not to imply that they are inevitable and that nothing can be done to reduce their incidence as many appear to be related to behavioural and social factors such as eating habits, pollution, cigarette smoking, alcohol consumption, lack of exercise and the maldistribution of wealth, which in principle can all be changed. The various factors causing disease, illness and disability in contemporary Britain, as well as their uneven distribution among different groups within society, will be discussed in detail in Chapter 2.

Cancer of the lung is by far the most common cancer claiming 35 000 lives in Britain each year. It is known to be closely associated with cigarette smoking. The other major cancers are those of the large intestine, breast and stomach. Pneumonia is the most common fatal respiratory disease claiming 57 000 lives in Britain each year. This high incidence is not surprising as frail, elderly people with underlying respiratory pathology are particularly susceptible.

There are about 1000 deaths per year resulting from industrial accidents in Britain, as well as approximately 500 000 reported industrial injuries which is almost certainly an under-estimation of the true incidence. Industry is also fully or partially responsible for many diseases such as asbestosis and bronchitis, though it is notoriously difficult to prove. Turshen (1989) believes that industry resists public health regulations and that it welcomes the germ theory of disease, which became dominant at the end of the nineteenth century, as it conceptualizes disease as biological and arising randomly within individuals rather than being the product of social and political processes.

Although accidents account for relatively few deaths, loss in terms of years of life is very great, far exceeding deaths from cancer. Years of life lost is calculated by subtracting the age at which the individual died from the mean age of death for that society. Motor cycle accidents, in particular, account for a large number of years lost. 'Accident' is, perhaps, the wrong word to use because such deaths are not randomly distributed throughout the community and can usually be explained quite rationally.

So far this discussion has focused on mortality. Measuring morbidity and tracing changes over time is far more difficult. Unlike mortality, illness is subjective meaning different things to different individuals. People vary widely in whether or not they use the health service, how much they use it and how they deal with their symptoms from day to day. Lack of historical data makes any coherent discussion of past morbidity patterns impossible and...
Physiotherapy: a psychosocial approach

is complicated by changes in the way disease has been classified at different times. For example much is written about 'sweating sickness' which is not a category used or understood today. Scarlet fever and diphtheria were classified as one disease until 1855 and the category 'old age' was in use until the beginning of the twentieth century, but is no longer considered to be a cause of death.

The diseases which are now in evidence are largely chronic and associated with old age, though there is much evidence to suggest that their cause is partly social and behavioural. These diseases include heart disease, respiratory disease, cancer, stroke, circulatory diseases, neurological diseases and arthritis. They are not all life threatening. Most disability is associated with these diseases with only a tiny minority of disabled people having hereditary or congenital conditions. The latter tend to be emphasized however, giving the false impression that disabled people comprise a small minority within society. The number of disabled people does, of course, depend on how disability is defined. Reports by Bone and Meltzer (1989) and Martin et al. (1989) estimate the number to be approximately 6 million, though many believe this to be an under-estimation. It is clear from the report by Martin et al. (1989) that disability is largely acquired in later life.

People suffering from mental illness comprise a large proportion of the patient population today. Mental disorder is the second most common reason for visiting the general practitioner and in 1985 patients with mental illness occupied approximately 35% of all hospital beds (U205 Course Team, Open University, 1985a).

Whether there has been a real increase in mental illness, or what the incidence of mental illness was in the past is, however, impossible to say. Psychiatry is a young science and there is still enormous difficulty regarding classification and categorization of the various symptoms and syndromes. Although the classification system has steadily improved, reliability and validity is still far from perfect. For example Rosenhan (1980), in his famous study, demonstrated that psychiatric workers could not distinguish mentally ill from 'normal' people.

Mental illness can be viewed in biological, psychological and social terms (Tyrer and Steinberg, 1987, French, 1989). Szasz (1961) believes that mental illness is nothing more nor less than a myth, Laing (1967) that it is a type of super-sanity, Braginsky et al. (1969) that it is a form of malingering and Goffman (1961) that it is a convenient way of removing from society those whom powerful people regard as undesirable. Collins et al. (1980) note that people from certain ethnic minorities are more likely to be labelled mentally ill, and Levontin et al. (1984) note that a diagnosis of schizophrenia is more often given to working class people living in cities than to others. Women are also more likely than men to be diagnosed as mentally ill.

Confinement in stark, impoverished institutions and the stigma attached to the label of mental illness, are, in themselves, recognized as sufficient to produce or worsen disturbed behaviour, thought or feeling. The stigma will also determine people's willingness to acknowledge psychiatric symptoms within themselves as well as their readiness to seek help. Distinguishing
'normal' from 'abnormal' behaviour and mental processes is fraught with problems and varies from time to time and place to place. Homosexuality, for example, has been described as an illness, as a criminal activity and is now in the process of normalization. People in severe poverty may not have the luxury of attending to their psychological needs and may be part of a culture which considers such 'symptoms' as tiredness, depression and anxiety a normal part of life. All this has led many to regard mental illness as socially constructed (Cochrane, 1983).

Before 1850 it was common for those classified as 'mad' to live either with their families or in workhouses with other deviants such as criminals and beggars. However, some private madhouses were established as early as the fifteenth century. Their standards varied enormously but were generally very poor. Gradually asylums specifically for the insane were opened, often by religious philanthropists. They were regarded as retreats where kindly 'moral treatment' was provided to help people get well. The York Retreat, established in 1796, is described by Davison and Neale (1990): 'York Retreat was established on a country estate. It provided the mentally ill with a quiet religious atmosphere in which to live, work and relax. They discussed their difficulties with attendants, worked in the garden and took walks in the countryside.'

This situation was not to continue. In the second half of the nineteenth century large, public mental asylums were erected and mental disturbance was 'medicalized'; the asylums were termed 'mental hospitals' and the people in them 'patients'. The number of people confined in these institutions rapidly increased and, as they did so, the philosophy and treatment practices, which were initially humanitarian, were gradually eroded resulting in stark institutions of confinement and harsh treatment. The situation became progressively worse, for as the numbers rose the asylums became more expensive to run leading to cost cutting measures rendering conditions even worse. Money which had originally been spent on everyday care was now used to purchase expensive medical and laboratory equipment.

The rate of insanity rose from 12.66 per 10,000 to 19.12 per 10,000 between 1844 and 1860 and the number of people per asylum rose from 386 in 1860 to 1072 in 1910 (U205 Course Team, Open University, 1985a). This huge expansion probably had more to do with industrialization, which created an unwillingness or inability to tolerate unusual or deviant behaviour, than a real increase in mental disturbance. The growing influence and power of the medical profession at this time may also have been influential. Wide-scale concern for people incarcerated in mental handicap and psychiatric hospitals did not occur until the second half of the twentieth century. These hospitals are now being closed and, to some extent, mental illness and mental handicap are undergoing 'demedicalization' though many criticize the way in which this is taking place and are sceptical about the motives behind it. (For more detail on institutions the reader is referred to Chapter 6.)
HEALTH AND ILLNESS IN THIRD WORLD COUNTRIES TODAY

In many Third World countries today, birth, death and morbidity rates are poorly documented, making accurate statistics impossible. Nevertheless, it is clear that their health status is similar to that of industrial countries, such as Britain, 200 years ago, with high infant mortality, low life expectancy, malnutrition and a high incidence of infectious diseases such as tuberculosis and measles; the exotic tropical diseases are not a major cause of death. Although some improvement in the health status of Third World countries has occurred, it has been much slower than that of developed countries, thus the gap between them has widened.

In this discussion individual countries of the Third World will not be discussed, although in reality they show considerable variation. In Sri Lanka, for example, the gross national product (the total output of a national economy expressed in monetary terms) is low, but the health of the population is relatively good due to equitable distribution of resources. In some richer countries the health of certain sections of society are far worse than that experienced in Sri Lanka.

At the present time the population of the Third World is growing much faster than that of the developed world, although it should be realized that the population density of Third World countries is often less than that of industrial countries. As noted above, the population of Britain went through a similar period of growth in the nineteenth century. This pattern of low to high growth, eventually returning to low levels again, has been termed the ‘demographic transition’. The industrial countries have reached the end of this transition and are now experiencing low mortality and low fertility rates, resulting in an ageing population. The Third World, on the other hand, is at the earlier stage of population growth which, together with high mortality rates, has given rise to a population with large numbers of young people and relatively few old people.

Much ‘victim blaming’ occurs in discussion of Third World population. On the surface it seems only common sense for people in poverty to restrict the size of their families, the reasons for not doing so are often put down to ignorance, lack of education and irresponsibility. Having a large family, however, may be an advantage when in a situation of poverty. Children can help with the everyday chores and even earn money or goods from a young age. They may be the parents’ only insurance against destitution when old due to lack of pensions and other state provisions. People with larger families may be entitled to more land and there is always the possibility of one child obtaining a good job which will raise the living standards of the whole family. Thus population growth can be viewed as a symptom of poverty rather than a cause of it. Sanders (1985) points out that poor families in India must have 6.5 children to be 95% sure that one son will survive. He believes that a decline in mortality is almost a necessity for a decline in fertility.

According to Sagan (1987), economic growth also leads to better educated women who tend to become pregnant later and who have ambitions other than motherhood. As noted above Sagan (1987) believes that psychological
factors, such as improved self-esteem and confidence, and social factors, such as varied opportunities and mobility, are very influential in reducing fertility.

Much attention is given to Third World countries at times of acute food shortages. These episodes are usually interpreted in terms of drought, poor agricultural practice, war, ignorance and religious ideologies which prohibit or restrict contraception and encourage population growth. Although some of these factors may be important, what is often forgotten is that many people in the Third World are already seriously malnourished or ill and it therefore takes little to reduce them to starvation. Maldistribution, rather than lack of resources, is usually the root cause of famine, many people in the Third World simply do not have sufficient money to buy available food. Such inequality lies within Third World countries as well as between them and industrial countries. There may be discrimination on grounds of class, gender, and religious affiliation with most of the wealth, including the best land, being owned by foreign capitalists and elite groups within society.

Turshen (1989) points out that large powerful food industries of the developed world have contributed to the food shortages and malnutrition of Third World countries by using available land for non-arable crops: tea and coffee, animal feed and luxury goods for export. Some Third World countries export more food than they import, or exchange it for commodities which only the elite can afford. The development of a world market has meant that foreign industries have destroyed or undermined those of the Third World. It is worth remembering that: 'The gulf in wealth between rich and poor countries is so great that the 10% or so of population growth attributable to the industrial countries will consume approximately the same volume of the world's natural resources as the 90% of increase located in the Third World countries' (U205 Course Team, Open University, 1985b).

Despite the similarity of poverty and disease in many Third World countries to that of industrial countries 200 years ago, many have argued that the origins of the problem are dissimilar. As the industrial revolution grew and international trade increased, so too did colonization. The colonies served the interests of the colonial powers, not the indigenous populations, which led to the stripping of their wealth and the use of fertile land to grow crops for export.

The colonists evicted many people from the land, working the new plantations with slave labour, they also introduced many new viruses and bacteria into these countries. Although there is much controversy, many believe that the rich industrialized countries continue to create and maintain poverty in the Third World. As Sanders (1985) puts it '. . . the over-development of the one depends on and creates the under-development of the other'.

**THE MEDICAL CONTRIBUTION**

The view that medicine made a major contribution to improvements in health of the British population, by controlling infectious diseases, has been disputed. The reason for this scepticism is that much of the decline in mortality had
occurred before any effective medical treatment was available and was due to improved diet and social conditions. McKeown (1979) and Sagan (1987) provide a great deal of evidence to illustrate this point. Mortality from tuberculosis, for example, declined sharply before the introduction of antibiotics or BCG inoculation.

McKeown (1979) illustrates a similar pattern of decline for many other infectious diseases, including poliomyelitis, measles, whooping cough and diphtheria. In the case of some of these diseases, in particular poliomyelitis, diphtheria and tuberculosis, medical intervention does appear to have had some effect, as mortality rates dropped more sharply after medical measures were introduced. Royle (1987) notes that the incidence of smallpox declined dramatically after the introduction of compulsory inoculation in 1871, though Sagan (1987) remains sceptical as the disease was already declining rapidly. For other diseases, for example measles and whooping cough, the decline in mortality has been no greater since the introduction of inoculation than it was before, making an assessment of the medical contribution difficult (McKeown, 1984).

McKeown (1984) notes that, with regard to diarrhoea, cholera and dysentery, 95% of the decline in incidence had occurred before intravenous therapy was introduced in the 1930s and that medical treatment had no influence on the decline of typhus and typhoid. Sagan (1987) believes that 'much of public health practice is instituted after the problem has already been solved' and Turshen (1989) states that, 'medical efficiency was discovered when it was already largely irrelevant'. However, earlier medical intervention may not have helped very much as it is relatively ineffective if nutrition and environmental conditions are seriously inadequate. Turshen (1989) believes that it is wasteful to concentrate on a particular disease rather than on the underlying social, political and economical organization of that society. He refers to vaccines as 'a quick fix' and suggests that improvements in living standards and nutrition would help to eliminate many diseases. However, Lever (1977) points out that there is no evidence that a better environment would improve health today just because it did in the past.

It must also be said that some of the infectious diseases which medicine has, in a small way, helped to reduce, were always rare. McKeown (1979) points out that before the First World War, tetanus was only responsible for seven deaths per million and both poliomyelitis and smallpox were relatively uncommon diseases. Thus the reduction or eradication of such diseases, though important, had little effect on overall mortality or morbidity rates.

McKeown has been criticized for focusing exclusively on the infectious diseases and the biomedical role of medicine rather than medicine's role in prevention and the alleviation of symptoms. He also says little about the development of anaesthetics and aseptic procedures in the nineteenth century. Despite these omissions his ideas have not been seriously undermined.

How far medical intervention helps to prevent, control and reduce suffering from illness, disease and disability today is an issue of much dispute. Sagan (1987) points out that there is no relationship between expenditure on health care and health, and Sanders (1985) considers that the training of health
professionals is unnecessarily long and that they have too much power.

Sagan (1987) states that most medical procedures have never been adequately evaluated and that there is little evidence that expensive provision, such as coronary care units, makes any difference to survival or recovery rates. He complains of the overuse of antibiotics and surgical procedures such as Caesarian section and hysterectomy, and believes that widespread screening does more harm than good by creating stress and labelling people as ill, thereby actually creating illness. Turshen (1989) makes the point that screening, when used to uncover stigmatizing diseases, such as AIDS, can be used unfairly to discriminate against people. McKeown (1979) believes that, with the exception of dentistry, '... there is no wholly effective treatment for the non-fatal illnesses which trouble people from day to day', though he acknowledges advances in many areas of medicine including obstetric practice, replacement surgery and genetics. There has also been success with some of the rarer forms of cancer, and the drugs used in psychiatric practice have enabled many mentally ill people to lead independent and productive lives.

There has also been much criticism of medical care in Third World countries. Medical services have been patterned on those of industrial countries with an orientation towards cure rather than prevention. Although medical technology has had some success in alleviating disease, the underlying causes remain unchanged. Large sums of money have been spent on sophisticated teaching hospitals where indigenous health workers tend to congregate. Sanders (1985) states that the cost of construction of one teaching hospital in Zambia could have been used to build 250 health centres in the countryside where most people live. He concludes that their own traditional practices and practitioners have been discredited and believes that for health care to be successful in the Third World it must be demystified and democratic and carried out by ordinary, local people. Werner and Bower (1982) and Feuerstein (1986) agree, though such ideas are often fiercely challenged by high level health workers. Sanders (1985) also points out that unscrupulous, multinational companies export dangerous goods to Third World countries and that people from the Third World have been used unethically in clinical trials.

Third World countries lose far more doctors and nurses than they gain through emigration and frequently cannot afford to employ such highly trained people. In parts of India children as young as nine are taught to recognize the signs and symptoms of all the common diseases and are given the responsibility of educating people in their community and making sure they are all immunized (All Our Children, BBC1, 1990).

Various suggestions have been put forward regarding how medicine should change in order to address the political, social and behavioural origins of illness, disease and disability. McKeown (1979) believes that there should be specialist doctors of environmental health to investigate and control the many health hazards that are present in all aspects of daily life. He is convinced that far more weight should be given to the social origins of ill-health in medical education and that patients' needs outside hospital should
be addressed more fully.

Tudor Hart (1984) agrees that doctors should abandon their traditional role, of merely attempting to cure disease once it has occurred, but rather should strive to conserve the health of the entire population. To illustrate doctors’ social passivity, he points out that even though diphtheria toxoid was available from 1913, doctors still concentrated their efforts on treating the disease which cost the lives of thousands of children. Similarly, although it is known that cigarette smoking is one of the major health hazards of our time, this knowledge has not been reflected in clinical practice. Tudor Hart describes the present role of doctors as one of ‘shopkeepers passively responding to sick customers’ and urges them to become ‘active guardians’ of their registered populations. He advocates a large medical team, including people with social knowledge and skills, and an expansion of preventative medicine and health education which, he contends, should be a central component of the medical curriculum. He believes that we need ‘... a new kind of doctor, with new functions within a new structure’.

Turshen (1989) believes that the split between clinical medicine and public health is a great obstacle to progress and that the education of health professionals and others should be integrated. He thinks all health professionals should be educated in the social sciences, advocates integrated research which includes a social perspective, and urges health workers to be sceptical of science.

Others are more critical of medicine. Illich (1984), one of the main critics, views the medical profession, not as an altruistic body orientated to the needs of sick and disabled people, but as a self-interested monopoly which creates illness and dependency giving rise to ‘one of the most rapidly spreading epidemics of our time’. He believes that medical rhetoric and impressive technology have fostered the false impression that medicine is highly effective. Illich is supported in these views, at least in part, by many others including Kennedy (1983), Robin (1984), Jennett (1986) and Coleman (1988).

Illich (1984) believes that medicine has done more harm than good by creating a large amount of iatrogenic disease – disease which is caused by medicine. He views iatrogenesis in physical terms, for example addiction to barbiturates, surgical accidents, unnecessary treatment and infection contracted while in hospital, and in social and psychological terms, for example dependence on medical professionals, the de-skilling of people with regard to the management of illness, and the ‘medicalization’ of everyday aspects of life, such as birth and death, which he believes reduces people’s ability to cope and fosters unhealthy responses. Many people query whether mental illness and mental handicap should ever have been described medically and a reversal of this process is now in progress. McKeown (1979) agree that, ‘Doctors have always tended to over-estimate the effectiveness of their intervention and to under-estimate the risks’.

In contrast to this Navarro (1984) puts no blame on health professionals with regard to medical practice, but rather views them as pawns in a capitalist system which values profit more than health. He believes that if there is a conflict of interest between health and capital accumulation, then health will
always come last. Ideas and ideologies which conflict with capitalism are likewise suppressed and neglected in education and research, and decision-making is heavily weighted in favour of powerful groups within society. Thus dangerous industrial processes may be allowed to continue in order to ensure high profits, regardless of the health consequences to people carrying them out. Cigarette smoking, which is known to cause thousands of premature deaths every year, is promoted, people are encouraged to eat starchy food which leads to obesity, and poor housing, low incomes, unemployment and stressful environments persist regardless of the effect they have on health.

Attempts to improve health are invariably focused on the individual and his behaviour, a process which Ryan (1976) termed ‘victim blaming’. Navarro (1984) and others such as Doyle (1983), believe that medicine is an agent of the state treating illness, disease and disability as it arises rather than confronting the underlying causes, thus maintaining the status quo. To take a political and social rather than a medical approach to the problem of health, illness and disability, would obviously be far more expensive than the provision of a health service and would disrupt power relationships within society on which capitalism is based.

Turshen (1989) agrees that clinical medicine does not threaten vested interests as a public health approach would and believes that the germ theory of disease maintains the political and social status quo. He believes that immunization campaigns are, ‘only as good as the analysis of the political situation in which they are mounted’. Turshen views access to health as access to education, employment and decision-making, not merely admission to medical care. Clearly health, illness, disability and disease are tied as much to sociology, politics and history as they are to biology. Yet introducing sociology and politics into medical and paramedical education is problematic, for as well as broadening professionals’ views it also challenges fundamental assumptions about medicine on which practice is based.

McKeown (1979) thinks that to tell students at the start of their medical education that most patients are not cured by medicine and that health does not primarily depend on medical intervention is like a ‘slap in the face’ and Sanders (1985) believes that, ‘it is not in the interests of the medical profession to examine, and still less to confront, the fundamental social roots of illness’.

The introduction of a social perspective into medical and paramedical education has been slow to develop, though May and Clarke (1980) believe that its inclusion is one of the most striking developments in medical education in recent times. The General Medical Council (1987) views sociology in medical education as under-represented and the Chartered Society of Physiotherapy (1984) believes it is an essential part of pre-registration education. French (1988a) found that second year physiotherapy students, following a BSc degree course, viewed sociology as both interesting and relevant to physiotherapy practice.

Despite this, sociology is still a Cinderella subject in medical and paramedical education, with few hours being allocated to it when compared with disciplines like anatomy and physiology. Its integration with other subject areas also tends to be poor, emphasizing its peripheral status.
Sociology in medicine is usually perceived in terms of providing a context in which to consider ‘real’ biological medicine rather than being a central component of medicine, and because of the breadth of sociology when applied to health, disease, illness and disability, the more controversial issues can easily be avoided. This is especially so if it is merged with psychology under the title of ‘Behavioural Sciences’. Sociological concepts are complex and if taught superficially they can easily reinforce prejudices and stereotypes rather than dispel them.

It is interesting to speculate on why sociology has found its place in medical and paramedical education at all. It may be an attempt to give these professions a more human face, in the light of growing criticism from patients regarding the interpersonal behaviour of professionals, though it has been suggested that this more humanistic style may merely be a tactic for getting patients to comply and conform now that the old authoritarian approach is unacceptable (French, 1988b). The growing popularity of ‘alternative’ practitioners, who have tended to be more ‘holistic’ in their approach, is also posing a threat to orthodox medicine as they compete for patients.

CONCLUSION

Where does all this leave the physiotherapist? Turshen (1989) believes that both practice and education need to be radically transformed if health is to improve substantially. He states: ‘... we need a radical transformation of public health work and the epidemiology that supports it so that it is no longer orientated to the control of single diseases. Concepts of complex social prevention in place of medical prevention, the integration of social science in medicine, concepts of social class, knowledge of political economy and the goals of equity and access must inform public health work and education in the health professions’.

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In 1980 a research working group, chaired by Sir Douglas Black, produced *The Black Report* which documented inequalities in health in Britain since the Second World War. This report is summarized by Townsend and Davidson (1982). The Health Education Council commissioned an update of the evidence leading to a second report, *The Health Divide* in 1987. This report is summarized by Whitehead (1988). Both reports clearly demonstrate that health is closely associated with social class, favouring those in the higher social classes, and that the National Health Service has been unsuccessful in bringing about health equality.

The overall standard of health has improved for the entire British population over the course of this century. The standardized mortality rate for babies under one year, for example, was 10% in 1900 and is now approximately 1%. Life expectancy has also increased, with more people living into middle and old age. Whitehead (1988) reports that life expectancy increased by 2 years in the short period between 1973 and 1983 and Hendricks and Hendricks (1978) state that people born in 1960 can expect to live 20 years longer than those born in 1900. Despite this major overall improvement there is little evidence that the gap in health status between the social classes has reduced, in fact Whitehead (1988) believes it has widened in most respects, though she cites post-neonatal deaths (deaths between one month and one year of age) as an area where the gap between the social classes has narrowed.

**SOCIAL CLASS**

Social class is a complex concept and no totally adequate way of measuring it exists. Some measures which have been used are educational level, housing tenure, car ownership, income, crowding, neighbourhood and occupation. They are all crude measurements but nevertheless tend to produce similar results which greatly increases their validity. Whitehead (1988) believes that, 'There can be no doubt that these inequalities exist however imperfect the measuring tool'. Furthermore Smith and Jacobson (1988) point out that if two or more systems of classification are used simultaneously even larger social class differences can be seen.

The Registrar General's classification of social class, based on occupation, is the most frequently used measure. Knowledge of occupation provides some indication of living standards, lifestyle and income. Using this measure the
social class of single people is classified according to their own occupation and the social class of families is derived from the husband’s occupation, though the occupation of his wife is now recorded in the Census. The Registrar General’s classification divides occupations into six social classes (Table 2.1).

### Table 2.1 Registrar General’s classification of social class based on occupation

<table>
<thead>
<tr>
<th>Social class</th>
<th>Occupation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Professional</td>
<td>Doctor, lawyer</td>
</tr>
<tr>
<td>2. Managerial and lower professional</td>
<td>Physiotherapist, teacher</td>
</tr>
<tr>
<td>3N. Skilled non-manual</td>
<td>Clerk, secretary</td>
</tr>
<tr>
<td>3M. Skilled manual</td>
<td>Plumber, electrician</td>
</tr>
<tr>
<td>4. Semi-skilled</td>
<td>Bus driver, postman</td>
</tr>
<tr>
<td>5. Unskilled</td>
<td>Labourer, road sweeper</td>
</tr>
</tbody>
</table>

A serious short-coming of this system is that it fails to classify unemployed people who tend to be the poorest members of society.

### MEASURING HEALTH

Measuring health is fraught with problems, not least because it is so difficult to define and encompasses social and psychological well-being which are very subjective and individualistic. The mortality rate is frequently used to judge the health status of a population because it is by far the most objective measure and is a fairly sensitive indicator of health. It is not an entirely adequate measure, however, because many diseases and disabilities do not lead to an early death, thus mortality rates do not give an adequate picture of morbidity rates. Morbidity is defined in different ways according to time, culture and individual beliefs. Furthermore, not everyone reports disease, illness or disability to medical authorities, thus its true extent remains obscure.

### SOCIAL CLASS DIFFERENCES IN HEALTH

Mortality rates and morbidity rates rise as socioeconomic class falls. The most striking contrasts are seen when social classes one and five are compared. Fox et al. (1986) point out that in 1985 the mortality rate of social class five was twice that of social class one, dropping to a 50% increase in old age. Smith and Jacobson (1988) state that the life expectancy of a child born to a family in social class five is 8 years shorter than that of a child born to a family in social class one and that the excess avoidable deaths of manual workers aged between 16 and 74 years, between 1979 and 1983, was 42 000. They state: ‘... the total excess mortality associated with manual work social classes amounts to the equivalent of a major air crash or shipwreck every day’.
Townsend and Davidson (1982) found that the mortality rate for men in social classes four and five was higher than that for men in social classes one and two for 65 of 78 diseases, with the trend being reversed in only one case. Smith and Jacobson (1988) note that working class men are three and a half times more likely to die of coronary heart disease than professional men. Findings such as these leads Whitehead (1988) to refute the notion that coronary heart disease is a disease of affluence and, talking of stress, Sanders (1985) states: ‘. . . the main sufferers are not over-worked businessmen but those involved in the repetitive, unsatisfying and highly disciplined process of production’.

Women in social classes four and five had a higher mortality rate than women in social classes one and two for 62 of 82 diseases, with the trend being reversed in just four cases. Townsend and Davidson (1982) note that between the ages of one and 14 years, death is more common in 23 of 38 diseases for boys in social class five when compared with boys in social class one, in only one case was the trend reversed. Children in social class five are ten times more likely than those in social class one to die as a result of accidents and seven times more likely to be killed when pedestrians. Smith and Jacobson (1988) note that people from the manual social classes have poorer survival rates from cancer and heart disease.

The Black Report and The Health Divide show that people from the higher social classes have the lowest infant mortality rate, the lowest suicide and parasuicide rate and the lowest rate of mental illness. They also experience less stillbirths, prematurity, illness and disability. Blaxter (1984) found chronic illness and disability to be more prevalent in manual workers who also experienced poor psychological well-being and physical fitness when compared with professional workers. Whitehead (1988) and Smith and Jacobson (1988) point out that dental problems are much more common in social classes four and five, although the situation has improved in recent years.

People from social classes one and two have larger babies than people in social classes four and five. Mothers in social class five are three times more likely than mothers in social class one to give birth to babies weighing less than 2.5 kg. Such babies are more likely to be both physically and mentally disabled. Cerebral palsy increases in prevalence as social class falls. Disabilities of a purely genetic origin tend not to show class differentials but those where the cause is thought to be partly or wholly environmental, such as spina bifida and certain types of deafness, which are in the majority, are more common in social classes four and five.

There are also differences in normal attributes among the social classes. Knight (1984) found that people in social classes one and two are considerably taller than those in social classes four and five. Such differences also reflect family size and birth position, regardless of class, with children from large families and those born latest having the shortest stature.

Similar differences in health status can be found when measures of social class, other than the Registrar General’s classification are used. Lynch and Delman (1981) found that in the British Army coronary heart disease varied according to rank with those in the lowest rank being six times more likely to
Inequalities in health

have the disease than those in the highest rank. People who are unemployed have worse health records than those who are employed; the mortality rates of unemployed men and their wives is 25% higher than those who are employed and suicide rates are double those of employed people. However, unemployment alone may not cause this increase in illness as unemployed people are disadvantaged in so many ways. Income is closely associated with health especially at the lower levels and the health of people who own their own homes is better than those who rent them either privately or as council tenants (Fox et al., 1986, Fogelman et al., 1987).

GENDER DIFFERENCES IN HEALTH

In the developed world women live considerably longer than men. According to Whitehead (1988) women could expect to live 5 years longer than men in 1950 and over 6 years longer than men in 1981. Hart (1985) states that, with the exception of social class one, death rates for males are higher than those for females regardless of class. There is evidence, however, that this gap is narrowing because women are now more prone to some of the major causes of death such as lung cancer and accidents. At the present time life expectancy for men in Britain is approximately 72 years and that for women approximately 77.5 years.

The ratio of male to female deaths is roughly two to one in childhood with many more boys dying in accidents. In under-developed countries males tend to live longer than females, though for both sexes overall life expectancy is short due to large numbers of people dying in childhood and early adult life. The low life expectancy of women is due to high mortality associated with childbirth and sometimes gender discrimination in terms of the distribution of resources. In British society the gap between the sexes regarding mortality was very much less at the turn of the century. Waldron (1980) believes that about half the difference in mortality rates between the sexes is due to behavioural factors, such as higher levels of cigarette smoking, alcohol consumption and accidents among men. Leviatan and Cohen (1985) focus on the environment believing it to be generally more hazardous for men. They note that in the kibbutz, where the environment is similar for both sexes, the difference in mortality rate between them is smaller. There may also be a genetic basis for the difference. It is likely that a combination of factors operates.

In contrast to this, women show greater morbidity than men, though this is mainly confined to old age. Boys and young adult males are more prone to illness and disability than females in this age group but there is little difference in overall morbidity between the sexes in middle life. The type of morbidity is, however, different, for example women are more likely than men to suffer from rheumatoid arthritis. Women are also more prone to mental illness, especially young women in social class five. The reasons for this are uncertain. Cochrane (1983) suggests that doctors are more prone to label women as mentally ill, and women may be more inclined than men to define themselves
in this way. The social disadvantages and stress women experience, in terms of low paid, low status employment and their additional responsibilities of childcare and housework may also help to explain their high incidence of mental illness.

REGIONAL INEQUALITIES IN HEALTH

Townsend and Davidson (1982) found that Scotland, Wales and northern England have greater mortality and morbidity rates than southern England and East Anglia. A very similar pattern has emerged in The Health Divide (Whitehead, 1988). There are clear differences in health status between these regions for men and married women though the pattern is less marked for single women. These differences cannot be accounted for in terms of social class. The typical class differences are present in every region, though they are larger in the regions of highest mortality and morbidity. In south-east England people in every social class have better health than their counterparts elsewhere in the country. When the mortality rate of social classes four and five are combined for women in East Anglia, it is less than that of women in social classes one and two in Scotland. The concept of a north/south divide is, however, too simplistic as there are enormous differences within regions.

There are marked regional variations in the incidence of disease, for example neural tube defects are more common in Scotland, Wales and Northern Ireland than elsewhere in Britain. A full explanation of these regional differences in health remains obscure. There are climatic and cultural differences between the regions as well as dissimilarities in environmental conditions such as the composition of the water. It is probable, however, that the greater material disadvantage in Scotland, Wales and the north of England, when compared with the south, is the main factor creating inequalities in health.

Distribution of resources in the National Health Service have been grossly unequal, favouring southern England despite its low mortality and morbidity rates. The London teaching hospitals, in particular, have absorbed a large proportion of available resources. In 1976 the Government implemented the recommendations of the Resource Allocation Working Party (The RAWP Report), which recommended geographical reallocation of resources. Unfortunately, the recommendations were implemented by cutting the resources of the richer regions rather than increasing the overall budget, however, since the RAWP report inequalities in NHS resource allocation have been reduced.

Jones et al. (1983) point out that equality in NHS and other resources has the potential to increase inequalities in health rather than reduce them. Equality means ‘equal shares’ whereas equity means ‘fair shares’. Given the existing inequalities in health and advantage, a fair distribution of resources rather than an equal distribution is required.

There is, however, little correlation between the distribution of NHS resources and mortality or morbidity rates. East Anglia is the healthiest area of Britain yet has always been under-resourced when compared with many other
Inequalities in health

Despite the rather dismal picture regarding inequalities in health, there have been several important improvements in the health of the British population in regions. It should also be appreciated that the RAEP report did not address inequalities in resources among medical specialties which remains marked, favouring the acute services. In addition there are vast differences in the quantity and quality of services provided by local authorities and many believe that much more money should be channelled into community care, indeed this was one of the recommendations of the Black Report (1982) (Townsend and Davidson, 1982). Some services are better developed in areas of high mortality and morbidity than elsewhere, for example Scotland has a better record than England with regard to immunization.

The role of medicine in reducing inequalities in health should not be overestimated. Smith and Jacobson (1988) believe that the percentage of deaths which are potentially preventable through medical treatment is about 5% and that medical intervention has had little impact on death rates from common diseases such as cancer. They state: ‘. . . there is no general relationship between the treatability of a disease and the size of the social class difference in its mortality. Social class inequalities in medical care are therefore not a major explanation of mortality differentials’.

INTERNATIONAL COMPARISONS OF HEALTH

Accurately measuring the health status of different nations, particularly morbidity rates, is extremely difficult and unreliable due to the different ways in which the information is collected, classified and defined. When compared with 14 other north-western European countries, England and Wales had the seventh lowest infant mortality rate in 1966 but its position dropped to ninth by 1984. Infant mortality in Britain is high when compared with Nordic countries such as Sweden and Denmark, but, in contrast the mortality rate of young adults in Britain is lower than almost anywhere else in the world because of a low rate of accidents. Suicide rates are also very low in Britain though suicide is still the third most common cause of death among young people. Japan has very low mortality rates throughout the life span.

By middle age, mortality rates are again very high in Britain when compared with Nordic countries, Scotland being particularly poor. Smith and Jacobson (1988) state that Britain has the highest mortality rate for coronary heart disease and lung cancer in the world and the highest rate for breast cancer in western Europe. Despite these differences every country appears to experience inequalities in health with poor health being concentrated among the disadvantaged groups in society (Whitehead, 1988). The amount a country spends on its health service is not closely related to the health status of its people.

RECENT IMPROVEMENTS IN HEALTH

Despite the rather dismal picture regarding inequalities in health, there have been several important improvements in the health of the British population in
Physiotherapy: a psychosocial approach

recent times which should not be ignored. Smith and Jacobson (1988) note that there was an unexplained 30% reduction of deaths from stroke between 1973 and 1983 with a similar decrease in many other developed countries. There has also been a small decrease in coronary heart disease, although death rates in Britain remain worse than anywhere else in the world. Dental health has improved among children and death rates on the roads in 1985 were lower than those for the previous three decades, despite a tremendous increase in the volume of traffic. There has been a sharp reduction in babies born with abnormalities of the central nervous system; for example between 1976 and 1985 there was a decrease of 63% of babies born with spinal bifida, only about one-third of which can be explained in terms of screening and abortion. Teenage pregnancies have reduced as the use of contraception has increased and more women are now breast feeding (Smith and Jacobson, 1983). There has also been a sharp, unexplained reduction in parasuicide among women since the mid 1970s.

EXPLAINING INEQUALITIES IN HEALTH

The artefact explanation

The artefact explanation of health inequalities suggests that the concepts of ‘health’ and ‘class’ are too complex to be measured reliably and that any relationship between them is artificial and of little causal significance.

Making comparisons between health status and class over time is methodologically problematic. The Registrar General’s classification of class has undergone various changes over the years and the occupational structure of British society has also altered. Social class five has reduced in size since the Second World War and the professional classes have expanded. It is argued that the poor health status of those in social class five is due to the relocation of young people to other occupational groups, leaving a disproportionate number of older workers who are more prone to ill-health. However, Hart (1985) points out that the differences which exist are more pronounced among younger people. The failure to reduce the gap between the health status of the social classes is also believed to be counter-balanced by the shrinkage of social class five. Comparing the health status of the previously small professional classes with those of today is also problematic for it is likely that their status and life-style have little in common.

An argument against the artefact explanation is that class differences still exist when measures other than occupation, are used, for example income, housing or education. Whitehead (1988) points out that some studies imply that measuring social class by occupation tends to decrease rather than exaggerate the differences. Many studies have controlled for effects such as age of individuals and size of social class yet the results do not alter to any great extent. Inequalities in health apply to much larger sections of society, not just those who are unskilled, for example the mortality rate of people in social class three is higher at every age than that of people in social classes
Inequalities in health

Natural and social selection

This theory proposes that the fittest members of society will be upwardly mobile whereas those who are unfit will drift down to the lower social classes. Thus inequalities in health are explained by a ‘survival of the fittest’ principle. Stern (1981) believes that if social mobility were impossible health inequalities between classes would disappear.

Illsley (1986) studied social class mobility on marriage. He demonstrated an upward social trend for tall, healthy women and a downward trend for short, less healthy women. Those who moved up the social scale had less perinatal mortality than those who moved down. This demonstrates a process of selective mating. There is also a tendency for people suffering from alcoholism to be downwardly mobile. However, this downward path is not inevitable, Fogelman et al. (1987), using data from the National Child Development Study which has followed a cohort of children since 1958, found that the health of those people who had remained in the same social class differed more than those who had been upwardly or downwardly mobile. Wilkinson (1986) estimated that movement between social classes only accounts for about 10% of the gap in perinatal mortality rates. Class gradients for mortality and morbidity are generally steeper in early adulthood, if the theory of natural and social selection were correct one would expect to see the most marked differences in later adult life. Whitehead (1988) concludes that the selection effect accounts for only a small proportion of the difference in health status between the social classes.

The behavioural/cultural explanation

There is considerable evidence that people from social classes four and five indulge in behaviours such as cigarette smoking and alcohol consumption more than their counterparts in social classes one and two. The decline in cigarette smoking has been much more marked in the non-manual than the manual classes. Most people accept that this type of behaviour can lead to a high incidence of diseases such as lung cancer, coronary heart disease and chronic bronchitis. The distribution of cigarette smoking according to social class is very similar to that of lung cancer and coronary heart disease and is estimated to cause 100 000 premature deaths in Britain each year.

People from the manual classes tend to report illness less often than others and use the preventative services less (Blaxter, 1984). They make less use of
dental services and are under-represented in preventative programmes such as cervical screening and antenatal care. Cartwright and O'Brien (1976) also found that middle class people make better use of consultation time, they ask more questions and more information is communicated to them. The level of use of the health service among people from social class five certainly does not match their high incidence of illness.

The behaviour/cultural explanation of differential health status among the social classes focuses on the individual and his culture as the main determinants of health; thus excessive consumption of refined food and alcohol, cigarette smoking, lack of exercise, and under-use of preventative services and contraception are believed to lie at the root of ill health. People in the lower social classes are thought to know little about their own health requirements or that of their families and to lack the motivation to change their behaviour and habits. Ryan (1976) regards this explanation as a form of ‘victim blaming’ which is politically convenient because it maintains the status quo. Bernstein and Bernstein (1980) believe that victim blaming is a strategy health professionals use to deny their own depression when treatment does not succeed.

Lewis (1967), an anthropologist, put forward ‘the culture of poverty’ theory which states that human existence in any environment gives rise to elaborate systems of norms, ideas and patterns of behaviour which, though initially socially and biologically adaptive, tend to persist when the factors which gave rise to them have changed or no longer exist. Thus a diet which at one time was the best available may persist despite an abundance of alternative, more nutritious foodstuffs. Similarly dangerous work practices, which in the past could not be avoided, may persist and lead to accidents even though safer techniques are available. Hart (1985) believes that ‘. . . the behaviour in question is not a series of random individual acts. It is a group phenomenon, a cultural norm rather than a personal habit’.

Smoking, for example, may be a symbol of adulthood rather than simply an addictive habit. Hart (1985) argues that it is easier to redefine the meaning of smoking, from something desirable to something undesirable, if there are substitutes for it. Alternative symbols and sources of enjoyment are more likely to be available to those in the professional classes, where people are more mobile and where group solidarity and group sanctions are less evident.

The ‘culture of poverty’ thesis has been widely criticized by sociologists who cite instances where change has been rapid, for example in the use of contraception. Calnan and Johnson (1985) found no difference between the health beliefs of women from social classes one and two when compared with those from social classes four and five and Blaxter and Paterson (1982) found that problems of disadvantaged mothers stemmed from lack of skill in dealing with the system rather than with their cultural beliefs.

Materialist explanation

This explanation regards inequalities in health as being primarily due to inequalities in the distribution of wealth in our society. It is the explanation
favoured in both *The Black Report* (1980) and *The Health Divide* (1988). In Britain a very small proportion of the population own most of the wealth with a large minority owning very little. Thus health and illness cannot be divorced from politics. Veenhoven (1984) found that health, longevity and happiness were associated with a good income and standard of living.

The extent of poverty in Britain is considerable though the number of people living in poverty does depend on how it is defined. Using the definition given by the DHSS, which considered people to be in poverty if their income was no more than 40% above the level of supplementary benefit, 16 million people were living in poverty in 1983 which included most unemployed people, two-thirds of single parents and about 50% of families with three or more children.

Durward (1984) calculated that it is not possible for pregnant women on low incomes to follow dietary advice and Graham (1986) found that families on low incomes had difficulty providing their children with a healthy diet. Poor people spend proportionately twice as much of their income on food than people on higher incomes and, even among high income groups, the quality of diet diminishes as family size increases. Baird (1974) suggests that the nutritional state of females before they are born affects their later reproductive capacity and the health of their own children. In this way deprivation can be said to be 'transmitted' with health being determined by the individual's life history.

Keithley *et al.* (1984) note that poor housing is associated with respiratory illness when smoking, age, and work environment are held constant, and Smith and Jacobson (1988) believe that housing is an important factor regarding childhood accidents which are far more common among children of manual workers. High illness and accident rates among children from social class five can be explained in terms of living in damp, high-rise accommodation which so often leads to physical disease and stress. This type of accommodation is also unsuitable for play so children are less likely to be supervised. The high proportion of single parents on low incomes in social class five make it more necessary for them to take paid employment, and as child-minders cannot be afforded children may be left alone. In addition, inner city areas, where such families are often located, tend to offer less amenities in terms of medical services, sporting facilities and safe play areas. They also predispose children to behavioural and emotional problems (Smith and Jacobson, 1988). The fact that people from social class five visit their doctors less than other people and make less use of preventative services may be viewed as entirely rational when their social situation, including poor public transport and lack of car ownership, is taken into account.

Although occupational accidents and disease only account for a small proportion of morbidity, manual workers are subject to more risk than non-manual workers. They are more likely to be in contact with hazardous substances, such as asbestos and coal dust, which are known to cause serious disease, accidents occur more frequently and noise is more often a problem. Manual workers tend to have less job security, fewer fringe benefits, less
favourable pensions, shorter holidays and poorer sick leave arrangements than skilled and professional workers (Townsend, 1979). Occupational risk is, however, difficult to define, for example, there is an ongoing debate concerning the health risks of working with video display units and sedentary work. Stress, shift work and access to drugs may all be instrumental in causing disease. It is usually the case, however, that the work environment is just one of many factors giving rise to disease, this makes it possible for employers and government to focus on aspects other than those directly associated with the work place, such as personal habits.

People in social classes four and five tend to be disadvantaged even when in consultation with health professionals. Cartwright and O'Brien (1976) found that the average consultation time between general practitioners and middle class patients was 6.2 minutes compared with 4.7 minutes with equivalent working class patients. Whitehead (1988) states that general practitioners make more home visits to people in the professional classes and Blaxter (1984) found that they are more likely to refer professional patients to a specialist. Thus the working class patient tends to get less benefit from medical encounters and may be less likely to return for treatment or to comply with advice. This can be viewed as due, not to ignorance or lack of motivation on the part of the patient, but to poor communication resulting from a difference of status and culture.

People in social classes four and five are likely to have multiple stresses in their lives, a situation which has been found to predispose people to illness (Sagan, 1987, Totman, 1987). Broadhead (1983) and many others have found that a supportive social network of relatives and friends protects people from the ill effects of stress, depression and anxiety. There is a romantic notion that poor people are more likely than others to be part of a large supportive social network, but in reality this is not so, especially since the clearance of the slums. Poor people are usually more isolated than those with higher incomes as they are less able to run a car, afford to go out or use the telephone regularly. Whitehead (1988) points out that even when behavioural factors like smoking, drinking, diet and lack of exercise are controlled for in research, the social class differences in morbidity are still present.

Smith and Jacobson (1988) point out that in human society the interests of some groups of people are achieved by manipulating or suppressing other groups and putting them at risk. For example the tobacco, alcohol and confectionery industries spend billions of pounds each year promoting their products while government benefits by the receipt of large sums in taxation. Government has the power to reduce health risks and inequalities. Seat belt legislation, for example, has had a large effect on accident rates for drivers and front seat passengers. Road safety could be further improved for pedestrians and cyclists by providing more zebra crossings, and cycle tracks. Legislation can protect people from harmful agents such as drugs and pollution and from inadequate incomes by the redistribution of wealth. Government also has the power to increase inequalities in health by failing to respond to dangers such as pollution, by creating unemployment or declaring war.
Dealing with material disadvantage and stress

People have a variety of ways of dealing with their situation in the short term, and although their behaviour may go against professional advice, it is usually entirely rational given the social circumstances they are in, even if they fully understand the risks. Smoking, for example, may ease tension and help someone cope with a difficult family or work situation, eating the ‘wrong’ foods may be one of the few sources of pleasure available, giving up breast feeding early may enable a mother to go back to work and provide for other members of her family, and giving children sweets may help to keep them quiet and happy in a crowded flat. Campkin (1987) points out that trying to change a person’s behaviour may only serve to cause him more stress and guilt, perhaps leading to an increase in the behaviour, furthermore if behaviour change does occur there is the potential for other more serious problems to surface as the coping strategy keeping them at bay has been removed.

The ‘victim blaming’ approach seems to be on the decline, at least among the general public. In 1976 Lansley and Weir (1983) found that 43% of people thought that poor people were in that position because of laziness and lack of willpower with only 10% believing it was because of social injustice. By 1983 the figures were 23% and 35% respectively.

The interaction between material and behavioural factors in health and illness

Smith and Jacobson (1988) believe that material and behavioural factors relating to health and illness are totally interrelated. They emphasize the importance of social, economic and political factors in shaping a person’s behaviour and believe that: ‘. . . there is a limit to the extent to which risk factors such as smoking, poor diet and physical inactivity can be changed without altering the circumstances in which they arise’.

Blane (1985) agrees that behaviour and environment cannot be separated. Stillbirth and low birth weight, for example, are positively correlated with poverty, young maternal age, smoking, short stature and large families. Low intelligence can be compensated for by an enriching environment and Lee (1978) points out that child abuse is associated with deprivation as well as personality factors. Additionally a person’s level of education will greatly influence his choice of occupation and ability to comprehend information. Ley (1988) found that much health education literature could only be understood by people who had had a college education. A person’s behaviour, attitudes, beliefs and state of mind are greatly influenced by his present situation, his culture and past experience. The apparent apathy of the poor towards their health may reflect feelings of powerlessness and low self-esteem (Sagan, 1987). Smith and Jacobson (1988) believe that health education and community action would be more successful among working class people if their material disadvantages were reduced.
The cause of disease is often multifactorial with both material and behavioural components. Smith and Jacobson (1988), for example, point out that cigarette smoking increases the risk of lung disease from asbestos tenfold and that lower levels of sugar consumption and the adding of fluoride to toothpaste have both caused a reduction in tooth decay. In addition one adverse circumstance can so easily lead to another, for example childhood accidents are positively correlated with parental illness, and disability often leads to poverty. How a person behaves can also affect his social situation, for example a depressed or anxious person may lose his friends and have difficulty finding work.

**IMPLICATIONS FOR PHYSIOTHERAPISTS**

The *Black Report* and *The Health Divide* make many recommendations for improvements in the health of the British population and in reducing health inequalities. They advocate social and environmental changes, such as increased child benefits and improved road safety particularly strongly, viewing this as more important than changes in the health service. Other measures advocated are a fairer distribution of wealth, greater educational and employment opportunities, safe play areas for children, pre-school education and child care facilities, accident prevention programmes, improved housing and working conditions and a comprehensive disability allowance. Similar strategies have been put forward by Smith and Jacobson (1988). This is not to imply that health education or medical intervention is useless. Smith and Jacobson (1988) stress the interdependence of professional, political and individual strategies and believe that the best results occur when various groups pool their efforts and resources.

Physiotherapists are in a position to promote action in many areas within their traditional role and by engaging in broader strategies. Using the reduction of tobacco consumption as an example, physiotherapists can give help and support to those trying to give up the habit and can publicize the risks of smoking by broadening their health education role to institutions such as schools and by using the media. They can become involved in self-help organizations and work towards changing their own work environment and that of the wider society. As Fitzpatrick states: 'To focus on an individual smoker would not only lead to erroneous and over-simplified explanations, but more importantly it might lead to misguided or naive attempts to change his behaviour' (Fitzpatrick, 1982).

Such involvement requires a thorough understanding of smoking behaviour, including the external pressures which help to create and sustain it. Counseling skills, teaching skills and a willingness to engage in social action and to work with other interested groups are all important. Physiotherapists can also create new knowledge in this area by engaging in research. Many of these skills are now being developed in undergraduate and postgraduate education.

It is clear from the evidence that health inequalities will not be reduced by focusing solely on existing disease or trying to change people's habits.
The question for physiotherapists is whether they should continue in their traditional role of treating symptoms and attempting to change people's behaviour or whether they would be more effective in bringing about change by broadening their sphere of influence.

REFERENCES


Physiotherapy: a psychosocial approach

Women go to the doctor more often than men, they take more medicines than men, and they spend more time looking after other people's health than men do.

The organization of health care and the care of sick people have a long history of sex differentiation in the work involved in caring and curing. This is true on a routine, day-to-day basis, as well as in acute and chronic illness and disabling and handicapping conditions. The organization of health care and the care of sick people is not the same thing, although it is sometimes difficult to remember this when 'health centres' tend in reality to be 'ill health centres'.

It is not only in the gender structure of service delivery that we can see differences between men and women. As McPherson (1988) has pointed out, there have always been differences between the health problems of men and women. Even in early hunter-gatherer societies, it is not difficult to imagine that the major causes of death would have been different according to gender. What is of interest to us is not just the epidemiology of these differences, but the context in which they arise and are treated.

This chapter falls into three sections. The first is largely descriptive, and is based mainly on 'hard' data. This section describes some differences between the sexes in morbidity (ill health) and mortality (death rates) and then discusses sex differences in the work force of the medical profession and the professions allied to medicine. Of course, the vast majority of health care, and care of sick people, is not performed by professionals at all, but is carried out in the home. The sex differences of unpaid carers are also discussed.

The hard data give us one type of information about the health of men and women, and the relative proportions of men and women in different health care professions but they do not tell us about the experience of good or poor health, what it is like to be a woman in a male dominated profession, or a man in female dominated work. Some attention will be given to this, and to the differential respect accorded to care and cure.

The second section covers two areas of health care where physiotherapists are likely to have a significant presence. In the first, childbirth, women do of course make up 100% of the clientele, and in the second, the area of spinal cord injuries, women patients are in the minority for reasons evident when one considers the sorts of activities where spinal cord injuries are likely to arise.

The final section is a speculative one, and focuses on the gender structure of the physiotherapy profession and the kinds of research, particularly in the area
Physiotherapy: a psychosocial approach

of physiotherapy, which might be fundable, feasible and useful in addressing the differential needs of men and women patients.

SEX DIFFERENCES IN HEALTH STATE AND HEALTH STATUS

What kinds of data do we have on men, women and health? Physiological variation between men and women and the process of reproduction account for some of the differences between the sexes in rates of death and illness. The social contexts within which women and men live also help us to understand some of these differences. Young men, for instance, are more prone to drive fast cars and motor bikes and are considerably more likely than young women to be seriously injured in road traffic accidents.

MacFarlane (1990), whose work provides a comprehensive discussion of sex differences in health statistics, with examples of the main data sources available in the UK, points out that while women can expect to live longer than men, statistics about the use of health services give the impression that women make greater use of these. Admission rates for men and women in acute non-psychiatric hospitals are higher among women than men overall, even when admissions to maternity wards are excluded. However, in people under 15 and over 45 years of age, more boys and men are admitted, and in the age group 15 to 44 MacFarlane shows that once admissions due to reproduction (abortions, miscarriages etc.) are excluded differences in admission rates between men and women virtually disappear. Sex differences in attendance at out-patient clinics are negligible.

There are a number of areas where rising levels of surgical intervention in relation to women have caused concern. One is Caesarian section; a large and increasing number of women are having their babies delivered in this way. Another is hysterectomy. Both of these procedures do, of course, involve major abdominal operations and in many cases there is a lack of professional consensus over whether they are strictly necessary (Teo, 1990). More than 20 years ago in a much quoted editorial, it was suggested that 'after the last planned pregnancy, the uterus becomes a useless, bleeding, symptom producing, potentially cancer bearing organ and should be removed' (Wright, 1969). Would this sort of view of women's bodies be acceptable today? In some quarters, it would though it might not be so blatant. An editorial in the British Journal of Obstetrics and Gynaecology on the prophylactic removal of the ovaries (oopherectomy) concluded, '(their removal) should be offered to all women over the age of forty having an abdominal hysterectomy'. It is a sign of the times that the author adds: '(It) should only be performed after adequate discussion, understanding and of course consent. The woman has the ultimate choice. If she exercises what is perhaps the only worthwhile argument against prophylactic oopherectomy, namely a sentimental desire to keep her ovaries, (my emphasis), then it would be a foolish and insensitive gynaecologist who would ignore this compelling argument' (Studd, 1989).

In terms of primary health care, women consult general practitioners more often than men, and the sharpest differences are again in the child-bearing age
group. MacFarlane (1990) presents data which show that once consultations which are not for illness are removed, for instance those for contraception, the differences are much smaller, and when consultations for pregnancy, childbirth and diseases of the male and female genitourinary systems are excluded, the differences virtually disappear.

Of course, data about the use made of health services are not necessarily the best measure of a person's health. Consultation rates and hospital admission rates tell us about the use of services not the state of people's health. Blaxter (1985) makes the distinction between temporary states of health, 'Am I ill today?' and longer term health status reflected in answers to the question, 'Am I basically a healthy or unhealthy person?' In a recent survey in Glasgow women aged 35 to 54 were asked to report on their health (McIlwaine et al., 1989). When asked how they considered their own state of health, more than 60% replied that it was about the same as that of other women of their acquaintance. At the same time, over 50% described themselves as lacking in energy, over 40% had trouble sleeping and about 40% reported feeling depressed.

Sociologists have described how the process of defining oneself as ill or acting on symptoms, depends in part on how common such symptoms are in a society or group. If a symptom is common, it is likely to be considered normal and therefore not defined as illness. Zola (1966), in his study of illness behaviour, found that tiredness was often considered normal. Some researchers have argued that women will report more ill health than men because they are in a better position to act on symptoms and adopt the 'sick role'. Verbrugge and Wingard (1987) have suggested that the crucial feature of women's social roles may be flexibility but as Popay (1991) points out, in her study of health and health care in families with vastly different levels of income, far from being an obvious feature, flexibility was missing from women's daily experience of life as mother, housewife or paid employee.

We do not know very much about the differences in the ways health professionals view their male and female patients, but research by Walton (1968) suggests that women medical students are more patient orientated. Roos et al. (1977) found that they have more interest in people's emotional problems and Cartwright (1967) that they are more sensitive to relationship values. Stimson (1976) asked doctors about the patients whom they considered least and most troublesome. Among patients considered 'least trouble' were men, those with organic, easy to diagnose medical problems and those who have confidence in the doctor, accept that there are limits to the doctor's skill, are cooperative and have good homes and circumstances. Among those considered 'most trouble' were women, those with vague symptoms and those who do not follow advice, are unable to cope and are in poor social circumstances.

WOMEN AS PROVIDERS AND USERS OF HEALTH CARE

Women are both the main users of the health service, and the main providers of health care. Sex differences in the organization of both paid and unpaid
Physiotherapy: a psychosocial approach

health care and the care of sick people are not new as an article a century ago in the *British Medical Journal* makes clear: 'In the truest interest of women it is better that they should not practise the medical profession ... it is scarcely possible for a woman to go through a course of medical education without losing that simplicity and purity of character which we so much value ...'.

In case it should be thought that this would leave women with nothing to do, the authors suggest that unpaid health care may be the solution, 'We) have frequent reason to lament that there is no spinster aunt or sister at hand to take charge of some poor invalid' (*British Medical Journal*, 1977).

Women as colleagues in medicine still face stiff opposition from some quarters. When the Sex Discrimination Act came into force in the mid 1970s, one consequence was that the doors of all physiotherapy schools, some of which until that time had run courses exclusively for women, were open to men. Another consequence was the opening up of medical schools to women. A week after the new law came into force, an editorial in the *British Medical Journal* suggested: 'Any woman doctor who decides to make a career in a prestigious specialty such as neurology or cardio-thoracic surgery will find that she is competing with men who give one hundred percent of their effort to their work: she cannot expect to succeed if she tries to combine her specialist training with bringing up a family herself' (*British Medical Journal*, 1976).

In relation to this, one might well point to the *Lancet* article by Bewley and Bewley (1975) which notes that while women doctors who temporarily or permanently drop out of full time practice have been studied frequently, men, who are just as expensive to train, have not, despite their disappearance from National Health Service practice through emigration, death, alcoholism, suicide or removal from the medical register. The authors point out that, 'in a working lifetime of forty years, a woman doctor with an average family is likely to do seven eighths of the work of a doctor who has not had to carry the primary responsibility for bearing and rearing children' (Bewley and Bewley, 1975).

Although there had been a gradual eroding of male quotas in medical school entrance in the years preceding the new law, one result of the Sex Discrimination Act of 1975 has been that at least 50% of entrants to British medical schools are now women. Men have not rushed into physiotherapy with quite the same enthusiasm as women have entered medicine, and some possible reasons for this are discussed below.

How are men and women distributed within health care employment? Graham (1990) points out that overall 11% of white women in paid employment work in the health services (public and private), for black and ethnic minority women, the proportion is 17%, and within the National Health Service about 75% of the workforce are women. While about one-quarter of all hospital doctors are women, only 14% of these are in the consultant grade. About 14% of unrestricted principals in general practice are women although women now comprise about 35% of trainees. About 90% of nurses are women, 73% of chiropodists, 89% of dieticians and occupational therapists and 86% of physiotherapists (Buchan and Pike, 1989).
Efforts are currently being made to encourage more men into physiotherapy. The latest leaflet on physiotherapy as a career from the Chartered Society of Physiotherapy includes pictures of both men and women practitioners and states 'both men and women work as physiotherapists. In addition to having academic and practical ability, you need to be a good communicator, tolerant, patient and caring' (Chartered Society of Physiotherapy, 1990). It might be worthwhile for readers to ask themselves what sort of person springs to mind when they read the adjectives 'tolerant, patient and caring'. While women by no means have the monopoly on these characteristics, they are adjectives frequently applied to the ideal mother. Social psychologists have shown the different values attached to characteristics like 'forceful', 'caring' or 'ambitious' when they are applied to men and women. It may be that in spite of the efforts made to encourage men into the physiotherapy profession, there are all kinds of attributes attached to the skills felt to be desirable for physiotherapists which are seen as 'feminine'.

An earlier (1984) version of the pamphlet How to become a Chartered Physiotherapist, refers to both short and tall stature as a possible problem for physiotherapists. While the contraindication for very tall people is apparently physiological since they, 'are particularly susceptible to the occupational hazard of back injuries', in relation to short stature, there is an additional problem, 'whereas small people may often acquire the strength and skill to cope with (lifting and support of heavy patients), they must also be able to gain the confidence of patients' (my emphasis) (Chartered Society of Physiotherapy, 1984). It is a welcome sign of the times that the possible disqualification of being under 1.57 cm, a height which is, needless to say, considerably more common among women than among men, does not appear in the latest pamphlet.

The problem which the Chartered Society of Physiotherapy identified in the earlier leaflet is a realistic one. Some patients may lack confidence in short people, just as some patients may lack confidence in black people, or people with disabilities. The solution is not, of course, to turn these into disqualifying characteristics. Practitioners, irrespective of height, colour, sex or physical disability need to be taught the skills needed to gain the confidence of patients and to cope in a dignified way with those patients who lack confidence in their carers. (Misplaced confidence by patients in treatment which has not been evaluated, or carers who do not in fact care very much, is another problem which cannot be addressed here, but is worth some thought.)

The pay for people who work in the professions allied to medicine within the National Health Service is not high. The management structure of the NHS does afford some relatively well paid posts as district physiotherapy managers but, by definition, these are few. The majority of practising physiotherapists are under the age of 30, and since the majority of physiotherapists are women, we can relate patterns of employment to family formation. The final section, which discusses working for change, comes back to this point.

Of course the majority of health care and a good deal of care of sick people, is not performed by health professionals at all, but is done in the home
normally, but not always, by women as mothers, wives and daughters. Graham (1984, 1987, 1990), who has worked extensively on women’s ‘health work’ describes and analyses some of the components of this work. Among those caring for children, about three out of every four women in households with pre-school children are full time carers, and in single parent households, women outnumber men by nine to one. Piachaud (1985) points out that the ‘principal carers’ of able bodied children up to 2 years of age, spend about 8 hours a day in health behaviours directed to their children; getting them up and dressed, toileting, feeding, bathing them and so on. Of those providing at least 20 hours a week of personal care for elderly people, disabled people and those suffering from long term illness, research suggests that over 60% are women (OPCS, 1988).

While women predominate in health care, the high status and highly paid jobs are overwhelmingly occupied by men. Lower paid and unpaid care are more likely to be undertaken by women. It is sometimes said that doctors cure and nurses care. Certainly with the exception of surgery those who do the ‘hands on’ care tend to be the least rewarded in terms of pay and status.

WOMEN’S EXPERIENCES OF HEALTH CARE: EXAMPLES FROM CHILDBIRTH AND MOTOR IMPAIRMENT

This section describes something of the qualitative aspects of health care in two areas where physiotherapists have a significant presence. One is pregnancy, childbirth and the immediate post-partum period, which are transient physiological events, and the other, long-term disability. Different kinds of data can give us very different perspectives on the same subject. Knowing all there is to know about the physiology of normal labour, for instance, tells us nothing about what it is like to become a mother. Similarly, knowing all there is to know about spinal cord injuries does not tell us what it is like to be a healthy person with a disability.

Pregnancy, childbirth and maternity

Kitzinger (1984) points out that it was the work of Dick Grantly-Read in the 1930s, combined with advances in obstetric physiotherapy stemming largely from the work of Helen Heardman, which formed the basis for most types of preparation for childbirth that many midwives and obstetricians today accept as smoothing the path of women in labour.

In the area of childbirth, there is a level of ‘official’ concern about women’s satisfaction with maternity services. The Maternity Services Advisory Committee which was set up by the Secretary of State for Social Services and the Secretary of State for Wales in 1981, was concerned with the number of consumer complaints about the impersonal nature of care in hospitals. This committee published three reports and one of their recommendations was that
the satisfaction of parents with these services should be explored at a local level.

Quantitative work in obstetrics can tell us important facts about the number of instrumental births, the number of Caesarians, the use of induction and drugs to accelerate labour and so on. The maternity services have tended to be more inclined than some other clinical specialities to audit their work at a local level in order to monitor perinatal deaths, and in some cases to look more broadly at service provision.

Women’s attitudes and feelings about their experiences of pregnancy, childbirth and early motherhood are more difficult to measure though research instruments may be used to rate on a scale of 1 to 5 whether they found a particular procedure, such as episiotomy, very unpleasant (5) unpleasant (4) neither pleasant nor unpleasant (3) pleasant (2) or very pleasant (1). Attitudinal data collected in this way are naturally simpler to analyse than open-ended questions, but important work can be done by collecting information from patients in a systematic way by talking to them. Oakley’s accounts of pregnancy, childbirth and the first months of motherhood for instance, provide grounds for thinking about the sorts of maternity services which women would find helpful, and some of the problems of becoming a mother (Oakley, 1981). Oakley’s work is based very firmly on women’s own accounts rather than on expert views of how women do or should feel. The majority of her data were obtained through careful face to face interviewing. Questionnaires may also elicit some aspects of women’s experiences of pregnancy; Mason (1989) describes how ‘open’ answers in women’s own words may be used and analysed as part of a more formal survey. (For readers interested in carrying out a survey into patient satisfaction Women’s Experience of Maternity Care: a Survey Manual by Mason (1989) on obstetric physiotherapy is essential reading, though physiotherapists might like to add questions to the model questionnaire.)

**Women and disability**

Physiotherapists will be aware of the important distinction between impairment, disability and handicap. Broadly, impairment refers to the injury or disease, disability to the inability to perform certain tasks normal for someone of that age and sex, and handicap to the consequences of impairment or disability within a social context. People with disabilities may be handicapped by poor access to buildings, the prejudices of employers and others, and enforced dependency. Lonsdale (1990), who has written on women and disability, suggests that: ‘Dependency has particular implications for women because of the important part which gender plays in determining whether someone is expected or encouraged or indeed even allowed to be independent. Since women are encouraged to play a more dependent role in society than men, women with disabilities often have a particular struggle to achieve control over their own destinies, although they are sometimes “allowed” out of the passive and dependent female role’.
One problem for women in general, but which takes on particular salience for disabled women, is that being 'good' may mean being passive and obedient. As Lonsdale points out, being a 'bad' patient could mean demonstrating precisely those characteristics of independence and activity which are necessary for coping and surviving. Lonsdale describes how it is not unusual for a woman with a disability to be labelled 'unrealistic' if she wants to live independently, especially if her plans do not conform to the expected female role.

Sometimes therapy can be considered more important than a disabled person's education and many disabled people have challenged this view. Before the 1981 Education Act children with disabilities would usually be educated at ordinary schools only if they had very persistent parents. One of the respondents in Lonsdale's study describes how physiotherapy disrupted her education at the special school she attended. She states, 'If you are going to be disturbed from your maths class to go to physiotherapy, that's wrong. Physiotherapy and hydrotherapy should be a separate thing from school. It shouldn't affect your education... It's bad enough being disabled but to have no qualifications either, then you're going into the world of work with nothing' (Lonsdale, 1990).

A book written by women with spinal injuries describes some aspects of their quality of life as workers, mothers, lovers and patients, after an accident or illness resulting in paralysis. One writes: 'I had regular physiotherapy and did occupational therapy, but there was no-one to discuss problems and personal feelings with, and no sort of counselling to help with the present or future. It seemed as if one was expected to be cheerful and "keep one's chin up" all the time' (Morris, 1989).

The book describes the problems women had in coping with the emphasis in spinal units on sport, competition and physical achievement, and suggests that this may be directly related to the fact that rehabilitation programmes have been geared primarily towards men with spinal cord injuries. This can mean people being pushed into an approach to physical achievement which they experience as oppressive and inappropriate. One woman wrote: 'Excellent though the physiotherapy was, I did find later that my performance improved with exercise done to music and for pleasure. Most things were sport orientated. I hate competition and have no eye for balls or arrows' (Morris, 1989).

In this section some of the qualitative research which provides us with a framework for understanding the experience of the patient as a person has been described. The translation of what can be learned from qualitative research into clinical practice may not be as straightforward as adopting a new drug which has been found effective through a randomized controlled trial, but it is at least as important.

**WORKING FOR CHANGE**

There has been a gradual change in the health professions in recent years in the extent to which they are willing to consult patients, and to see them as
whole people rather than 'a tib and fib' or 'the paraplegic in bed five'. Some health professionals embrace this change while others are pushed more or less willingly towards it. The previous section described some of the ways which we may begin to learn more about patients' needs and perspectives and how our differing views of men and women may affect the ways in which they are treated. We have different expectations of patients according to gender, and should be encouraged to question these and develop services in ways in which patients can describe to us if we listen.

What of gender differentiation within the profession of physiotherapy? Much of the material above relating to sex differences in the health professions is based on literature concerning doctors, simply because this profession has been most frequently studied. What are the consequences of physiotherapy being a largely female profession in terms of the labour market?

According to a recent report by Buchan and Pike (1989) on the professions allied to medicine, the key characteristics of the workforce are the comparatively low age profile and the predominance of women. There is a growing increase in the proportion of elderly people in our society which means that the demand for physiotherapists is likely to increase. Given the age and sex distribution of physiotherapists and what we know about family formation patterns however, problems are likely to arise as women take periods out of the labour market to bear and rear children. Research on female pharmacists currently working in the NHS revealed that better pay, more flexible hours and creche facilities were frequently given as factors important in the recruitment and retention of workers (Bevan et al., 1989).

The Department of Health has made a number of recommendations, short of improving pay, aimed at the retention of staff. The Institute of Manpower Studies, which has considerable expertise in employment and training matters, reports that data are lacking on the extent to which these initiatives have been taken up, and Meager et al. (1989) point out that where they have, in the area of job sharing for instance, there is some evidence that the increase has been as a result of pressure from individual employees rather than policy led management initiatives. Issues such as these, the European market and the organization and management of health provision within the NHS and the private sector, are likely to shape the way in which physiotherapy develops into the twenty-first century.

CONCLUSION

Female dominated professions have a number of strengths, although they tend to be short on industrial muscle. Ironically enough, some of these strengths are related to 'feminine' characteristics of caring, empathy and patience brought to the professional lives of many women through their female socialization. If men are to be encouraged into physiotherapy in greater numbers, it is important that these qualities are not lost. At the same time, it will be interesting to monitor the extent to which senior posts in
Physiotherapy: a psychosocial approach

Physiotherapy are differentially occupied by men and women in proportion to their overall numbers in the profession, and for women to learn from men some of those characteristics which make them inclined to apply for, obtain, and function in those senior positions from which it is possible to have a wide ranging influence on the way in which physiotherapy is practised.

In terms of service provision, we do not know exactly what patients need unless we ask them, and listen to their answers. Research need not be done in an academic library or a laboratory. Oakley (1981) points out that ‘... Experience does alter the way people (experts and others) behave: this is part of the scientific method that theories should be tested empirically, not just once under artificial conditions, but constantly in the real world’. Much of research is finding out and physiotherapists, including students, are often in a position to find out from their patients and clients what their needs are, what they find satisfying about a particular service and in what ways they feel the service might be improved. Not all suggestions patients make have massive resource implications, and at a time when consumer satisfaction is said to be important, there should be management sympathy for carrying out this basic research.

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DEFINING RACE AND ETHNICITY

The term 'race' has been used in attempts to define groups by their genetic homogeneity. But, as Giddens points out, these attempts have produced little consistency: the number of major races distinguished has ranged from four or five to dozens. Giddens gives the following example to highlight the problem of defining race: ‘A commonly used type, for example, that of “negroid”, is supposed to involve dark skin, tightly curled hair and certain other physical characteristics. Yet the original inhabitants of Australia, the Aborigines, have dark skin, but wavy, and sometimes blond, hair’ (Giddens, 1989).

Putative biological differences between peoples seem to be restricted to relatively minor features which do not affect the basic make-up of the human being. Banton’s wide-ranging assessment of work attempting to define race seems to confirm the diversity of surface biological characteristics, and the difficulty of trying to achieve anything other than broad statements about general racial types, rendering a narrow scientific concept of race ineffective in practice (Banton, 1987). So, having established that race is only tangentially based upon biology, what do we mean by ‘ethnicity’? This is a social concept which is applied to social groups. Members of such groups are perceived to share common characteristics associated with race and with physical appearance, but including the culture of the group. Culture is defined broadly, incorporating such features as the organization of the family, group traditions, styles and preferences in music and literature, religious practices, and so on. Sometimes an ethnic group is defined in terms of a dominant cultural characteristic, for example religion or language. Thus the Jewish community might be defined by the former, and the Gaelic speakers of the Scottish Islands by the latter.

It is clear that society values some attributes of its members more than others. Simplistically, therefore, white skin in Britain appears to be more valued than black skin; a straight nose more than a negroid one, and so on. On the one hand the nearer the physical features of members of the ethnic group to those of the majority population, the less ‘alien’ the former appear; on the other hand, the social valuation of other attributes overlaps with the physical and may cancel out or reinforce such physical differences. To illustrate this point one or two examples are appropriate. To be taller rather than shorter in our society is to be generally more valued (witness the ‘aggressive small man’ jokes). Professional jobs carry more status than manual occupations (witness the generally higher pay, holidays and other benefits
such as private health insurance which may be available to professionals). Thus the tall, black professional man may be able to counter some of the negative evaluation of ethnicity, but probably not all of it. With ethnic differences which include colour or significantly different facial features, there is an overt way of recognizing 'difference'. Other ethnic groups such as Poles, for example, may well be visually indistinguishable from the majority group.

THE ROLE OF STEREOTYPING

Stereotyping is the way we commonly categorize our everyday experiences and relate to other people. Racial or ethnic stereotyping has a very long history and insidious effects on those subject to it. A stereotype is a shorthand and distorted version of reality; it picks out selected characteristics of an individual, exaggerating some features and suppressing others. Thus the mere colour of an Indian or Negroid skin, together with a certain speaking accent, may be sufficient to trigger the attribution of all sorts of other characteristics to the individual, such as intellectual inferiority, lack of sophistication, laziness, and so on. Such stereotyping is instrumental in forming prejudice against ethnic groups, or, as we may call them, ‘minority groups’ in society. Stereotypes become real and unyielding to those using them, and are the foundation for discrimination against such groups.

MINORITY STATUS

Minority status in sociological terms has a specific meaning and does not merely refer to the size of the group. Members of minority groups tend to be socially distanced from the rest of the population, that is, they are not encouraged to feel, nor do they feel, part of the dominant social group. They are socially isolated. To crystallize the differences between the majority and the minority discrimination takes place, and barriers are set up between them. Thus members of minority groups may find they are denied access to accommodation or jobs, or even that marriage between the two groups may be taboo. The effect of such isolation may have the unintended consequence of creating group solidarity, and widening the gap between the minority and the majority.

Colour may be sufficient to set a group apart, as, indeed, has happened in South Africa. Or cultural differences may be responsible, such as are manifested in the distinctive religious behaviour of the British Rastafarians.

MIGRATION FROM THE NEW COMMONWEALTH AND PAKISTAN

After the Second World War the pattern of immigration to Britain changed significantly. From 1946 to the late 1950s there was a severe shortage of
labour for the economy. Refugees from Eastern Europe were especially welcome to fill the gaps, and these included the Poles, but also Latvians and Ukranians. British policy also encouraged voluntary immigration from Europe. Colour was not a factor at this time; labour migration was (Sarre, 1989). The need for labour was linked to the Independence of India and Pakistan in 1947, and the British Nationality Act of 1948. A wave of immigration from the ‘New Commonwealth and Pakistan’ (NCWP) was triggered, and few restrictions were applied to them at that time. However, the influx was quite slow until the early 1950s when labour recruiters went to the West Indies. From this point immigration grew rapidly from this area, and attitudes began to change with: ‘the sudden appearance of these “dark strangers” with the assumption that they had come for their own reasons, and not because British industry needed them. In only a few years conflicts over jobs, homes and places of entertainment, plus generations of Imperial attitudes, were enough to unleash riots in Notting Hill and Nottingham (in 1958) in which large groups of rioters, including Teddy Boys, attacked black people and their property’ (Sarre, 1989).

This eventually led to Acts which placed greater restrictions on immigration to Britain, based more on labour market needs than on civil rights. However, since the 1950s and 1960s other ethnic groups have entered Britain, often as a result of problems in their homelands. Notable among these were the Kenyan Asians. Two types of settlement have been attempted by immigrant groups, and both have predominantly failed due to the continuance of the racial problem. ‘Assimilation’ was tried, especially by the West Indians, who attempted to disperse and be absorbed into the host community. Other groups, notably those of Asian origin, tried ‘plural accommodation’ where they attempted to retain their own cultures and identities within the broader structure of their host society.

THE CURRENT SITUATION OF ETHNIC GROUPS

The population of ethnic minority groups is now quite diverse in terms of culture and colour, but still remains quite small in relation to the total population. It tends to be concentrated in the inner cities, in low status occupations, and has excess numbers who are unemployed. Data from the 1988 Labour Force Survey (Department of Employment, 1988), show that the ethnic minorities now comprise about 4.5% of the UK population who are resident in private households. This is an estimated 2.43 million people. About 43% of the total are first or second generation UK born. The ethnic population has doubled in size since 1971, and has increased over the last decade at approximately 80–90,000 per annum. Those from the NCWP now form the majority. Those from Indian, Pakistani or Bangladeshi stock comprise 51% of the total, and West Indians comprise 22%. The largest single group consists of those from India who comprise 31% of the total. However, there is a great diversity within this group in terms of language and culture. As is stressed in
Ethnicity, health and health care

Social Trends (CSO, Social Trends, 1990), most of the ethnic minority groups have markedly different age structures from the white population. While 21% of the white population is aged over 60, only 7% of the West Indians are, and this is the highest proportion among the different ethnic minority groups. The Bangladeshis have a mere 1% in this age bracket. At the other end of the scale there are also large differences. While about 20% of the white group is aged 0–15 years, half of the Bangladeshi population fit into this category. These differences are expected to lessen over time, but they do have big implications for education and for the sort of health care which the ethnic minorities might need. At present, 64% of those of the ethnic minorities who are UK born are still under the age of 15.

The estimated fertility rate is higher, overall, for women of the ethnic minorities, but especially high for Bangladeshi and Pakistani women. However, over the years from 1971 the rates have fallen steadily in all groups, and are expected to continue to do so as the sharing of norms on family size takes place (CSO, 1990).

ETHNICITY AND SOCIAL DISADVANTAGE

As a group the ethnic minorities do tend to be socially disadvantaged in a number of ways. One form of social disadvantage is poverty, and this is a persistent feature of the ethnic minorities. The Child Poverty Action Group sees this susceptibility to poverty as due to the following factors:

1. Immigration policy has curtailed access to welfare services forcing some people from abroad to rely on family support.
2. Inequalities in the labour market are founded on deeply embedded discriminatory employment practices. This has left black people highly exposed to the economic restructuring which has taken place through the seventies and eighties.
3. Family patterns and the age structure of ethnic minority groups mean that some groups are more likely to be vulnerable to poverty.
4. Social security policies have been directly and indirectly discriminatory, often leaving black people without support from the state.
5. The racism and discrimination in society as a whole has often excluded black people from employment opportunities and access to welfare (Oppenheim, 1990).

One measure of social disadvantage in the majority population is the level of unemployment. Department of Employment statistics show that the male rate for the majority population was 10%, while for the ethnic minorities it reached 17% (CSO, 1990). Unemployment has been particularly bad for young blacks and Asians, with 27% of 16–24 year olds out of work compared with only 15% of young whites. Being in possession of qualifications does not have the same protective effect against unemployment for the ethnic minority
groups as for whites. The data indicate real differences in job opportunities. While 53% of white men hold manual jobs, as many as 64% of Pakistanis and Bangladeshis, and 72% of Caribbean and Guyanese men do. Conversely, white men are much more likely to have non-manual employment (47% for white men, 36% for Pakistanis and Bangladeshis and only 28% for Caribbean and Guyanese men).

Important, also, from the point of view of health, is research from the Policy Studies Institute which shows that the ethnic minority groups are subjected to poorer working conditions, more shift work, alternating shifts and night work than indigenous groups. Further evidence relates to housing conditions where discrimination also seems to occur. Overcrowding is much more likely among ethnic minority groups: and their families are far more likely to become homeless; to have to wait longer to be rehoused; and to be allocated inferior accommodation (Oppenheim, 1990).

THE HEALTH OF THE ETHNIC MINORITIES

The Black Report unequivocally relates disadvantage in health to socio-economic disadvantage (DHSS, 1980). It is also generally assumed that the deprivation factors affecting the ethnic minorities will give them a disadvantaged health status. However, the data are inadequate, never having been collected consistently. They are difficult to collect, partly because of variations in length of stay in the UK, and partly because of resistance by black groups and other organizations to systematic collection of such ‘sensitive’ data because of their possible use (e.g. if high morbidity levels were shown accusations might be made about the cost of such groups to the NHS). Most of the mortality data available only include information on the country of birth, as this may be requested for birth and death certificates. This excludes the 43% of people from the ethnic minorities who were born here. But, as Marmot et al. (1984) point out, mortality rates, ‘are largely a product of environment, historically determined style of life (e.g. diet, smoking, alcohol, family size, fertility, social interactions), and genetics. Some of these factors act early in life and their effects endure, e.g. the effects of age at menarche and age at first birth on breast cancer, and the effects of age when smoking began on lung cancer. Others may also act in adult life, e.g. the effects of diet and smoking on ischaemic heart disease. Cancers may have initiators that act early in life and promoters that act later’.

But the data available do not consistently distinguish between those born in the UK and those born outside the UK. At the time of migration the mortality and morbidity potential of an individual is expected to reflect that of the country of origin, eventually to be modified with the length of sojourn in the adopted country for those conditions not affected solely by earlier precipitating factors. Marmot et al. (1934) also stress that migration is not random, as was noted earlier in this chapter. Self-selection of mobile groups will have taken place, some of the groups have come under great duress, and some will
have been carefully screened by the immigration authorities. Such selection will affect disease risk, especially in the first generation. The diversity of immigrant conditions of entry is mirrored in health differences. The Kenyan Asians, who began to arrive in the UK in the late 1960s after having been declared aliens and denied the right of permanent status in Kenya, were predominantly middle class in origin and brought with them good health status. In contrast, immigrants from the Caribbean in the 1950s who were seeking work in Britain were predominantly of lower socioeconomic status, and brought with them lower health status.

**MORTALITY RATES IN THE ETHNIC MINORITIES**

One common finding for immigrant groups which emerged from the Immigrant Mortality Study in England and Wales (Marmot et al., 1984), was that these groups tended to have lower mortality rates than those prevailing in their countries of birth. All ethnic minority groups had higher mortality than people in England and Wales for tuberculosis (TB) and violent deaths, including accidents. Indian subcontinent immigrants had high mortality for liver cancer, ischaemic heart disease and diabetes. Those from Africa and the Caribbean had higher than average rates for liver cancer, maternal mortality and strokes, and, for those from the Caribbean, diabetes. Of significance for physiotherapists are the elevated rates of stroke, hypertension and diabetes among some groups. In fact, Caribbean and African groups are found to have twice the stroke rate of the majority population and four to six times the hypertension rate. When we move on to perinatal and infant mortality rates, we find that women from the NCWP show consistently higher rates than UK-born women; and, although the trend for all groups is downwards, rates have been decreasing faster for the latter.

Women from minority ethnic groups also appear to have lower birth weight babies than the majority population. One Birmingham study clearly showed that the average birth weights of Indian, Pakistani, West Indian and Bangladeshi babies were lower than for European ethnic groups, with the Bangladeshi group particularly low (Settatree et al., 1982). However, some commentators are critical of the use of these findings and say that adequate attention has not been paid to the stature of the mothers. Various studies also show that some ethnic groups suffer greater incidence of severe subnormality in their babies. Data from Bradford and Leicester focus on Asians, and show that the rate for severe mental handicap is between two and five times as high as the non-Asian rate (Grimsley and Bhat, 1988).

There is some evidence to suggest that women from the ethnic minority groups have a different childbirth experience to white women. Studies indicate that Asian and black women have more labour dysfunction than white women. One study of Asian women found less cervical dilatation and a higher fetal head position for primigravidae in spontaneous labour. This appeared to result in higher rates of stimulation of labour. Great sensitivity is
needed in caring for pregnant women from ethnic minority groups as their beliefs about childbirth and the role of maternity attendants may affect the progress of labour. Studies clearly suggest that the quality of obstetric service received by ‘black’ Britons may not be as high as for whites, and that they may receive shorter periods of antenatal care. Asians, generally, are found to be late attenders for antenatal care, but one Leicester study indicates that doctors have not been as positive towards these groups in encouraging attendance as they might have been (Grimsley and Bhat, 1988). Indeed, Ahmad (1989) indicates a more worrying aspect when he says: ‘Midwives and Health Visitors seem to find it obligatory to scold Asian women for having more children than average and shorter intervals between pregnancies. And it seems that at least some health professionals have taken matters into their own hands; several cases of injection of long-term contraceptive, Depo-Provera, to Asian mothers who had not given consent have been reported’.

Other needs are also poorly served. The wish to be attended by female relatives in childbirth rather than their own husbands, is often seen as violating hospital routine and mitigating against ‘parental bonding’. Indeed, the head of the Maternity Department of the Central Middlesex Hospital is quoted as saying: ‘In my experience the closest person to the patient should be the husband – we can’t get involved in family jealousy. No I don’t think it is a question of cultural difference. We treat them all the same, otherwise it would be racialism’ (Brent CHC, 1981).

ETHNICITY AND ILLNESS

While special attention will be given below to some of the conditions which are specific to ethnic minority groups, it is important to stress that most of the illnesses suffered are the same as those for the majority population, and it may be that the salient differences relate to the experience of being ill in a sometimes alien and hostile culture. Obviously physiotherapists need to appreciate the special needs of these groups, but also require an understanding of the way ethnicity can affect all conditions, especially via deprivation.

Sickle cell anaemia

Sickle cell anaemia affects mainly those of African and Caribbean descent, and is transmitted genetically. It is painful and may be life-threatening, and its effects can include complications such as leg ulcers and stroke. The disease alters the shape of the red blood cells kinking the normal moon shape into a crescent. These cells stick in the blood vessels and can cause blood clots. During such a sickling crisis a great deal of pain can occur. It is estimated that one in 10 black people in Britain carries the trait, while one in 400 is affected by active sickle cell anaemia (Grimsley and Bhat, 1988). It is especially
dangerous during pregnancy and after surgery, and also affects the integrity of the immune system, leading to infections.

Grimsley and Bhat wonder if there is a connection between high infant mortality rates in West Indians and the presence of sickle cell disease, because there is no screening process in operation to detect it at an early stage. They point out that we do screen for phenylketonuria, which has a lower disease incidence and that pneumococcal infections in small children which cause death may be masking sickle cell anaemia. The implication is that screening would occur if the disease affected the majority population. In their publication, *Heart of the Race* (Bryan et al., 1985), the authors stress the lack of interest which the British medical establishment has shown in the disease, despite research progress in the USA over more than 20 years. They suggest that achievements here have been due to the efforts of sickle cell sufferers themselves and members of the black women's movement who have organized extensively, and were instrumental in heightening awareness among health workers and getting Community Health Councils to set up sickle cell Advice Centres.

**Rickets and osteomalacia**

Two conditions which particularly affect the Asian population, rickets and osteomalacia, may well feature as avenues of access to the Asian community for physiotherapists. Rickets affects the growing skeleton, and seems to be prevalent in new-born babies, children, adolescents and pregnant women (Donovan, 1984). It involves the cartilage and the bone, resulting in pain and skeletal deformity. The adult equivalent of rickets is osteomalacia. This results in muscle weakness, pain in the bone and tenderness. Up to 25% of Asian women are thought to suffer from mild or severe rickets or osteomalacia (Donovan, 1984).

The cause of these two conditions is deemed to be vitamin D deficiency, with sunlight deficiency also implicated. The typical Asian diet contains large amounts of refined flour and ghee and is low in vitamin D. Studies indicate that fortified dried milk can improve the situation for young babies in areas where health visitors are vigilant and clinics supportive, but that children over 18 months are largely being fed on an Asian diet (Grimsley and Bhat, 1988). Fortification of Asian foodstuffs with vitamin D has not been adopted by the authorities despite the previously successful elimination of rickets in the indigenous deprived population by the fortification of margarine. Possible excess absorption of vitamin D is cited as one reason for this, and, as Hillier and Scrivens (1986) pointed out, some opponents of fortification stress that health education and a move towards Western life-style and associated diet is what is required. Some critics of this view, however, believe it to be ethnocentric and discriminatory.
Physiotherapy: a psychosocial approach

Tuberculosis and hypertension

The incidence of tuberculosis (TB) among ethnic minority groups has had a high profile because of the hypothetical threat it might pose to the wider community (unlike sickle cell anaemia which does not). Most new cases in the ethnic minority groups are to be found in new immigrants. Data from the end of the 1970s indicated that the indigenous TB rate was very much lower than the ethnic minority rates: 10 times higher for Africans, 27 times higher for Indians and 54 times higher for Pakistanis (Khogali, 1979). Most cases develop with 5 years of migration, but even after 20 years of residence the incidence for those who migrated to the UK is higher than those who were born in the UK. Some immigrants, in particular the West Indian group, were not prone to the disease in their homelands but developed it in the UK. Several authorities suggest that susceptibility in the different ethnic groups varies, and there may be a hereditary factor operating which combines with inadequate childhood nutrition and deprivation in the UK to create higher risk groups. Fuller and Toon (1988) are blunt: ‘The inadequate, overcrowded housing and malnutrition due to poverty experienced by many migrants on arrival are traditional and well-known risk factors, which made tuberculosis so common in the slums of the eighteenth and nineteenth century in Britain’.

While such conditions prevail, TB will remain endemic in the immigrant population. However, while the incidence of TB is especially high in the ethnic minority groups, it occurs in greater overall numbers in the wider society, and is more strongly related to poverty and deprivation than to ethnicity. Overall the incidence of TB is declining, but the rate of decline for the ethnic minority groups is only half that of the indigenous population.

Hypertension rates are high and severe in blacks. Several matched studies comparing black and white factory workers found consistently higher blood pressure rates in blacks than in whites (Sever, 1981).

MENTAL HEALTH OF THE ETHNIC MINORITIES

Generally migrants appear to have higher rates for mental illness than the indigenous population. However, some ethnic minority groups are much more prone to particular types of mental illness, while others have very low overall rates. Cochrane (1983) argues that one would expect some differences because migrant cultures often diverge widely from that of the indigenous population: ‘By definition, culture is one of the largest determinants of all behaviour, normal as well as abnormal, therefore, to the extent that we find different cultural patterns of normal behaviour, we should expect to find culturally determined differences in abnormal behaviour’.

His point is that abnormal behaviour, like normal behaviour, is defined in terms of the norms and values of a particular culture. What is seen as normal in one culture may be seen as abnormal in another. Norms and values derive from the key social structures in society, especially from religion and the
family. Ethnic minority groups who perform to their ‘own’ norms and values may be subject to various kinds of sanctions when it is decreed that the minority culture clashes with that of the adopted country.

So ethnic minorities wishing to be fully assimilated, quite apart from problems of stereotyping and racism, might come under pressure to alter fundamentally their cultural behaviour. This can be very difficult. First, they may strongly resist giving up beliefs and habits which are deepseated and which have important meanings for them. Second, it may be very difficult for them to establish what is normal behaviour in their new society. Very subtle differences often exist between what is acceptable and what is not. Thus, while it may be acceptable for younger heterosexuals to indulge in mouth-to-mouth kissing in public, this would cause much more comment if the couple were elderly, and would rarely be tolerated if the couple were homosexual. Some ethnic groups would see all such behaviour as taboo in public, and some would define it as odd at any time. Learning the rules of the new culture takes time and it is easy to make mistakes. But mistakes can be made in both directions, and mental illhealth is an area which has highlighted the ethnocentricity of both professional psychiatric diagnoses and lay reactions to the behaviour of people from ethnic minorities. Western interpretations of non-Western group behaviour have frequently concluded that these behaviours are often, if not indicative of mental illhealth, at best ‘odd’, and certainly lack the sophistication of Western behaviour.

Data on mental illhealth in the ethnic communities must be interpreted with these drawbacks in mind. The data are not prolific. However, comparative hospital admission rates for all diagnoses exist for English, Irish, Caribbean, Indian and Pakistani groups. For first admission the Irish rates are twice as high as the English, with males higher than females. The first admission rates are lower for both genders among the Indian and, especially, the Pakistani born. However, Caribbean first admission rates show males slightly up on the English rate, while Caribbean females are slightly down. For all admissions (first and subsequent) the same trends are followed, although somewhat exaggerated (Cochrane and Singh, 1987).

All the above ethnic minority groups show higher first admission rates for schizophrenia than the English, with males and females from the Caribbean displaying much higher rates than the rest and four times the English rate. Indian men and Pakistani women are very close to the English rate, but all other categories are at least twice that of the English rate. The picture changes little for all admissions, except that the differences are again exaggerated, and the rate for Pakistani women drops significantly below the English rate. Most studies show that blacks tend to be more over-represented in diagnoses for psychoses than for the less serious mental conditions.

MINOR PSYCHIATRIC MORBIDITY IN ETHNIC MINORITY GROUPS

Evidence on mental health problems which do not result in mental hospital admission is difficult to obtain. Migration, itself, is implicated in the creation of
stress-related conditions because of the 'culture shock' of moving from one environment to another, and because of the compounding factors of material and social deprivation and racial discrimination. Depression, anxiety and apathy may cause great difficulties for the individuals themselves, and for health workers, such as physiotherapists attempting to set up therapy sessions with ethnic minority families. Stresses may equally arise between British born ethnic minority children and their parents as they are pulled in two directions by the conflicting cultures within and outside the home. Conditions may be further exacerbated by language problems, especially for first generation women who have a housewife role. Fuller and Toon (1988) suggest that those at greatest risk of mental distress are immigrant groups who have suffered the greatest loss of status. They divide status into three types:

1. **cultural** (status of the ethnic group in the wider community)
2. **family** (status of the member within the immediate family) and
3. **personal** (socioeconomic status of the individual within the community).

As an example of loss of cultural status, one might refer to the West Indian immigrants of the 1950s who saw the UK as the Mother Country, and were wholly disillusioned by their treatment when they arrived here. To illustrate loss of family status we can consider immigrants from the Indian subcontinent. In India the older generation has the highest status at home, but in the UK the power seems to be passing to the younger wage-earning males. In addition, young females, of lower status in India, may rise in status in the UK as they gain an education and work outside the home. These changes disrupt the whole structure of the Indian family. Loss of personal status might be exemplified by the Kenyan Asians, displaced from their homeland in the 1970s. They were forced to leave their middle-class jobs, homes and incomes and take on jobs of lower status and income, suffering downward mobility.

**HEALTH BELIEFS AND ILLNESS BEHAVIOUR OF ETHNIC MINORITIES**

While each culture has its own set of health beliefs which result in specific forms of illness behaviour or responses to what is perceived as illness, so each culture has both formal and lay structures for health care. Sometimes these two forms of care are clearly segregated, as in the UK, but in other countries they may be more integrated.

Western societies broadly follow the biomedical model of illness causation, seeking entities like germs or viruses as causal factors for infection, and tracing causal pathways to specific disease locations in the body via pathogens of one form or another. This medical approach is confounded by lay Western beliefs about causation, such as the idea that illness may be caused by 'fate', or piles may be caused by sitting on cold surfaces. But these differences between what can be termed 'professional' and 'lay' models of illness causation, while problematic enough for UK-born people, is insignificant.
compared to the chasms which may exist between ethnic minority models and the professional model. (For further information on lay beliefs about health and illness the reader is referred to Chapter 17.)

**Somatization**

One cultural feature which might have implications for the practising physiotherapist is that of 'somatization'. This is not common in Western cultures, although it may be found among more deprived and elderly people. It appears to be most common, however, in Asian and African cultures. It may be part of the reason why Asian people have a lower level of psychiatric diagnosis than other ethnic groups.

Somatization presents psychological symptoms and feelings as *physical* phenomena. Also, in the absence of an extended vocabulary to describe psychological feelings, physical and mental sensations may be conflated. Rack (1982) gives the example of an Indian or Pakistani woman complaining of pain or weakness, but exhibiting exactly the same symptoms as a UK woman who uses the concept of 'depression' (e.g. lack of concentration and insomnia) to explain her discomfort. Rack comments: 'Discomfort in the chest or abdomen is particularly common, and she may say that there is gas in her body which comes up into her head'.

Rack suggests that Western groups may well mention the psychological problems first, and *then* the physical symptoms, while the reverse will be the case for many ethnic minority groups. Careful and informed probing will be required by the therapist if she is to get to the root of the problem. Rack suggests several reasons for somatization by Pakistani women. It may relate to what they see as the role of the doctor, i.e. that they must only be presented with *physical* symptoms. Psychological symptoms are usually dealt with within the family in Pakistani culture, or through non-medical sources. Indian clinicians report that depression is a rare cause of medical consultation, and it is noted that similar attitudes are to be found among those of African descent. Another explanation may be that ethnic minority groups have a tendency to use the 'somatic metaphor'. While we use expressions like 'butterflies in the tummy' or 'lump in the throat', so ethnic minority groups might refer to 'pain in the heart', say they are 'heart-broken', or complain that the heart is 'sinking', 'fluttering' or 'pressed'. A third explanation suggests that the expression of psychological distress is frequently not culturally acceptable. It may, indeed, be deeply stigmatizing, leading to somatic descriptions being used instead. One Hong Kong patient quoted in Rack's study refused to discuss personal feelings while exhibiting symptoms indicative of depression, such as tears in the eyes and a bowed head. He blamed his symptoms, which he defined as physical, on his financial problems. Among the Chinese, mental illness of any sort is greatly stigmatized and only psychotic behaviour will be given the label of mental illness. (For further information on somatization the reader is referred to Chapter 23.)
It is too easy to dismiss cultural differences as mere ignorance. Traditional remedies may well be preferred to Western medical therapy; herbal teas and other infusions are frequently used by the Asian community, who may also consult Unani or Ayurvedic practising Hakims for more holistic treatments than those supplied by biomedicine. However, since various theories about food imbalance as causes of illness form part of the illness beliefs, among the Asian minority in particular, skilled UK therapists may well be able to use the same models and substitute into them information about cholesterol, sugar, and so on. Adapting such models could also be useful in counselling those groups who perceive plumpness as a sign of health, and will eat and feed their families accordingly, strongly resisting any suggestions that they may need to reduce their weight.

USE OF HEALTH SERVICES AND HEALTH CARE PROVISION

Population Trends for 1990 suggests that differences in consulting behaviour exist between members of the indigenous population and those of non-UK origin. Two groups are singled out: those from the Indian subcontinent, and those from the Caribbean. Males from India were found to be more likely to consult their GP than those of UK origin, especially for serious illnesses. Females from both the Indian subcontinent and the Caribbean were more likely to consult for serious illnesses than were females of UK origin (McCormick et al., 1990). Studies conducted in 1989 in urban general practice seem to confirm this finding, with consultation rates generally inflated for groups from the NCWP. Consultations were most frequent for infections of the upper respiratory tract, diseases of the circulatory system and diabetes. However, a small scale study by Donovan (1986) found a resistance towards the NHS and to doctors among Caribbean men. She found that they were more inclined to believe in the natural resistance of the body to illhealth, aided by traditional cures. Sleep was seen as a cure-all, and this may well be interpreted by Western minds as mere 'laziness'. Such males may delay attending the GP, trying all other remedies first and only going as a final resort. As one respondent, Leroy, commented: 'I always wait until I have to go - really crawling in pain'.

Findings of inflated attendance rates may well fuel accusations that ethnic minorities are a drain on the NHS; that their members have lower tolerance thresholds; and that they misuse the services. Brent Community Health Council reported in 1981 that one group of Brent GPs told them 'with complete confidence and scientific detachment': The pain threshold for Asians is half that for Caucasians - they complain twice as much for half the reason - they come with minor symptoms'.

Indeed, it is not uncommon for other cultures to have a less inhibited way of expressing distress than the British, and this flies in the face of the cultural expectations of the health workers, who may react negatively, making interactions with the health services a miserable experience for many individuals.
One author sums up the situation: 'Racism within the NHS affects virtually all blacks, including Asians; stereotypes of blacks as trivial complainers or time-wasters, somatizing psychological morbidity, calling doctors out unnecessarily, and so on, abound in the health service. Prejudices and stereotypes inevitably affect service delivery, and it is usually the least fluent and most needy who suffer the greatest' (Ahmad, 1989). (For further information on ethnic minorities and pain the reader is referred to Chapter 11.)

Restricted consultation time is another problem for ethnic groups. Hakims may see whole families to try to establish cause and most efficacious treatment for a condition. This is necessarily a more leisurely approach to care than our 4–6 minutes per person. Women from the ethnic minorities also feel their needs are neglected, often preferring to see a female doctor or therapist especially for gynaecological or childbirth care. Some authorities have mistakenly provided male doctors of the same ethnic group, thinking that the cultural or language barrier is the most important problem. This lack of awareness compounds the difficulty for the woman, who, in the absence of the preferred female attendant, may feel her identity is more violated from the attentions of a male of her own culture than from a white male doctor. Ahmad (1989) also contends that Asian doctors (he does not refer to other ethnic groups) can also be guilty of discrimination against Asian patients. Linguistic barriers may be dispelled, but are replaced by those of class, status and education. Ahmad suggests that such doctors have been socialized as 'honorary whites' in the high status medical profession. Few GPs, except in multicultural areas, have much experience of more common ethnic minority conditions, such as sickle cell anaemia, although this situation is improving. In consequence, the severe pain of the sickling crisis is often misdiagnosed or seen as yet another black person exaggerating her symptoms.

Research on use of the preventative services by the ethnic minorities presents a variable picture. Baker et al. (1984) found a better uptake in immunization for children in Pakistani and Indian groups than for whites, and there has been some success with community-based outreach services which incorporate an understanding of ethnic needs. The use of infant health services by ethnic minority mothers in East London illustrates the success of such programmes (Watson, 1984), although Hillier (1991) suggests that they have tended to be targeted on socially deprived inner city communities where use by indigenous groups is lower than average. This would exaggerate the ethnic minority success rate.

Finally, ethnic minorities seem to have problems in their contact with the hospital sector generally. Usually hospitals lack interpreters, although some have provided on-call interpreters and 'advocates' who attend with the patient and interpret and 'bargain' on her behalf; dietary laws of Islamic and Hindi patients are not well catered for, nor, indeed are dietary needs generally, even though familiar food is very comforting when one is ill. Ethnic rituals surrounding illness, childbirth or death are rarely accommodated in the modern cost-efficient hospital.

This overview of health and health care experiences of the ethnic minorities
indicates a need for more health workers from these groups who can spearhead change. A study of the Moroccan community of the Borough of Kensington, Chelsea and Westminster, indicates that the recruitment of Moroccans into the health service, at all levels, is essential for the extension of that community’s use of the services (BBC1, 1991).

The isolation of women in the home as part of the Islamic culture has made take up of child welfare services slow, and it also mitigates against the general use of health services. Little information is available specifically on physiotherapy, but the numbers of ethnic minority members of the profession are low. It is likely that the same sort of recruitment barriers exist here as they do in other health professions. Documented evidence of discrimination against doctors and nurses is available, however, with doctors from the ethnic minorities being far less likely to reach consultant posts than white doctors (Smith, 1987) and nurses from the ethnic minorities being less likely to achieve senior posts (Pearson, 1989).

CONCLUSION

In Standards of Physiotherapy Practice (1990) it is required that the physiotherapist ‘... respects and responds to cultural differences’, and ‘responds to language and communication difficulties’. It is as well to note that section 20 of the Race Relations Act makes it unlawful to discriminate against people on racial grounds in terms of facilities, goods and services or their quality. Many changes could be made in physiotherapy education and practice to improve the situation of patients from ethnic minority groups. These include a better understanding of those conditions, such as sickle cell anaemia, to which people from specific ethnic groups are particularly prone, race awareness training, a full understanding of the cultural differences among various ethnic groups and the education and employment of physiotherapists from the ethnic minorities.

Perhaps this final point is the most important of all. In a survey of racial inequality in social service departments (1989) it is stated that, ‘... without equal employment opportunities it is unlikely that there will be equal opportunities in service delivery’. (For further information on how to improve services to people from ethnic minorities, readers are referred to GLAD, 1987; Confederation of Indian Organisations, 1987; Connelly, 1988; Kalsi and Constantinides, 1989; and McCalman, 1990.)

There is a pressing need for research to be conducted which examines the specific needs of people from ethnic minorities who use physiotherapy services, with a view to presenting them in a sensitive, effective and non-racist manner. This would be an achievement which other health workers have not yet accomplished.

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Physiotherapy: a psychosocial approach


The term 'ageism' was coined by Butler (1975) who defined it as a process of systematic discrimination and stereotyping of people simply because of their age. Similarly Hawker (1985) defines ageism as, 'Society's negative and patronising attitudes towards its older members'. No age group is exempt from age related stereotypes; thus children may be viewed as unreliable, teenagers as irresponsible, and middle-aged people as 'past it' by many potential employers. However, there can be no doubt that old people are affected by ageist attitudes more than any other group.

Attitudes to old people are temporally and culturally limited. This chapter will examine attitudes to old people in British society today but it must be appreciated that in other societies, for example China, old people are highly respected and afforded considerable status.

Abercrombie et al. (1988) define a stereotype as, 'a one-sided, exaggerated and normally prejudicial view of a group, tribe or class of people'. In the case of ageism many such beliefs, for example that old people are unadaptable, are potentially very harmful. Although sometimes containing an element of truth, stereotypical beliefs are over-generalizations which grossly simplify reality relieving us of the demanding task of viewing and relating to people as individuals. This is not to say that old people and other stereotyped groups may not benefit in various ways from such beliefs. They may, for example, be flattered by the notion that old people are exceptionally wise, or pleased that no one expects them to learn new skills. For most people, however, the disadvantages far outweigh any advantages.

Stereotyping frequently leads to discrimination which Secord and Backman (1974) define as, 'inequitable treatment of individuals considered to belong to a particular social group'. Discrimination is the behavioural component of prejudice (Simpson and Yinger, 1965). Thus old people may be denied access to employment, certain leisure activities, education and medical treatment simply because of their age. Elland (1988) remarks that, 'it becomes easy to neglect and denigrate people if one can see them as a little less than human'.

Ageism manifests itself at many different levels within society. As well as being evident in the attitudes and behaviour of individuals, it pervades both literature and the media and is very easy to find in such items as birthday cards. Hasler (1989) believes that: 'Books and television depict the older person as helpless, with loss of self image and a fear of death. On television old women are more likely to be cast as forgetful, obsessional and often ending their lives in care. Older men are more likely to be shown as stubborn or eccentric. Neither sex is portrayed as having romantic inclinations'.

Old people very rarely feature in advertisements and we are constantly urged to spend time and effort preserving our youth and making ourselves
Physiotherapy: a psychosocial approach

appear younger (Townroe and Yates, 1987). Norman (1987) complains that charities portray old people as pathetic and dependent and ageism is firmly embedded in the practices of institutions and is reflected in government policy. An example of this is the inflexibility of retirement policy which forces people to cease paid employment at a given chronological age, whatever their wishes or abilities may be. Phillipson and Walker (1986) state: '... ageism has been and is being institutionalised in modern society. There are forms of discrimination against the elderly which are as deep as forms of discrimination against women and ethnic minorities'.

They further argue that old people are denied many benefits to which younger people in a similar situation are entitled, such as the mobility allowance, and believe that old people are forced into poverty and dependency by low pensions and the spurious notion that they need less money than younger people. Their lack of wealth reduces their social standing, thus their dependency and status is socially constructed, at least in part. Old people may feel satisfied with their low pensions because they have lived through times of war and economic depression when poverty was even greater. Compared to their past lives and to the old people they remember, they may regard themselves as relatively affluent.

According to Gross (1987) negative perceptions of old age are based on the Decrement Model where ageing is viewed as a process of biological, psychological and sociological decline. The Personal Growth Model gives an alternative view of old age seeing it as advantageous, with increased leisure, reduced societal pressure and a more balanced perspective on life. Although many old people do experience their latter years in this way, Butler (1975) warns of the danger of portraying old age, 'as a kind of adult fairy land' and Joseph (1986) disputes the notion that old people are necessarily serene.

AGEIST LANGUAGE

Nuessel (1982) and Barbato and Feezel (1987) point out that ageism frequently operates through language. Although it may seem trivial to focus on this, there can be no doubt that our attitudes are reflected in the language we use and are shaped by the language we hear. Knowles (1987) complains that it is not uncommon for nurses to refer to elderly patients by such terms as 'dear', 'darling', 'love', 'poppet' and 'sweetie'. Knowles believes that old people find such terms patronizing and embarrassing and may not have been referred to in such a way since early childhood. He states: 'Perhaps for many of us, putting the patient in a childlike role fits best our ideal of how he should be, that is submissive, vulnerable, in need of protection and dependent. . . . Perhaps for many of us the infant is the ideal patient'.

The tendency automatically to call old people by their first names, or by terms of endearment, such as 'Granny', is not uncommon. Payne (1989) believes that using first names can be demeaning when used by a stranger who has power over the person, especially, when that person is expected to address the other formally. Even physical abuse towards old people is
trivialized by the expressions ‘Granny abuse’ and ‘Granny bashing’, terms which are used in the professional literature (Eastman, 1988).

Norman (1987) believes that terms such as ‘old girl’ and ‘old boy’ are patronizing and tend to infantilize old people, as does the notion of a ‘second childhood’. She complains of the way the word ‘geriatric’ is used as a noun and comments that we use many euphemisms to replace the word ‘old’, such as ‘pensioner’ and ‘senior citizen’. It is as if we view old age so negatively that we cannot bring ourselves to refer to it in a straightforward way.

Terms such as ‘the elderly’ and ‘the aged’ can also be criticized for fostering the impression that old people form a homogeneous group, whereas in reality they are as heterogeneous as any other large section of the population, even in terms of their age. Such language is very common in employment advertisements for medical professionals as well as in their journals and textbooks. Similarly Wertheimer (1988) and French (1989) criticize terms such as ‘the disabled’ and ‘the handicapped’. Wertheimer (1988) questions the use of the word ‘care’ as it fosters a dependent and helpless image which is often quite inappropriate. Yet the term ‘care of the elderly’ has now been adopted in favour of ‘geriatrics’, which has almost been banned from medical vocabulary. Ford (1989) states: ‘The term geriatrics with its connotations of the decrepit, incontinent and confused old person has been dropped from the vocabulary of all but the most hidebound of nurses’.

Yet we do not talk about ‘care of the young’ or ‘care of the middle-aged’ and it is interesting to note that the Open University has renamed its course ‘Caring for Older People’ to ‘Working with Older People’. The term ‘geriatrics’ is, in essence, neutral — referring to a medical speciality like ‘paediatrics’ or ‘orthopaedics’. The term has taken on a derogatory quality because of our negative attitudes towards old people.

The word ‘old’ is frequently used as a term of abuse, for example ‘old fool’, ‘old bag’, ‘old maid’, and ‘old dragon’. A fussy person is likewise referred to as an ‘old woman’ — a sexist as well as an ageist expression. Old women are, according to Fennell et al. (1988), in a particularly difficult situation. They state: ‘Suffering from the double burden of ageism and sexism, older women have for too long been marginalised by society at large and by the literature stemming from sociology, gerontology and feminism: their visibility invariably restricted to the portrayal of negative stereotypes’.

Old people from ethnic minorities may also suffer a double burden of prejudice and discrimination. There are various incorrect, stereotyped views concerning people from ethnic minorities, for example, that they always belong to an extended family network which is ever ready to help and support them. Views such as these are disputed by McCalman (1990).

The use of the word ‘senile’ as a synonym for ‘dementia’ is also ageist as ‘senile’ merely means, ‘relating or belonging to old age’ (Butterworths Medical Dictionary, 1978). Twining (1991) states: ‘Perhaps one of the biggest problems in relation to our attitudes to thinking and remembering in old age has been the utterly inappropriate use of the term “senility” to describe intellectual impairment resulting from brain damage and disease.

‘One thing I think we have learned over the last few years is that the
Physiotherapy: a psychosocial approach

changes we see in the minority of older people who are so sadly affected are in no way due to normal ageing'.

Terms such as 'dirty old man', 'mutton dressed as lamb' and 'cradle snatcher' indicate our distaste of any sexual behaviour in old people and the adage that, 'you can't teach an old dog new tricks' indicates the widespread and erroneous belief that old people are incapable of learning new skills, a view hotly disputed by Ellard (1988).

Croft and Beresford (1991) complain of the patronizing way in which old people are referred to as 'crumblies', 'wrinklies' and 'pensioners' and believes they should be 'citizens' like everyone else rather than 'senior citizens'.

Joseph (1986) believes that society is far too inclined to concentrate on the 'problems' of old age. Concerns are constantly voiced regarding the increasing size of the elderly population. However, Joseph makes the point that the population of the nineteenth century was abnormally youthful because few lived into old age. He comments, '... put this way the problem of old age appears already to be less of a problem'. It is the social disadvantage that old people suffer which creates problems not the old people themselves. Ellard (1988) remarks that although much is spoken of the burden elderly people place on the young, little is said of the burden the young have already placed on the elderly.

MISCONCEPTIONS OF OLD AGE

Joseph (1986) points out the various misconceptions pertaining to old age.

The first misconception is that the number of years lived (chronological age) equates with biological, psychological and sociological ageing. There are tremendous individual differences in the ageing process and no straightforward correspondence between these different aspects of ageing. Thus at a chronological age of 75 a person may look older but in terms of mental agility and social roles appear younger. Or a person of 85 may look young but may be unable to look after herself because of depression or confusion. It is important not to judge people by their appearance alone.

Another misconception relates to ill health. Although it is true that illness and disability are concentrated in the elderly population more than any other age group, deterioration of health is not inevitable as we age and the majority of older people remain independent and healthy. It has been estimated that 75% of people over the age of 65 are well enough, both physically and mentally, to be totally independent. One-half of all people over the age of 65 and one-third of all people over the age of 85 report having no disabilities (Birth to Old Age, Open University, 1985). The idea that ill health is a natural part of ageing is dangerous because it may lead health professionals to undertreat old people or to assume that nothing can be done for them, and as Day (1988) points out, it may lead old people to view themselves in the same way. These ideas may be reinforced by the fact that health personnel are in contact with a disproportionate number of old people who are ill and disabled.

A third misconception is that most old people suffer from senile dementia.
According to Joseph (1986) 29% of people over 80 years of age show some signs of senile dementia, but although this is a sizeable minority it does leave 71% free of the condition and younger elderly people are far less likely to be affected. Depression is the most common mental illness in old age, as it is for younger people, but it is frequently confused with senile dementia, especially as depression can be a major cause of forgetting. Given the multiple losses old people tend to experience, for example loss of spouse, friends and employment, depression can often be explained in terms unrelated to ageing per se.

The behaviour of old people is often interpreted in terms of senile dementia. Thus if a 30-year-old goes to work leaving the gas on or the back door unlocked occasionally, it is considered to be normal forgetfulness, but if an old person does likewise she is apt to be suspected of ‘going senile’. Carp (1969) devised a ‘senility’ scale and found that students were more inclined to demonstrate ‘senile’ signs than old people!

Hasler (1989) points out that senile dementia is a disease and should not be regarded as part of the normal ageing process, and Norman (1982) reminds us that the dementias are a group of illnesses with different causes. An old person may become demented due to a high temperature, lack of fluids and poor nutrition or as a side-effect of medications.

It is often assumed that old people are rejected and isolated, yet in reality only about 20% of people over the age of 65 live alone and one must assume that some of them choose to do so, as people from any other age group might. It is also incorrect to believe that families do not look after their elderly relatives, Hasler (1989) states that most old people remain in close contact with their families who provide care and support, and Joseph (1986) makes the point that the poorest old people, in financial and social terms, tend to be those who do not have families. The small proportion of old people who live in institutions, under 5%, are more likely to be unmarried, childless and without siblings. The notion that old people are rejected may serve the political function of putting further pressure on relatives and neighbours to provide services which many believe should be provided by the state.

A further erroneous notion is that old people are unproductive. It is not uncommon for employers to state that they require young people with those in early middle age often being regarded as on the decline. Yet many elderly people live busy and productive lives, forming, for example, the backbone of the informal caring services. There are many examples of people who have produced excellent work in old age, including Winston Churchill, Pablo Picasso, Sigmund Freud and Bertrand Russell, and it is not uncommon for retired people to succeed as students of the Open University and in many other areas of life. The fact that such people are singled out and admired only serves to emphasize our ageist attitudes, for successful old people are generally thought to be the exceptions. Eastman (1988) states: ‘Older people are perceived as weak, helpless and powerless and their role in society is exactly the same. Witness the media interest in an 80-year-old who wards off a burglar or mugger, the 70-year-old who enters a marathon or the person who reaches 102. These are seen as atypical’.
Physiotherapy: a psychosocial approach

Some decline of intelligence, as measured by intelligence tests, can be demonstrated in old age but, according to Gross (1987) and Ellard (1988) this is mainly due to a reduced memory span, and a slower rate of response. Any lessening of such abilities is not very important in everyday life and is probably compensated for in most situations by an increase in experience and knowledge. Furthermore, comparing IQ scores of people in different age groups is fraught with problems as IQ is affected by experience. Today's young people generally have greater opportunities than their parents or grandparents in terms of education, employment, travel and leisure pursuits. There is also a danger in automatically viewing changes which may occur in old age as necessarily negative. Gadow and Berg (1978) point out the advantages of some aspects of ageing arguing, for example, that decreased speed of thought and action may give rise to experiences of greater depth.

The words 'retire' and 'retirement' foster the image of decline. The Concise Oxford Dictionary defines 'retire' as 'withdraw', go away, retreat, seek seclusion'. Our expectations are that people will relax and wind down. Perhaps Cumming and Henry's theory of 'disengagement' (1961), where old age is viewed as a time of voluntary withdrawal from society, has helped to promote this view. Shanas (1968) found that the activities of older people do not decline if they stay in good health and have an adequate income and Joseph (1986) believes that retirement could be seen as 'a new creative career'. Phillipson and Walker (1986) are of the opinion that retirement is becoming a euphemism for unemployment.

Another common belief about old people is that they have inflexible personalities. Joseph (1986) however, points out that there is no sharp discontinuity of personality with age; thus an awkward old person may well have been awkward all of his life and any increase of cautiousness which may be evident in old age is probably due to past experience rather than the ageing process itself. The sort of life experience the person has had will obviously influence his or her personality and ability to cope in later life. It should also be remembered, as Argyle et al. (1981) point out, that the way people behave is determined not only by personality characteristics but by the situations they are in. Thus the old person who no longer has to impress employers, set a good example to her children or worry about promotion, may feel free to be assertive or eccentric. She may talk of the past because her present life offers so few opportunities and any anger or unwillingness to cooperate may well be justified and understandable in terms of her situation. Felstein (1990) complains that we have negative stereotypes of old peoples' personalities and states: 'The truth is that there are as many varieties of personality among the old as in any other age group. Humour, laughter, fun, kindness and thoughtfulness are not the perogative of earlier years'.

Old age is all too often viewed as a time of misery. This has been challenged by the organization Age Concern (Inequality and Old People, 1982), which found that only 7% of old people felt there was nothing for them to look forward to. Harris (1975) demonstrated a considerable gap between the public's views of being old and the experiences of old people themselves. Whereas 60% of the public expected loneliness to be a serious
problem for old people only 12% of old people found it to be so, and whereas 28% of the public felt that having too few friends would be a serious problem this was only reported as being so by 7% of the old people. For every elderly person who reported that old age was worse than he or she had expected, there were three who claimed it was better. Hasler (1989) remarks that the media concentrates on stories of poor care rather than good care of elderly people, putting over a bleak picture which serves to intensify negative attitudes towards old age as well as a fear of becoming old.

Felstein (1990) mentions another ageist stereotype, that of asexuality, though in reality many old people remain sexually active until their death.

**THE SELF-FULFILLING PROPHECY**

Perhaps the most unfortunate outcome of ageism is the effect it may have on the self concept, beliefs and behaviour of old people. As Joseph (1986) states: 'Old people themselves act in ways expected of them and so collude in a social construction of reality in which society sets them apart and they in turn expect and accept that they are a group apart'.

This process has been termed the 'self fulfilling prophecy'.

Many old people believe or accept society's stereotypic ideas about them, just as the members of any oppressed group might before consciousness raising occurs. Thus they may delay seeking medical advice because they perceive their symptoms as the inevitable result of old age, they may feel it is futile to take up a new hobby because 'you can't teach an old dog new tricks', or they may be very grateful for their bus passes, failing to realize that such hand-outs are only necessary because their pensions are inadequate. They may believe that young people are more important than they are and that work is the principal good in society. Midwinter (1986) points out that such beliefs tend to alter the behaviour of old people, thus the stereotype is confirmed and our negative attitudes justified.

Even if old people do not share these beliefs and attitudes they may act in accordance with them, for to oppose any stereotype requires determination and stamina and brings about its own negative effects. For example if an old person in hospital challenges the way he is being treated by staff, he may be avoided and thus forego the fulfilment of social and emotional needs. This is particularly likely if he has few contacts outside the institution. In many ways the role of 'old person' is forced upon old people by society, and their behaviour in this role only serves to reinforce ageist beliefs and to justify ageist practices. Thomas (1966) pointed out that what is defined as real in a society will be real in its consequences.

**ATTITUDES OF PROFESSIONALS**

Professional workers have also been accused of ageist attitudes and behaviour (Gruber, 1977; John and Steel, 1978; Snape, 1986). Norman (1987) believes
that gerontology tends to take a ‘victim blaming’ approach, looking for the problems within old people rather than within society. For example we are led to believe that old people are isolated and likely to suffer from hypothermia simply because of their age rather than because of their low incomes and poor housing conditions. She criticizes medical training for focusing on acute illness and points out that work with old people lacks prestige and attracts less skilled workers or those who are subject to discrimination themselves and cannot find alternative work. Blane (1982) comments that geriatric services are poorly funded when compared with other specialities and that geriatric medicine is not a popular option among medical professionals. Finn (1986) reports similar findings in relation to physiotherapists.

Kvitek et al. (1986) report that physical therapists in San Francisco, who were presented with two hypothetical patients identical in every respect except for their age, set much more demanding goals for the younger patient in terms of walking aids, prostheses, general rehabilitation, endurance, return to work and living situation. Those who were more positive towards old people had more dynamic treatment aims. Knowledge of old age did not appear to be related to the vigour of the treatment, thus it appears that attitudes towards old people, not merely factual information about old age, need to be addressed in education.

Phillipson and Walker (1986) complain that the dependency of old people is fostered both in institutional and community settings. Talking of the community they state: 'People visit, or are transported, to day centres where programmes are often restricted and entirely within the control of social workers, physiotherapists and others to decide and organise'.

Croft and Beresford (1991) point out that our own power wanes when we are placed at the mercy of other people’s power.

Stevenson (1989) dislikes the way in which medical professionals focus on the age of patients and is concerned by the widespread belief that such information is vital. Although it is frequently said that the age of a person is a determinant of the treatment she should receive, Stevenson believes that the ethics of this view should be examined.

The emphasis on age is all too common in physiotherapy examination questions which so often start with phrases like, 'a twenty-six-year-old lorry driver' or 'a sixty-five-year-old housewife'. The ethics of emphasizing gender and occupation can also be challenged. Day (1988) suggests, as an exercise in challenging our own ageism, that we should try to get through a consultation without reference to age.

THE RELEVANCE OF AGEISM TO PHYSIOTHERAPISTS

Many physiotherapists are working with elderly people both in hospital and community settings. We often represent the interests of old people and are considered to be experts in this area of health care. It is vital, therefore, that any ageist attitudes or behaviour patterns that we may have acquired should be changed in order that our communications and treatments are optimally
effective. We live in an ageist society and are probably all ageist to some extent. Changing such attitudes and behaviour takes both effort and practice.

Physiotherapists should acquire knowledge and experience of elderly people who are well. There is a danger that by constantly interacting with those who are ill and disabled, our views of old people will be distorted. Howden and Baggaley (1989) explain how student nurses visit well old people as part of their education in order to change any misconceptions they may have. Physiotherapists must keep an open mind and a balanced view, for in attempting to combat ageism there is a danger of denying that problems in old age actually exist.

By careful thought concerning the language we use, physiotherapists may gradually alter their own attitudes as well as those of their colleagues. This is a difficult area, however, as neutral words, such as the medical speciality 'geriatrics', tend to acquire negative meanings because of our underlying attitudes. Thus the vocabulary constantly needs revision.

Physiotherapists should keep in mind that the various aspects of ageing – biological, social and psychological – do not necessarily correspond and that many everyday ideas concerning old people, to which we are all exposed, are incorrect. A thorough understanding of the true situation and experience of old people can surely do nothing but enhance practice.

Practising physiotherapists and teachers of physiotherapy, are in an ideal situation to pass on non-ageist attitudes and behaviour patterns to students both formally and by example. Stevenson (1991) believes that a huge educational programme is needed to combat negative attitudes towards old age among health professionals. Physiotherapists and teachers can also learn from students who have perhaps been exposed less to ageist attitudes, especially those relating to health care.

By non-ageist practice physiotherapists may help to avoid the 'self-fulfilling prophecy' in old people, whereby they live up to the ageist expectations of others and share the same ageist views. For example, old people may believe it is impossible to learn a complex skill, or be reluctant to consult a physiotherapist with what they consider to be symptoms of 'old age'. Their beliefs and behaviour only serve to perpetuate and reinforce society's original misconceptions and may justify discrimination or inappropriate treatment. Day (1988) believes that medical personnel should take every opportunity to challenge ageist attitudes in old people themselves.

Physiotherapists are in a position to reduce ageist practices in the places of their work. This can be achieved by offering old people choice, helping to 'normalize' the environment, involving old people in decision-making regarding their rehabilitation, and challenging the overall running of institutions and community services. These and many other ideas for improving life for people in institutions are given by Tully (1986). Hasler (1989) points out that a non-ageist approach often involves risks as the old person has choice and is no longer so constrained and confined by others. Safety and the avoidance of accidents is heavily emphasized in physiotherapy education and some acceptance of risk, in the interest of the old person's happiness and fulfilment, may be difficult to accept.
It is part of the physiotherapist's role to support relatives who are assisting elderly people in the community. These people are often beyond retirement age themselves and should be viewed and treated in a non-ageist way. Day (1988) believes that ageism demonstrated by carers, for example not involving the elderly person in decision making, should be challenged. There are, however, many controversial issues regarding community care of which the physiotherapist should be aware (Jones et al., 1983; Mace and Rabins, 1985; Richman, 1987; Davidson, 1987; Hicks, 1988; Holmes and Johnson, 1988). Central among them is the realization that when one group of people are liberated from institutions, for example old people, another group, consisting mainly of women who are frequently elderly themselves, can become oppressed (Dalley, 1988). There is no magic solution to this problem but it is important that we do not reduce one set of stereotypes, those relating to old age, by creating or emphasizing other stereotypes relating to the role of women.

All physiotherapists, be they in managerial or junior positions, have difficult decisions to make regarding time and treatment priorities. Making such decisions is never easy and is always fraught with ethical dilemmas. Blane (1982) and Tinker (1984) point out that old people are often low on the list of priorities for medical as well as other services and that the reasoning behind this is frequently ageist in nature. Careful thought therefore needs to be given when such decisions are made.

Physiotherapists who are responsible for recruiting and promoting colleagues, should avoid making global judgements on the grounds of age. A physiotherapist of 50 may have more energy and enthusiasm than one of 25 and, conversely, a physiotherapist of 25 may have a greater sense of responsibility than one of 50.

Finally, on a more self-interested note, any steps we can take to combat ageism will be doing ourselves an invaluable service, as most of us too will one day be old.

CONCLUSION

It is clear that there is much that can be done to reduce ageist attitudes and practices within the health care services. This can be achieved by the careful use of language, the 'normalization' of institutions (Wolfensberger 1972) and ridding ourselves of ageist misconceptions. However, Stevenson (1991) believes that real change can only come about if the political will is there and Booth (1985) refutes the idea that the problems of institutional living can be resolved by good methods of care and training. He states: 'Underneath lies the same crushing panoply of controls over the lives and doings of the residents. Changing the wrapper does not alter the contents'.

Perhaps it is this realization that leads Ellard (1988) to advise us to become politically involved on behalf of, or in collaboration with, elderly patients. However, if we accept, as the symbolic interactionists do (see Meltzer et al., 1975), that society, even at the level of government and the state, merely
Ageism consists of the perceptions, attitudes and ideas of individuals, then surely there is some hope that ageist attitudes and practices can be eliminated. As the word 'ageism' enters everyday vocabulary and its meaning becomes well known, we will perhaps become more conscious of how we think and act towards old people, making ageist attitudes and behaviour less acceptable. Old people too may become more aware of their oppression and this, together with the growing increase in their numbers, has the potential to transform them into a powerful political force.

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Before discussing institutional and community living, it is necessary to explore what is meant by ‘institution’ and ‘community’.

**INSTITUTION**

The term ‘institution’ has various meanings, for example the family and marriage are institutions as is any repeated or continuous practice maintained by social norms. In the present context, ‘institution’ refers to ‘an organization or establishment founded for a specific purpose’ (McLeod, 1986). Institutions are very varied, ranging from those which are well integrated within society to those which are totally isolated. The latter are referred to as ‘total’ or ‘closed’ institutions. They are characterized by rigid routines with little or no attention being paid to individual needs. Daily activities such as working, eating, sleeping and exercise are carried out in groups within the same environment, and the many rules and regulations exist more for the benefit of the staff than the residents. Goffman (1961), in his famous book *Asylums*, describes a total institution as: ‘A place of residence and work where a large number of like situated individuals, cut off from the wider society for an appreciable period of time, together lead an enclosed, formally administered round of life’.

The incarceration of people considered to be deviant became commonplace in the late nineteenth century and expanded rapidly in the first half of the twentieth century. Conditions labelled ‘mental handicap’ and ‘mental illness’ were ‘medicalized’ and the institutions where such people were detained adopted strict hospital rules and routines, often in the absence of any meaningful treatment. It was not until the 1960s that any serious challenge to these practices was made. This followed several damning theoretical analyses of total institutions by sociologists such as Goffman (1961) and Townsend (1962), and later the uncovering of considerable abuse and cruelty. At the same time people such as Laing (1967) and Szasz (1961) were attacking the very concept of insanity, and advances in drug therapy made it more feasible to discharge from hospital people with schizophrenia and depressive illness. The growing Civil Rights movement may also have had an effect. Along with these changes, the large institutions were becoming difficult to staff and maintain and were increasingly recognized as expensive, out-dated and stigmatizing. However, government policy explicitly advocating ‘community care’ did not gain momentum until the 1980s.
In contrast to total institutions, there are those which are well integrated within society. They are generally smaller and well staffed with residents having considerable autonomy over their own lives, as well as opportunities for involvement in policy making. This type of institution has become more common as total institutions have declined.

Precisely when an 'institution' should be regarded as a 'community home' or part of 'the community', is impossible to say, but it certainly has less to do with size than the style of management, the attitudes and behaviour of staff and the availability of resources. An institutionalized atmosphere can be created in a small group home, just as a homely atmosphere can be created in a large institution. Davidson (1987) is of the opinion that relationships in the community may be 'almost as debilitatingly dependent and institutional as any relationship in a long-stay hospital'. Holmes and Johnson (1988) give a detailed account of the deprived lives of old people living in private nursing homes, many of which are very small.

There are various views regarding the major functions of institutions. Professional rhetoric is usually in terms of 'treatment' and helping residents to reach their full potential, but others believe that they exist in order to enable 'normal' society to run smoothly. Certainly many concerns have been expressed about the effects on 'normal' people of closing institutions and integrating ill and disabled people within society. For example there are fears that the inclusion of disabled children in mainstream schools may adversely affect non-disabled children because of the amount of time the disabled children may require of teachers. This is unlikely to be a problem, however, if sufficient resources are available, indeed it has the potential to bring about favourable outcomes for all children, just as wheelchair access helps other groups such as those with young children in pushchairs. If, for example, a teacher talks very clearly, being sure to face the class in order to accommodate a hearing impaired child, then all children are likely to benefit. At a more subtle level, by paying attention to the needs of disabled people a greater atmosphere of tolerance to the needs of every individual may be created.

Institutions may also have the function of socializing residents to play a specific role. Scott (1969) gives a graphic account of rehabilitation centres for newly visually impaired people, where they are taught the behaviour and attitudes thought necessary to play the role of 'blind person'. The underlying philosophy of the majority of institutions is that disability is contained within the individual rather than within society, it is therefore viewed as a problem for the individual to 'overcome'. The staff of institutions are rarely, if ever, in the business of encouraging people to challenge disabling social structures and attitudes which stand in their way. (For further discussion of this the reader is referred to Chapter 15.)

The large institutions have been inherited from a time when ideas about illness, disability and deviance were different from those held today. No large and complex social system is easy to dismantle and will frequently persist even though those working within it, as well as the wider society, view it as divisive or have ceased to believe in its value. In order to reduce the psychological conflict this creates, people tend to find justifications for the existence
Institutional or community living?

and continuance of institutions which often have little in common with the original philosophy or the reality of how they came to be.

COMMUNITY

Abercrombie et al. (1988) believe the concept of 'community' is 'one of the most elusive and vague within sociology' and that it is now 'without specific meaning'. Richman (1987) refers to the concept as one of 'infinite elasticity'. The notion of 'community' can refer to a group of people within a given geographical area, a collection of people living within a particular social structure, or a psychological entity — for example we talk of 'community spirit' and 'a sense of community'. When it comes to the concept of 'community care', Jones et al. (1983) point out the multitude of possible interpretations: 'To the politician 'community care' is a useful piece of rhetoric, to the sociologist it is a stick to beat institutional care with, to the civil servant it is a cheap alternative to institutional care which can be passed to the local authority for action or inaction, to the visionary it is a dream of the new society in which people really do care, to social service departments it is a nightmare of heightened public expectations and inadequate resources to meet them'.

Bayley (1973) made the distinction between care 'in' the community and care 'by' the community. In the White Paper Ageing in The United Kingdom (1982), for example, it explicitly states that, 'Care in the community must increasingly mean care by the community'. Government now refers to the 'mixed economy of welfare', meaning that care of dependent people must be the shared responsibility of statutory services, voluntary services, neighbours and family (Caring for People, 1989). In reality the caring role usually falls to close female relatives who receive little or no assistance. Abbott and Sapsford (1987), for example, found that over half the families in their sample of parents with mentally handicapped children, received either no help or very trivial help. Inadequate community resources frequently leads to 'the revolving door syndrome' where people continually move between hospital and home. Hicks (1988) believes that carers 'are being forced to take on a moral burden which belongs to society as a whole'.

Graham (1984) believes that community care is 'a euphemism for an under-resourced system' and that it represents 'care on the cheap'. Potential funding is tied up in the institutions which cannot be sold because they are still partially occupied and there is inadequate finance from central government. The policy puts intolerable pressure on families, particularly women who are often elderly themselves. Taylor (1979) refers to their services as 'the hidden labour of the NHS'. Although discussion of 'community care' usually focuses around the closure of large institutions, in reality most dependent people have always lived within the community, being cared for by their families.

'Community' is an emotive word which, like 'family', conjures up a nostalgic picture of warmth, friendship and neighbourliness. Politicians exploit this image when talking of 'care in the community', though in reality those ill and disabled people discharged from institutions who are not looked after by
hard-fired female relatives, often end up in hotel rooms, inadequate hostels or on the streets. Relatives, especially women, often feel pressured to take on the caring role, and tend to feel guilty if they reject it. This is due to the widespread belief, not only that it is their duty, but that to care is a central, almost biological, aspect of the female character! Many people have noted that caring for ill and disabled people has many similarities to caring for children and husbands. Women have been socialized into this role from an early age and may view it as entirely proper. However, Dalley (1988) points out that the liberation of one disadvantaged group, for example disabled people, can lead to the exploitation of another. She believes that the ideological constructs of ‘family’ and ‘female altruism’ are more important than any concrete evidence of their existence.

Women frequently drift into the caring role without making any rational decisions. Small obligations gradually become large ones until caring can become a full-time occupation. Beliefs that families in the past willingly cared for their sick, old and disabled members abound, and the presumed lack of care by families today is often said to reflect the selfish times in which we live. Hicks (1988), however, does not believe that families in the past were exceptionally altruistic or that the community was particularly caring. She disputes the notion that a cozy community scene, comprising helpful neighbours and a supportive network of extended kin, ever really existed, believing that families are probably more caring today than they have ever been. Graham (1984) points out that fewer old people live in institutions now than at the turn of the century and that there is no evidence that people in the past were more affectionate towards their relatives than they are today.

The provision of inadequate or insufficient statutory services, rather than no services at all, can put intolerable pressure on women to carry out the caring role, for on the surface it seems very selfish not to do so when some help is available. Relatives and professionals are also more likely to expect women to care in this situation. However, it should be remembered that although the district nurse may come during the day, she is unlikely to be available when the old or disabled person needs attention in the middle of the night.

**INSTITUTIONAL VERSUS COMMUNITY LIVING**

Any discussion of the advantages and disadvantages of institutional and community living is complicated by problems of definition. As noted above, institutions range from those which are well integrated within society, to total institutions where residents have little autonomy or control over their own lives. The outward appearance of an institution is not always the best guide. Tizard et al. (1975) point out that even in the bleakest of surroundings and with limited resources it is possible to give residents considerable autonomy and privacy. Vousden (1987) describes a scheme which achieved such a change in a long-stay geriatric hospital. Life in ‘the community’ is just as
variable. It can mean living in a bleak hostel or hotel room, as part of a family, in a group home, or independently in an adapted flat.

One of the major criticisms of institutions is their geographical isolation. This creates problems for residents who want to socialize outside the institution and for staff who are encouraging them to do so. It makes regular visiting by families and friends more difficult and inhibits other people from becoming involved. It is also one of the factors giving rise to staffing problems. This physical isolation was sometimes planned, as in the case of psychiatric hospitals built in the nineteenth century, and sometimes a matter of convenience. Following the 1944 Education Act for example, many large isolated houses in the countryside were used as special residential schools, simply because they were there.

To compound this situation, many people are socially isolated before entering institutions and any contacts and relationships they have tend to be unstable. This was recognized in the Warnock Report of 1978 with regard to children in special residential schools. Indeed social isolation and lack of social stability is one of the main reasons why people live in institutions at all which probably accounts for the disproportionate number of unmarried and childless residents they contain. This social and geographical isolation, together with the powerlessness of the residents, can lead to considerable neglect and abuse which often remain undiscovered and unchallenged. It is generally believed that abuse is less likely to occur in community settings as ‘the community’ provides its own watchdog, but some people have argued that abuse is more likely because systematic inspection is so difficult.

Because of the lack of facilities to compensate for their impairments, as well as their social isolation, the residents of institutions are often unduly dependent on staff for their social and emotional, as well as their physical, needs. Thus any opposition to the treatment they receive may result in adverse labelling, which in turn may lead to greater isolation or harsher treatment. Although many staff working in institutions do their utmost for the welfare of the residents, often against tremendous odds, institutions sometimes attract inadequate people who find it difficult to cope in ‘normal’ society themselves. Vaizey (1959) believes that people attracted to working in institutions are inadequate, unfulfilled, insecure and authoritarian, with a lust for power and control. Over the years they become increasingly institutionalized themselves. Such people are often untrained, poorly educated and under paid. They frequently develop low expectations of the residents in their care and a hostile attitude to outsiders. Even well-meaning staff may have inappropriate attitudes and behaviour patterns, for example they may be ageist or have low expectations of the residents’ abilities.

The influence of the environment on the behaviour of staff must not, however, be underestimated; it is all too easy to indulge in ‘victim blaming’. The staff of institutions are often working in a depressing and stressful environment with inadequate resources. Davidson (1987) believes this has, ‘a crippling effect on the richness and variety of life to patients’, especially as many are unable to generate activity themselves. He believes that the hospital service, ‘has neither the staff nor the facilities to break free from the insti-
tutional and impoverished style of life which has always characterised it'. The behaviour of residents is also affected by the environment. People have a tendency to live up to others' expectations of them, a process referred to as the 'self-fulfilling prophecy'. Residents live up to the expectations of the staff reinforcing erroneous stereotypes and prejudices and justifying the institution's existence.

Staff who have direct contact with residents are usually at the bottom of an authoritarian hierarchy where they are virtually forced to behave in the way they do (Orford, 1980). Sedgwick (1988) believes that nurses, 'frequently find themselves up against sets of rules and social mores which do not seem to have changed since the last century'. Oswin (1978) found that young nurses working with mentally handicapped children, were discouraged, against their better judgement, from mothering them. In time staff attitudes may become custodial in order to conform and reduce psychological conflict which tends to occur if a person's behaviour and attitudes are not in accord.

This impoverished environment also has an adverse effect on residents who in time tend to become socially, intellectually and emotionally deprived. This situation can adversely affect their feelings and behaviour and cause them to become 'institutionalized' and to suffer from 'institutional neurosis'. This is characterized by apathy, lack of interest and initiative and little expression of feeling, with a deterioration of personal habits and standards and a resigned acceptance that things will go on in the same way indefinitely (Barton, 1959).

The lack of flexibility within some institutions hinders independence as everything must be done by a certain time and in a specific way. Wilkinson (1987) notes how the independence of mentally ill people is reduced by nurses who do too much for them and Cooke (1987) believes that the independence of old people in geriatric wards is sometimes restricted to the extent of infringing their civil liberties. Many severely disabled people, who leave institutions for a life in the community, are surprised at how much they are able to achieve (Shearer, 1982). Grouping people with similar impairments together may also limit independent and varied activity because everyone is experiencing similar difficulties. Even institutions which express a specific aim to encourage independence may in reality be restrictive because any attempt to enhance self-sufficiency is offset by institutional rules and regulations.

The long-term effect of all this may be that some residents, particularly those with emotional or learning problems, adopt unusual or self-injurious habits and behaviours such as rocking and head banging which may be copied by others and reinforced by them. These behaviours, as well as undue passivity and lack of initiative, are frequently viewed as symptoms of the disability or illness rather than the environment, and can be used as a justification, not only for the retention of residents, but for the institution's very existence. Ford (1987) explains that, after years of incarceration, residents need considerable assistance in coping successfully with life in 'normal' society. Thus the presence of institutions tends to confirm their need and inhibit the adoption of other, more creative, approaches.

Although institutional life clearly does have the potential to create isolation and deprivation and to loosen family and community ties, it can do just the
Institutional or community living?

reverse. The placing of a severely disabled child or old person with senile dementia in an institution, for example, may serve to maintain, rather than disrupt or destroy, relationships. Although family members may feel unable to care for a severely disabled person at home on a permanent basis, they may nonetheless be willing to visit regularly and to take the old person or child home for weekends. Hicks (1988), in her study of carers, found that once the old or disabled person had been placed in a good institution relationships between them often improved dramatically. Institutions can also be used flexibly, for example to provide respite care, although such an arrangement is far from ideal. Day hospitals and day centres are examples of institutions which are far from ‘closed’. Even the large, traditional establishments frequently fail to tally with the bleak description of total institutions given by Goffman and others. Holmes (1987) believes that some institutions provide a range of activities which residents would not otherwise enjoy, including sport and various clubs and specialist services.

This varied round of activity often contrasts sharply with the isolated and impoverished lives of old, ill and disabled people living with devoted relatives. Living in ‘the community’ is therefore not necessarily a better option than living in an institution. The Warnock Report (Committee of Enquiry into the Education of Handicapped Children and Young People, 1978) was of the opinion that some disabled children needed to board in special schools in order to be sufficiently stimulated and Hegarty (1987) notes that disabled children attending special units attached to mainstream schools can be just as isolated as those in residential schools, yet lack all the advantages. Similarly Hicks (1988) points out that the large grounds of hospitals for mentally ill and mentally handicapped people, provide them with freedom to move about independently and safely which may well be denied them in a community setting.

It is important to be aware, however, that one of the factors which has hindered the closure of institutions, is the vested interests of the staff who work in them. If they close staff will have to work in a different way, in new surroundings, or may lose their jobs altogether. Professionals have defined and maintained institutions according to their own perspectives and interests and may welcome neither closure nor a shift to ‘the community’. Professionals are part of the institutional environment and it is therefore not always in their own interests to question that environment too closely.

One of the justifications for the existence of institutions is that scarce and expensive resources, in terms of equipment and staff expertise, can be pooled. However, many people believe that such resources and services can and should be available within the community and that institutions should not be justified on these grounds. It is also easy to over-estimate the importance of resources, the attitudes of ordinary people and their willingness to consult with and learn from those they wish to assist, are just as important.

The institutionalization of ill and disabled people and their removal from mainstream society, has the tendency to increase the stigma attached to their illnesses and impairments and to worsen the fears and prejudices of the general public. The education of the public is often put forward as a major
reason for the closure of institutions and the integration of ill and disabled people in 'the community'. It is believed that people will never accept difference in their fellow citizens unless they are fully informed and have contact with them on an equal basis from an early age. Whether this acceptance actually occurs, however, is open to question. With regard to deaf children, Meadow (1980) and Ladd (1990) are very sceptical. Booth and Statham (1982) and Madge and Fassam (1982) have found that the experiences, attitudes and feelings of disabled children attending special and mainstream schools are very mixed.

Some people believe it is immoral to subject ill and disabled people to an unsatisfactory community situation just to serve the function of educating the public, though disabled people would obviously stand to gain eventually if attitudes and behaviour towards them became more positive. The benefits which society may derive by having a disabled person living in 'the community' must not over-ride what is best for the disabled individual. The knowledge and attitudes of the general public towards people living in institutions tend to be poor (McConkey, 1987). This obviously mitigates against their successful discharge from hospital and may result in a very unhappy 'community' experience, at least in the short term. Davidson (1987) believes that, because of the attitudes of society and the pressure this puts on people who do not match society's expectations and standards, there may, in some circumstances and for some individuals, be a need for some well run asylums. Davidson (1987) thinks that even if the inadequacy of institutional living is accepted it is still inhumane to eject people into 'the community' when they have known no other home for many years.

An infrequently expressed view is that people with impairments may prefer to live with those who are similarly affected. Indeed the emphasis on integration may disguise a deep-rooted negativism, for there is an implicit assumption that ill and disabled people will be happier and more fulfilled in the 'normal' community, that they prefer the life-style and company of those without illness or disability and that they wish to be as 'normal' as possible. There is rarely any reference to the frustrations and disadvantages that integration and striving for independence and 'normality' may create, or the benefits derived from being with other disabled people in terms of empathy, friendship and the wealth of knowledge to be shared (French, 1989).

It should be appreciated that the situation of disabled people in 'normal' society is frequently highly abnormal due to prejudice, adverse stereotyping and the difficulty of adapting to an environment designed for non-disabled people. Thomas (1978) believes that if disabled people are treated 'just like everyone else' their needs are unlikely to be met. For all their faults institutions may at least provide friendship and a physical environment which overcomes the basic problems of access. Harrison (1987) gives many examples of disabled people living in institutions who prefer the lifestyle to that of more independent living. For life in 'the community' to be successful the wider social and economic environment, in terms of housing, employment, transport, education and leisure facilities, must change to accommodate ill and disabled people.
Although there is much justification for the widespread dislike of institutions, it may in part reflect the ideas and beliefs of Western society and culture at the present time, where individuality and autonomy are so highly valued. In the past, and in some societies today, people appear content to live in groups and do not expect separate spheres for work, domestic existence and play (Jones et al., 1983). Hicks (1988) states: '... not everyone hates institutions. Many disabled and elderly people will start to enjoy the social life and the friendship which they can provide and may find a new lease of life especially after the isolation and loneliness of being looked after at home by an exhausted and resentful carer'.

Tully (1986) makes many suggestions for improving institutional life for disabled people. He believes that the principle of 'the least restrictive alternative' should operate at all times. This means that the environment must present the smallest possible restraint and disruption to the disabled person's well-being and preferred life style. He believes that residents should be fully involved in decision-making, including any concerning their own treatment and assessment, and that any records which are kept should be fully accessible to residents and reflect their own perspectives. Residents should not be prevented from taking risks and should be provided with sufficient privacy for relationships to develop. Every attempt should be made fully to integrate the institution with the community, according to the wishes of the residents.

Tully (1986) stresses the concept of 'normalization' which he defines as: '... a statement about the dignity and worth of those who are disabled. It suggests that disabled people should have available to them opportunities and conditions for living that are enjoyed by other members of society so making it possible for them to function as normally as they are able'.

The concept of 'normalization' must be used cautiously, however. For example, if activities such as dressing and eating take a long time and are difficult to achieve, it may make more sense for the person concerned to ask for assistance or to accomplish the task in an unconventional way. Having more time or being more efficient may be far more important to the disabled individual than being totally independent (French, 1991). It should also be remembered that many non-disabled people have life-styles considered to be abnormal or deviant by mainstream society, thus ill and disabled people should not necessarily be expected to adopt a conventional way of life, nor should the criteria for their discharge from institutions be based on whether they can cook a meal, clean a room or make a bed; there are many people living independently who fail to do all of these things. Non-disabled helpers should not impose their definitions of 'normality' on residents but rather 'normality' should be defined by residents themselves. The attitudes and behaviour of those assisting people in need of help is probably the most crucial factor in creating a satisfactory living environment.

THE CARERS

It has been mentioned already that community care is provided largely by women. According to Hicks (1988) about half of all women can expect to
become carers during their lives. Phillipson (1981) found that daughters were called upon to provide help more often than sons and Brocklehurst (1981), in a study of stroke in the family, found that three-quarters of chief carers were women with a significant proportion having responsibility for other people too. There is an assumption that a handy supply of women in the community will always exist to cope with the caring. This, however, seems unlikely because the growing number of elderly people, together with the smaller size of families and greater social mobility, means that fewer carers are available. In addition more women now marry, large numbers are in paid employment and their attitudes and expectations have changed.

Hicks (1988) found that chronically sick and disabled people are more likely to receive state and voluntary help if they have a son rather than a daughter looking after them. Abbott and Sapsford (1987) found that fathers did not help any more with their disabled children than a control group of fathers with non-disabled children, even though far more care was needed, and Dalley (1988) notes that husbands give their wives little help even if their wives are looking after their husbands' parents. Male carers get more help and at an earlier stage, even the people they care for may try to remain independent for longer. Men tend to be more assertive than women, and are therefore better equipped to demand whatever is their due. People do not generally expect men to care physically for others so they tend to be subject to less pressure than women. Dalley (1988) believes that all that society requires of men is that they care about their disabled relatives, whereas women are expected to care for them. The number of male carers is, however, growing and there are many child carers.

The amount of care which relatives are expected to provide is often enormous. In a survey of 450 mothers of severely disabled children, Baldwin and Glendinning (1981) found that 75% needed some attention at night and 29% needed attending to several times a night. Carers are involved in a routine series of tasks which often goes on for many years and which Bayley (1973) referred to as 'the daily grind of care'. The situation of carers is made worse by isolation. For example people may be afraid to babysit for the parents of a disabled child, and the parents may think it unfair to ask, be afraid to leave the child or assume that no one else can manage. Caring can, in time, lead to mutual dependency.

Difficult behaviour, incontinence or communication problems, may cause friends and acquaintances gradually to drift away or the carer to isolate herself in order to avoid embarrassment. In addition, lack of access to public transport and places of entertainment may make going out too difficult to contemplate. Bond and Bond (1986) found that carers are less likely to go out to work which isolates them still further.

Disability and illness frequently result in additional expense in terms, for example, of diet, heating, transport, washing, special toys and alterations to the home. This extra expense, and the fact that carers cannot always engage in paid employment, can bring about considerable financial hardship. Even those who do work may take low-paid undemanding jobs in order to cope with the exacting task of caring, or they may avoid promotion if it means
moving away from a trusted hospital or a helpful neighbour. The husbands of women who care are often under pressure to earn more money which, in turn, puts further strain on their wives. There are state allowances for carers, for example the Invalid Care Allowance and the Attendance Allowance, but the criteria for obtaining them are very stringent. Hicks (1988) states that only a small minority of carers receive any financial help from the state. In time the health of carers themselves suffers.

Other major stressors which carers experience include being given insufficient information, the reversal of roles when caring for their own parents, dealing with personal attitudes and feelings about disability and illness, and conflict with health professionals. The expertise and knowledge they acquire is frequently given insufficient attention by professionals and this, together with the tremendous amount of welfare bureaucracy which must be dealt with, has caused many carers to become disaffected. Carers are not encouraged, and for the most part have not been socialized, to assert their needs and rights.

CONCLUSION

Physiotherapists work with ill and disabled people in a variety of institutional and community settings. It is important that they are aware of the full range of options possible and the advantages and disadvantages of each for any particular client, they must think and act broadly and flexibly, outside the medical model, to avoid inadvertently restricting and alienating the very people they are trying to assist. It is important that physiotherapists become fully acquainted with illness and disability from the perspective of the client and should think very carefully about the ideas and wishes of ill and disabled people before proclaiming them unrealistic or impossible. This can only be achieved by consultation and cooperation with clients themselves, as well as their carers and the organizations which represent them.

Physiotherapists should have a full understanding of the process of institutionalization. Bearing the wishes of individual clients in mind, Tully's (1986) advice concerning 'normalization' and 'the least restrictive alternative' are good principles to follow. The civil rights of ill and disabled people, including their right to take risks and live unconventional life-styles, should not be forgotten. Physiotherapists must take care that their own attitudes and practices are not adversely influenced by the institutional environment or based on erroneous stereotypes. Physiotherapists should be prepared to act as advocates and attempt to bring about change in management and policy if this would improve their clients' lives. Such an approach is a far cry from the traditional role of the physiotherapist and requires courage, especially of junior physiotherapists and students who lack influence and status themselves. Managers should support them, for people new to the profession sometimes have a clearer perception of the situation than those who have worked within the system for many years.

It is important for physiotherapists to have a full understanding of the
Physiotherapists may wish to join one of the many self-help and pressure groups concerned with improving the quality of life for ill and disabled people and their carers. They are also in a good position to inform and educate the general public as well as fellow professionals, by radio and television appearances, journal and newspaper articles, running courses in schools and colleges and taking part in relevant campaigns.

The Manchester Coalition of Disabled People state that 'everyone has a right to choose how and where they want to live, and whom they live with' and that 'nobody should have to choose between being a burden to their family or living in a residential institution'. They believe that 'those who support and look after disabled people have rights and needs' and that 'disabled people and people who provide them with care do not have to suffer at each other’s expense'. The care provided for ill and disabled people in Britain at the present time is inadequate, patchy and largely unimaginative, though the number of innovative schemes is increasing. The quality of alternative care is vitally important to carers who understandably feel unable to hand a relative over to a 'community home' even for respite care unless they have confidence in the staff and the way the home is run. In any event respite care tends only to be suggested when carers are at breaking point and is often viewed as a way of enabling them to continue.

A positive attitude is just as important as an increase in resources. For people who do require some help in everyday living, schemes other than institutions and care by relatives exist and ought to be expanded, fostering and 'boarding out' schemes have been used and the Crossroads Care Attendant Scheme provides trained carers who assist disabled people in their own homes. Day hospitals and day centres have gone some way to sharing care and schemes, whereby ordinary families live independently of, but in close proximity to disabled people and assist them in exchange for a wage, operate in some parts of the country. Some disabled people are in full control of the budget and of hiring and training their own assistants. The Community Service Volunteers provide young people to assist disabled people on a 24 hour-a-day basis. Sheltered accommodation, where a warden is on call, and
Institutional or community living?

flats within the grounds of institutions are other examples. It should be noted that many disabled people regard the term ‘care’ inappropriate and prefer to think of the help they receive as ‘assistance’. (For further information on innovative schemes for living ‘in the community’ the reader is referred to Feidler, 1985.)

The Prince of Wales Advisory Group on Disability (Living Options, 1985) highlights the following key principles when planning services for disabled people:

1. Choice
2. Consultation with disabled people.
3. Provision of information to disabled people, their assistants and professionals.
4. Recognition that disability is not synonymous with illness and that the medical model of care is rarely appropriate.
5. Autonomy — the freedom of disabled people to make decisions.

A suitable place to live is of the utmost importance to the happiness and well-being of ill and disabled people and their relatives. Yet in reality, despite many innovative schemes and considerable improvement, the choice is still too often between the family and an institution. This is unacceptable and a situation which physiotherapists can play their part in changing. As Hicks (1988) states: ‘A bridge needs to be built between the invisible world of family care and the public one of long-stay, institutional care. A middle way needs to be found which neither confines each carer to her private hell nor condemns our elderly and disabled population to being looked after exclusively by the state and its institutions’.

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Institutional or community living?


INTRODUCTION

This chapter is to do with the place of health care ethics within physiotherapy. It is, therefore, appropriate to start by trying to outline what is to be understood by ‘health care ethics’. For the purposes of this chapter, I take this to mean the application of ethical reasoning to the context of health care, so as to identify those courses of action which are morally right, and therefore to be followed, and those which are morally wrong, and therefore to be shunned. Thus we are dealing with a decision-making procedure, but one which is primarily guided by moral criteria, as opposed to clinical, administrative, or other considerations.

A number of important points follow from this initial statement. First, ethical reasoning is applied to health care, it does not spring from within it. Consequently, there is no such thing as ‘physiotherapy ethics’, or for that matter ‘medical ethics’ or ‘nursing ethics’. The particular situations with which we are dealing may ‘belong’ to physiotherapy, but the ethical principles that are applied to them are universal. It follows that health care practitioners can claim no specific moral authority on the basis of their professional expertise. To be sure, such expertise will often be relevant when dealing with moral dilemmas, but it does not itself confer any special authority in ethical matters. Second, the ultimate end of the process is to take action. We are not engaged in abstract contemplation or idle philosophical speculation; ethical reasoning in health care is an action-oriented business. Third, we are concerned with what is morally right. The fact that a certain course of action may be correct in terms of clinical judgement does not per se guarantee that it is the right thing to do morally. What may seem an appropriate decision on clinical grounds may be morally objectionable, and, conversely, what may seem a dubious decision in terms of clinical judgement, may have much to recommend it as a moral course of action. This further reinforces the point that professional expertise does not carry with it moral expertise. It is also worth noting that, as we will see, the processes of ethical and clinical decision-making may be quite similar, even though they sometimes yield very different conclusions. Finally, it should be stressed that we are dealing with matters of ethics, not etiquette (Sim, 1983). Professional courtesies are important, but they do not necessarily raise ethical issues. The notion of ‘professional ethics’ has come to embrace
wider concerns. As Ruth Purtilo (1989) has pointed out: 'Although everyone can applaud the desirability of showing respect to one's professional colleagues, such suggestions as promising never to question a physician's judgement sound oddly foreign within today's health care context'.

In the remainder of this chapter, I will attempt to examine health care ethics, and the specific process of ethical decision-making, within the context of clinical physiotherapy. In the process, the question as to the 'objectivity' of ethics will be considered, and the role of professional codes of ethics will be addressed.

**HOW DO HEALTH CARE ETHICS CONCERN THE PHYSIOTHERAPIST?**

There has been a growing concern with the ethical issues associated with medicine and health care; numerous texts have been written in this area, and there are a number of academic journals devoted to ethical and other philosophical questions in health care. Where, then, do physiotherapists fit into this picture? With which aspects of this wide-ranging subject should they be concerned? At first sight, it may seem that many of the dramatic, 'headline-grabbing' issues that one reads about in the newspapers, and which are the subject of television documentaries, have little to do with the practice of physiotherapy. Indeed, matters such as embryo research, organ transplantation, abortion, and *in vitro* fertilization are scarcely the everyday concern of the clinical physiotherapist. The sort of ethical questions that arise in physiotherapy tend to be of a more everyday nature:

1. Are some patients more deserving of treatment than others, and if so on what grounds?
2. How should we set treatment priorities within a caseload?
3. Should we obtain informed consent before treating a patient, and if so how 'informed' must this consent be, and what form should it take?
4. Can we justify persevering with treatment that is proving ineffective, just because continued treatment has been recommended?
5. Under what circumstances is it permissible to cause patients discomfort or pain?
6. Should we ever deliberately mislead patients as to their diagnoses, or the nature of the treatment they are being given?
7. With whom is it permissible to discuss the details of a patient's case?
8. What action should we take with respect to colleagues whom we perceive as incompetent, or whose conduct we regard as unethical?

However, the fact that these are not generally 'life and death' matters does not mean that they are not worthy of careful consideration. Kath Melia's comments (Melia, 1989) on ethics in nursing are equally applicable to physiotherapy: 'Moral dilemmas of the "do or die" variety help us to focus upon the moral choices we must make, and so debating ethical dilemmas is a useful
exercise. We should not, however, allow the big dilemmas to detract from the more routine moral choices involved in nursing.

The impact of these seemingly more minor issues on the patients whom they affect can easily be underestimated, particularly by health professionals, to whom they may become somewhat 'routine' considerations.

Having said this, it is important to remember that there are in fact some 'high profile' ethical matters in which physiotherapists may be involved, albeit indirectly. It may be the consultant who takes the decision to withdraw treatment from a gravely ill patient, but the physiotherapist is very much involved in this process. As a member of the team, he or she must decide the extent to which physiotherapy treatment should also be limited or withdrawn. If antibiotics and other 'active' means of medical care have been abandoned, does this mean that chest physiotherapy should also be curtailed? Similarly, physiotherapists are rarely involved in enlisting patients' participation in potentially hazardous drug trials, but while such patients remain under their care the therapists involved may have to face associated ethical problems. For example, it may become clear that the patient was insufficiently informed as to the nature of the drug being tested, or the patient may express a desire to withdraw from the study which he or she is unwilling to voice to the physician conducting the research. In such instances, the physiotherapist, although not directly involved in the affair at the outset, may feel a moral obligation to take an active role, perhaps as an advocate for the patient.

Before turning to the specific process of reaching decisions on ethical questions in physiotherapy, it is necessary briefly to address some basic theoretical issues to do with ethics and ethical reasoning.

THEORETICAL ISSUES

Ethical principles and approaches to ethics

There are a number of different ways in which philosophers have approached the business of making moral decisions. However, all of these approaches tend to have in common that they rest on certain ethical principles. An ethical principle can be regarded as the statement of a fundamental ethical value or belief. Thus, in very broad terms, the principle of beneficence states that one should strive to confer benefits on others, while the principle of non-maleficence states that one should seek to avoid inflicting harms on others. The classic expression of non-maleficence is the celebrated medical maxim primum non nocere, which suggests that there is an especially strong prohibition in health care against causing harm. The principle of autonomy requires us to preserve, and to promote, the self-determination or freedom of action of others, while the principle of justice insists that we should deal with others in a way that is fair and in accordance with their individual merit. The principle of respect for persons demands that we should deal with others with due regard for their dignity as individuals.
Given the potential for 'depersonalization' that exists in busy hospitals and other health care settings, this last principle is of considerable importance. It can be seen as grounded in ideas such as these: 'Respecting the patient as a person calls upon us to regard patients as unique individuals and to see them in the totality of their being, with physical, psychological, social, and spiritual dimensions alike . . . it is as persons that we are all fellow human beings, fellow members of the human community' (Corr and Corr, 1986).

From these general principles, secondary principles or duties can be derived which are somewhat more specific in their application. For example, the duty of confidentiality can be extracted from the wider principle of non-maleficence, and the principle of truthfulness, or veracity, can be derived from both the principle of autonomy and the principle of respect for persons (Sim, 1986). We may, similarly, be able to identify certain rights in conjunction with secondary principles or duties; for example, if we as practitioners have a duty of veracity, patients, for their part, may be seen to have a reciprocal right to the truth.

An approach to ethics which tends to be guided ultimately by principles such as these is often referred to as a deontological approach. A subscriber to this way of thinking would use these principles as the final test of an ethical dilemma. Accordingly, a physiotherapist working within this sort of framework would ensure that all patients were fully consulted as to the form that their rehabilitation is to take, in order to remain true to the principle of autonomy, and would decline to inflict unpleasant or painful treatment on a seriously ill patient, so as not to infringe the principle of non-maleficence. Given that a number of different principles are at stake, the situation will sooner or later arise where two or more principles come into some degree of conflict; in such a case, some means of prioritizing among them will be arrived at. Thus, in the second example above, it might be felt that it is justifiable to cause the patient discomfort because this is ultimately to the individual's benefit (i.e. fulfils the principle of beneficence), and that because this benefit is likely to be enduring, while the discomfort is perhaps only transitory, considerations of non-maleficence are outweighed in this instance by those of beneficence.

An alternative approach is that of consequentialism. In contrast to deontological theories, where there are a number of ethical principles, consequentialism has a single supreme principle, which we could term the principle of best outcome. Here, courses of action are chosen not on the basis of the various ethical principles which they either fulfil or contravene, but strictly in terms of the consequences which they will bring about. Thus the justification for insisting that the truth be told in a certain situation would be that to do so produces better consequences for all concerned, rather than because this is required by a wider ethical principle such as respect for persons. Indeed, when deciding between two actions, the consequentialist will choose the one which produces the best consequences, even if this involves breaching certain ethical principles which the alternative course of action would have left intact. To return to an earlier example, a physiotherapist using a consequentialist framework might deliberately exclude patients from the planning of their rehabilitation if he or she felt that more patients would be successfully
rehabilitated in this way. The infringement of patients' autonomy involved would not be totally discounted, but it would take second place to the desirable consequences brought about.

To return briefly to deontology, we can note that precisely the opposite situation may obtain. The deontologist can insist that a certain course should be pursued because it best fulfils certain fundamental ethical principles, even if it produces less desirable consequences than the alternative. Thus, it would be claimed that the truth should always be told to patients, even when demonstrably better consequences for all concerned would flow from the telling of a lie. This is similar to the popular notion that good ends cannot justify a bad means.

Objectivity and ethics

It is important to address the common fallacy, identified by Gillon (1985), that ethics is 'just a matter of opinion', and that, consequently, there is no rational basis for deciding between competing views. There is indeed a subjective element in ethical reasoning, and this explains why there is not necessarily a single correct answer to an ethical dilemma. However, what we are dealing with here are certain fundamental, subjectively-held moral convictions; these must be distinguished from matters of taste or personal bias: 'Taste involves matters of choice which are, though value-laden, essentially morally neutral. This, indeed, is what we mean by a matter of mere taste - that it pertains simply to preference, to matters without moral import' (Callahan, 1988).

Furthermore, we are obliged to provide reasons for our decisions on moral matters in a way that we are not when deciding on questions of personal taste. In other words, morality involves us in a process of justification; but, we may ask, if there is a subjective element in ethics, how can we achieve any sort of objective process of justification? Here, it is important to realize that, although we cannot always justify our fundamental moral beliefs or principles according to any objective criteria, when we apply these principles to specific cases we are subject to certain stringent demands. If we fail to fulfil them,

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4. Ethical theories
   ↑
3. Principles
   ↑
2. Rules
   ↑
1. Particular judgements and actions

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Fig. 7.1 Hierarchical levels of ethical justification according to Beauchamp and Childress. Reproduced by permission of Oxford University Press, from Beauchamp T. L., Childress J. F. (1989) Principles of Biomedical Ethics, 3rd edn. New York: Oxford University Press, p. 6.
we can indeed be criticized on objective grounds. Just because ethical principles have an essential subjectivity about them, this is not to say that the whole process of ethical reasoning is subjective.

The first of these demands is that the way in which we link the particular situation to fundamental moral principles must be logically sound. In other words, when we seek to justify our decision in a certain case in terms of one or more of these principles, the steps we take in this justification must be logically defensible. Beauchamp and Childress (1989) see this as a hierarchical process (Figure 7.1). Our particular judgements and actions are logically derived from certain rules, which are themselves derived from the principles which they seek to support (and these principles may be further derived from certain wider ethical theories). The second requirement is that this process of justification should be based on an accurate assessment of the facts of the specific situation. We have to justify our decision-making process in terms of the empirical evidence.

To take an example to illustrate these ideas, you may wish to justify a case of truth-telling in terms of the principle of autonomy. Now, there is no conclusive way in which others can invalidate this principle (or the wider ethical theory on which it is based) as the starting point for your decision. To be sure, from their own subjective standpoint they can disagree with the moral weight which you attach to it, and relegate it in importance below certain other principles, but it cannot be dismissed out of hand on any objective grounds. The way in which you base a course of action on this principle, however, must stand up to objective scrutiny on a number of counts, and may show itself flawed. Each of the steps in the process of justification in Figure 7.1 must be defended. If you choose to formulate a specific rule concerning truth-telling in order to uphold the principle of autonomy (i.e. moving between levels 2 and 3 in Figure 7.1), you must demonstrate that this rule does indeed bear a strong relationship to the principle it is designed to fulfil; it is always open to somebody else to claim that a somewhat different rule is more appropriate. Similarly, when you enact this rule and take a specific course of action such as conveying certain information to a particular patient (i.e. moving between levels 1 and 2), the onus is once again on you to show that your action is faithful to the rule. Your critics may claim that modifications to your course of action, for example in its timing or the manner in which you presented the information, would have allowed it to conform better to your rule. Finally, your action must conform to the facts of the situation. It might be argued that you misread these. Perhaps what you took to be an apparent desire for information was in fact an implicit request to be shielded from unpleasant facts. As a result, your decision may have done more to breach the patient’s autonomy than to preserve it.

Thus, although your adherence to the fundamental principle of autonomy cannot be refuted, nonetheless the procedure whereby you derive a moral rule from this principle, the way you translate this rule into concrete actions, and how you justify this process in terms of the external evidence, are all areas where you can potentially be accused of being mistaken. Indeed, the demands of ethical decision-making are very similar to those of such processes as
clinical diagnosis and treatment planning. In both cases, there is a need for logical thought processes and close attention to the specific facts of the case in question, followed by the formulation of a systematic plan of action.

MAKING ETHICAL DECISIONS

The code of ethics: a source of help?

It is characteristic of occupational groups which have attained, or aspire to, professional status that they formulate a code of ethics (Sim, 1985). Both altruism and accountability are central to the concept of professionalism, and codes of professional ethics can often be seen to affirm these notions. An ethical code generally consists of a number of ethical principles or rules, intended to guide the practice of members of the profession. The code is also often the basis for any disciplinary actions taken by the profession against one of its members.

In what sense, it may be asked, can a code of ethics be expected to 'guide the practice of members of the profession'? What exactly can physiotherapists gain from a code, and, just as important, what can they not gain from it? Above all, an ethical code is a consensus document. It represents the outcome of careful deliberation, by representatives of the profession as a whole, as to the sort of conduct that is required from individual practitioners. As such, it seeks to highlight the fundamental principles upon which one's professional life as a physiotherapist should be conducted, and to alert one to possible dilemmas and areas of conflict. The question remains, however, whether codes of ethics successfully fulfil this function.

In the first instance, it is not immediately clear whether codes of ethics are specifically concerned with ethics, if by 'ethics' we mean an examination of what is morally right or wrong. In many ways, ethical codes tend not so much towards ethics in this sense, as towards a sense of ethics which has 'a specific content which refers to codified procedures, but lacks the prescriptive force of morality' (Downie, 1980). The American Physical Therapy Association was in many ways ahead of its time when it drew up its first 'Code of Ethics and Discipline' in 1935. However, as Ruth Purtilo (1987) has argued, the Code's requirements had more to do with procedural notions of etiquette than with specifically ethical concerns. More recently, the Chartered Society of Physiotherapy's 'Rules of Professional Conduct' (CSP, 1986) have stated that 'Chartered physiotherapists shall respect the rights, dignity and individual sensibilities of all their patients' (Rule 2). This strikes at the heart of genuinely moral concerns. However, Rule 8 in the same document reads: 'the title Chartered physiotherapist (MCSP) will be reserved for use in activities directly related to the practice of physiotherapy'. It is not that such a rule cannot be justified on ethical grounds, but that it reflects more a self-interested focus on the profession's own public image than a concern for patients' welfare. The implication of this for the practitioner is that the guidance that can be gained from an ethical code will not be necessarily, or wholly, on
strictly ethical matters, such as we have defined them.

Having identified those parts of a code of ethics which deal with areas of genuine ethical import, the physiotherapist should be aware that the help that can be derived from the code can only be of a very general nature, and will inevitably be expressed in fairly clear-cut terms. Those cases which are most ethically perplexing will be far too complex and individual to be adequately catered for by a set of rules or principles. Furthermore, the sensitive and intricate nature of the patient–practitioner relationship is ill-suited to regulation by a standard set of rules: 'No set of rules could encompass all the subtle complexities of even the most ordinary relationship between two persons, much less the special dimensions peculiar to the medical transaction in which one person in special need seeks the assistance of another who professes to help' (Pellegrino, 1979).

Johnson (1990) suggests that ethical codes can be regarded as 'signposts on the way', but warns that it is 'easy to shelter behind a code to avoid thinking through the real issues'. Indeed, Purtilo (1987) suggests that a 'code of ethics' is more appropriately understood as a 'code of morality'. By this she means that the code serves to highlight certain key moral concepts, such as duties and rights, but does not necessarily aid the individual in analysing these concepts, or applying them systematically and critically to concrete cases. In fact, while granting its value in drawing attention to important general ethical norms, one can see a way in which a code of ethics may actually impede an analytical approach to ethics. There is a danger that its codified nature, and the rather definitive terms in which it is expressed, may encourage the practitioner to think that 'the job has been done' and that further reflection on the issues concerned is redundant. As a result, decisions on ethical questions may become unreflective and stereotyped, and individual cases which are subtly but significantly different may be subsumed under a single category. It is vital that ethical 'rules of thumb' are re-examined, and even fundamentally questioned, every time they are invoked to deal with a specific situation.

The above should not be taken as a dismissal of codes of ethics. Rather, it is intended to draw attention to some of their shortcomings, and to suggest that they are at best a partial solution to ethical dilemmas. If we refer back to Figure 7.1, we can see that any sort of rule represents only one level in the process of ethical justification. Moving up the hierarchy, these rules must be justified in terms of overall ethical principles of autonomy, beneficence, the best outcome, etc. Meanwhile, moving in the opposite direction, we see that the general guidance afforded by an ethical code should be augmented by a more critical and individualized examination of the specific ethical demands of the case in question. In the light of these specific demands, broad guidelines must be modified and prioritized, and supplemented by the physiotherapist’s own individual ethical deliberation.

**Case study: ethics at work**

A 54-year-old single woman, otherwise fit and healthy and previously employed as a clerical worker, has undergone an above-knee amputation...
following a road traffic accident a short distance from her bungalow. She arrives at the Disablement Services Centre to take delivery of a temporary prosthesis and to begin walking training. The physiotherapists soon gain the impression that she is poorly motivated, and shows little interest in learning how to use the prosthetic limb. She views the prospect of life in a wheelchair with apparent equanimity. The rehabilitation team feel, however, that she has the prospect of a high level of functional independence with an artificial limb, but are unable to convince her of this. Where should they go from here?

There are two broad approaches that could be taken to this situation:

1. One approach would be essentially to ignore the patient’s expressed wishes, and seek to inveigle or cajole her into taking part in a gait training programme. This could be justified in two ways. From a deontological standpoint, one could point to the principle of beneficence. In accordance with this, the therapist has a duty to act in the patient’s best interests. In this case, these best interests could reasonably be understood as achieving functional independence, and this therefore becomes the goal at which the therapist should aim. If the patient seems a reluctant partner in this enterprise, the therapist must take steps to secure her participation, for her own ultimate good. Alternatively, if we adopt a consequentialist view of things, it could be argued that functional independence is a desirable — indeed the most desirable — possible outcome of the situation. Not only will it improve the quality of the life that the patient will be able to lead, but it will also bring benefits to others (she will, for example, be less reliant on formal or informal carers for support). In line with consequentialist thinking, the utility of this outcome more than makes up for any acts of apparent coercion performed on the way. Thus, in both variants of this approach, the focus is on the ultimate goal of rehabilitation, either because this represents the patient’s best interests, or because it is the best of all the alternative outcomes.

2. Others, however, might raise objections to this first approach, and adopt a different strategy. An alternative line of action would be to accept the patient’s view, cease gait training, and begin a programme of wheelchair rehabilitation. Such a decision could be justified, in deontological terms, by the principle of autonomy. The sort of beneficent action outlined in the first approach, it might be argued, has been carried to the point at which it violates the individual’s self-determination. As such, it would be seen as an example of paternalism: ‘. . . physical therapists who believe that it is their primary duty to benefit patients and protect them from harm — including harm from patients’ own choices — feel justified in acting paternalistically’ (Coy, 1989).

In other words, the autonomy of the individual is overridden so as better to serve her own interests, on the basis that the therapist can judge these interests better than she. In contrast to this paternalistic stance, the present option places autonomy above competing principles such as beneficence, perhaps on the grounds that freedom of self-determination is
part of what it is to be a person. An individual who is rendered non-autonomous loses something of his or her personal dignity. This is not to say that no value is attached to the principle of beneficence, simply that it can be regarded as *prima facie*, that is, it can be made to yield if it is at variance with another principle, such as autonomy or respect for persons, which carries more moral weight in the given situation.

It is important to realize that this second course of action might very well lead to undesirable consequences for the patient — loss of mobility, greater dependence on others, reduced social contact, and so forth. However, seeking to *avoid* such consequences would not necessarily justify contravening the principle of autonomy. As we noted earlier, it is maintained within a classic deontological approach that an ethical principle should be upheld, even if doing so seems likely to produce worse consequences than an alternative action which would breach this principle. Moreover, it should be remembered that the right to choose for oneself implies the right to make unwise choices, and that full respect for autonomy may involve allowing individuals to come to some degree of harm (Loewy, 1989).

So far, we have seen how these alternative approaches to the situation might be justified in terms of the various ethical principles and values at stake. However, it will be recalled that ethical decisions must also be justified empirically. It is not enough to produce ethical arguments that are internally coherent, they must also be consonant with the external evidence of the case. We must ask, then, whether the two approaches we have considered are compatible with the facts of the situation (bearing in mind, of course, that we have here only a few of the facts which would be available in the real case). The first approach, in both its deontological and consequentialist variants, relies on the value of achieving functional independence, either because this is in the patient's best interests, or because it is the most favourable set of possible consequences. Implicit in these arguments is the idea that, on the available evidence, functional independence is a likely outcome. Given what we know of the patient — that she is comparatively young, and otherwise fit and well — this seems to be a reasonable assumption. Additionally, the fact that she is single — and thus presumably without the constant availability of a partner as a source of help — serves to reinforce the *need* for independence. The fact that it is a demonstrable benefit lends support to any beneficent action undertaken to secure it.

On the other hand, when we consider the alternative approach that may be taken to this situation, we can find some support for the contention that the patient could attain a reasonable level of independence even if confined to a wheelchair. It is perhaps fair to assume that she could meet the demands of her job adequately in a wheelchair, and we know that she lives in a bungalow, thus obviating the need to climb stairs. However, a much more fundamental factual question may arise within this approach. The strategy adopted is founded on the patient's expressed wish not to proceed with gait rehabilitation. It is crucial that this is indeed the correct interpretation. It could be argued that what seemed to be an unwillingness to participate in rehabilitation
was in fact only an expression of apprehension as to the hurdles that she will face in the process, and mistrust of her own ability to succeed (particularly if no such reluctance had been expressed by the patient previously). Another alternative is that the patient could be undergoing a reactive depression following the loss of her leg, and is thereby unable to make fully autonomous choices. If either of these were indeed the more plausible interpretation, much of the justification for the autonomy-based approach falls away.

This case illustrates how a situation may present the physiotherapist with fundamentally different ethical alternatives. Each of these has its merits, but in each case there are also possible difficulties. The question as to which is the option to be favoured cannot be settled definitively, but will always remain an open question. What matters is that, whichever course of action is adopted, it can be justified in terms of ethical reasoning and in the light of the particular facts of the case.

CONCLUSION

In this chapter, I have endeavoured to examine briefly the place of health care ethics in physiotherapy, and to show how ethical reasoning can be applied to the sort of situations which may arise in physiotherapy practice. Although there are often no definitive answers to ethical dilemmas, reaching a conclusion on such matters is a rigorous process, and certainly not one in which 'anything goes'. Codes of ethics may give help on the way, but ultimately it is for the individual therapist to evaluate each case on its merits, and to justify the course of action decided upon. It is crucial to realize that ethical decision-making is not an optional element in the practice of physiotherapy. Just as one cannot perform competently as a therapist if one is unwilling to assess one's patients, so there is an ethical commitment that is integral to the role of the health care worker (Sim, 1983); to undertake a patient's treatment is to enter into a 'moral transaction' (Coates, 1990), with all the ethical problems that this may entail. This is inescapable, for failing to confront these problems is itself a decision with considerable ethical implications.

REFERENCES

Ethical decision-making in physiotherapy


Communication is seldom what it appears to be. The critical heartland for the understanding of communication is not what is visible but rather what is invisible and hidden' (Reilly and Di Angelo, 1990).

This quotation, although perhaps daunting to the reader, highlights the challenge the communication process brings to health care generally and to physiotherapy specifically. If the process of communication is 'invisible' and 'hidden', how can we, as physiotherapists, even begin to gain knowledge and understanding of its content?

The purpose of this chapter is to identify the meaning of communication within the context of physiotherapy practice, to discuss the need for communication skills and to explore the processes and methods by which physiotherapists can be educated in this area. Patients can gain a great deal in real terms from contact with a therapist who is a skilled communicator, but as Argyle (1988) points out, communication is far more than the mere transfer of information from a 'sender' to a 'receiver'. There is an urgent need for therapists to become more proficient communicators, especially now that National Health Service patients are regarded as 'customers' who have choice.

Burnard (1989) advocates communication skills training for health professionals, '... since caring human relationships form the basis of all of the caring professions'. Yet by choosing to enter a 'caring' profession students and staff often believe they already possess qualities which make them skilled, if not expert, communicators. In the past the assumption has been that by speaking clearly and giving information the physiotherapist is communicating well. This, however, may not be so, the patient may not understand what is being said, due perhaps to anxiety or the sophistication of the physiotherapist's language, he may be confused, or the environment may be too busy and frenetic for him to relax. Communication is a process of social interaction not merely a way of imparting information and the belief that communication skills are 'caught' rather than 'taught' must be dispelled.

Research into the process of communication has found that patients frequently forget, misunderstand or misinterpret what they are told (Ley, 1988). It is vital that physiotherapists are aware of this. Patients need, want and deserve clear and full information regarding their health, illness and treatment. Physiotherapists need to find ways of making information comprehensible, of helping their patients remember and encouraging them to give feedback.
Ley (1988) reminds us that failure of communication is often unjustly attributed solely to the patient. It is not unusual to find a patient being described as ‘difficult’ during a ward round or in the medical notes. This can occur if she forgets her exercise regimen or is perceived as asking too many questions. She may even be labelled ‘difficult’ for wanting clarification of what has been said. (This issue will be explored further in Chapter 9 with regard to patient compliance. It is suggested that these two chapters are read as one.)

There is considerable evidence to show that health professionals are not effective communicators (Ley and Spelman, 1967; Badenoch, 1986; Ley, 1988). Dickson et al. (1989) summarize the problems patients face when interacting with health professionals. These include difficulties in obtaining information, insensitively presented information, unintelligible information, poor listening skills on the part of the professional, and a tendency for health professionals to concentrate on the physical rather than the psychosocial aspects of the condition. Physiotherapists not only need good communication skills when interacting with patients but also when interacting with colleagues and the patients’ relatives.

Dickson et al. (1989) are of the opinion that health professionals should be educated in communication skills, believing that professions such as physiotherapy are ‘interpersonal professions’—a term used by Ellis and Whittington (1981). In particular they specify ‘interviewing, influencing and counselling’ as skills which should be learned. Smith and Bass (1982) mention other communication skills including giving directions, reassuring, consoling, commiserating and interpreting. It is important when learning communication skills that knowledge is based on a sound theoretical framework and that the learning process is active, for example using role-play techniques. Dickson et al. (1989) believe that video can be a useful instrument of feedback in communication skills training, but point out that it does not necessarily have to play a central role. Many people feel anxious when video is used which may have the effect of diminishing rather than enhancing their learning.

This chapter can be used to supplement interpersonal/social skills or communication training and to direct the reader to current thinking and research. These skills should not be viewed in isolation but rather should be regarded as part of a general attitude and style of practice. Dickson et al. (1989) remind us that where a medical model of disease dominates, ‘it is unlikely that input on communication skills training will be readily accommodated . . .’, and that, ‘A broader conceptualization of human well-being is required incorporating contributions from the behavioural sciences’. In the 1990s a purely biomedical approach is surely inappropriate in physiotherapy practice.

THE PROCESS OF COMMUNICATION

‘Those caring for the patient have to learn to listen . . . a relationship must be built up and time found for the patient to express . . . fears and feelings’ (Hacking, 1981).
This statement makes clear the starting point for effective communication. There must be a willingness to form a relationship, time to do so, openness, and perhaps most important of all, the skill to listen. The skill of listening has been defined as the process whereby one person demonstrates that he or she is paying careful attention to, and attempting to understand the verbal and non-verbal signals being emitted by another (Dickson et al., 1989). Dickson et al. (1989) highlight the following factors which might limit active listening leading to ineffective communication:

1. Differences between speech and thought rates – thought rates are much faster than speech rates.
2. Distractions – for the physiotherapist this might be the proximity of other patients in a treatment room.
3. Inattentiveness – anxiety and fatigue will have a diminishing effect on listening skills. (Being ‘on call’ the previous night is a good example.)
4. Mental set – a predisposition to interpret events and situations in a particular way. For example assuming a patient is ‘difficult’, or reacting negatively to accent, language or appearance.

Wolff et al. (1983) summarized the skills physiotherapists can use in active listening in order for their patients to gain satisfaction and achievement. These include being psychologically ready to listen, planning to avoid distractions, being objective, for example not stereotyping people, and hearing the complete message before deciding on a plan of action. The skill of listening will need to be utilized to an even greater extent by physiotherapists working in counselling situations. (For further information on counselling the reader is referred to Chapter 26.)

Listening is not merely the act of processing information, but of somehow showing the patient that this is happening. This is achieved by both verbal and non-verbal communication. Examples of non-verbal communication, discussed later in this chapter, are proximity, posture, gaze, head nods and non-verbal vocalizations (Rosenfeld and Hancks, 1980). These non-verbal and verbal signals serve as reinforcers expressing interest and helping to motivate patients.

Much has been written about the communication problems experienced in the clinical interview (Ley and Spelman, 1967; DiMatteo et al., 1979; Kelly and May, 1982; Tuckett et al., 1985; Ley, 1988). Although most work concerns doctors it relates well to physiotherapy practice. DiMatteo et al. (1979) and Hyland and Donaldson (1989) use the term ‘therapeutic relationship’ to describe the interaction between health professionals and patients, but Fitzpatrick et al. (1984) point out that it is also a social encounter where the purpose, status and role of those involved will all affect communication. Stimson and Webb (1975) found, for example, that prior to visiting the doctor many patients experienced general anxiety and inhibition and were worried about discovering their diagnosis. It is very important that physiotherapists stop to consider the patient’s state of mind and how this may affect communication during assessment and treatment. It is also important to consider the
needs of students. Physiotherapists can no doubt remember their first patients and the fears they had in evaluating the clinical problem, providing treatment and coping with the interaction. (The needs of students is considered in more detail in Chapter 20.)

Broverman et al. (1970), Kramarae (1981) and Henley et al. (1985) draw attention to the vast gender differences in both verbal and non-verbal communication. In a profession dominated by women it is disturbing that little if any attention to the research on gender differences and sexism in communication is given during undergraduate education. If the concept of ‘consumerism’ in health care is to be embraced wholeheartedly then perhaps this issue will need to be dealt with more academically, especially as women are major users and providers of health care. Avoiding stereotyping and maintaining a non-judgemental attitude towards patients is an essential element in effective, productive communication. We surely owe it to our patients to challenge stereotypical attitudes demonstrated in phrases such as ‘walking old dears’ and ‘the hysterectomy in bed six’. Such terminology is patronizing, ageist, sexist and dehumanizing (Lillie, 1985). The use of disablist terminology must also be avoided (French, 1989). (For further information on gender issues and ageism the reader is referred to Chapters 3 and 5.)

Patients in the UK health system lack knowledge, status and power and physiotherapists must ensure that they do not take advantage of this situation. This is particularly important if the patient cannot speak English. The services of professional interpreters are not always available and the physiotherapist will often have to communicate through a friend or relative of the patient. This situation is far from ideal as many questions are complex, intimate or delicate and it may be uncomfortable and intimidating for the patient to have a friend, parent or child present. Given this situation however, the physiotherapist must gain rapport with the interpreter, communicate sensitively with him, and create as relaxed an atmosphere as possible.

This highlights the many inequalities which exist in health care, not only in relation to race but to class, gender and disability (Townsend and Davidson, 1988; Le Grand, 1989). Communication plays a major part in creating this situation. Does your department, community unit or hospital have access to interpreters? Are signs and leaflets written in languages other than English? Are there any provisions to learn the languages of the local community? These and other important issues are addressed in Chapters 2, 4 and 5 but the reader is also referred to the work of Henley (1979) and Karsera and Hopkins (1987).

Any therapeutic relationship should be a ‘collaborative venture’ and such a relationship must encompass effective communication. Nichols (1987) talks of ESO medicine, referring to ‘experts, servants and objects’ within the organizational culture of hospitals. We can perhaps guess into which category Nichols places physiotherapists. Some may disagree that the power and status which exists between doctors (E), nurses and paramedics (S) and patients (O), within a hospital environment, necessarily diminishes good communication, but Turner (1988), using a sociological framework, demonstrates that communication cannot be improved while the patient remains so disadvantaged.
NON-VERBAL COMMUNICATION

According to Hyland and Donaldson (1989) communication is not an option in the therapeutic relationship. Even before a physiotherapist speaks non-verbal signs will permeate the interaction between her and the patient. Non-verbal communication is a 'body language' which includes facial expression, gaze, eye contact, touch, spatial behaviour, gesture and posture (Argyle, 1988). It is largely learned which gives rise to many cultural differences which can be confusing. The physiotherapist who works in a multicultural environment must be aware of these differences in order to communicate effectively and appropriately. According to Dickson et al. (1989) non-verbal communication serves the following functions:

1. To replace speech.
2. To complement the verbal message.
3. To regulate and control the flow of communication.
4. To provide feedback.
5. To help define relationships between people.
6. To convey emotional states.

Burnard (1989) provides some ground rules for the use of non-verbal communication when interacting with patients and their relatives, or when appraising a colleague:

1. Sit facing 'square on' rather than side by side.
2. Adopt an open posture when sitting — no crossed arms or legs.
3. Lean slightly forward, but not too far or the patient may find it intimidating.
4. Establish and maintain good eye contact.
5. Relax while listening.

Facial expression, gaze and eye contact

The face is a powerful instrument of communication. As students we learn what emotions are conveyed by particular muscle actions but in reality it is not always so simple. If a person is smiling does that necessarily mean he is happy? If he is scowling does that necessarily mean he is angry? Argyle (1988) emphasizes the necessity to decode facial expression, and other non-verbal signs, accurately. To do so requires considerable skill, born of experience and careful observation.

Argyle (1988) believes that 'the gaze' or 'looking' are of central importance in social behaviour. Many aspects of gaze have been considered in research including the amount and whether it is mutual. Glances, dilation of the pupils and blinking have also been studied. Argyle (1988) documented the rules of gaze behaviour and found, among other things, that people look more at those they like, although staring is intimidating and can indicate aggression.
Communication in physiotherapy practice (1) 103

It is important for physiotherapists to understand the influence of gaze and possibly to modify the use of it in their own behaviour, for example by looking more at patients they dislike.

Henley et al. (1985) demonstrated that eye contact is greatly influenced by gender; women look more at 'the other person' than men and also maintain the contact for longer. Frances (1979) found that women smile and laugh more than men though Goffman (1979) concluded, with regard to advertising on the American media, that women's smiles are 'ritualistic mollifiers'. Mehrabian (1972) found that pupil size related more to sexual interest than communication.

Spatial behaviour

Argyle (1988) defines 'spatial behaviour' in terms of proximity, orientation, territorial behaviour and movement in a physical setting. Physiotherapists have the privilege of intruding upon the customary space people maintain around themselves, that is their 'personal space'. This privilege should not be taken lightly; the physiotherapist must gain permission before carrying out procedures which involve intimate touching such as placing hands on the patient's chest wall. It should be remembered that when patients are undressed they are already disempowered. Particular attention should be paid to this when taking over from another physiotherapist or when meeting a new patient.

Hall (1966) cites four zones of physical proximity:

1. Intimate — a distance of 0—46 cm. The distance permitted in intimate relationships.
2. Personal — a distance of 46—122 cm. Our 'personal space'.
3. Social — a distance of between 1.2 and 3.7 m. The customary distance between people in formal business meetings.
4. Public — a distance of between 3.7 and 4.6 m. The distance kept between important public figures and others.

Performing a Maitland's mobilization technique, a deep friction technique or a technique such as shaking the chest to remove secretions are all examples of contact in the intimate zone.

The relative height of one person in relation to another can greatly affect communication. The act of pulling a chair up beside a patient who is in bed, for example, lowers the therapist's position, allowing better eye contact and promoting a feeling of equality. Physiotherapists can often be seen working with patients on the floor, sitting with them on the high plinth or sitting on the patient's bed. These positions encourage communication and should not be regarded a 'unprofessional'.

As well as the orientation between one person and another the physical layout of the treatment room or gym can have a profound effect on communication. This includes the arrangement of plinths, the position of offices and
the physical barriers which distance people from each other, for example

desks. We cannot always choose the layout of the treatment areas in which

we work but we can alter features which inhibit communication.

**Touch**

Touch is one of the most powerful means of communication physiotherapists

use. Morris (1964) believes it can be divided into two main categories:

instrumental touch and expressive touch. Instrumental touch involves a
deliberate action, for example locating the position of the medial ligament of
the knee joint. Expressive touch, on the other hand, can be described as
spontaneous and affective, an example of this is touching a patient’s hand as a
‘comforter’ when he is distressed. Argyle (1988) stresses the many social
boundaries and barriers relating to touch. As physiotherapists we regularly
cross these barriers in our professional role.

Power and status are also demonstrated by touch. Goffman (1956) stated

that, ‘... doctors touched other ranks as a means of conveying friendship,
support and comfort, but other ranks tended to feel that it would be pre-
sumptuous for them to reciprocate a doctor’s touch, let alone initiate such
contact with a doctor.’ The ward round or team meeting are indeed ideal
locations in which to observe and practise communication skills.

**Gestures and posture**

Gestures and posture both provide information about a person’s mood.

Boredom, anger and interest can all be expressed by a person’s posture and

we all know of people who, when talking, use expansive gestures with their
arms and hands. It is very important for physiotherapists to be adept at
decoding these signals especially from patients who are unable to speak or
move normally. They should also understand the meaning of their absence in
those people who have not been able to learn them, for example visually
impaired people or those with severe learning difficulties. Such people are also
likely to have problems decoding the non-verbal language of others.

**Paralanguage**

Paralanguage, or non-verbal vocalizations, refer not to what is said but to the
manner in which it is said (Dickson et al., 1989). For example, the style of
speech adopted when directing circuit training is vastly different from that
used when attempting nasopharyngeal suction to a distressed patient. The
physiotherapist’s speech style has to be learned and practised to fit the
occasion. It is more than the common sense use of a loud or a quiet voice but
involves the tone, pitch and quality of the voice, for example whether it is
husky or shaking, as well as the speed of speech. The person’s accent is
another element of paralanguage. Non-verbal vocalizations, as well as other non-verbal signals like headnods and smiles, are also used to encourage people to continue speaking; examples are 'Mmmm' or 'uhuh'.

Silence

In our busy health care system time is a precious commodity and peace and silence for patients and staff is not always possible. However, the power and usefulness of silence should not be underestimated. A few minutes to gather thoughts during an assessment in order that some important information can be considered, or a few moments for the patient to 'catch breath' or just be left alone for a time is often necessary and welcomed. Care must be taken not to regard silence necessarily as a negative component of communication though it can be used as a form of passive aggression.

Appearance

Argyle (1988) points out that clothes, physique, hair style, cosmetics and spectacles are all powerful non-verbal communicators which may serve as a help or a hindrance when attempting to interpret someone's personality or attitudes. Uniforms and badges worn by health care staff can act as symbols of power and status evoking a variety of emotions including fear, diffidence, confidence and respect. Both badges and uniforms also indicate to patients 'who-is-who'. Whether or not they should be worn is a matter of debate but professionals working in the community and in areas such as paediatrics and psychiatry, have tended to abandon them.

Non-verbal signs in combination

Non-verbal signs are used in combination. If forced to stand very close to someone on a crowded train the tendency is to avoid eye contact. Non-verbal signs are also read in combination with each other and with verbal communication. Many patients cannot speak English, while others lose the ability to speak, comprehend language, or use one or more channel for non-verbal language. It is in situations like these that the communication skills of the physiotherapist are tested to the full.

COMMUNICATION AND PATIENT SATISFACTION

Chapter 9 will discuss the issue of patient compliance in depth, but it is useful at this point to review some research on communication and patient satisfaction, much of which is very relevant to physiotherapists. A study by Ley and Spelman (1965), which took place in an outpatient environment, found that patients forgot approximately one-third of what they were told. The
following factors were found:

1. Patients retained proportionately more information the less they were told.
2. Retention and forgetting were not related to intelligence.
3. No patient who was told more than four things remembered everything.
4. Age was a factor — patients aged between 15 and 35 recalled approximately 52% of the information, those between 35 and 55 recalled approximately 71% of the information and those over 55 recalled approximately 68% of the information.
5. Patients with an average level of anxiety remembered more than those with either a high or a low level of anxiety.
6. Recall was related to the nature of the information. Approximately 56% of instructions were forgotten.

It is clear that not only the content but also the amount of information given to patients is important. Using written materials, for example leaflets and back care manuals, may alleviate some of these problems of recall, though Ley (1988) makes the point that much of the health education literature cannot be understood by those who have not received a college education. These findings also highlight the importance of not making value judgements about patients, for example assuming those who are anxious or elderly will forget their home therapy.

Lack of information is a very common reason for patients' complaints. Fletcher (1980) states that complaints are sometimes made by those who have been fully informed and concludes that something must be wrong with the explanations given. Although much of this work relates to doctors, most of the findings are applicable to physiotherapists. Fletcher states: 'Most doctors have been trained as students to be competent at taking a history of physical complaints. With this emphasis they often remain insensitive to, or uninterested in, associated psychological or social matters which may be related to the physical symptoms. They may be good at diagnosing organic illness, but tend to miss many simple opportunities of relieving anxiety, depression or psychosocial causes or consequences of illness'.

Korsch et al. (1968) carried out a study of satisfaction and compliance in a paediatric clinic. Satisfaction with communication was associated with:

1. The doctor being friendly rather than business-like.
2. The doctor being seen to understand the patient's concerns.
3. Patients' expectations about treatment being met.
4. The doctor being perceived as a good communicator.
5. The provision of information.

Ley (1988) found that patients who are given information may still remain dissatisfied. He questioned whether this might relate to a more general dissatisfaction, or to personality factors, but found no evidence of this. Ley points out that despite a great deal of research into the subject of communication, satisfaction and compliance over the last two decades, there has been
no corresponding decline in dissatisfaction. The failure to understand the words, language, jargon and terminology used, as well as conflict between the patients' and the professionals' theories of health and illness, are all important reasons for this. Even with medical and dental students problems with understanding medical terms has been demonstrated (Tring and Hayes-Allen, 1973).

Research by Mazzullo et al. (1974) demonstrates that it is not only medical language but simple everyday words which can give rise to misunderstandings. One example they give is the use of the word 'for' in the context of taking a tablet 'for fluid retention'. The researchers found that 52% of the sample thought that the tablet would cause fluid retention rather than alleviate it. Physiotherapists must not only avoid jargon but must be careful in their use of simple words and phrases — 'ultra-sound for swelling', 'megapulse for pain', are examples of how possible confusion can arise. To avoid confusion it is also important to check that the patient understands.

Boyle (1970) demonstrated the lack of patients' knowledge regarding the position and location of various organs in the body. The thyroid gland was identified by many patients as being situated in areas as diverse as the skull and the pelvic region. Consider patients who tell you they have a pain 'in the lungs'. They may think they are locating the correct area, but how often are they? Boyle demonstrated that only 51% of patients could correctly identify the position of the lungs with 20% correctly identifying the position of the stomach and 42% the heart. It should never be assumed that patients have good anatomical knowledge.

COMMUNICATION AND RECOVERY RATE

It has been demonstrated that poor communication can lead to poor recovery (Hayward, 1975; Wilson-Barnett, 1981; Gould, 1985; Webb, 1985). Gould (1985), in a study of patients who had undergone a hysterectomy, found that specific advice which might well have aided recovery was lacking, and that staff either volunteered little information or failed to initiate discussion. This highlights the important role played by physiotherapists in preoperative and postoperative procedures, provided the patient's psychological as well as his physical needs are considered. Gould (1985) found that 40% of her sample would have liked specific information about what to expect from their treatment, for example the possible side-effects. She found that 'social class and education exerted no influence on this result'. It appears that in addition to supplying the correct amount of information at the right time, questions specific to the patient's problems need to be answered.

Patients need to be encouraged, facilitated and enabled by the therapist to ask further questions in order to satisfy their individual needs, yet Faulkner (1984) found that patients who do ask a lot of questions are frequently labelled by staff as 'difficult'. In a review of the literature regarding 'good' and 'bad' patients, Kelly and May (1982) state that patients were defined as good or bad, 'not because of anything inherent in them or in their behaviour, but as
Physiotherapy: a psychosocial approach

The role of the patient in communication

The patient is often thought of as a passive being who is administered to by a professional, however it is important to consider the role of the patient as a consumer of health services and the part she may play, and should be encouraged to play, in the therapeutic relationship. People are demonstrating greater interest in their health and are becoming more knowledgeable, with the media communicating vast amounts of information on many diseases and health issues. There have recently been significant changes in health care administration and physiotherapists are increasingly involved in activities such as clinical audit, outcome measures and patient satisfaction surveys. This will no doubt become the norm, especially in the light of the recent review of the NHS (HMSO, 1989).

As NHS departments strive to achieve value for money for 'the consumer' through efficient, effective and equitable care, the opinions of the consumer are being actively sought. Gittins and Williams (1986) undertook a postal questionnaire survey where they asked patients attending physiotherapy departments for their opinions on the adequacy of the appointment/reception system, comfort, their relationship with the physiotherapist and the effectiveness and helpfulness of contacts with the physiotherapy department. They were asked whether treatment was explained, whether they found it easy to talk to the therapist about their problems and whether the therapist made an

THE ROLE OF THE PATIENT IN COMMUNICATION

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effort to understand them as individuals. Some interesting factors arose from this study, particularly in relation to communication. Ninety per cent of patients said they were reasonably comfortable or very comfortable but, with regard to privacy, 27% found it fair or poor.

Tuckett et al. (1985) undertook a study where they found that just under two-thirds of patients taking medication, and over two-thirds of those experiencing depression, anxiety or social troubles, did not mention this during the consultation. Thus the authors demonstrated a considerable 'holding back' of information. This is also likely to occur when physiotherapists interact with patients. Tuckett et al. (1985) state: 'Such estimates of how much patients keep back from their doctors are consistent with more general findings that the symptoms taken to a doctor for help are a small proportion of all those experienced'.

TEACHING AND ASSESSING COMMUNICATION SKILLS

How might communication skills be assessed? By those already skilled in communication, by peer assessment or by the patients? The need for evaluation is clear but the assessment of communication skills training is difficult in terms of what is to be measured and by what means (Dickson et al., 1989).

Knox and Bouchier (1985) describe a method of teaching and assessing communication skills with medical students in their pre-clinical year. A combination of group work, live interviews, close circuit television with real patients, lectures, role play and ward visits were used. Assessments were made by staff, students and patients. This demonstrates what might be construed as a complete 'communication training package' but the effectiveness of such training is as yet unknown. Knox and Bouchier (1985) ask: 'Can deficiencies in students' abilities to communicate be rectified? If not what are the implications for student selection? What links need to be formed with teachers in the clinical years to ensure that deficiencies in fact have been made good or their effects at least minimized?'

Barnes (1983) highlights some of the practical difficulties relating to the effective teaching of communication skills, these include keeping the groups small and cohesive, providing a psychologically safe environment for discussion to take place and ensuring that educators introduce teaching methods, such as role play, sensitively and interestingly. Barnes (1983) points out that the teaching of communication skills is 'not everybody's metier' but reminds us that the rewards are, 'In those occasions when an individual student's growth of perception, understanding and empathy is clear to see . . . .'. Communication skills training is a challenge to health care tutors but Dickson et al. (1989) believe that behavioural scientists should be involved in order to counteract the present lack of expertise. (For further information on social skills training the reader is referred to Chapter 10.)

CONCLUSION

This chapter has demonstrated the complex nature of communication within
health care and has attempted to apply the knowledge to physiotherapy practice. There is clearly a need for greater emphasis on communication in physiotherapy education in terms of both theory and practice. Ley (1988) summarizes the benefits which will result from improved communication skills in health care:

1. Increased patient knowledge and recall.
2. Increased patient satisfaction.
3. Genuinely informed consent.
4. Increased patient compliance.
5. Quicker recovery rates from illness.

Physical care is of limited value if the psychological and social needs of each individual are not catered for. This has implications for physiotherapists in every area and provides an exciting challenge for us all. The following quotation is an ideal one on which to conclude: 'At the receiving end of any therapeutic intervention is a person. The concept of a person rather than a patient is not often fully appreciated by health care personnel and it is an issue largely neglected in professional training. Thus the delivery of care is frequently conducted at an impersonal or functional level, reminiscent of a production line approach, with little attention being devoted to the interpersonal dimensions of practice, or indeed to the individual's behaviour and attitudes towards health and illness' (Dickson et al., 1989).

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Physiotherapy: a psychosocial approach


In Chapter 8 the role of 'patient' was viewed as that of an active participant in the individual's own health care. The popular consumerist stance which now pervades health care has implications for professional/patient relationships. It clearly challenges the traditional biomedical model of health and illness as well as professional power and authority. It focuses on the purchasers' (clients'/patients') rights and the sellers' (health care professionals') obligations; rather than the professional's right to direct and the patient's obligation to follow directions. If the patient is to be an active participant, there needs to be a true sharing of information. It is only the informed patient who can make decisions regarding his own health care and his subsequent degree of adherence to prescribed treatment regimens.

Information giving and patient compliance are intrinsically linked. Patients are unable to comply with prescribed treatment if they are not adequately informed. Ley (1988), following his extensive research on doctor/patient communications, postulates the 'cognitive model' which predicts statistically significant relationships between understanding, memory, satisfaction and compliance (Ley, 1977, 1982). The notion of 'compliance' is felt by some to have authoritarian connotations, which is not in line with the present day emphasis on mutual participation in care. Other terms, such as adherence, cooperation and collaboration have been used synonymously. Certainly Partridge (1990) feels that in physiotherapy (where patients and therapists are working together to try to solve or minimize the patients' problems) the term 'adherence' to an agreed treatment regimen is probably a more accurate term and will be used throughout this chapter.

MEMORY AND UNDERSTANDING

As faulty recall has been shown to be an important variable in creating non-adherence of patients to their treatment (Ley and Spelman, 1965, 1967), it will be useful to review briefly the basic research relating to the memory process. Applications of this to the transmission of information between patient and health professional, may help us to understand why patients demonstrate a high level of faulty recall.

Memory is a hypothetical concept which refers to three distinguishable and interrelated processes: encoding, storage and retrieval (Gross, 1987). Encod-
ing is a necessary condition for storage, however, everything that registers on the sense receptor does not automatically become encoded and subsequently stored, due to the process of selective attention. The concept of selective attention has been well researched and several competing theories have been put forward. All agree that somewhere in the processing of information there is a 'bottle-neck' or 'filter', which is partly due to the limitations of the neurological system. Incoming information either passes through this bottle-neck for further processing, is filtered out altogether, or is only processed to a limited extent. The latter two occurrences will have no effect on subsequent behaviour. The single channel models of Broadbent (1958), Deutsch and Deutsch (1963) and Treisman (1964) only differ in the position of the filter. These models have all been criticized by later researchers who have questioned whether such a simplistic central processor with such limited capacity could account for the complexities of selective attention.

Storage is not a sufficient condition for retrieval. There is a great deal of information which is stored and has potential availability, but it is not always accessible. Most people have experienced the situation when, in an examination room, they fail to remember important facts which tantalizingly flood back into consciousness as soon as they leave the room!

Memory is commonly studied using the 'two process model' (Atkinson and Shiffrin, 1971). This distinguishes between the short-term memory (STM) and the long-term memory (LTM). The short-term memory is thought to have a duration of 15–30 seconds when unaided (Atkinson and Shiffrin, 1971), although this can be enhanced by rehearsal and repetition. The long-term memory, on the other hand, can hold information from a few minutes to a life time.

In relation to the transmission of information and subsequent recall, the capacity of these two forms of memory storage are important. The short-term memory has a limited capacity of '7 + or − 2' pieces of information (Miller, 1956). Miller demonstrated that 'chunking' can be used to expand this limited capacity. Chunking involves the use of previous experience or learning to combine meaningful pieces of information. However, it is considered that once the seven slots of information are in place, further input will cause displacement of existing material. Material not transmitted to LTM, on the other hand, will be lost by trace decay. The LTM has an unlimited capacity but storage does not necessarily guarantee retrieval. Theories of forgetting are numerous but a distinction has emerged between availability and accessibility. It seems that availability is concerned with initial encoding, whereas accessibility is concerned with the functioning of LTM.

Support for the two-process model comes from experiments on free recall tests. These involve subjects being presented with a list of 20–40 unrelated words one at a time. When all the words have been presented subjects must recall them immediately in any order. Results have identified a primacy and a recency effect in recall. The primacy effect (successful recall of the first few words on the list) suggests that when they enter the relatively empty short-term memory store, they are rehearsed and transferred to long-term memory.
The recency effect (successful recall of the last few words on the list) suggests that words are being retrieved from short-term memory. Recall of words from the middle of the list is poor as opportunities for rehearsal are less and words are therefore lost by displacement or trace decay. If the words are presented slowly there is a greater opportunity for rehearsal and the primacy effect is more marked (Murdock, 1962).

Numerous studies of doctor/patient communication have demonstrated high reported levels of misunderstanding of information. Parkin (1976) and Parkin et al. (1976), followed up 130 patients discharged from medical wards and found that 49% had poor or no knowledge of their illness. One-third had little or no understanding of their drug regimen. Reviewing similar studies, Ley (1988) reports that, with regard to treatment, percentages of patients judged by experts to have inadequate understanding of their treatment regimen, was between 5 and 69%.

This can be accounted for by faulty encoding, possibly due to the specialized vocabulary used by some medical personnel. Vocabulary is often used to impress and occasionally to confuse patients as a way of maintaining professional identity and enhancing professional dominance. This is not likely to be limited to the medical profession, physiotherapists are probably equally to blame for developing a professional jargon of their own. In Chapter 8 the ambiguity inherent even in very simple words, and the lack of knowledge regarding the position of bodily organs, was highlighted. An awareness of such research is useful to physiotherapists when they give information concerning illness and treatment procedures.

Even if the terms used by health professionals are understood by consumers, they must also be able to recall information directly relating to treatment. Ley and Spelman (1965) found that even immediately after consultation, about 40% of what a patient had been told was already forgotten. Diagnostic statements were best remembered which may be accounted for by the primacy effect. Forgetting has been found in numerous studies to be proportionally related to the number of statements given at any one time, that is the more information given the more is forgotten. Many of the studies reported by Ley (1988) show that patients are frequently given up to 12 pieces of information. This is despite consistent research evidence of the '7 + or −2' capacity of the STM.

It seems inconceivable that clinicians continue to overload patients with information. Partridge (1985) found in a study sample of 40 patients with physical disabilities, that only eight (20%) could accurately recall or demonstrate any instructions they had been given after some weeks of treatment. While observing physiotherapists working with patients, Partridge found that they frequently gave prompts or provided demonstrations, and then asked the patient whether it had been 'done like this'. It is well established that recognition tests enhance recall as they provide retrieval clues (Tulving, 1974). Physiotherapists could utilize this type of evidence to help structure their treatment instructions. Intermittent demonstrations would serve to aid accurate recall of the original instructions given.
Utilizing memory research, certain strategies can be used to make the transmission of information most effective. Ley (1988) suggests the following:

1. Utilizing the primacy effect — this involves giving the most important information first.
2. Stressing importance — this provides the patient with the opportunity to rehearse information previously given and helps to transfer it for subsequent storage in LTM.
3. Simplifying — use of shorter words and sentences.
4. Explicit categorization — this involves telling the patient what categories of information are to be provided. The appropriate category title is then repeated before presenting the information category by category (Ley, 1979). Evidence for the effectiveness of this technique has been demonstrated in both clinical and analogue investigations (Ley, 1979). It has also been used in a modified form by Reynolds et al. (1981). These researchers asked the patients to specify which categories they would like and, as each category was announced, the patient indicated whether information was required or not. This also encourages an atmosphere of mutual participation.
5. Giving less new information at one time.
6. Using specific rather than general statements (Bradshaw et al., 1975). In physiotherapy this might be, 'Would you like to do this exercise three times a day for a period of five minutes.'
7. Follow-up interviews to see whether information has been understood.

Physiotherapists are in the position of being able to plan activities over a number of treatment sessions in a systematic manner. Exercise programmes can be built up step by step incorporating all the above strategies, with each session combining the reinforcement of 'old' information with the introduction of new information. Introducing exercises over a period of time may facilitate patients' recall and make it easier for them to adhere to instructions and advice (Mayo, 1978). Mayo also comments that often, because of physiotherapists' enthusiasm, patients are given more instructions than they can cope with and more life-style changes are demanded of them than they are willing to make.

THE USE OF WRITTEN MATERIAL

None of the above techniques has been entirely successful in eliminating misunderstandings and forgetting. There appear to be positive advantages in the use of written information as follow-up to oral communication, for example, Morris and Groft (1982) found that it increased patient satisfaction. They reviewed a number of studies and found that a mean percentage of 77% of patients would have liked written information. This is supported by later research reported by Ley and Morris (1984) and Ley (1988). Another positive
advantage of using written information is that the material can be more carefully thought out and designed to maximize understanding and memory. The most important factor seems to be that it can be used for later reference when anxiety levels have decreased. Written follow-up to verbal instructions is useful in physiotherapy practice and is something many physiotherapists already use. Graphic representation can also be used although it is not self-evident that illustrations necessarily improve understanding or recall. Ley and Morris (1984) found evidence in the non-clinical field that graphic representations can serve to distract or provoke anxiety.

It has been recognized that the benefit of written communication can only be realized if it can be guaranteed that it will be read, understood, believed and remembered. Research measuring the effectiveness of written information only relates to specific patient groups. For example Young and Humphrey (1985) reported that an experimental group of women, undergoing hysterectomy, who received a booklet preoperatively discussing how to cope with hospital and cope with anxiety, showed less postoperative pain and distress and were discharged home quicker than a control group who did not receive the booklet. Similar results were obtained by Wallace (1986). This seems to reinforce the maxim that the more informed patients are the better they are able to cope with illness. Research was highlighted in Chapter 8 supporting the relationship between patients' understanding of information and their satisfaction. Experimental and correlation evidence show that the informed patient is more satisfied which, in turn, leads to more adherence to treatment regimens. The needs of patients who are unable to benefit from written material, for whatever reason, must be taken fully into account, as well as those who do not understand English.

The discussion so far has concentrated on the cognitive processes associated with the transmission of information. These are often incorrectly applied leading to involuntary non-adherence to the treatment regimen. Patients cannot adhere correctly to instructions if they are misinformed or cannot remember what they are supposed to do. However, regardless of the care taken in giving correct information, adherence to a treatment regimen cannot be guaranteed. We can blame the medical and health professionals for giving poor information, but they cannot be blamed for the other forms of non-adherence which can result from the personal beliefs, goals and expectations of the patient. Alternatively, the patient's social environment may interfere with the advice given. (See Chapters 2, 12 and 17.) The issue of non-adherence is not considered in the traditional medical model of disease and is poorly understood by many health care professionals. Haynes et al. (1979) and Sackett and Snow (1979) report that non-adherence can occur in any setting in which recommendations are offered.

ADHERENCE AND NON-ADHERENCE OF PATIENTS TO ADVICE

During the ensuing discussion, the reader should keep in mind the degree of deviation from the prescribed regimens permitted before patients are
Physiotherapy: a psychosocial approach

considered not to be adhering to them. In some studies any deviation places patients in this category, but in other studies adhering to advice or treatment on less than a given percentage of occasions, say 75%, may be used as the criterion. This is an important issue in physiotherapy; we may need to tolerate less than perfect patient adherence to the treatments we prescribe while patients adjust to life-style changes or fit the treatment regimen in with the other demands on their time and energy.

With regard to attendance rates at clinics, Sackett (1976) demonstrated a 50% uptake in appointments which were initiated by health care professionals, and a 75% uptake when patients initiated the appointments themselves. Thompson (1984) in an analysis of attendance following 19,400 appointments in the outpatient department of a teaching hospital, revealed higher rates of uptake especially with first attendances, where the rate was 87.4%. The rate for re-attendance was 83.8%. A seasonal variation was also found with February yielding attendance rates of 88.5% compared with 81% in June.

Vasey (1990), reports a study investigating the problem of non-attendance and failure to complete a course of physiotherapy at the Doncaster Royal Infirmary. Nearly 8% of patients failed to attend for treatment and 14.3% failed to complete their course of treatment. These rates occurred despite the fact that the patients had sometimes overcome many obstacles to gain the appointment. Vasey found, in this limited study, that some of the reasons for non-attendance were that treatment was no longer required, that patients had sought alternative treatment or that they were unable to make suitable work or domestic arrangements. She suggests simple measures to increase attendance including follow-up letters to provide a second opportunity to attend. This retrospective study contains methodological problems but it does reveal some interesting issues. There is clearly a need for more monitoring of non-attenders and patients who fail to complete their treatment. The reasons can then be analysed and remedial action initiated.

It is reported that, on average, one-third of patients do not adhere to short-term treatment regimens (Gillum and Barskey, 1974; Sackett and Snow, 1979; Haynes et al., 1979). This rate rises to over 50% for long-term treatment. The range in percentages is considerable however. For example, in studies of non-adherence with medication regimens the range is from 8 to 95%. This may be due to the tools used to measure adherence. The most popular measure is self-report, but other measures, such as therapeutic outcome, or the clinician's assessment of the degree of adherence, are also used. Whether or not patients are taking their medications can be measured by pill count and urine and blood analysis. Pill counts are popular but as pills can be destroyed, the method does not always give valid results. Self-reports are often discrepant with other seemingly more objective measures. In a study reported by Korsch et al. (1969), the self-report of 8.5% of a group of mothers, with regard to the medication of their children, was found to conflict with a pill count measurement. In this study, follow-up interviews were conducted with people trained to take the patients' perspective. They worded the questions so that the mothers were able to explain why they had stopped giving their children the medication. This approach appeared to give a more accurate account.
Patients who do not adhere to medical advice are often viewed as morally culpable; in this atmosphere they are unlikely to admit to the behaviour should they be asked. However, in a non-judgemental forum, where the patient or her advocate feels equal in the partnership with the health professional, a freer exchange of communication is elicited. Non-adherence is then more likely to be verbalized making self-report the most accurate and economical tool to measure levels of cooperation (Sackett and Snow, 1979). In physiotherapy there are limited objective methods of measuring adherence to treatment regimens. Measuring the circumference of a limb to gauge muscle bulk or using a goniometer to measure joint range, could imply adherence to an exercise programme. However, the use of the goniometer is less objective and reliable than most people imagine. Williams and Callaghan (1990) state that there have been a number of reports indicating that human goniometry is frequently inaccurate. Sources of variance in measurement are believed to be predominantly due to user error rather than the instrument itself. Adherence to prophylactic health advice is particularly low. In physiotherapy this will include postnatal exercises, where measurement of adherence is particularly difficult as the consequences of non-adherence are not seen or experienced until later in life. Postnatal exercises are also likely to have a low priority rating when faced with the presence of a new infant.

The relatively high levels of non-adherence to medical advice and treatment among patients does not seem to be matched by doctors' perceptions of their patients' behaviour. Davis (1966) reports that only 11% of doctors, at a general medical practice, correctly estimated that 50% of their patients adhered to the advice they gave. Nearly one-half estimated that 75% did so and 42% claimed that all patients adhered to their advice. There are no comparable studies available relating to physiotherapists.

Thompson (1984) considers that the doctors' distorted perception of reality may be the result of ego involvement, i.e. the belief that no patient is likely to ignore her excellent advice. This ignorance may simply be due to the failure of doctors to question patients on the issue of adherence. Svarstad (1976) found that when physicians checked with patients about their level of adherence, patients were more likely on follow-up to have adhered to advice. It was felt that the more extensive the monitoring of adherence, the more accurate and honest the patients' feedback and answers were. If the doctor did not ask the patient whether she was carrying out the advice the patient tended to think that the doctor thought the treatment was unimportant and unlikely to work. Making enquiries about patients' adherence to treatment is therefore important, not only to check the degree to which they are following advice but also to emphasize the importance the health professional places on that behaviour. Partridge (1990) considers this to be a neglected area in physiotherapy practice. She believes that if, by providing more individual attention with carefully structured treatment sessions, there is greater adherence to the home exercise programme, then the patient will surely benefit.

An interesting aspect to ponder briefly at this point is the non-adherence to professional advice experienced outside health care. Advice given by
solicitors, architects, business consultants and other professionals is not always followed. Clients exercise their own judgement even though they do not have the expertise of the professional. This is in spite of non-adherence having equally serious consequences to that associated with health. The other professions tend to view this independence as the client's right. If they become involved in research into this issue it tends to be in terms of the necessary improvements that need to be made to their service, rather than client deficiency. If the use of patient satisfaction surveys mentioned in Chapter 8, becomes the norm, a similar stance will need to be taken by health professionals.

THE HEALTH BELIEF MODEL

The health belief model was postulated by Rosenstock (1974) who believes that whether people adhere to a recommended health action or not relates to their beliefs and cognitions (see also Becker and Maiman, 1975; Janz and Becker, 1984). The following four patient perceptions are particularly important:

1. The perceived level of susceptibility to the particular disease or condition.
2. The perceived consequences (both organic and social) of non-adherence, for example a man with a family history of heart disease may adhere more closely to an exercise programme than someone without such a family history.
3. The perceived potential benefits or efficiency of the health action in preventing or reducing the susceptibility to, or the severity of, the consequences of the disease or condition.
4. The perceived physical, psychological, financial or other barriers or costs related to initiating the prescribed treatment or continuing with it.

For action to be taken and continued, the perceived efficacy of possible benefits must outweigh the costs. This model implies that the health professional's assessment of the seriousness attached to the illness does not have a great deal of influence. It is the patient's own perception of the severity of the illness which is the most important factor, even if it is erroneous.

In a revised model attention is placed on health motivations (Becker and Maiman, 1975). These may include the importance individuals give to health care and their inclination to seek or avoid it. Becker and Maiman (1975) also added what they term 'enabling or modifying factors'. These include cost to the patient, accessibility and prior experience of the success or otherwise of a similar treatment received by themselves or a relative or friend. 'Cues to action' is also a feature of the revised model. These are signals to the person to take action and might include mass media campaigns, newspaper or journal articles and reminder cards.

There is considerable support for the main suppositions of the health belief model. For instance there is a positive correlation between a belief in the
susceptibility to a specific disease and the uptake of screening programmes (Fink et al., 1972). Ogionwo (1973) reports similar findings in relation to immunization. Kirscht and Rosenstock (1977) demonstrated a positive correlation between the individual's own perception of severity of the condition and the experience of negative side-effects. It is clear from the model that there are several variables which determine an individual's action in relation to her own health care. (For further information on the health belief model and lay beliefs about health and illness the reader is referred to Chapter 17.)

Physiotherapists could utilize the model to help them understand the degree to which their patients might engage in preventive health behaviour. The model also suggests that there could be meaningful preventions made by physiotherapists at many levels other than by direct patient contact. Payton and Ivey (1981) suggest this might be in the form of psychoeducation, which, as yet, is relatively uncommon in physiotherapy practice. (For further information on health education the reader is referred to Chapter 14.)

Although not directly explicated by Becker and Maiman (1975), powerlessness must be considered a component of the health belief model. Miller (1983) suggests that perceived powerlessness may be a stimulus either to adherence or non-adherence. If a patient feels that her actions will not alter the outcome, this sense of powerlessness may give rise to non-adherence to treatment or advice, but conversely if powerlessness is due to severe symptoms this may stimulate adherence. If symptoms interfere with desired roles, activities, comfort or self-concept, powerlessness prevails. In this situation the individual might conclude that adhering to the regimen will reduce the immobilizing symptoms and thus the powerlessness itself. This leads to the conclusion that the degree to which an individual will adhere to advice will depend on her beliefs regarding the amount of control she has over her own state of health.

LOCUS OF CONTROL

This concept originates from the social learning theory of Rotter (1954). Rotter's original theory proposed that a person's intentions to behave in a certain way are affected both by his expectations that the behaviour will lead to a particular outcome and the value he places on that outcome. Rotter (1966) postulated that if the individual believes that outcomes result directly from his own behaviour, he has an internal locus of control. Alternatively if he believes that outcomes are controlled by powerful people, or by chance, then he is said to have an external locus of control. The phenomenon has applications across a wide range of behaviours but has been most extensively researched in relation to health behaviour. Following earlier abortive attempts to construct a reliable scale to measure locus of control, Wallston et al. (1978) constructed the multi-dimensional health locus of control scale (MHLC).

This scale measures three dimensions of belief relating to control:

1. Internal health locus of control – the extent to which individuals believe that they can control their own health by their own actions. This is considered to be a relatively stable personality trait.
2. The extent to which powerful people, such as health professionals, are thought to control outcomes. If the person scores high on this dimension he is likely to have regular contact with health professionals, or other healers, and will follow their advice in an attempt to stay healthy.

3. Chance health locus of control – if the individual scores high on this dimension she believes that her health or illness depend on chance factors.

These last two dimensions, although both measuring external factors, are independent of each other. Belief in the power of others is predictive of adherence to treatment, especially in patients with chronic conditions (Wallston et al., 1987).

Research using this scale shows that internal locus of control is useful in predicting participation in preventive health measures. Dishman et al. (1980) found that people who stay in physical activity programmes have a higher internal locus of control than those who drop out. Similarly Slenker et al. (1985) found that joggers have a higher internal locus of control score than non-exercisers.

Bradley et al. (1984) have shown that belief in these three dimensions of control are not necessarily predictive of specific behaviour. They feel it may be more useful to focus on specific perceptions, for example towards particular diseases or forms of treatment. This would provide a clearer relationship between an individual's cognitions and her health related behaviour. Partridge (1985) designed and carried out a small study with 40 physically disabled patients. The patients were given a 'recovery locus of control' scale which was designed to measure perceived control over recovery. Partridge found that those high on internality achieved greater recovery than those who scored low on the scale. If this sort of result could be replicated in other studies of physiotherapy it could become an important variable when planning treatment. Ascertaining a patient's position on a locus of control continuum, would aid the planning of treatment regimens. The therapist would also be encouraged to change the patient's locus of control from 'external' to 'internal', if this were thought to be appropriate.

Langer (1983) demonstrated that by encouraging elderly patients to develop an internal locus of control, their activity levels rose and their mortality rates fell. It also appears that patients with an internal locus of control recover better if they are able to participate in the planning of their own treatment regimen, 'externals', on the other hand, are unlikely to benefit by this participation. Cromwell et al. (1977) studied the participation of patients, who had suffered a myocardial infarction, in their self treatment. They found that if 'internals' were given the opportunity of high participation, and if 'externals' were not expected to participate greatly, they did better than similar patients in incongruent conditions.

Eachus (1990) used the MHLC scale on 79 physiotherapy students at various stages of their education. Comparing the students' beliefs with those of the UK norm, he revealed one important difference. The belief of the general public in the power of others to control their health was greater than
that of the student physiotherapists. This suggests that the general public attribute greater power to physiotherapists than the student physiotherapists attribute to themselves. This study also showed no significant change in health beliefs, as measured by the MHLC, over the 3 years of the course. It could be said that the students were realistic in their beliefs; unrealistic levels of power attributed to other people, such as health professionals, might lead to disappointment and helplessness. The role of the physiotherapist is best defined as that of a facilitator helping patients achieve their own objectives, rather than as all-powerful healer.

Hyland and Donaldson (1989) state that by following advice, some individuals feel they are relinquishing their self-determination and control. If a specific treatment is a patient’s own idea, or if he can be convinced that it is, he is more likely to adhere to it. Langer (1983) agrees that when a patient describes problems and follows advice he exposes himself to a feeling of loss of control. This could be overcome by some reciprocal self-disclosure, on the part of the therapist, to encourage a partnership of equality. However, too much self-disclosure must be avoided or the patient may feel that the therapist is more interested in herself than she is in him. (For further information on the health locus of control readers are referred to Chapter 17.)

THE THEORY OF REASONED ACTION

Fishbein and Ajzen (1980) postulate that human behaviour, including cooperation with medical regimens and uptake of preventive health measures, is not thoughtless. They state that people decide whether or not to engage in a given action by carefully considering its implications. They make a very clear distinction between attitudes which are affective and beliefs which are based on information. Beliefs regarding the value of the outcome, and whether the individual expects to attain it, can combine to produce attitudes towards particular behaviours. The other determinants of behavioural intention are referred to as the ‘subjective norm’ which relates to whether people of importance to the individual, such as members of her family, would expect her to display this particular behaviour.

Ajzen and Madden (1986) extended the model to include perceived control over behavioural achievements as a further determinant. They defined behavioural control as a person’s expectancy of potentially conflicting events with the intended behaviour. A patient may believe that his home exercise programme will improve the mobility of his knee joint, he may have a strong desire to play cricket at the opening of the season, and have a family who believes he should adhere to the programme so that he can participate more fully in playing with his children. However, he may also know that if he adheres fully to the programme it means that he has to get up 15 minutes earlier in the morning, that his lunch break will be reduced preventing him from going to the local hostelry with his colleagues, and that in the evening there are many conflicting pressures on his time. Taking all these factors into consideration a prediction could then be made of what his decision might
Physiotherapy: a psychosocial approach

CONCLUSION

It is clear that health beliefs are an important element in predicting the degree of adherence to a treatment programme. This is, at present, a neglected area of physiotherapy research and practice. It is probably the case that current physiotherapy education does not provide adequately the students or qualified physiotherapists with a psychosocial approach to practice, although there have certainly been some important changes in this regard in recent years. Physiotherapy education should encourage physiotherapists to work from the patients' perspective and to utilize fully a social model of care. If this were to be combined with a sound knowledge of memory and other cognitive processes associated with the giving of information, the degree of adherence to treatment regimens would surely be increased.

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FURTHER READING


‘An important responsibility of the physical therapist is to create an open, communicative atmosphere whereby information can be readily offered and received’ (Croft, 1980).

Interviewing the patient is an important aspect of the physiotherapy assessment and is an on-going process throughout treatment. It is often referred to as the ‘subjective’ part of the assessment, although the implication that the rest of it is ‘objective’ has been disputed (French, 1988; Grieve, 1988). Effective clinical interviewing is difficult but can be learned and improved by understanding and practising interviewing skills.

Croft (1980) describes an interview as: ‘... A purposeful conversation, a basic process of communication in which two or more persons interact to achieve some goal’.

Froelich and Bishop (1977) believe that the purpose of a clinical interview is to gather information about the patient, to establish a relationship with the patient, to help the patient understand his illness and to support and direct him in his treatment.

Effective clinical interviewing is dependent on a variety of interpersonal skills which include proficiency in asking questions, the ability and motivation to listen and respond effectively and the capacity to understand and emit non-verbal cues. Hasler (1985) considers that the acquisition of interpersonal skills, in medical and paramedical education and practice, have been taken for granted and thought to be largely a matter of common sense. He is opposed to this view and believes that consultations are only successful if communication, as well as the more technical components of the assessment, are correct. He points out that a poor consultation can have far reaching negative consequences in terms of patient satisfaction and compliance. Regarding interpersonal skills, Dickson and Maxwell (1987) believe that: ‘It was generally assumed that such aspects of the professional role would be gradually and largely subconsciously acquired through increased clinical experience. However, this rather comfortable philosophy has gained little support from the available empirical evidence’.

**TYPES OF INTERVIEW**

There are many types of interview, ranging from those which are highly structured to the totally unstructured type. In structured interviews very specific questions are asked which can be coded easily, often by means of a
The structured interview

The main advantages of the structured interview are that patients' responses can be categorized and coded relatively easily, irrelevant information can be avoided and timing can be kept under control. The coded information can be a useful source of statistics for managerial purposes and as data for quantitative research. There is a danger, however, of assuming that structured information is more factual and scientific than it really is. With this in mind Goldfinger (1973) talks of the 'fallacy of misplaced concreteness' when discussing the problem orientated medical record. There is a tendency to believe that data which are presented graphically and expressed numerically are valid, but this is not necessarily the case (Huff, 1973; French 1988).

Interesting and relevant information, falling outside the physiotherapist's frame of reference, may be lost with the structured interview. Much has been written about the differing definitions patients and health professionals have about illness and disability and the problems to which this can give rise (Brechin and Liddiard, 1981; McKnight, 1981; Sutherland, 1981). Pendleton et al. (1984) believe that, in order for a consultation to be successful the clinician and the patient must have a shared understanding of the problem. If the interview is highly structured the physiotherapist's definition will dominate.

In attempting to code patients' responses precisely, they may be adjusted to fit a given category. Hyman et al. (1954) found that researchers tended to 'bend' subjects' responses to fit the categories provided. It is desirable that the coding systems used by physiotherapists are reliable; high reliability would exist if several physiotherapists or one physiotherapist, taking the same measurement on several different occasions, arrived at a similar result. There is, however, the danger that high reliability will be achieved at the expense of validity. Reliability is largely a technical matter whereas validity is concerned

What type of interview should physiotherapists use?

There are advantages and disadvantages to both structured and unstructured interviews. The degree of structure will depend on the beliefs and personality of the physiotherapist, the ideology of the institution where she works and the beliefs, personality and needs of the particular patient. A highly structured interview may run counter to an ideology of free expression or an holistic approach to patient care and may be inappropriate for certain groups of patients, for example young children, or people with complex problems. On the other hand some patients may regard an open-ended, holistic approach as an invasion of privacy. Norell (1987) points out that, according to their style, doctors are liable to be regarded either as uncaring or as intrusive.

The structured interview

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with the nature of reality; a test is valid if it is measuring what it purports to measure. Slattery (1986) points out that it is possible for information to be highly reliable yet be incorrect or insignificant. In the quest to ensure high reliability the information gathered may become so simplified that its validity is reduced or lost. There is a danger of this happening in physiotherapy interviews if a highly structured format is adopted.

In order to gain 'relevant' information the physiotherapist's questions are selective and focused. The emphasis is usually on the patient's signs and symptoms and their consequences, with little attempt to explore other aspects of illness behaviour. This issue leads to questions concerning the physiotherapist's role, but clearly if the major reason for becoming a patient is of a social or psychological nature, then a highly structured interview, following the medical model of illness and disability, will be insufficient. Pendleton et al. (1984) believe that consultations are unsuccessful unless the clinician manages to establish why the patient has come and Campkin and Jones (1987) warn that preoccupation with 'problems' and diagnosis may draw the clinician's attention away from the patient as an individual.

Some patients may be alienated by a structured interview where their input is restrained and where the flow of conversation is interrupted by note-taking. Coates and King (1982) recommend that physiotherapists should not write while they are interviewing patients as it disturbs interaction. Some physiotherapists use a tape recorder when interviewing. Provided the patient is not intimidated by the machine, this will ensure that the flow of conversation is maintained without the risk of it being forgotten. It may also indicate to the patient that the physiotherapist is interested and taking seriously all he has to say. Bernstein and Bernstein (1980) point out that the question—answer format may imply that the professional has 'so specialized and mysterious a knowledge' that the patient will only respond by answering the specific questions posed.

There is a danger with the structured approach, particularly with students and inexperienced staff, that the exercise of filling in the assessment form correctly over-rides the importance of the patient/therapist relationship, with its considerable therapeutic effects. The physiotherapist may become pre-occupied with the mechanics of recording the interview data, or frustrated if the patient's responses are vague or confused. Unfortunately practice does not always make perfect; there is a tendency for people to develop rigid routines over time, whereby they adhere strictly to a given assessment format without considering its usefulness to the particular patient concerned. Parry (1980) warns physiotherapists against this tendency.

The unstructured interview

Most writers on the subject of clinical interviewing advocate a relatively unstructured approach. Bernstein and Bernstein (1980) believe that the therapist should avoid over-controlling the patient or she may feel intimidated and relevant information may be lost. They believe that the therapist should
Clinical interviewing

listen more than talk and state: 'The patient will give all the information we are seeking – and more – if he can be helped to tell his story in his own way in an open manner. Although the information may not emerge in precise order, neither will important information be deleted. It should be emphasized that questions can guide the flow of but cannot produce information'.

Samual (1987) believes that patients sometimes 'have to struggle quite hard to find a gap in the doctor's routine' and that they are often ready to talk at times when professionals are not ready to listen. Norrell (1987) reminds us that: 'It is sometimes difficult to remember that the important thing for the patient is the opportunity to have his say, however falteringly. It is in creating an atmosphere in which the patient can feel secure enough to do this that the doctor makes a major contribution to a worthwhile consultation'.

Bernstein and Bernstein (1980) point out that helping is not necessarily dependent on talking or doing and Campkin (1987) warns that clinicians should not take refuge in 'respectable medical activities' in order to avoid listening to the patient.

When the unstructured interview is used the advantages of the structured approach are lost; coding is difficult, timing can get out of hand and the patient may give a great deal of peripheral information. Despite these problems Samual (1987) believes that, 'The ability to accept muddle is invaluable'. The information from an unstructured clinical interview will not be easily quantified but it will certainly be rich and detailed and may provide useful data for qualitative research. Some patients, however, may object to enquiries which do not closely relate to their signs and symptoms and it has been argued by some sociologists, for example Illich (1984), that the tendency of health professional to delve into social and psychological matters is expanding their empire and 'medicalizing' life. However, given that much illness stems from these factors, ignoring them in favour of a purely biological model of illness would seem detrimental from the patient's point of view. (For further information on why people become patients readers are referred to Chapter 12.)

Most physiotherapists adopt a semi-structured approach when interviewing patients. This is favoured by Parry (1980) who states: 'Do not conduct a highly structured interview in which the patient may feel inhibited about divulging personal details which he may consider to be irrelevant. You must walk the thin line between conversation and formal consultation'.

Practical considerations may limit the physiotherapist's choice of interview. The more 'open' it is the more time consuming it tends to be both to conduct and to write up and read the resulting notes. However, Norell (1987) believes the problems of time can be exaggerated and that 'achievements in consultation are not time-related but intensity-related'.

THE SOCIAL PSYCHOLOGY OF THE INTERVIEW

Non-verbal communication

Whichever interview method is adopted the physiotherapist will come
face-to-face with the patient. The patient's non-verbal communication can be a useful additional source of information. By observing the patient's gait, posture and facial expression as he enters the treatment room, the physiotherapist can learn a great deal. Dimatteo and Taranta (1979) found that communication between doctor and patient was unsatisfactory unless the doctor could understand the patient's non-verbal cues and was able to emit them effectively himself. Thompson (1981) found that patients preferred medical students who were socially skilled in terms of their non-verbal behaviour and Wooley et al. (1978) note that interviewing skills, including non-verbal skills, correlate with patient satisfaction and compliance.

Dockrell (1988) investigated the use of verbal and non-verbal communication skills of final year physiotherapy students, by means of structured observation. The frequency of the following behaviours was observed and recorded: eye contact, tone of voice, listening ability, explaining, facial expression and responding with interest. The 29 students were observed twice while treating the same patient in the clinical setting. Questionnaires were also completed by the students to discover the importance they attached to each of these skills.

Facial expression, responding with interest and listening were demonstrated least often by the students. It was found that they had adequate knowledge of communication and rated all the skills as important but were not sufficiently proficient when using them and over-estimated the extent to which they did use them. It is likely that the behaviour of the students was affected to some extent by the fact of being observed, although the purpose behind the observation was not disclosed.

Non-verbal communication can distort verbal information as well as enhance it. Lack of facial expression or a monotonous voice, for instance, may disturb communication. Some aspects of non-verbal communication cannot be changed, McCormack and Ilgen (1987), talking of selection interviews, point out that the interviewer and the interviewee are affected by each other's age, race, sex and physical appearance. Accent is another relatively stable characteristic by which people are often evaluated (Honey, 1989). Harvey and Smith (1977) believe that there is a tendency to make global inferences about people on the basis of very limited information, thus if the patient appears anxious he may be labelled as an anxious 'type', which may, in turn, be written into his medical records and consolidated into 'fact'. There is a tendency to minimize just how much people's behaviour is affected by the situation and environment they are in, especially if they perceive it as strange or intimidating as the physiotherapy department may be. The more relaxed the patient feels the more likely he is to show his usual behaviour.

Hargreaves (1987) points out that non-verbal signals, which are often emitted and received without full awareness, are more powerful than words if the two conflict, although the meaning of the message, in this situation, is often ambiguous and confusing. Fagerhaugh and Strauss (1977) found that physiotherapists and nurses tended to assess the severity of patients' low back pain by interpreting their behaviour rather than believing what was said. Saxey (1986) warns that we should not judge how much pain someone is in
The 'social desirability' effect refers to the tendency people have to present themselves in a favourable light, a process which Goffman (1969) referred to as 'impression management'. The patient may feel that various aspects of her life will discredit her in the eyes of the physiotherapist, for example, unemployment or personal habits such as smoking. Patients are unlikely to disclose discrediting information to the physiotherapist, at least until they know her better and only then if she provides an empathic atmosphere which lacks anxiety and moral evaluations. The social desirability effect has been shown to threaten the validity of research data and will operate similarly in the clinical interview.

The physiotherapist may influence what the patient says and how she behaves, not only by what he says but also by his non-verbal communication and use of silence. If he only responds positively when the patient mentions improvement of symptoms, for example, the patient may become inhibited about admitting that her condition is static or worsening.

The physical arrangement of the furniture and the position and distance between the physiotherapist and patient are also important. If, for example, the physiotherapist sits some distance from the patient and interposes a desk between them, the atmosphere will tend to be rather formal, especially if they are sitting directly facing each other. Patients are likely to feel rather vulnerable and anxious on their first visit so a less formal arrangement is preferable. This can be achieved by removing the table and sitting closer, though not too close, to the patient and at right angles to him rather than face to face. Bernstein and Bernstein (1980) believe that sitting on the bed rather than standing over patients helps them to relax. The physiotherapist's non-verbal cues can give the patient important information regarding her attitude towards him and how he is expected to behave, and the patient's non-verbal communication can give the physiotherapist some insight into his personality and mood.

Uniforms are another source of non-verbal communication; they give information regarding occupation and status and may also engender feelings of respect, fear or trust, or create a psychological distance between the health worker and the patient. Professional trappings, such as badges, stethoscopes and items of equipment can have similar effects. Such messages may or may not be helpful according to the setting and personality and beliefs of the patient. Uniforms have become less popular among those working with children where they may engender fear and in psychiatry where the medical model of illness is being seriously challenged. Touch is a particularly ambiguous aspect of non-verbal communication which the wearing of uniforms and the professional setting helps to clarify.

The 'social desirability' effect

The 'social desirability' effect refers to the tendency people have to present themselves in a favourable light, a process which Goffman (1969) referred to as 'impression management'. The patient may feel that various aspects of her life will discredit her in the eyes of the physiotherapist, for example, unemployment or personal habits such as smoking. Patients are unlikely to disclose discrediting information to the physiotherapist, at least until they know her better and only then if she provides an empathic atmosphere which lacks anxiety and moral evaluations. The social desirability effect has been shown to threaten the validity of research data and will operate similarly in the clinical interview.

Stimson and Webb (1975), in their research concerning the doctor/patient
relationship, found that patients frequently felt disappointed in their performance after the consultation and that the consultation itself was characterized by feelings of nervousness and embarrassment. It is likely that some patients experience these feelings when communicating with physiotherapists. They may be anxious and self-conscious when discussing personal details and at not being able to answer the physiotherapist's questions through ignorance, forgetfulness or lack of understanding. Silences can also create tension and disrupt communication; the physiotherapist may break a silence too soon, not giving the patient sufficient time to think, or the patient may answer hurriedly and without due thought in order to avoid a silence. The research interview is sometimes viewed as being a good method for obtaining personal and delicate information from the subject, although some people prefer the more anonymous questionnaire. Similarly many patients will respond favourably to the clinical interview if conducted well but others may prefer to give details of their problems in a written form or even to a computer.

The patient may believe that it is socially undesirable for his symptoms not to improve and may experience embarrassment and anxiety if they remain static or worsen despite painstaking treatment. Patients sometimes need encouragement to admit they are no better but can be further inhibited by the physiotherapist's verbal and non-verbal behaviour. For example rather than asking the patient how he feels the physiotherapist might say, 'You're looking better Mr Smith', making it all the more difficult for him to admit that no improvement has taken place. Lack of improvement can be difficult for health professionals to accept and 'victim-blaming' may start operating whereby the symptoms are assumed to be 'all in the mind' or thought to persist because of lack of effort or adherence to advice. A strategy the patient may adopt, to avoid admitting a lack of improvement, is to concentrate upon a small, perhaps insignificant, area of progress while failing to mention or minimizing symptoms which are static or worsening. Physiotherapists may find themselves adopting this strategy too. Bernstein and Bernstein (1980) warn that patients tend to give socially desirable answers to the question 'why' and believe that 'why' questions should be avoided. Froelich and Bishop (1977) make the point that people's motives are often unknown even to themselves so they tend to give socially acceptable answers to the question, 'why?'.

The environment

When interviewing a patient, a quiet, private room free from interruption should ideally be used. Unfortunately such an area rarely exists in physiotherapy departments or wards where one patient is usually separated from the next by nothing more substantial than a curtain. This may well inhibit full and truthful discourse and rather undermines the notion of confidentiality. The physiotherapist should try to ensure that she is not interrupted by telephone calls, students, colleagues or other patients while conducting a clinical interview as interruptions give the impression that she has more important things to do.
Clinical interviewing

Social class

It has been found in studies of the doctor/patient relationship that doctors tend to spend less time with working-class patients than middle-class patients, that they give them less information and assume they lack the ability to understand medical information (Fitzpatrick and Scambler, 1984). This may be one factor in what Tudor Hart (1971) referred to as the 'inverse care' law, whereby those people who need medical care the most receive the least. Although there is no comparable research with physiotherapists it is possible that similar findings would emerge. Health professionals and middle-class patients share a common culture and have similar health beliefs which helps them relate to each other more easily.

DEFINING THE PROBLEM

The definition of the problem may vary considerably between the physiotherapist and the patient. For example the physiotherapist may be delighted if there is an improvement in the patient's range of movement, but this may hardly interest the patient at all. The patient's definition of her problem must be taken seriously in the assessment, for it is difficult for rehabilitation to proceed unless some kind of consensus is reached. This takes time and it should not be assumed that the physiotherapist is inevitably 'right'; the patient may have lived with her disability or illness for many years and is likely to have acquired a detailed understanding of her abilities and limitations (Shearer, 1981; Sutherland, 1981). Norell (1987) considers that 'problem solving' is an arrogant term and Croft (1980) believes that: 'The decision, although strived for through interaction by both participants in the process, should be primarily that of the patient. The therapist's inclination to solve the patient's problems, offer advice and approve or disapprove of ideas suggested by the patient must be controlled'.

Campkin and Jones (1987) believe that the professional's objectives, however worthy, should not be allowed to over-ride the patient's agenda during the consultation.

QUESTIONING

Leading questions

Leading questions influence the direction of the patient's reply and, as a general rule, should be avoided. For example the question 'How did you get on with the exercises?' makes the assumption that the patient carried them out, and he may be unwilling to admit that he did not. Another example of a leading question is, 'Where is the pain?' before establishing whether the patient has any. A study was carried out by Loftus (1975) where one group of
people were asked, 'Do you get headaches frequently and if so how many?' and another group were asked, 'Do you get headaches occasionally and if so how many?'. The first group reported an average of 2.2 headaches per week whereas the second group reported an average of 0.7 headaches per week. This study shows that by changing just one word patients' responses can be greatly altered. Hargie et al. (1980) note that leading questions are prohibited during cross-examination in court.

Leading questions can occasionally be used to advantage if the information sought involves behaviour which is socially disapproved of, leading to denial. A leading question may have the effect of indicating that such behaviour is normal and expected by the physiotherapist and that he will be tolerant of it. For example, rather than asking the patient if she has taken time off work with her backache, the physiotherapist could ask her how much time she has taken off. Leading questions of this type were used by Kinsey et al. (1948) in their study of sexual behaviour.

Multiple questions

Multiple questions, also referred to as double-barrelled questions, require two or more answers. An example of a multiple question is, 'Have you any pain or numbness in your arm?' Questions requiring two or more responses should be avoided as they are difficult to answer and confusing to both patient and therapist.

Loaded questions

Oppenheim (1968) describes a loaded word or phrase as 'one which is emotionally coloured and suggests an automatic feeling of approval or disapproval'. An example is, 'I hope you haven’t forgotten to do your exercises today!'. The therapist expresses a judgement regarding what the patient should or ought to do. Questions and statements loaded with moral judgements and evaluations should generally be avoided because the patient is likely to respond to the emotional rather than the factual content. It is not always easy to avoid such questions, however, because what is regarded as judgemental by one person may be viewed as neutral by another. Occasionally it may be appropriate for the physiotherapist to express disapproval in an attempt to alter the patient’s behaviour.

Open and closed questions

Structured interviews are characterized by 'closed' questions and unstructured interviews by 'open' questions. Closed questions force the patient to reply in a specific way. An example of a closed question is, 'Is your pain better or worse?' This makes categorization of the response easy but the information
An alternative open question would be, 'Please will you describe your pain?'. The reply may be complex, rambling and difficult to categorize but nevertheless full and individualistic, perhaps reflecting the true nature of the pain experience. Roter and Hall (1987) found that patients give more information to doctors who use open-ended questions and that the amount of information patients give is related to how much information the doctor gives them. Closed questions are, however, useful for gathering factual information. They are easy to answer as they provide clarity and focus which may serve to relax the patient in the early stages of the clinical interview. It should also be appreciated that some patients are not sufficiently articulate to cope with open questions.

The ordering of questions

On most occasions it is best to begin the interview by asking for factual information of a neutral kind. When rapport with the patient has been established he is likely to feel more comfortable when giving personal details about his work, home situation and life style. Sometimes the patient is very eager to explain certain aspects of his problem to the physiotherapist; in this situation he should not be restrained, for although this may throw the clinical interview out of sequence, making the physiotherapist's task more difficult, he is unlikely to concentrate fully until he has had an opportunity to speak. It may also enable the physiotherapist to gain insight into how the patient views his illness or disability. Samual (1987) believes that health professionals need 'to develop sensitivity to the subtle nuances of patients' feelings so as to keep in touch with the whole of their patient's condition' and that although this is initially time-consuming it can save time in the long run as unnecessary investigations and treatment will be avoided. It is very important to encourage patients to ask as well as answer questions.

Asking sensible questions

It is not uncommon for the clinical interview to be characterized by rigid routines with some of the questions being entirely out of context. What is the purpose of asking a patient with a Colles fracture whether he has any children, or a fit young person with a painful shoulder whether she lives alone? Even if the question is relevant it frequently ignores the complexities of social life. The question, 'Are you married?' when confronted with an elderly patient with a fractured femur, may seem reasonable, and yet we all know of husbands, wives, sons and daughters who live at home yet fail to help, and, conversely, of friends and neighbours who are tremendously helpful. We also know that people frequently live together without being married. The information required is probably, 'Do you have anyone to help you at home?' and, 'How much help are you receiving?'. When asking for non-medical information an explanation should be given of why it is needed. The question may
be so worded that the explanation is implicit within it, for example, 'Are there any tasks at home which you find difficult to do now that you have sprained your wrist?', rather than, 'Are you managing to do your cleaning?'.

Many people find taking a social history difficult because it feels like prying. Maguire and Rutter (1976), in their study of the interviewing skills of 50 senior medical students, found that 30% avoided asking personal questions, which led to a hurried and superficial approach. By asking sensible questions, which reflect the complexities of everyday life, and by explaining why such information is helpful, these awkward feelings are reduced and a meaningful social history can be obtained.

**Probing and prompting**

Probing questions ask for more detail or for clarification. It is often very important in the clinical interview to ask such questions though Croft (1980) warns that it can be perceived as threatening if overdone. Maguire and Rutter (1976), in their study of the interviewing skills of 50 senior medical students, found that 62% failed to confront patients with inconsistencies or gaps in their stories.

Prompts are used to help or encourage the patient to reply. The physiotherapist may simply repeat the question or may rephrase it, perhaps in simpler language, if she feels the patient has not understood. She may convert open questions into a series of closed questions or help him to retrieve knowledge by reviewing information previously covered. For example, if the patient cannot remember her advice she might say, 'Think of what we did in the gym last week'. A suitable period of silence may also serve as a prompt. These techniques are used extensively by teachers and enhance understanding and memory by making the learning process more active.

**Jargon**

Every profession and occupation has its jargon and the physiotherapy profession is certainly no exception. It is a common mistake to use medical terms and jargon when questioning or communicating information to patients. The patient may not understand such terms which can lead to embarrassment and worry as well as wasting time. Examples in physiotherapy are, 'We'll try some suspension next time you come', or even, 'Contract that muscle'. Care must be taken to avoid jargon, but at the same time it is important not to be patronizing. Bernstein and Bernstein (1980) believe that the therapist should attempt to gauge the patient's verbal ability and adjust his verbalizations to her.

Patients have their own jargon when attempting to describe the signs and symptoms of illness. Examples are, 'I feel low' or 'It feels funny'. Parry (1980) warns physiotherapists not to take patients' pseudomedical jargon, such as 'slipped disc' and 'rheumatism', at face value but rather to try to clarify what
they mean. In their study of senior medical students, Maguire and Rutter (1976) found that 92% failed to clarify the patients’ jargon, in consequence several were seriously misled about the nature of patients’ problems.

RESPONDING TO PATIENTS

As well as asking the patient questions the physiotherapist must also respond to his queries, suggestions and views. Bernstein and Bernstein (1980) point out that health professionals are prone to respond by reassuring the patient. Although this can be appropriate behaviour it can also have the effect of denying that the problem exists and serves to shield the professional from discussing difficult issues, such as progressive illness and death, with which she feels ill-equipped to deal. Health professionals have, until recent times, been taught to distance themselves from patients’ emotional concerns. Bernstein and Bernstein (1980) state: ‘The patient by exposing his feelings has indicated a desire to discuss them. A reassuring response suggests that health workers prefer not to discuss such matters, perhaps leaving the patient with the distressing feeling that he has raised inappropriate concerns’.

Froelich and Bishop (1977) believe that there is no better way of closing a topic than offering reassurance and that it is much more reassuring to talk about a difficult problem than to be reassured. They believe that many questions are not requests for simple, factual information but rather reflect the patient’s anxiety and desire to understand fully her situation. For example the question, ‘Do you think I ought to go back to see the doctor?’ may indicate worry about lack of improvement.

Sometimes the patient’s behaviour may be hostile. Bernstein and Bernstein (1980) suggest that hostility is normally an expression of fear and that the health professional should not respond with anger or a ‘hostility—counter-hostility’ cycle may be set in motion. They believe that professional workers, ‘cannot allow themselves the luxury of responding to disagreement or anger in kind’.

One aim of teaching interviewing skills is to help students adopt appropriate responses but Norell (1987) disputes its value or necessity believing that the desire to say always the right thing and respond in the ‘correct’ manner has become something of a preoccupation. He believes that a spontaneous response can be superior to the ‘painfully laboured, contrived, self-conscious effort of the “trained” doctor’ and that one measure of a good relationship is that it can survive disagreement. He states: ‘... the doctor who decides for instance not to conceal his disappointment or disapproval may be helping to develop a more productive relationship than if he were to assume the outward appearance of tolerance while fuming inwardly’.

It has also been argued that being excessively tolerant and ‘nice’ is a way of controlling patients now that an authoritarian stance on the part of the professional is considered inappropriate. Such a pose makes it very difficult for patients to express anger and dissatisfaction, to present opposing views or complain. In addition ‘niceness’ is often perceived as patronizing.
SOCIAL SKILLS TRAINING

The ability to communicate effectively underpins most aspects of physiotherapy practice, including management and counselling. Effective communication is based on social skills which can be learned. Social skills training is now taking place in physiotherapy education and Ellis (1985) believes it is an effective means of improving the interviewing and teaching skills of physiotherapists.

Dickson and Maxwell (1987) carried out a study of 50 second year physiotherapy students on a B.Sc. degree course. The students received social skills training for 24 hours over a 4-week period, half of the students before and half after their first clinical placement. The skills included questioning, explaining, non-verbal communication and listening. Each skill was explained by means of a lecture which was followed by role-play exercises. The students were then given feedback on their performance. The response of the students to the training was very positive with no difference being demonstrated with regard to whether it occurred before or after the clinical placement. Bacorn et al. (1987) report high levels of satisfaction among second year medical students following a similar course.

Levins (1984) describes a social skills training programme for physiotherapy students in Canada. It included the skills of listening, questioning and responding. Role-play exercises and videotapes were used and the students were warned against dominating the interview, using inappropriate words, using an interrogatory style and allowing too long or too frequent periods of silence. The training, which was carried out in the clinical setting, was very much appreciated by the students.

Payton (1983) describes a study where physical therapy clinical supervisors were taught basic communication skills such as questioning and reflecting feeling. As a means of assessing the training, each participant interviewed a colleague on the subject of job satisfaction at the beginning and end of the course. The interviews were tape recorded and were analysed later by the investigator without knowing the student's identity or when the interview had been conducted. The students demonstrated more social skills in the interviews conducted at the end of the course, although the result was not statistically significant.

Payton (1983) also described a study with physical therapy students. The students were given 2 hours of didactic instruction on social skills and 10 hours of social skills training over several weeks. Questionnaires were completed on the first day and at the end of the course. The students were required to provide open-ended answers to questions concerning various clinical situations. The questionnaires were analysed by the investigator in the same manner as in the previous experiment. A great improvement was noted in the students' awareness of social skills by the end of the course. The result being statistically significant $P < 0.0001$.

The discrepancy between the clinical supervisors and the students may have been due to the very different measuring devices used. It may also be the case that the clinical supervisors had acquired social skills through
experience, though many people, including Rasche et al. (1974) and Dickson and Maxwell (1987), believe this does not occur as readily or as easily as most people think. Decann and Hegarty (1987) found that radiotherapy students who had undergone social skills training involving role play had better interviewing skills than those who underwent social skills training without role play and Goble and Stewart (1987) found that using members of the medical school staff as simulated patients was very useful as they could imitate symptoms accurately, give immediate feedback and repeat sequences of interaction.

The effectiveness of interviewing skills has not been sufficiently evaluated. Hoppe et al. (1988) found a statistically significant improvement in the interviewing skills of second-year medical students following an interviewing skills course but Kauss et al. (1980) found that doctors remained low on scores of empathy whether or not they had received interpersonal skills training or how much they had received. However, those who had received considerable training used more open questions and more emotion-related responses such as, 'I can see that is worrying you'. It is unclear when interviewing skills should be taught but there is some evidence to suggest that they deteriorate as clinical education proceeds (Engler et al., 1981).

Norell (1987) is sceptical about the efficacy of social skills training believing that its popularity stems from the fact that it can be taught. He believes that a variety of styles can be successful provided the health worker is interested, perceptive and thoughtful. The particular style adopted is likely to reflect the practitioner's personality. Bernstein and Bernstein (1980) believe that learning interviewing techniques will only be of value if the underlying attitude is correct.

CONCLUSION

It is clear from the above account that clinical interviewing is a very complex activity. It is little wonder that most people find it difficult. However, the skills of effective clinical interviewing can be learned and are now formally taught in many medical, nursing and physiotherapy colleges. Although the effectiveness of the training is still a matter of dispute, most people who undertake it seem to find it helpful. An understanding of the social psychology of the interview, along with vigilant practice of interviewing skills, such as questioning, is likely to bring about improvement in interviewing technique for even the most experienced physiotherapists.

REFERENCES

Physiotherapy: a psychosocial approach


‘Pain is subjective, individual and modified by degrees of attention, emotional state and the conditioning influences of past experience’ (Livingstone, 1943).

The intensity of the pain we experience and the way we respond to it are not merely a function of the degree of physical damage incurred. Weinman (1981) believes that, ‘Whatever the biological parameters of the symptoms they alone may be insufficient to explain the patient’s response’. Burdette and Gale (1988) believe that pain complaint is not satisfactorily understood by reference to physical factors alone. There are individual differences in our perception of pain and the way we respond to it. Engel (1950) refers to this distinction as ‘private pain’ and ‘public pain’ and Helman (1984) describes our response to pain as ‘pain behaviour’. Philips (1988) points out that the association between pain experience and pain behaviour is weak, it is possible to be in considerable pain but to hide this from others, or conversely to complain a great deal even though pain is minimal. The intensity of pain is not necessarily strongly associated with the degree of suffering either; people with minimal pain who do not know the cause of it may suffer more than those in severe pain who understand its meaning.

It would obviously be very helpful if physiotherapists could distinguish pain intensity from pain complaint in their patients, but in practice this is difficult if not impossible to achieve with any degree of accuracy. Pain is a personal and subjective experience and our knowledge of another’s suffering is inevitably based on the ways in which he responds and our own perception of this, which in turn will be influenced by the social situation. McCaffrey (1983) believes that pain is, ‘whatever the patient says it is and exists wherever he says it does’.

Psychological and sociological aspects of pain are often regarded as fringe factors, merely influencing and modifying the ‘real’ physiological pain. The psychological and social aspects are, however, central to the experience of pain and the behaviour associated with it, as recognized by Melzack and Wall (1988) in their formulation of the pain gate theory. Edwards (1984) distinguishes ‘bodily’ pain from ‘spiritual’ pain believing that the latter has been seriously neglected in medical practice.
The social context

The social context in which the injury occurs or in which the pain is felt can greatly influence the individual's experience of it and response to it. In the Second World War Beecher (1959) observed the behaviour of soldiers severely injured in battle. The majority said they were in no pain or very little pain with only one in three complaining enough to warrant the administration of morphine. However, they complained as much as anyone else over routine medical procedures. Beecher (1959) also observed civilians with similar injuries; the majority complained of severe pain with most wanting morphine. He explained this in terms of the social context; the soldiers were thankful or even euphoric at still being alive whereas for the civilians the injury was a very depressing and disruptive event. It is also likely that the military role demands greater stoicism than the civilian role.

In a similar way, the pain resulting from injuries sustained in a road traffic accident may well be more severe than the pain following elective surgery, even if the physical injury resulting from the accident is less. In the case of elective surgery the patient will have had the opportunity to prepare himself for the event, he can look forward to an improved state of health and will probably be thankful that the operation is over; whereas the victim of the road traffic accident has experienced a sudden, very disturbing and negative event.

If a person's attention is fully occupied she may not feel any pain despite considerable injury, as Weinman (1981) explains, 'attention in one sensory source can reduce or abolish awareness of another source'. This can occur in the case of sportsmen and women who continue to play despite considerable injury. Similarly, Rachman and Philips (1978) note that a standard injection which is given following childbirth to aid the expulsion of the placenta is
Physiotherapy: a psychosocial approach

rarely felt. Masochists, on the other hand, tend to label as enjoyable what others would regard as painful, though this too is dependent on the social setting. Another example of how the social context affects pain perception and response is the tolerance people demonstrate towards injuries inflicted as part of various rituals and ceremonies (Helman, 1984; Mathews and Steptoe, 1988; Melzack and Wall, 1988). Huxley (1952) notes that some people who were burned at the stake appeared to experience ecstasy rather than pain.

Many practitioners, for example Peck (1982), encourage people with chronic symptoms to practise focusing their attention away from the pain and to participate in enjoyable activities, as a way of relieving it. Wynn Parry (1980) reports that people suffering pain following brachial plexus injuries find the most effective way of reducing it is to absorb themselves in their work.

Culture

People seem to have a uniform sensory threshold. Sternbach and Tursky (1965) measured sensory threshold, using electric shock as the stimulus, to American women from four ethnic groups; Italian, Jewish, Irish and Old American. There was no difference in when they first reported feeling the sensation. According to Zborowski (1969), however, cultural background does have an effect on pain perception, that is when people first report feeling pain. Hardy et al. (1952) found that radiant heat, described by Jewish and Italian people as painful, was described as merely warm by Northern Europeans. Zborowski (1952) found that Old Americans had an accepting, stoical attitude towards pain, tending to withdraw when it became intense and preferring to be alone. Conversely Jewish and Italian people were inclined to complain openly and seek support. The underlying attitudes of the latter two groups were, however, different. The Jewish people were most concerned about the cause and the meaning of the pain, whereas the Italian people were concerned about receiving immediate relief. Zola (1966) found attitudinal differences towards symptoms; Italian people were most concerned if the symptoms interfered with their social life whereas Irish and Anglo-Saxon people were most concerned if they interfered with work.

Interesting though these findings are, care must be taken when interpreting them and acting upon them as there is a danger of unfairly stereotyping people according to their cultural or ethnic origins. It should be remembered that there is more variability within cultural groups than between them. Zborowski (1952) points out that any differences there are tend to disappear over time in cosmopolitan societies and that other factors, such as educational background and occupation, may have an effect on pain behaviour. Pilowski and Spence (1977) suggest that any differences which exist among cultural groups, in regard to their experience and expression of pain, may be due to their immigrant status and the difficulties they experience in adapting to the majority culture. Thus the immediate social situation may influence cultural patterns. In addition Wolff and Langley (1977) warn of the poor research design of many of these studies.
Health practitioners, including physiotherapists, will have their own notions of appropriate pain behaviour, based on personal and occupational factors. In an American study, Rosengren and DeVault (1976) describe how, in an obstetric hospital, the only place where pain was legitimated, sanctioned and defined as such, was in the delivery room. The expression of pain was deemed inappropriate in any other area, including the labour room. Thus professionals have considerable power to define and manage pain according to their own attitudes and beliefs, although considerable negotiation between patients and professionals occurs. Grieve (1987) warns us not to impose our own stereotypes on patients. It is all too easy to dismiss or become impatient with those who do not fit the stoical British ideal. Helman (1984) states: ‘People will receive maximum attention and sympathy if their pain matches the society’s view of how people should draw attention to their suffering — whether by an extravagant display of emotion or a quiet change of behaviour’.

Hough (1987) believes that, ‘western culture has a tendency to view the open expression of emotion with some distaste’ and is of the opinion that this has resulted in the overuse of drugs in hospitals. Davitz and Davitz (1981) found that nurses from various cultural groups viewed their patients’ pain differently and were also influenced by such factors as the patient’s social class, how responsible he was judged to be for his condition and the ease or difficulty of diagnosis. Fagerhaugh and Strauss (1977) found that physiotherapists and nurses tend to assess the severity of patients’ low back pain by interpreting their behaviour rather than believing what is said. Saxey (1986) warns that we should not judge how much pain someone is in by his behaviour alone as many people learn to adapt to pain and live relatively normal lives even though it is quite severe. Price (1990) believes that the monitoring of pain should be given as much importance as the monitoring of physiological measures.

Graffam (1979) is of the opinion that patients suffer postoperative pain unnecessarily and that this is partly because nurses are unjustifiably anxious about the possibility of drug addiction. Williams (1987) found the same tendency among paediatric nurses and believes that this results in children experiencing unnecessary pain after surgery. Price (1990) makes the point that children tend to be given less analgesia than adults following similar surgical procedures and believes that the whole issue of children’s pain is a neglected area. Walsh and Ford (1989) are of the opinion that nurses do not believe that complete pain control is possible after surgery and Saxey (1986) asks, ‘Are we guilty of thinking that the patient has to somehow “earn” the injection by suffering pain’.

Baer et al. (1970), Lenburg et al. (1970) and Johnston et al. (1987) found considerable differences in the judgements of various professional groups regarding the degree of pain experienced by real and hypothetical patients. Nurses tend to rate patients’ pain higher than either physiotherapists or doctors. Pitts and Healy (1989) found that physiotherapists infer less pain in hypothetical patients than nurses but more pain than doctors. Their ratings
Physiotherapy: a psychosocial approach

People who are anxious are more sensitive to pain than calm people. Kent were, however, nearer to those of the doctors. These results could not be explained in terms of gender although female doctors did infer more pain than male doctors.

It is all too easy for patients to become negatively stereotyped making it all the more difficult for them to convince others of the pain they are experiencing. Peck (1982) points out that patients may end up being blamed for their pain both by medical staff and their families and are ‘left with the burden of having to prove their innocence’. Hasler (1985) and Hargreaves (1987) emphasize the importance of good communication skills, both verbal and non-verbal, in clinical practice. It should be appreciated, however, that the organization of medical practice – lack of time, lack of autonomy, work schedules and so on – pose considerable restraints on medical personnel, including physiotherapists, making it difficult for them to respond adequately to patients whose symptoms or behaviour are atypical.

Past experience

As well as the influence of wider cultural factors on pain perception and response, Griffiths (1980) points out that the individual’s unique past history is also of considerable importance. Some families focus great attention on very minor injuries whereas others tend to minimize or ignore quite serious ones. We thus learn how to interpret pain and respond to it by observing others. There are also differences in the degree and manner to which children are encouraged or discouraged from openly responding to pain. These early experiences may influence our sensitivity to potentially painful stimuli and our pain behaviour throughout life. As with other areas of social life we are guided in our interpretations and influenced in our behaviour by the interpretations and behaviour of others. Festinger (1954) described this process as one of ‘social comparison’; Oster (1972) and Violon and Gilurgea (1984) found that family members respond to pain similarly.

Past experience of medical encounters are also important. It is likely that a person who has had a painful experience on one occasion, at the dentist for example, will feel pessimistic and anxious when he returns for further treatment, if indeed he ever does. Unsuccessful treatments can lead to lack of trust in the clinician and a loss of confidence that a new treatment will help. Kent (1985) found that highly anxious dental patients remembered pain as more severe than they had experienced it.

Understanding how personality, the social context, professional attitudes and cultural and family background affect pain perception and behaviour, may help to foster empathy and tolerance and improve communication between physiotherapists and their patients. Kotarba (1983) believes that a disease orientated model is not a suitable perspective for the management of chronic pain.

State of mind

People who are anxious are more sensitive to pain than calm people. Kent
(1986) found that anxious patients complain more of pain than others and Hill et al. (1952a, b), demonstrated that the intensity of pain decreases if anxiety is reduced by giving subjects control over the situation. They also found that morphine only reduces pain if anxiety is high. The anticipation of pain, and uncertainty regarding its cause, tend to raise anxiety which in turn increases its perceived intensity. Thus a vicious circle may operate. Bond (1984) states that, ‘... pain will be greater for patients who have a tendency to become anxious because pain causes anxiety and, in its turn, anxiety heightens pain’.

Reynolds (1978) reports that patients like to be given information about their conditions. Egbert et al. (1964) gave an experimental group of patients information regarding postoperative pain. When compared with the control group they required significantly less analgesia after the surgery, were judged to be in a better physical and psychological state and, on average, were discharged nearly 3 days earlier. Janis (1971) reported a reduction in postoperative pain if patients were given information before their surgery. Langer et al. (1975) and Melzack and Wall (1988) point out, however, that knowledge alone may increase anxiety because of the expectation of pain it creates. They suggest that patients must be provided with skills to cope both with their anxiety and with their pain.

If the person understands what is causing her pain, for example that chest pain is the result of indigestion rather than heart disease, she is less likely to be anxious about it. Similarly pain is better tolerated, and probably perceived as less intense, if the person believes it is temporary or 'normal'. Examples of 'normal' pain is that caused by exercise, childbirth or menstruation. What is and what is not regarded as a 'normal' symptom, however, varies considerably among different individuals and groups (Calnan, 1987).

Hall and Stride (1954) found that the appearance of the word 'pain' in a list of instructions increased the subjects' perception of pain, possibly by raising their level of anxiety. The subjects reported a sensation as painful which was not regarded as such when the word was absent from the instructions. This gives rise to a contradiction of significance to physiotherapists; on the one hand it seems that focusing attention on pain — giving information about it preoperatively, informing people that they are in control of how much pain they receive and so on — decreases their anxiety and perception of pain but, on the other hand, it seems that focusing attention on pain may raise levels of anxiety and pain perception.

Anxiety may be relieved and pain reduced by giving patients control, for example allowing them to terminate a procedure at any time if it becomes uncomfortable. Wright (1987) and Flint (1988) point out that familiarity reduces anxiety, so it is important, if at all possible, that the patient be treated by the same physiotherapist on each visit. Williams (1987) believes that children should be made familiar with the hospital they are to attend beforehand and that familiarity with hospitals should be part of their general education. She is also in favour of unlimited visiting of children in hospital. Others, for example Ainsworth (1989) and McKee (1989), believe that allowing animals in the ward, including patients' own pets, can reduce their anxieties and promote recovery.
Anxiety can be reduced by giving patients information, for example explaining the nature of their illness or giving details of the treatment. Many studies indicate that patients are dissatisfied with the degree of information they receive (McGhee, 1961; Cartwright, 1964; Kincey et al., 1975; Hart, 1985; Ley, 1988), and that giving information is beneficial. Hayward (1975) found that informed patients needed less analgesia and Johnson et al. (1978) found that exercise instruction given preoperatively reduced postoperative pain. The benefit of giving information to individual patients, however, is difficult to ascertain as a sizeable minority prefer not to know and people differ regarding the depth of information they want. Weinman (1981) believes that their pain tolerance may well be lowered if information is forced upon them or if they are not helped to cope with it. In addition great sensitivity and skill are required when imparting sad or unpleasant news.

Every effort should be made to keep unpleasant procedures to a minimum. Creagh (1986) found that children may deny pain if analgesia is to be given by injection. Sparshott (1989) believes that pain in newborn babies should be taken very seriously so as to prevent psychological harm. She advocates minimal medical procedures, low noise and lighting levels, making the baby feel secure by ensuring that he is fully supported and by playing tape recordings of familiar voices which he may have heard when in the womb. Williams (1987) emphasizes the importance of play for acting out children's anxieties and for explaining and preparing them for coming events.

Sensitivity to pain is also increased if the person is depressed. This is due to the unpleasant nature of pain, the tendency for it to impose inactivity on the individual, thus reducing enjoyment and leading to a focusing of attention upon it, and the feeling of loss of control. Peck (1982) points out that guilt, despondency and self-criticism frequently accompany depression, only serving to intensify it. In such a situation the person in pain will tend to perceive it as more intense than he would do otherwise, thus a vicious circle may develop.

Mathews and Steptoe (1988) explain that pain can be secondary to depression and can be relieved by antidepressant drugs. They state that emotion and pain, 'appear to be inextricably entangled'. Davison and Neale (1978) point out that depression and anxiety are frequently linked. There is a great danger, however, in assuming that pain is secondary to depression and anxiety. Melzack and Wall (1988) warn that: 'The patients with the thick hospital charts are all too often prey to the physician's innuendoes that they are neurotic and that their neuroses are the cause of the pain . . . All too often the diagnosis of neurosis as the cause of pain hides our ignorance of many aspects of pain mechanisms'.

Depression may be relieved and pain reduced both by empathizing with the patient and involving him in the treatment. People commonly feel in better spirits after engaging in physical activity. Although the mechanism behind this altered mood is not fully understood, exercise is thought to be a way of releasing tension as well as improving self-esteem. The trip in the ambulance and the visit to the physiotherapy department may, in themselves, be sufficient to reduce pain by redirecting the patient's attention and improv-
Avoidance behaviour and cognitive processes

The avoidance of physical activity is perfectly rational while pain is acute and while tissues are healing, but this pattern of behaviour sometimes persists and intensifies in those with chronic pain. Philips (1987) believes that this decreases their sense of control over the pain and increases their expectations that exposure to activity will create more pain. Over time the avoidance behaviour intensifies.

Avoidance does not merely concern physical activities but also involves social interaction, hobbies and work. Philips and Jahanshahi (1986) studied people suffering from headaches and found that avoidance was the most common behaviour reported, in particular social withdrawal. There is little evidence that avoidance behaviour reduces chronic pain, and over time avoidance behaviour may become worse even though the symptoms remain static or improve. Philips (1987) believes that this behaviour is a consequence of the patient's beliefs and memories, which are often distorted, rather than a consequence of the pain itself and that these beliefs and memories are in turn reinforced by the avoidance behaviour.

Philips (1987) believes that this behavioural response is of great significance to the therapist and the patient. The patient believes she is controlling her pain by the avoidance behaviour and that the behaviour is a consequence of her pain. The therapist, on the other hand, may view the behaviour as an index of disability and an indication that the patient has developed inadequate and inappropriate coping strategies. Conversely the therapist, for fear that the patient's conditions might recur, may encourage avoidance behaviour by emphasizing the need to avoid certain activities and to take care.

PSYCHOLOGICAL TREATMENT STRATEGIES

Physiotherapists are in a position to incorporate psychological measures into their treatment programmes. Various ways in which this can be achieved have
already been discussed, for example, reducing anxiety and depression by giving the patient information and control. It is a mistake to think that the psychological treatment of pain is only indicated if the patient is coping inadequately or if the cause of the pain cannot be found. Pain is as much a psychological as a physiological phenomenon and, therefore, psychological strategies are likely to help the patient control and cope with her pain in many instances.

A good relationship with the patient is highly therapeutic in itself and the placebo effect, which permeates all treatments is often very powerful (see Chapter 25). In addition to this physiotherapists may use psychological strategies to help their patients, either as the sole treatment technique, or by incorporating them into a programme of physical treatment. The physiotherapist must recognize when the patient needs to be referred to a psychiatrist or clinical psychologist; he may well work alongside these professionals in some settings, for example in pain clinics. There is considerable overlap between the techniques of various health professionals and alternative practitioners in the management of pain. Some of these techniques will now be discussed.

Relaxation

Relaxation may be used to reduce stress, anxiety and depression. Melzack and Wall (1988) state that relaxation reduces activity in the sympathetic and motor nervous systems. The mechanisms of pain reduction may be physiological, for example when the patient succeeds in relaxing tense muscles, or cognitive, for example when the patient manages to direct his attention away from the pain. There is considerable evidence that relaxation training brings about pain reduction (Flaberty and Fitzpatrick, 1978; Blanchard et al., 1987; Hellsing and Linton, 1989). Relaxation techniques have been traditionally used by physiotherapists, particularly in relation to antenatal education and respiratory disease. A similar approach is likely to be helpful in the management of pain.

Biofeedback

This technique is used if it is thought that the patient's pain is the result of physiological processes such as tense muscles. By giving the patient feedback concerning his physiological state he may learn to control it. Roberts (1974) found that 80% of patients with low back pain improved with biofeedback. Melzack and Perry (1975), however, found no evidence that biofeedback is any more effective than placebo for the relief of pain. Chapman (1986) reviewed the literature and found no advantage for biofeedback combined with relaxation over relaxation alone. Smith (1987), however, found that the two techniques in combination were more successful than either technique in isolation for reducing headache. (For further discussion of biofeedback the reader is referred to Chapter 27.)
Hypnosis

Hypnotic suggestion has been used for pain relief in many branches of medicine including dentistry, terminal care and obstetrics (Hilgard and Hilgard, 1975). Physiotherapists with some additional training may use hypnosis to reduce pain. The patient is put in a trance-like state where she is highly suggestible and deeply relaxed. In this state, various ideas can be given to her regarding her pain, for example that it is not severe or that it will no longer concern her. Melzack and Wall (1988) point out that a small proportion of people can undergo surgery while under hypnosis and with many others pain relieving measures, such as drugs, can be reduced when hypnosis is part of the treatment. Melzack and Perry (1980) found that 22% of people who had chronic pain improved with hypnotic treatment compared with 14% who received a placebo. They found that when hypnosis was combined with biofeedback the improvement was considerably greater than when hypnosis alone was given.

Counselling

Many courses now exist on counselling skills for physiotherapists. There are various types of counselling techniques and for a detailed discussion of them the reader is referred to Chapter 26.

In non-directive counselling the therapist creates a warm and empathic relationship and environment whereby the patient can talk and work through his own problems and difficulties with encouragement but little interruption or direction from the therapist. In this way the person in pain may come to the conclusion that the best way to cope is to try to ignore it, or that his pain is being maintained by important secondary gains.

In cognitive counselling the therapist takes a more active role, concentrating on the patient's thoughts and feelings in relation to her pain and attempting to change them. For example, the patient may be continually telling herself that she cannot cope because of the pain or that she is unattractive to others because of it. These negative messages may be causing anxiety and depression making the pain worse. It is the task of the therapist to help the patient realize that she is responsible for her own thoughts and feelings and to help her develop a more positive outlook by devising a suitable treatment programme for her to work through.

Behaviour modification

This technique is focused on changing pain behaviour rather than pain perception. It is assumed that the person's pain brings about various rewards which he wants to maintain, albeit subconsciously. Whether the patient feels
less pain following this treatment is open to question. Behaviour modification is a technique whereby behaviour which is approved of is rewarded while behaviour which is disapproved of is ignored. In this way behaviour is 'shaped'. It may be the case, for example, that the patient has become very isolated because he talks of nothing but his pain, so to reduce this behaviour he will be rewarded when talking about other matters and ignored when his pain is mentioned. The patient may be fully aware of the aims and objectives of the behaviour modification programme and may even have helped to structure it, conversely it may be covert. Crabbe (1989) claims a 90% success rate and cites evidence from abroad that maintenance of improvement is of the order of 50%. How it compares with other methods or the placebo, however, is still uncertain. (For further discussion of behaviour modification the reader is referred to Chapter 27.)

There are important ethical issues with which the physiotherapist should be aware when considering the use of behaviour modification programmes or participating in them, especially if they are covert. (For further discussion of ethical issues in physiotherapy the reader is referred to Chapter 7.)

**Group therapy**

According to the patient's temperament, group therapy may have a very positive psychological effect, with the result that pain is reduced or managed more effectively. Human beings are social animals and may be greatly encouraged by working with other people who are experiencing similar difficulties. By seeing others his own suffering may be put into perspective and other group members may act as models for him to follow. Some people are motivated by competition which the group experience may provide, or may simply feel less anxious and depressed by virtue of enjoyable companionship. Thus the dynamics of the group, for example in back schools or group hydrotherapy, may have important effects in reducing the person's pain or helping her to cope with it.

A combined behaviour modification and group therapy programme has been developed by Williams (1989) for patients with chronic pain who are defined as displaying abnormal pain behaviour and who have not been helped by traditional medical or physiotherapy treatments. Patients take part in a fitness programme in a busy physiotherapy gymnasium. All exercises are directed away from their area of pain. Activity, cheerfulness and effort are praised whereas any demonstration of pain behaviour believed to be abnormal is ignored. Williams claims that most of these carefully selected patients show marked improvement within 3 weeks. She believes that concentrating on physical activity is particularly helpful as most patients strongly resent the suggestion that their pain is 'all in the mind'. No psychotherapy or counselling is given and professionals such as clinical psychologists are not involved. Thus the patient's view of the physiotherapist as someone who is concerned with his physical condition, seems to help the programme work. This raises an important ethical issue, for clearly the patients are not fully
aware of the purpose behind the treatment.

Williams (1989) believes that patients awaiting compensation claims are particularly likely to display abnormal pain behaviour. However, Mendelson (1984) and Melzack et al. (1985) found that patients waiting for compensation did not differ psychologically from other patients and Melzack and Wall (1988) point out that pain tends to persist after compensation claims are settled. They warn of the danger of giving people inappropriate labels.

Group dynamics can work in a negative as well as a positive direction. For example members may feel obliged to conform to the group norm or some members may succeed in gaining the attention of the physiotherapist while others are ignored. Not everyone feels happy or confident in a group, or enjoys being treated with other people. Their wishes should be respected, any attempt to force them into a group situation is likely to be counter-productive.

**Music**

Music brings about physiological and psychological effects and may serve to direct the patient’s attention away from his pain. Rozzano and Locsin (1981) found that music of the patient’s own choosing aided recovery following surgery and Melzack and Wall (1988) make the point that music and rhythmic drumming often accompany healing ceremonies and probably have a hypnotic effect. Physiotherapists do use music, mostly to stimulate people when exercising in groups, but perhaps the use of music could be extended to help bring about pain relief.

**Improving confidence and morale**

It is sometimes the case that people reduce their activities, not so much because of the physical limitations of their illness, but because of fear and lack of confidence in their abilities. The person who has recovered from a myocardial infarction, for example, may be afraid to resume even mild physical activity for fear that his chest pain will return. Similarly the person with osteoarthrosis may be suffering more from the fear of pain than the pain itself.

Physiotherapists often devise programmes for such people designed to increase their exercise tolerance and reduce their pain by means of carefully graded exercises, along with health education and other treatments when appropriate. Although the programme is usually devised to bring about physiological improvement it is likely that in many cases the improvements seen are equally or more concerned with psychological change. The person who had a myocardial infarction, for example, will realize that the physiotherapist is not alarmed at the prospect of him walking several miles a day, going back to work or riding his bicycle. Thus over a period of time patients undergoing programmes such as these may become confident in their ability to cope with their condition and may eventually define themselves as well rather than ill.
Physiotherapy: a psychosocial approach

Other techniques

There are many other psychological methods which can be used to help the person in pain. These are not traditionally part of the physiotherapist’s work but with the blurring of role boundaries and the growing availability of training, some physiotherapists may become involved. These techniques include psychoanalysis, family therapy, assertiveness training, visual imagery, acupuncture, aromatherapy, homeopathy, reflexology, meditation, various types of massage, diets and faith healing. The precise ways in which each of these therapies work and whether they are purely placebic is a matter of dispute. Much the same can be said, of course, of many of the more orthodox treatments which have been discussed. Many researches, including Melzack and Wall (1988), have found that combining several methods for the relief of pain leads to greater success than relying on just one. This has important implications for the work of physiotherapists; it is probably unwise to become too devoted to any one technique.

CONCLUSION

There is no doubt that psychological strategies can be used either to reduce the patient’s pain or to help her cope with it. Such strategies can be combined with each other or with the more familiar physical approaches of physiotherapy practice. To separate psychological from physical treatment is artificial, all of our treatments affect the patient psychologically, however technical they may seem. It is therefore vitally important that physiotherapists understand the nature of pain in all its complexity and treat the patient with this in mind. As Wall (1982) reminds us, ‘the simplest of pains is not simple’.

REFERENCES

The psychology and sociology of pain


Not everyone who feels ill decides to become a patient, in fact although most people experience unpleasant symptoms fairly regularly, the majority decide against assuming the patient role. Thus patients do not form a cross-section of people with a given disease and those who reach consultants or physiotherapists may be an even more select group. Wadsworth et al. (1971) found that less than one-third of people who had experienced a distressing symptom in the previous 2 weeks had consulted a doctor and similar results have been found by Dunnell and Cartwright (1972) and many other researchers. Tuckett (1976) concludes that, 'for the majority of individuals visiting a doctor is a rather rare method of managing the symptoms of disease'. It is far more common to ignore symptoms or to buy medicines across the counter. Last (1963) used the term 'illness iceberg' to describe the situation where only a minority of people with symptoms become patients.

That only certain people decide to define themselves as patients raises important issues regarding our knowledge of disease, for most research is carried out on patient populations within orthodox medicine, which are clearly not representative of people with any particular condition. For example, it may be concluded that people with a certain disease are more anxious than normal, but an alternative explanation is that anxious people assume the patient role more readily. If the illness iceberg is not considered, health professionals, including physiotherapists, can get a very distorted view of illness and the way people behave towards it. Patients are not a cross-section of people with any particular disease.

The seemingly obvious explanation of the 'illness iceberg' is that people with severe symptoms consult health professionals, whereas those with mild symptoms do not. Surveys show, however, that the reasons for becoming a patient cannot be explained in terms of symptom severity alone. Hannay (1980) interviewed a sample of people registered with a health centre and found that 11% who considered their symptoms not to be serious consulted their GPs, whereas 26% who considered their symptoms to be serious did not. Many people who know they are very ill and have unpleasant symptoms choose not to seek medical advice or care. Thus the severity of symptoms is just one factor among many which determine whether or not a person becomes a patient.

The ways in which people respond to illness and the type of help they seek, if they seek it at all, has been termed 'illness behaviour'. If they become patients they are said to be in the 'patient role' and if they define themselves as ill they are said to occupy the 'sick role'. Mechanic and Volkart (1961)
define illness behaviour as: '... the way in which symptoms are perceived, evaluated and acted upon by a person who recognizes some pain, discomfort or other signal of organic malfunction'.

There is considerable discrepancy between the definitions of illness between health professionals and lay people. Cartwright (1967) found that GPs regarded about half of their work as trivial, unnecessary and inappropriate. Yet health professionals despair of people who ignore serious symptoms or who only consult when their disease is advanced. Although no similar work has been done with physiotherapists, it is likely that their definitions of illness also differ markedly from those of their patients.

Factors which influence how people perceive illness and how they respond to it will now be considered.

CHARACTERISTICS OF THE SYMPTOMS

Before seeking medical advice the person must decide that he is ill and that the problem is an appropriate one for medical intervention. His decision will depend on many factors including cultural influences, personality, medical knowledge and past experience of medical care. He may conclude, correctly or incorrectly, that medical intervention will be of no help. With the more chronic diseases which are typically seen today, such decisions are by no means straightforward as it can be very difficult distinguishing normality from abnormality, especially as people tend to accommodate symptoms if their onset and progression is gradual. Over time symptoms which would initially have been considered abnormal by the individual come to be viewed as normal.

Symptoms which appear suddenly are most likely to be regarded as serious or due to disease than those of gradual onset; and symptoms, whatever their nature, will be more alarming to some people than others, according to such factors as family background, personality and culture. Some may experience such intense fear at the discovery of a lump, for example, that they decide against seeking medical help, while others are motivated by the same degree of fear to seek help immediately. Some may avoid health services because they are afraid of diagnostic procedures or acutely embarrassed by medical examinations. Thus the nature of the symptoms and the way people respond to them are important factors concerning whether or not they become patients and how they behave in that role. It is important for the physiotherapist to realize that the anxiety and distress caused by a symptom are not necessarily related to its severity.

SOCIAL AND CULTURAL FACTORS

Whether someone will become a patient or not depends in part on social and cultural factors. These will influence the person's perception of her symptoms and what type of help, if any, she seeks. Townsend and Davidson (1980) and many others, have found that women use the health service more than men
and people in social class five (those employed in unskilled manual work and their families) are under-represented, particularly with regard to preventative medicine, when their high levels of disease and disability are taken into account. Thus people have different ideas about what constitutes health and illness and what action, if any, should be taken. Attitudes change over time so the views of young and old people are likely to differ and our expectations of good health tend to rise if we become more affluent.

Having said this the influence of broad cultural and social factors should not be exaggerated. There is more variation within social and cultural groups than between them. Tuckett (1976) states: '... it is unlikely that socio-cultural factors of the broad demographic type will be found to play a major role in determining who does, and does not, seek medical aid'.

Although broad demographic indices give us some information regarding who will become patients and how they will behave in the patient role, it is important that physiotherapists and other health professionals do not form rigid stereotypes of social, cultural and ethnic groups from which to interpret their behaviour.

Differences in patient referral, diagnosis and treatment may in part be due to the biases and stereotyped behaviour of medical staff. Sudnow (1967) found that even in accident and emergency departments staff varied the treatment according to their moral evaluations of patients. For example patients perceived to be alcoholic did not receive the same quality of treatment as those judged to be sober. Treatment may also differ according to the gender of the patient. Doctors have often been accused of sexist attitudes and behaviour. Maclntyre and Oldman (1984), for example, believe that women who suffer from migraine tend to be viewed as neurotic, whereas male sufferers are usually thought to be under severe occupational stress.

Factors within the individual’s life may trigger entry to the patient role. The person may become a patient when his symptoms begin to interfere with his work or social activities, or when an important aspect of support, such as the help provided by a neighbour, is lost. Tuckett (1976) states that: ‘... considerable accommodation may develop between individuals, their symptoms and the pattern of relationships and activities they are involved in’.

Thus the individual’s social network may accommodate symptoms to the extent that the person experiencing them does not need or desire to become a patient. Conversely a change in his social network can precipitate entry to the patient role, even if there is no deterioration of symptoms. Turner (1987) argues that being sick is a social state of affairs which cannot be understood in terms of the biochemical malfunction of organs.

Traditionally physiotherapy education and practice has followed the ‘medical model’ of disease which views it in terms of signs, symptoms and pathology. This is now recognized as constituting a very narrow perspective, ignoring or minimizing social and psychological factors. By taking a broader view of health, illness and disability the physiotherapist is likely to be more effective in her role and have a more satisfactory relationship with her patients, as their concerns will be acknowledged, taken seriously and acted upon.
Why do people become patients?

THE 'LAY REFERRAL SYSTEM'

When deciding whether or not to seek medical help the person with the symptom will frequently consult others, usually family members and friends, who will help her to decide what course of action to take. This network has been referred to by Freidson (1973) as 'the lay referral system'. Friends and relatives may persuade the person to see the doctor or even insist upon it. Scambler (1983) found that, in the case of people with epilepsy, 79% of first medical consultations were organized by someone else. On the other hand, relatives and friends may discourage the person from seeking medical help or suggest self-medication or the services of 'alternative' practitioners. People may be greatly inconvenienced if a relative enters the sick role and may be strongly motivated to keep her out of it. The 'lay referral system' also operates after receiving professional advice; the patient will consult lay advisors on the wisdom of taking the drugs, doing the exercises or modifying her lifestyle. This, together with her own evaluation, can lead to low levels of compliance.

McKinlay (1973) found, among expectant mothers in Aberdeen, that people were less likely to use medical services if their social network was large. Salloway and Dillon (1973) report similar findings in relation to families but found that large friendship networks tend to precipitate the individual's entry to the sick role. Scambler et al. (1981) suggest that people generally converse with family members in greater depth than they do with friends which may account for the different outcomes.

WEIGHING UP THE COSTS AND BENEFITS

When deciding whether or not to become a patient the costs and the benefits of assuming the role are assessed. The person with the symptom may be too busy to become a patient, may have just started a new job and be eager to create a good impression, may live too far away from the medical facilities, have young children to care for or be reluctant to lose money by staying away from work. Commonly, people who are in most need of medical help are the ones least able to receive it. Tudor Hart (1971) has referred to this situation as the 'inverse care law'. Disease and disability are concentrated among the poorest members of society, yet these are the very people who find it most difficult to become patients. The lack of a car can make access to the medical facilities tedious or impossible, employers may be less sympathetic than those of professional workers and poor people are more likely to be single parents and less able than others to afford help. In addition deprived neighbourhoods usually have the worst health facilities. In such circumstances good health may not be the person's main goal in life, a fact which Scambler (1982) believes should not be viewed as irrational.

The 'inverse care law' has important implications for physiotherapists. It is all too easy to blame people when they do not attend for treatment or fail to carry out advice. However, their behaviour is often quite rational when a
broader perspective of their situation is taken. It is important that the physiotherapy service is run flexibly so that people who may benefit from it can use it with ease and convenience.

The ‘inverse care law’ may operate during interaction with the doctor or other health professionals. Research concerning doctor/patient interaction has shown that working class people tend to find communication difficult because they do not share the same culture, vocabulary or experience of life as the doctor. The doctor, in turn, may have various erroneous beliefs about working class people regarding their intelligence and ability to understand medical information. Fitzpatrick and Scambler (1984) states: ‘Middle-class patients are more likely to be confident in meeting middle class doctors and hence more likely to be successful in achieving their objectives from the consultation’.

It has been found that doctors spend considerably longer in consultation with patients in social classes one and two (the professional classes) than with those in social class five. They are more likely to refer professional people to a specialist and provide them with more information and explanation (Blaxter, 1983). In addition, the way in which people in social classes one and two view health and illness tends to tally closely with those of health professionals making communication easier and the consultation a more satisfactory experience for all concerned.

There has been no work on this theme concerning physiotherapists but it is likely that similar social dynamics operate. It is easier to communicate with people we judge to be similar to ourselves and good communication gives rise to a more satisfactory consultation. The people we find most difficult to communicate with are often the ones in most need of help so it is important that physiotherapists take extra care when communicating with these patients in order to enhance their practice and understand the patient’s illness from his perspective.

**PSYCHOLOGICAL DISTRESS**

Sometimes people become patients not primarily because of the presence of a physical symptom but because of psychological distress. This is not to imply, of course, that the physical symptoms do not exist. Zola (1973) found that people often consult a doctor with physical illness following a stressful event like a row. This situation is complicated by the fact that both depression and anxiety tend to heighten the perception of symptoms such as pain and the increased intensity of symptoms can, in turn, heighten anxiety and depression, thus creating a vicious circle (see Chapter 11). Stress may also be an aetiological factor in conditions such as stomach ulcer, asthma and coronary heart disease, and clinical depression often gives rise to numerous physical symptoms which cannot be explained physiologically (see Chapter 23).

A stressful event can break down the patient’s own accommodation and the accommodation of his family and friends to his symptoms. This breakdown in the containment of the symptoms, may lead to the person becoming a patient even at a time when the illness is not particularly severe. The health
Why do people become patients?

Professional often seems the most appropriate person to consult with emotional and social problems. This is culturally determined; many of the problems now taken to health professionals were, in the past, taken to the priest or dealt with within the family. Loneliness may motivate people to become patients, particularly perhaps for those who find communication in an informal, social setting difficult and demanding. Anxiety can give rise to either extreme help-seeking behaviour or alternatively to denial.

Medical professionals, including physiotherapists, can mediate symptoms by relieving depression and anxiety, though how far they are prepared to do so depends in part on the perception they have of their role and their definitions of illness. It is important for physiotherapists to realize how effective they can be in this regard. For example by allowing someone to attend physiotherapy primarily for ‘social reasons’, depression may be lifted to the extent that pain is reduced. Distinguishing stress and psychophysiological illness from malingering is fraught with problems, however, and health professionals sometimes feel they are being manipulated by patients.

SECONDARY GAIN

The role of patient may be one which is desired by the person. There are important secondary gains attached to being a patient in terms of increased sympathy and care from others and exemption from customary roles such as work. People sometimes occupy the patient role in order to escape failure, evade a difficult situation, avoid a stigmatizing label such as ‘lonely’, ‘inadequate’ or ‘criminal’ or simply to get a bed for the night. Balint (1964) believes that anyone who finds the demands of life difficult may resort to becoming ill. Williams (1989) believes that behaviours which bring about reward will be repeated and that in this way illness behaviour is learned, and Peck (1982) points out that symptoms such as pain may enable the person to avoid other problems. She states: ‘One problem may work to help a person escape or avoid having to confront one or more other problems . . . The first problem serves a useful function in allowing the other to be avoided. This is not to say that pain is created for the purpose of getting the patient out of something. Rather it is simply that when pain and other problems exist side-by-side, the pain may eventually come to serve such a function’.

Some people view their illness in terms of gain rather than loss, as a challenge and an opportunity for personal growth. It is not unusual for those who become ill or disabled to find the experience a positive one, at least in part. It may force them to view life from a different and more satisfying perspective, to escape the ‘rat race’, change direction or meet new and interesting people. Alternatively people may believe their illness to be a punishment for misdeeds in this life or a past one, while others may view it as a sign of personal weakness and failure. Such views frequently coexist and may change over time. Thus illness is viewed in diverse ways both by people experiencing it and the society in which they are placed. Such beliefs have a large effect on the ways in which people respond to illness.
The patient role is itself stigmatized and rather than seeking it many people will avoid it at all costs, particularly with such conditions as epilepsy and mental illness which are not well accepted by society and may cause enormous disadvantage in terms of relationships and employment prospects. Other people positively dislike being dependent, being physically handled, being in close proximity to others and being outside the mainstream of life, and for these and other reasons will avoid the patient role.

The person's role as patient may be desired by another family member. It is sometimes the case that relationships work best if one person is in a dependent position. This situation may suit both partners or may give rise to conflict. The relationship may always have functioned in this way or, if a family member has been ill or disabled for some time, life may become organized around that situation and behaviour and attitudes may be difficult to change if she becomes well. Rogler and Hollinghead (1965) studied families in Puerto Rico where one family member suffered from schizophrenia. They found that schizophrenia among the males was valued by their wives as it gave them more freedom than they had in their traditional role.

A family member may be motivated to keep a relative in a hospitalized patient role if she is threatened with having to take on the responsibility of caring for him. On the other hand, she may hinder his attempts at independence if she wants her caring role to continue. Keeping someone in the patient role or preventing him from entering it, is usually entirely rational behaviour which can be readily understood.

The sick role can be used in families as a powerful tool to manipulate others and may legitimate behaviour which would not otherwise be acceptable. For example a child with asthma may have attacks of breathlessness in order to avoid school or helping with domestic chores, a woman may refuse all offers of help from the social services because she wants her daughter to be with her all the time, and a person in pain may create feelings of guilt in other family members in order to get his own way. This type of manipulation is not necessarily premeditated.

It is important that physiotherapists understand the gains and losses people and their relatives experience when they become ill, how successful relationships may be destroyed if the patient role is disturbed and how severe pressure can be put on family members when someone leaves hospital. Dalley (1988) goes so far as to suggest that when one group of people is liberated, for example disabled people from long-term care, another group of people is oppressed, usually women in 'the community'. (For further discussion of 'community care' the reader is referred to Chapter 6.)

PAST EXPERIENCE OF MEDICAL SERVICES

The person's past experience of being a patient is an important factor when considering whether to assume the role again. The person who experienced no improvement or only minimal improvement from a past course of treatment is less likely to return, as is the patient who found his treatment painful.
Why do people become patients?

The relationship with the health professional is very important, it has been found that people are more ready to return to some doctors than others, findings which cannot be explained by factors such as age or social class (Tuckett, 1976). Zola (1973) found that people tend to discontinue treatment if the doctor fails to take account of the reasons why they came. There is a large literature on the problematic nature of communication between patients and health professionals (Scambler, 1982; Elder and Samual, 1987). Scambler (1982) believes that the rapid growth of self-help groups in the last decade, serves in part to compensate for poor relationships with professionals. Thus the relationship the physiotherapist has with her patients is likely to influence the person's behaviour during future episodes of illness. (For further discussion of patient/therapist communication the reader is referred to Chapters 8 and 9.)

LEGITIMATING ILLNESS

Frequently people go to the doctor with the sole aim of having illness legitimated, in this situation the contact is largely administrative. The role and power of the doctor is widespread and sometimes motives for making contact with her are not directly associated with a disability or illness, but rather such visits are part of a procedure which people are obliged to go through. For example, it may be necessary to make contact with a doctor in order to be put on a waiting list for a ground floor flat, obtain the mobility allowance, claim compensation or be proclaimed fit for a new job. Even if the patient does have symptoms, for example a sore throat and raised temperature, she may not expect the doctor to prescribe any medications, the purpose of the visit being simply to have her illness legitimated in order to stay away from work for a time.

PROFESSIONALS' DEFINITIONS OF ILLNESS

Whether someone is permitted to become a patient will depend in part on the professionals' definitions of illness, how they define their particular clients, how they define their own role and the resources available to them. Thus someone of over 65 years of age may be denied access to a rehabilitation centre, someone with a persistent chronic illness may be deemed unsuitable for physiotherapy and someone whose symptoms are thought to result from stress and depression may be considered an inappropriate candidate for physical treatment.

Such criteria change over time and according to circumstances. Although professional rhetoric is almost always in terms of patient care, all organizations, including the professions, are in the business of self-survival and are often eager to expand. Thus if patients are in short supply people not previously permitted entry may be encouraged to become patients and if, on the other hand, patients become very plentiful or staffing levels depleted, then people who had once been allowed to take on the role of patient may be
denied it. If one source of work ceases to exist or is reduced, for example acute illness, then professionals will tend to extend their service to other groups, for example mentally ill and mentally handicapped people. Not everyone views such ‘medicalization’ as helpful or appropriate (see Illich, 1976) and physiotherapists should be clear as to why their services have developed in various directions, what they are trying to achieve and whether they are the most appropriate people to intervene.

SPECIFIC FUNCTIONS OF THE SICK ROLE

The sick role may have functions specific to particular individuals and institutions. For example, prisoners may use it in order to meet people they are isolated from or bring a little variety into a life full of tedium. They may hoard any drugs they receive and use them as currency. Children may use the sick role in order to avoid meeting a bully at school and adults may use it to have a day off from work, perhaps just for a rest or to make time for domestic tasks which have built up or become urgent.

Entering the sick role for reasons such as these often reflects underlying psychological and social stress. Cooper (1978) points out that absenteeism is consistently high in unsatisfactory work situations. Physical illness is less stigmatizing and more readily accepted than many other states, for example depression, anxiety and fear. Although the person may be taking the day off from work because of the illness of a friend, the behaviour of a child, the death of a family pet or the failure of an examination, this will not be revealed or if it is may be met with scorn or ridicule. Although the excuse of physical illness is not always believed it tends to be accepted as it creates less disruption to organizational routine than complaints about stress or work practices.

MODELS OF ILLNESS BEHAVIOUR

McKinlay (1972) listed six approaches to the utilization of health care which summarize much of what has been said:

1. Economic – the availability of medical care and whether or not people have the resources to use it depends in part on economic considerations.
2. Sociodemographic – gender, class, race, social networks etc. all influence how people feel and behave when ill.
3. Geographic – proximity to the medical facilities is an important factor when considering whether or not to become a patient.
4. Sociocultural – values, beliefs, norms, and lifestyles are important factors which determine whether someone will become a patient and how he will behave when ill.
5. Sociopsychological – perception of symptoms, motivation, personality, knowledge and the ability to learn, will all influence a person’s response to illness.
6. Organizational – the way in which health facilities are organized, for example how convenient they are and how humane the organizational practices are, will influence the degree to which people make use of them.

It is clear that our perception of symptoms and how we behave towards them are highly subjective and based on many factors including personality, past experience, our situation at the time and the influence of family and friends. Individuals differ greatly one from another in their response to illness as does the same person at different times according to circumstances. Orthodox medicine too, including physiotherapy, is far less objective than people commonly believe with very different courses of action being suggested by equally well qualified and committed health professionals. Bond and Bond (1986) state: '... if health care professionals are to understand their patients – why they discontinue breast feeding within a few weeks, fail to bring children for immunization, wish to discharge themselves from hospital or do not practise their exercises – it is necessary to find out the patient's version of events rather than impose their own views'.

THE SICK ROLE AND ITS FUNCTIONS

Role is a sociological concept not a medical concept. All our roles contain certain rights and obligations. The student, for example, has the right to receive a good standard of education but is obliged to hand in essays on time and prepare for examinations; the employee has the right to work in a safe environment but is obliged to be punctual and to follow the instructions of supervisors. Most people occupy multiple roles; for example mother, employee, neighbour, daughter and friend. The person defined as ill occupies the 'sick role' and the person who becomes a patient occupies the 'patient role'. Bond and Bond (1986) state: 'The behaviour of the sick person and the behaviour of others around him must conform to the particular pattern of expectations that surround the sick role'.

Parsons (1951) was the first sociologist to elaborate the concept of the 'sick role'. He believed this role to contain two major rights and two major obligations:

**Right one**
The sick person is not responsible for his illness.

**Right two**
The sick person is relieved of normal social responsibilities.

**Obligation one**
The sick person must view his condition as undesirable.

**Obligation two**
The sick person must seek and cooperate with competent medical help.
Parsons thought that the second right, to be relieved of normal social responsibilities, was potentially desirable and that as this threatens social order, entry to the sick role must be controlled. The sick role legitimates illness, and behaviour viewed as deviant under some circumstances, but it also regulates it so that social obligations are not evaded unnecessarily. Hart (1985) explains: 'If outbreaks of sickness were left to the whims of individuals in the private sphere of domestic life, they might gradually erode people's sense of duty to work, to family life, to community. Only by bringing sickness into the public sphere and encasing it in a system of social control would the risks of role evasion be kept to a minimum'.

People who occupy the sick role, yet appear to enjoy it and fail to seek medical help are not keeping to their side of the bargain and are likely to meet with great disapproval from friends, family, employers and health professionals.

The official control of illness behaviour is medical certification. Parsons (1951) saw medicine as serving a social control function aimed at stabilizing society. The sick role tends to isolate the ill person from others; Garfinkel (1956) believes that this, as well as various hospital practices, such as handing over one's clothes and being denied information, emphasize the undesirable nature of the sick role.

Criticisms of Parsons' model of the 'sick role'

Parsons' model of the 'sick role' does not account for the fact that most illnesses never reach the doctor, thus it fails to distinguish between the 'sick role' and the 'patient role'. It does not take social and psychological factors into consideration, but concentrates instead on physical signs and symptoms. It is not concerned with the individual's experience of illness. A person's entry or withdrawal from the sick role is probably influenced more by friends, relatives and employers than medical professionals. Medicine is so uncertain that doctors tend not to bar entry to the patient role very often for fear of making a mistake; although it is dangerous to label someone ill when he is well, most doctors feel it is worse to label him as well when he is ill, thus medical certification is not difficult to achieve.

The model assumes an ideal patient, one who brings along appropriate symptoms and is perfectly compliant. Yet Ley (1988) points out that the professional/patient relationship is more often characterized by negotiation, conflict and non-compliance. There is no recognition in Parsons' model that the interests of the patient and the doctor may not be in accord.

The model fits acute illness best, people with chronic conditions or psychiatric illnesses, may not be allowed to terminate their usual social duties or may never be able to resume them. Sutherland (1981), talking of disabled people, believes that they are expected to 'adjust' to their limitations, 'overcome' their difficulties and be as 'normal' as possible. Scambler (1982) states: 'There are a wide range of long term illnesses from diabetes to dementia
which force the individual to withdraw from social roles, but may not have the full legitimacy which patients usually expect from the sick role.

Other conditions of medical concern, such as pregnancy and child development, do not fit this model either.

Times have changed since Parsons formulated his model of the sick role. People are better educated, doctors are more likely to work in teams with other health professionals and consumer organizations, self-help groups and alternative medicine have developed. This has changed the nature of the professional/patient relationship to some extent making medical professionals, including physiotherapists, less authoritarian. Medicine is now characterized by chronic rather than acute disease which means that the sick role concept, as formulated by Parsons, is less relevant. The patient with a chronic condition may become an expert in his own right by virtue of living with his condition for so long. This, together with the lack of a cure, tends to erode the professional’s status and authority. Parsons’ sick role concept relates to a particular society at a particular time, ignoring broader cultural, temporal and social factors.

Szasz and Hollander (1956) believe there are several types of doctor–patient relationships.

1. Activity—passivity. In this type of relationship the doctor is active and the patient is passive. This would exist if the patient were in a coma or very seriously ill.
2. Guidance—cooperation. In this situation the doctor advises and the patient is willingly compliant. It is most commonly seen when the patient has an acute disease of short duration.
3. Mutual participation. This relationship is characterized by partnership. It is most commonly seen when the patient has a long-term, chronic illness.

The Parsonian model fits the ‘guidance—cooperation’ relationship most closely.

CONCLUSION

Parsons (1951) viewed the sick role as stabilizing society by controlling deviant behaviour, yet if sickness absence from work is anything to go by, this social function of the sick role has failed. Other sociologists, for example Freidson (1973), view the control that health professionals exercise as being concerned, not with social stability, but with professional ambition and dominance.

Other sociologists, for example Doyal (1983), emphasize that the sick role stabilizes society by disguising social problems and the ways in which they create disease and illness. Medicine is viewed as an agent of capitalism; thus rather than giving someone with chronic bronchitis a warm, dry flat to live in, her respiratory condition is ‘treated’ by health professionals, and rather than making buildings accessible, those who are unable to walk are taught to adapt
Physiotherapy: a psychosocial approach

to the environment as it is and accept the limitations imposed on them as their own problem. Individualized 'treatment' can thus be seen as a relatively inexpensive option. Medical treatment, especially when carried out in hospital, obscures the connection between illness, social events and the environment. Hart (1985) states: 'By organizing health care around atomized individuals and by focusing attention on the organic dimensions of disease, its real social nature is disguised'.

By allowing people to enter the sick role now and again, they may continue to cope with difficult social situations which would be very expensive and disruptive to change. The sick role isolates people from each other and encourages them to think of their problems as personal and individual rather than social and political. What is more, the person who enters the sick role for a time may return to an unchanged social situation feeling very grateful that something has been done.

Where does this leave physiotherapists? Do we help individuals by treating them, or are we merely maintaining the status quo? Are factors which create illness, such as poverty and environmental hazards, beyond our sphere of influence, or should we become more involved? Are we part of a system working in the interests of sick people or are we agents of social control?

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Stress: its relation to illness, hospitalization and work
Stephanie Kitchener

Every one of us experiences stress; indeed a certain level of stress is vital if we are to meet day-to-day challenges and cope with life’s minor crises. Stress represents an inbuilt homeostatic mechanism enabling us to adapt to our environment, it is necessary to generate motivation and promote development and growth. However, as Wolf and Goodell (1968) point out: ‘Sometimes threat evokes reactions of long duration and even of greater magnitude than the assault itself. The resulting protective adaptive reaction, when sustained, may be more damaging to the individual than the effects of the noxious agent per se’.

Thus, although the experience and manifestations of stress are perfectly natural and healthy, prolonged or abnormal levels of stress can lead to long-term detrimental effects.

The last 40 years or so have seen the publication of an enormous amount of research which has attempted to outline: factors likely to give rise to stress; physiological responses to stress; psychological and behavioural responses to stress; coping strategies; and the detrimental effects of sustained stress. Such research has produced a wealth of evidence to suggest causal links between illness, hospitalization and stress. As physiotherapists working mainly with sick people and to a large extent within the hospital setting, it is important that we have an understanding of how these links occur, for it has been shown that stress not only interferes with the formation of a good patient/therapist relationship but also hinders effective treatment and recovery following illness and surgery.

STRESS AND ILLNESS

During the course of their working lives physiotherapists will meet patients with an enormous variety of medical conditions. These range from relatively minor complaints, such as a sprained ankle, which has a predictable course and is to a large extent self-limiting, to conditions such as multiple sclerosis, spinal cord injury and cancer, where the course may be less certain and where long-term disability or death are expected. Physiotherapy education tends to centre
around the physiological, physical and functional limitations imposed by such conditions, with less attention being paid to the social and psychological consequences of illness. Yet as Weinman (1987) states: 'Any illness occurs within the context of an individual's life and is therefore likely to have effects on psychological and social functioning. For most patients major health problems are perceived as stressful events'.

The link between illness and stress is important to consider because it has major consequences for the patient and his family. How the patient perceives his illness to a large extent determines how he will cope with it and will also affect his attitude to treatment and rehabilitation and his participation in it. Wellisch (1981) states: 'Cancer perhaps more than any other disease presents images of primordial suffering and terror that makes it a uniquely devastating entity, both psychologically and physically. It is not as though no other disease kills, but this disease ... has long been associated with man's most unspoken and primitive fears, those of boundless suffering'.

For most people the word 'cancer' evokes immediate feelings of distress and fear, and yet when one works directly with patients suffering from it, as with almost any other condition, a range of responses is seen. It is not the objective reality of the illness that is important, but rather it is the patient's perception of the illness which determines her response to it and her ability to cope with it. Factors which affect the patient's perception of her illness include the illness itself, the demands made by the illness and the social context in which these perceptions and demands occur. Perception of the illness also depends on the patient's characteristics and previous experience. These factors when weighed against the individual's perceived ability to cope, will determine how much stress is experienced. (For further information concerning theories of stress the reader is referred to Chapter 23.)

The illness itself and the demands imposed by the illness

As stated above it is the perception of the illness, rather than the illness itself, which is important regarding the patient's reactions, and therefore the actual severity of an illness does not correlate strongly with the psychological responses to it (Weinman, 1987). It is important to realize that the perception of an illness may change over time. For instance, somebody who has survived a serious road traffic accident, may at first feel optimistic and thankful that he has survived. It may only be when his condition becomes stable that he starts to contemplate the reality of his situation. Patients with spinal cord injury, amputation and stroke, often spend a long time in rehabilitation. In the protected environment of the rehabilitation centre, where patients mix predominantly with other disabled people, they often feel well adjusted. It is only upon discharge that problems become apparent; social isolation, being the only disabled person around, having to manage alone or being dependent on a relative, all contribute to a changed perception of the situation and the ability to cope with it.
Physiotherapy: a psychosocial approach

Strauss et al. (1984) have listed some of the problems and demands made by chronic illness:

1. The long-term nature of the problem.
2. The uncertainty associated with the prognosis and the episodic nature of some conditions.
3. The effort required in palliation of the condition.
4. The multiple consequences of the condition.
5. The fact that chronic conditions are extremely intrusive on the lives of patients and their families causing changes in life-style and household routines.
7. The wide variety of ancillary services which are required.
8. The expense incurred by physical illness.
10. The management or prevention of medical crises.
11. The control of symptoms.
12. The problem of carrying out prescribed regimens and the attendant difficulties that this may create.
13. Adjustment to changes which are required if the disease gets worse or if there are remissions.

Many of these problems are as much to do with the ways in which society is ordered as with the illness or disability itself.

On a more personal note Cooney (1990) speaks openly and frankly about her life as a person suffering from severe rheumatoid arthritis:

'Like most people I once plucked my eyebrows, made a cup of coffee when I felt like it, shaved my own legs. Slowly the ability to do these things has been taken away from me.

'Allowing someone else into the yuckier side of your life is hard. Even the most intimate of relationships do not contain the grossly earthy things that are par for the course in ours. I have next to no privacy. My partner knows my every nook and cranny. I am left without a millimetre’s worth of mystery. Couples can be close but cutting your own toenails provides just enough distance for you to regard yourselves as separate human beings and appreciate each other as such.

'No. It's not easy being “cared for”. It's not just the messy bits. It’s no longer being able to nick a chocolate biscuit out of the fridge, or experiment with make up or grab just the right scarf to set off your jumper as you rush out of the door. Always you have to ask.

'These things may seem nit-picking compared with the more obvious dramatic changes wrought by disability, but taken together they are as momentous as the arrival of the wheelchair or the loss of your job. As they are given up a little bit of what outwardly made you an individual is eroded.'

The above quotation emphasizes the importance of looking at situations and events from the patient’s point of view. Therapists’ perceptions of the demands made by various illnesses may be very different from those of their patients. Failure to appreciate the patient’s point of view can lead to inappropriate goals being set with frustration to all concerned.
Stress: its relation to illness, hospitalization and work

The social context in which the illness occurs

The social context in which the patient finds himself will affect his perception of the illness itself, his perception of the demands made by the illness and his perceived ability to cope. There can be marked national and cultural differences in perceptions of and beliefs about the nature and cause of different conditions. Lay person's perceptions and beliefs about illness can also differ markedly from those of health professionals. Fitzpatrick (1984) reminds us that: 'Illness beliefs shape the response to symptoms by the sufferer and his or her social network. If health care is sought the definitions the lay person brings to bear on his or her illness dictate the kind of help sought and the perception of benefits gained from the treatment'.

(For further information on lay beliefs about health and illness the reader is referred to Chapter 17.)

A study by White (1982) highlights cultural difficulties in beliefs about the cause of illness. White (1982) asked American and Hong Kong Chinese students to list the causes of various problems including headache, feeling lonely and loss of appetite. American students tended to cite internal emotional states whereas the Chinese students tended to cite external pressures such as family or the demands of their study. A study by Blaxter and Paterson (1982) highlights social class differences. The researchers interviewed mothers from semi-skilled and unskilled backgrounds in Scotland and found that health tended to be judged mainly in functional terms such as ability to continue to work. The mothers also seemed to accept recurrent ear infections and coughs in their children, believing them to be perfectly normal.

Besides certain beliefs about illness the amount of social support available to a patient will also influence her perception of and her ability to cope with an illness. For example, Spiegal et al. (1989) found, in a prospective study of women with metastatic breast cancer, that the survival rate was twice as long in those who received psychosocial support in the form of weekly group therapy with self-hypnosis for pain. This is not to deny that being cared for and being a carer can impose considerable strain on relationships and may increase stress further still. The importance of social support is now well recognized and hundreds of support groups for patients and their relatives or carers have been formed. These include The National Asthma Campaign, The Parkinson's Disease Society and The Schizophrenia Society. Many local authorities or individual hospitals run cancer, stroke and amputee support groups in which physiotherapists are often involved. Such groups not only provide social support but are valuable sources of information, allowing patients with similar disabilities to meet and discuss experiences. Many also act as pressure groups highlighting the problems which people with particular disabilities face.

Physiotherapists should also be aware that, for some patients, coming for physiotherapy treatment is a way of gaining social and psychological support. The person who wants to talk rather than do her exercises is not an unusual person in physiotherapy out-patient departments. Patients, especially those recovering from long-term illness, often come to regard their therapists as
counsellors and friends. Physiotherapists should be aware that termination of treatment may mean more to the patient than mere cessation of an exercise programme and can, in fact, be a distressing event as friendship and means of emotional support are lost. When a course of treatment ends patients may also feel that nothing more can be done and that they will not improve any further. For instance it has been found that some patients with cancer show increased emotional distress when radiotherapy is discontinued. This has been attributed to increased uncertainty about tumour recurrence (Christman, 1990). (For further information on illness behaviour and the sick role the reader is referred to Chapter 12.)

The time of life at which an illness or injury occurs, and the occupation of the person concerned, can also affect her perception of it and her reactions to it. For example, torn cruciate ligaments of the knee joint are likely to be more devastating for the professional skier than the secretary. Similarly amputation in an elderly person who has suffered from long-term ischaemic pain, may come as a relief whereas a young person, who has an amputation as a result of a road traffic accident, may become severely depressed. Having said this, individual responses are always highly unpredictable.

**Individual differences and illness perception**

A whole host of personality characteristics and other personal factors have been found to influence perception of an illness. In a review of the research on the reactions to chronic illness, Kline Leidy (1990) lists several personality characteristics which are likely to buffer the impact of stress resulting from chronic physical illness. These include absence of self-denigration, mastery, high level of self-esteem, a sense of coherence, self-efficacy, hardness, personal competence and an internal locus of control. She believes that pessimism and a low cooperative coping style are associated with increased levels of stress during chronic physical illness. Other personality characteristics leading to increased stress levels include high trait anxiety, as measured by Spielberger's scale, and high levels of neuroticism, as measured by Eysenck's personality inventory (Newman, 1984). General practitioners are very familiar with the highly neurotic patient who repeatedly visits the surgery with minor ailments claiming that something more serious is wrong.

Prior experience of illness is another important variable. Witnessing a close relative dying from cancer will obviously have an impact on a person who has just been told that he has the disease. It is interesting that most medical students go through a stage where they interpret minor symptoms as evidence of some terrible condition – often the one they were studying in pathology the week before. Prior experience of hospital can be reassuring or may increase a person's level of stress. For example, Friedlander et al. (1982) found, in a group of patients who were about to undergo elective surgery, that levels of anxiety were positively correlated with the number of previous admissions to hospital.
Perception and coping

A person’s perception of the severity of his illness and the demands made by his illness ultimately determine how stressful he will find it and how well he will cope and adjust to it. When a person is informed that she has a serious illness she may be devastated and find it extremely difficult to cope. Sensitive handling and appreciation of her predicament, both short term and long term, can have a dramatic effect on how well she manages to adjust to her situation. Kübler-Ross (1970) outlined a series of psychological stages that people go through when they are dying, namely, denial and isolation, anger, bargaining, depression and acceptance. The stages follow closely those that people go through when they experience a bereavement. Kübler-Ross argues that during a terminal illness people are grieving for themselves and their loss of life. This stage model has also been applied to serious illness where the loss may be that of a limb, of independence or mobility. The model has been criticized on the following grounds:

1. Not all patients go through all the stages and acceptance may never be reached.
2. People may go backwards and forwards through the stages or get stuck at one particular stage.
3. Some people miss out some stages altogether.
4. Oliver (1983) has argued that people who acquire a severe disability do not necessarily grieve or mourn.

While it is important to bear in mind the criticisms, the model is important because it highlights many of the emotions people are likely to feel during the course of a long or chronic illness. It is important for all health professionals to recognize the patient's emotional state so that constructive help can be provided towards effective and healthy coping. Where the illness is long or protracted or particularly disabling the process of coming to terms with it may take a long time and patients will fluctuate in their ability to do so. By understanding the nature of stress therapists can provide constructive help as and when it is required. (For further information on death, dying and bereavement, the reader is referred to Chapter 16.)

HOSPITALIZATION AND STRESS

Whether people come to hospital as in-patients or out-patients they are likely to experience considerable stress, not only through lack of knowledge about their condition, but also as a result of the hospital environment itself and the medical procedures they must undergo, including diagnostic tests and surgery. Research investigating the stressful aspects of hospitalization has focused on the following two broad areas: hospitalization, and procedures and treatments carried out in hospitals.
Hospitalization

For most people a visit to the doctor arouses feelings of anxiety. The visit involves a period of uncertainty where the patient is unsure of what to say, how to behave, or what the outcome will be. As these feelings occur even with relatively minor problems which are dealt with in the out-patient setting, it is not difficult to appreciate that admission to hospital is often very stressful. In a variety of studies patients have been asked to rate aspects of hospital life which they found distressing or worrying. Rapheal (1969), looking at the hospital environment, found that patients most frequently mentioned sanitary conditions, boredom, noise at night, sleepless nights and the suffering and complaints of other patients as most stressful.

Wilson-Barnett (1976) asked 200 patients from two hospitals open questions on 60 aspects of hospital life. The six most distressing aspects were:

1. Using a bedpan.
2. Anticipating a treatment or procedure likely to be painful.
3. Seeing another patient who is very ill.
4. Separation from work.
5. Separation from family members.
6. The actual condition or illness.

Some of these factors, for example using a bedpan or seeing someone who is very ill, may not be regarded as stressful by physiotherapists who, in the course of a day, may see many very ill or dying people. The patient, in contrast, may never have encountered death or serious illness in a fellow human being before. Aspects of hospital life likely to give rise to anxiety have been summarized by Volicer and Bohannon (1975) following a study in the USA: 'Hospitalization as distinct from surgery, is a source of stress and anxiety to patients in its own right. The hospital environment is novel to patients and it involves a number of routines and procedures with which they are not familiar. The patients are required to meet and interact with a number of unfamiliar people and frequently have to suffer a loss of privacy. In addition they also lose a considerable degree of independence and have to endure separation from their families, friends and work'.

In summarizing the results from various studies, Rachman and Philips (1975) state that five manifestations of stress are commonly seen: fear; increased irritability; loss of interest in the outside world; unhappiness; and preoccupation with bodily processes. Such manifestations are not only extremely unpleasant for the patient but are also likely to interfere with communication with hospital staff as well as reducing cooperative behaviour, hindering effective and efficient treatment and the speed of recovery.

Surgery and medical procedures

Most people working in the health professions are fit and healthy, few have been admitted to hospital or have experienced routine medical procedures
such as barium X-rays, electrocardiography or cardiac catheterization, even fewer have experienced major surgery. This lack of experience makes it difficult to understand the stress and anxiety that patients go through when being subjected to what therapists often regard as simple and straightforward procedures. Reynolds (1978) studied patients who had undergone chest X-rays, and found that one-third did not know why the procedure had been carried out. Ninety three percent received no warning that they were to have a chest X-ray and 82% were given no information concerning the result. Chest X-rays are a routine procedure before surgery but failure to explain this can lead patients to imagine they have a serious health problem which will, of course, increase their anxiety.

Patients often experience high levels of anxiety which interfere with the process of acquiring, retaining and retrieving information relating to their illness (Ley, 1988). This tends to lead to poor cooperation and delayed recovery. High levels of anxiety also hinder effective coping and can lead to a vicious circle being set in motion whereby ineffective coping produces higher levels of anxiety which in turn leads to even less effective coping. One of the major issues revealed by research in this area is that a lack of information, or poorly delivered information, correlates positively with stress and anxiety. In the light of such research many hospitals have changed their procedures for giving information. This is a start, but the problem of communicating information adequately is still far from solved (see Ley, 1988). (For further details on information giving the reader is referred to Chapter 9.)

The research in the area of hospitalization and stress is vast, with many surgical procedures being studied, ranging from tonsillectomy to cardiac surgery. Many different measures have been used to test preoperative anxiety and postoperative recovery. Measurements of anxiety have included self-rating, adjective check lists, Likert-type scales (5 point scales), the galvanic skin response (measuring sweating of the palms) and blood pressure. Measurements of postoperative recovery have included assessment of subjective mood states (such as anxiety and depression), the amount of postoperative analgesia required and the length of stay in hospital (Newman, 1984). The results are difficult to compare because of the different measurements adopted and the differing definitions of 'anxiety' and 'recovery' which researchers have used. Caution must therefore be exercised when comparing the results of different studies.

Franklin (1974) surveyed 160 male patients who were to undergo surgery. The most frequent reasons for worrying were:

1. Not knowing what to expect.
2. The operation and its outcome.
3. The anaesthetic.
4. Concerns about their families.
5. A general dislike of hospital.

Intuitively it might be expected that the highest levels of anxiety would be reported preoperatively and would decline in the postoperative period, indeed
Auerbach (1973) reported that this was the case. However, when Johnson (1980) compared the anxiety scores of patients who had undergone gynaecological and orthopaedic surgery he found that the two groups differed. The anxiety levels of the gynaecological patients declined as predicted but they remained high in the orthopaedic patients. Johnson argues that this is because the orthopaedic patient has to wait some time after her operation before the outcome of it is known, she has to wait for the plaster cast to be removed before she knows how well her knee will bend and may have to wait many months before she knows whether she will ever run again. This study highlights the importance of understanding the patient's situation from her point of view.

Other studies have investigated pre- and postoperative anxiety levels. Janis (1958) divided patients into high, moderate and low anxiety groups and found that those who were moderately anxious preoperatively showed the lowest levels of anxiety postoperatively whereas the patients in the other two groups suffered high levels of stress postoperatively. Janis concluded that the group with low levels of anxiety avoided thinking about the operation and therefore did not prepare themselves for it mentally. In contrast, the group with high levels of anxiety were so anxious that they could neither absorb the information given about the operation nor get relief from reassurance. Patients in the group with moderate levels of anxiety were found to be better informed about their operation and experienced less stress when it was over. Other studies have not found the same clear cut relationship between pre- and postoperative anxiety but do report that those patients who have high levels of anxiety preoperatively are more anxious and take longer to recover from the surgery (Johnston and Carpenter, 1980). Newman (1984) proposes several explanations for this:

1. Highly anxious patients are more likely to report pain and discomfort and also tend to experience anxiety when confronted by hospital staff and researchers. Thus to an extent the differences between them and less anxious patients may be an artefact.
2. Highly anxious patients are less likely to comply with postoperative instructions such as deep breathing and early mobilization.
3. Prolonged anxiety has an inhibitory effect on the immune system which delays healing and leaves the person open to infection.

Further studies have investigated how different types of information given to patients preoperatively affect postoperative anxiety levels and recovery. Wilson-Barnett (1978) found dramatic differences in anxiety levels as measured by The Mood Adjective Check List in patients who had received information about the barium enema they were to receive compared with those who had not. However, other researchers have found that different types of information have different effects. They distinguish between procedural information, which gives specific details about what is going to take place, and sensory information which informs patients about how they are likely to feel during and after a procedure or surgery.
Egbert et al. (1964) compared two groups of patients who were about to undergo abdominal surgery. Both groups received procedural information about their operations but the experimental group also received sensory information about the level of pain they were likely to experience postoperatively and how relaxation would help to reduce it. Egbert found that patients who received the additional sensory information recovered more quickly from their operations, required less analgesia and reported less emotional disturbance postoperatively. Bailey and Clark (1989) suggest that a combination of sensory information and procedural information is more effective than procedural information alone because it describes events from the patient’s point of view, thus, allowing them to rehearse their coping strategies. Procedural information, on the other hand, treats patients as passive recipients of care rather than the perceiving, appraising and able people they are.

It would appear that most patients would benefit from receiving information, not only concerning the procedure or operation they are about to undergo, but also about how they are likely to feel during and after the event. However, a cautionary note should be added which highlights the importance of treating each patient as an individual. Andrew (1970) divided his subjects into three groups according to their characteristic coping styles, namely, ‘avoiders’ (those who avoided information), ‘sensitizers’ (those who were sensitive to information) and an intermediate group who fell between the two extremes. Andrews found that only the intermediate group benefited from preoperative information. The ‘sensitizers’ showed no advantage whereas the ‘avoiders’ showed adverse effects. The differing needs for and the ability to cope with anxiety provoking information has been highlighted in other areas. For example Pinder (1990) found differences in the ability of people to cope with information about Parkinson’s disease. Patients in her study were classified as ‘seekers’ (those who actively sought information), ‘weavers’ (those whose need for information fluctuated) and ‘avoiders’ (those who deliberately avoided information, preferring to remain ignorant rather than risk having their private, perhaps unacknowledged, fears about their illnesses confirmed).

In summary, a whole host of factors besides the patient’s illness can give rise to stress; admission to hospital, the hospital environment and procedures carried out in hospital can all give rise to anxiety and stress in their own right.

The intensive care unit (ICU)

Imagine yourself to be seriously ill and in an ICU. You are lying on your back, naked, with a tube coming out of every orifice. You are ventilated and with unceasing regularity a large amount of air is forced into your lungs. You are fully conscious but paralysed and cannot speak because of the tube in your mouth. Periodically you are approached by nurses who proceed to do things to you, sometimes they speak to you and tell you what they are doing, but at other times they do not. You have not slept properly since you were admitted because of constant monitoring, the bright lights which are never turned off,
the constant 'whirring', 'bleeping' and flashing of the monitors and the inter-
mittent sound of alarms ringing. Three other patients have been admitted
since your arrival, but two have died and one has had a cardiac arrest. At
intervals doctors stand at the bottom of your bed and discuss your progress.
And for the last two hours (it seems like an eternity) a sharp corner of the bed
sheet has been digging into your leg. Can you doubt that ICUs are unpleasant
and stressful places to be in?

Cookran and Ganong (1989) questioned 20 people who had been patients
in ICUs. The ICU Environmental Stressor Scale (modified from the Q sort test:
Ballard, 1981) was used which details 42 common stressors experienced in
ICUs such as having no privacy, not being able to sleep, hearing the buzzers
and alarms from the machinery and not having treatment explained. They
were asked to rate each item according to the degree of stressfulness it had
created. The four items which received the highest rating were: having tubes
in the nose or mouth; being injected with needles; being in pain; and not being
able to sleep.

Anxiety, fear and reactive depression are commonly experienced in
patients in ICUs. Bowden (1982) describes these mood states in the following
way:

'Anxiety is unpleasant and characterised by feelings of foreboding and
bodily discomfort. Physiological symptoms include weakness, dizziness,
malaise, insecurity and more cognitively, dread and a threat of imminent loss of
control — panic. Somatic symptoms include palpitations, dyspnoea, chest pain,
paraesthesia, headache, tremor, fatigue, sweating, dry mouth and frequency.
Fear is a response to a recognised external source of danger and the subjective
experience ranges from uneasiness to intense dread. Reactive depression is
characterised by a range of affective disturbances, from minimal change to
severe misery, gloom and wretchedness. Anxiety is usually present and
thinking and action are slowed. Delusional ideas and depersonalisation
experiences can arise from the mood disorder. Thought can be self-reproachful,
hypochondriacal and paranoid, the latter often taking the form of being
shunned by others because of moral worthlessness. Sensory deceptions,
particularly illusions, are not uncommon. Sleep is disturbed and there is loss of
appetite. Retardation may progress to stupor.'

While the majority of patients in ICUs experience stress in one form or
another, there is a minority of patients who show a very severe form of
stress known as 'ICU syndrome' or 'ICU psychosis'. This is explained by
Cookran and Ganong (1989): 'ICU Syndrome (psychosis) is a phenomenon of
altered mental function which occurs in some patients while in ICU and which
resolves after transfer from ICU. Common characteristics of this phenomenon
include, confusion, disorientation, hallucinations and delusions. Researchers
have found this syndrome to be caused by the stressful ICU environment
rather than any physical or psychological factor. The physical symptoms
(hyperventilation, tachycardia and anorexia) which accompany ICU psychosis
often lead to subsequent impairment of recovery'.

The following factors have been found to contribute to the development of
ICU syndrome:
1. Sleep deprivation (Fabijan and Gosselin, 1982).
2. Inability of the patient to communicate (Nastasy, 1985).
3. Sensory deprivation (Jackson, 1979).
6. Repetitive stimulation, e.g. flashing lights on monitors and infusion pumps and the sound of alarms and ventilators (MacKinnon-Kessler, 1983).

While the ICU environment has been regarded as the main contributing factor, it has been noted that the syndrome tends to develop more readily in patients with impaired cerebral function resulting from metabolic disturbances or procedures such as cardiopulmonary bypass and mitral valve surgery (Hinds, 1987).

Procedures carried out by physiotherapists working on ICUs are likely to cause patients stress. Treatment involves positioning and turning patients, disconnecting them from ventilators, bagging and suctioning. Stress will be minimized by effective communication – by telling them what is being done, by anticipating and trying to answer their questions and above all by thinking about how they are feeling and remembering that they remain human beings however 'high tech' the environment may be.

**WORK AND STRESS**

In the study by Mottram and Flin (1988), of 50 newly qualified physiotherapists in Scotland, 30 said they found their jobs moderately stressful. In a similar study by Schuster *et al.* (1984), of 160 active members of the American Physical Therapy Association, 84 (53%) said they were currently experiencing symptoms of 'burnout'. A consideration of the relationship between work and stress is important, for not only does it have consequences for the individual physiotherapist but also for his patients and the physiotherapy profession as a whole. There is now a great deal of evidence demonstrating that stress in the caring professions is a major difficulty giving rise to long-term health problems such as coronary artery disease, alcohol and drug abuse and ulcers in those subjected to long-term stress. Stress also costs the health service a great deal of money due to absenteeism, decreased efficiency, increased job turnover and loss of individuals from the workforce due to them leaving or to illness (Bailey and Clark, 1989; Sutherland and Cooper, 1990). While much of the literature has focused on stress in the nursing profession, it is now recognized that it can be a major problem within physiotherapy. The following pages will consider aspects of work which are likely to be perceived as stressful by physiotherapists and the caring professions as a whole.

Cooper and Marshall (1978) have outlined five aspects of work that are potential sources of stress:

1. Factors intrinsic to the job itself.
2. Interpersonal relationships at work.
3. Role stress.
Factors intrinsic to the job itself

Factors intrinsic to the job include physical conditions under which the person has to work, the task requirements of the job and work load. Much of the research in this area comes from studies carried out in factories which have looked at the influence of factors such as temperature, noise, vibration and lighting on stress levels and performance. Physiotherapists often work in poor conditions. In Britain most are employed in the National Health Service (NHS) and due to underfunding they often work in old and run-down hospitals with poor facilities. Stress can arise, not only from working in depressing surroundings, but also because poor facilities affect the ability of therapists to deliver a good quality of service to patients.

Work overload is another factor which can give rise to stress, but a distinction must be made between quantitative workload (the amount of work one is expected to do in a given time) and qualitative workload (work that matches one’s capabilities). Seventy nine percent of the Scottish physiotherapists in Mottram and Flin’s study found being too busy (quantitative overload) stressful. The researchers point out that one reason why being too busy is stressful is because therapists have to decide which patients to treat and which to leave untreated. Medicine is based on probability rather than certainty and newly qualified physiotherapists often lack the experience and confidence to make these difficult decisions. Booth (1988), talking of nurses, believes that ethical dilemmas are a constant source of stress. Interestingly, 28% of the Scottish physiotherapists found having too little to do stressful. Studies of nurses also bring out the point that they sometimes feel that they have to appear busy when senior staff are around.

Physiotherapists are called upon to perform a wide range of tasks. Some treatments and procedures used by them are potentially dangerous if they are carried out in an inappropriate manner or at the wrong time. Physiotherapists also treat patients who are seriously ill where the treatment may affect their recovery. They also have to carry out some treatments in isolation from their colleagues especially when ’on call’ or working at the weekend. In this situation many tasks are likely to be perceived as stressful, especially by inexperienced therapists. Fifty eight percent of physiotherapists in Mottram and Flin’s study found being ’on call’ stressful and 46% found working with terminally ill people stressful.

Interpersonal relationships

Physiotherapists form many interpersonal relationships during the course of their work. These include relationships with patients and their relatives, doctors and other members of the interdisciplinary team, peers and senior
colleagues. These relationships may be rewarding but can also be a source of stress. Mottram and Flin (1988) found that newly qualified physiotherapists found the following factors stressful: discussing patients with doctors; thinking staff did not like them; not liking patients; not liking staff; discussing patients with nurses and other professionals including physiotherapists; and making decisions with other staff.

As discussed earlier, social support can reduce the effects of stress caused by illness. Social support from colleagues at work is also important in reducing stress, rivalry and competition. Starting work or moving to a new job can be stressful as the therapist is likely to feel isolated until new friends are made and until she feels part of the department. A friendly working atmosphere is of great importance to most people.

**Role stress**

A person’s role refers to ‘the functions a person performs within a particular social context’ (Shaw and Constanzo, 1982). Each role has attached to it a set of beliefs, behaviours and values with some space for improvisation. Deckard and Present (1989) believe that, ‘The professional role of the physical therapist is deeply rooted in a commitment to “bettering” the state of the client through a positive and productive therapist relationship’. Stress is likely to arise when the individual does not feel he is fulfilling his role. Two major sources of role stress have been identified; role conflict and role ambiguity. Role conflict occurs when the demands made of an individual are at odds with his perceived role. For example Wolfe (1981) points out that role conflict can occur when the expectation to provide a high quality of care is compromised by an excessive caseload and increased documentation and paper work. Role conflict can also occur when the work role conflicts with another role, for example that of mother. This is particularly important in a female dominated profession like physiotherapy. Role ambiguity occurs when an individual is unsure what his role entails and how it fits into the wider organizational context.

Deckard and Present (1989) have looked at the impact of role stress on American physical therapists and found that it is positively correlated with emotional exhaustion, somatic tension, depersonalization and job related tension, and negatively correlated with personal accomplishment. In their study the major sources of role stress were perceived to be: improper allocation of time; inadequate resources; and receipt of incompatible demands. Deckard and Present (1989) recommend several strategies to minimize role stress:

1. Staff should be involved in the development of departmental and organizational policies.
2. Time stress should be minimized by the introduction of a once-a-month ‘office day’ for staff to catch up on documentation and continuing education.
3. Staff support groups should be set up to explore potential sources of stress and agreed solutions should be found for each problem.
Evey hospital and physiotherapy department has its own particular set of operational policies, beliefs and customs which give each its unique character and atmosphere. For most people when applying for a job, the 'feel' of the hospital or department is an important factor when deciding whether or not to work there. A hospital or department which seems unfriendly, which appears to have lots of unnecessary rules and regulations or has an authoritarian style of management is unlikely to be a good place to work. Sutherland and Cooper (1990) have shown that the perceived degree of social support provided by an organization and the degree of participation in decision-making within an organization, are positively correlated with a sense of belonging and a feeling of loyalty towards it.

Career development

The physiotherapy profession in Britain has a well defined career structure. Newly qualified physiotherapists spend their first couple of years gaining broad, general experience with a view to specializing in a particular field as a senior physiotherapist. Higher grades involve increasingly more management and less clinical work. Climbing the ladder can be fiercely competitive (depending to some extent on the speciality) and can lead some physiotherapists to experience career stress. Sutherland and Cooper (1990) define four categories of career stress: job insecurity; over-promotion; under-promotion; and thwarted ambition. Most physiotherapists in Britain work within the National Health Service and as such their jobs are relatively secure. However, with the introduction of NHS Trusts, physiotherapists are likely to experience greater job insecurity as they will be employed directly by these Trusts, each of which has its own terms and conditions of employment. Insecurity may also be experienced as Trusts introduce performance related pay. The growth and popularity of alternative sources of treatment, such as osteopathy, acupuncture and chiropractics, may also give rise to job insecurity, especially if these practitioners gain licence to practise in the NHS.

Physiotherapists are likely to experience stress if they are over-promoted, as they may lack the skills to do their jobs well. Under-promotion is also likely to give rise to stress if the individual perceives that her talents and abilities are not being utilized and that her ambitions have been thwarted. According to Sutherland and Cooper (1990), disruptive behaviour, poor morale and poor quality of interpersonal relationships are associated with the stress of thwarted ambition. Such behaviour is likely to cause problems in the workplace. Under-promotion can often be seen in areas where there is only one hospital and where the population is fairly static. In this situation individuals often stay for years in a given post leaving newcomers with little chance of promotion. Career stress may also be experienced by married women who break their careers to bring up families or move jobs unwillingly because their husbands have gained promotion in new areas.
Burnout has been defined in many ways. Below are some of these definitions:

1. 'A total loss of purpose, idealism and enthusiasm experienced by the helping professions when conditions at work produce an inability to function because of loss of will' (Squires and Livesley, 1984).
2. 'To fail, wear out, or become exhausted by making excessive demands on their energy, strength or resources' (Cherniss, 1980).
3. 'Emotional exhaustion and cynicism towards one's work' (Sutherland and Cooper, 1990).
4. 'The experience of emotional and physical exhaustion together with strong feelings of frustration and failure' (Wolfe, 1981).

Burnout can be viewed as a maladaptive coping strategy which develops through prolonged exposure to stress at work (Schuster et al., 1984). Chronic stress is of major concern because of its links with drug abuse, family problems and work-related problems, including poor performance and loss of concern for patients (Bailey, 1985). Burnout does not have one single cause, it is the result of a variety of excessive demands being made on an individual at work. Initially the individual shows the common signs of stress such as fatigue, anxiety, moodiness, poor concentration and forgetfulness. However, as demands continue the individual experiences feelings of frustration and failure and develops the symptoms of burnout – chronic fatigue, job boredom and cynicism, detachment and denial of feelings, impatience and irritability, depression, disorientation and forgetfulness, and psychosomatic complaints. The individual experiencing burnout cannot function as an effective therapist.

Squires and Livesley (1984) describe the personality characteristics of individuals who may be susceptible to burnout. These personality characteristics include, idealism, high levels of motivation, a sense of commitment, dedication, apparently tireless energy, inability to say 'no' to work demands, a tendency to perfectionism and a lack of compromise. Most of these characteristics would seem admirable for an individual working within the caring professions. However, faced with poor but inflexible management and scarce resources, these same individuals are more likely than others to have feelings of frustration and failure if their goals are not achieved.

Burnout develops over a period of time and can occur at any point in a therapist's career and may even begin before qualifying. Squires and Livesley (1984) describe four stages leading to burnout, although they emphasize that it is a continuous process:

1. Enthusiasm – this is the pre-burnout stage where the person, possessing the personality characteristics already described, enters the profession. These individuals are enthusiastic and hard working and set themselves high standards and many goals. Because of their inability to say 'no' many demands are placed upon them.
2. Stagnation – the person's workload increases because of earlier enthusiasm, but as resources are limited goals are not achieved.

3. Frustration – this occurs when the individual realizes that she is not achieving her goals and, because of lack of resources, has no way of doing so. The initial response may be anger and attempts to rectify the situation, for example by trying to get new equipment or more staff. But as Squires and Livesley (1984) point out, '. . . eventually motivation is decreased and a sense of personal failure allows fatigue quickly to drain any idea of a hopeful future'.

4. Withdrawal – this occurs in an attempt to cope with failure and because of depleted internal resources. The individual withdraws both from her job and from her patients. Finally she may break down emotionally and become severely depressed.

Menzies (1970) found that anxiety avoidance was the main coping strategy adopted by nurses which is achieved by reducing contact with patients, organizing the day around tasks rather than around people and depersonalizing patients.

There has only been one comprehensive study of burnout in physiotherapists, that of Schuster et al. (1984) who surveyed 160 American physical therapists. These researchers found four symptoms of burnout: negative attitudes towards others in the workplace; adverse physical and psychological reactions; dissatisfaction with the workplace; and redirection of interest away from the workplace. The occurrence of these symptoms could be predicted by the following eight factors: poor professional preparation; lack of sharing and feedback; organizational dysfunction; excessive demands; perfectionist tendencies; overwork; lack of faith in supervisors; and low self-esteem. This study makes it clear that the causes of burnout are multifactorial and usually due to a combination of personality and organizational factors.

The relationship of workers and those in management is often a major source of stress. Schuster et al. (1984) found that lack of professional sharing and feedback from senior colleagues and lack of faith in them, were significant predictors of negative attitudes towards others in the workplace. A management style which commands respect, but also allows consultation and participation in decision making, is probably the most effective in reducing work related stress.

**Preventing burnout**

Squires and Livesley (1984) highlight the importance of good management in the prevention of burnout. Prevention has to begin at the start of the person's career. Students entering the physiotherapy profession must be very clear about the nature of the work they will be expected to undertake. Clinical tutors and lecturers have a responsibility to ensure that students know that that they have a realistic expectation of their role once they are qualified. (For
further information on professional socialization and the role of clinical educators the reader is referred to Chapter 20.)

Managers should ensure that their staff know what goals and standards are expected of them, staff should be involved in setting them to ensure meaningfulness and realism. Managers must also guarantee that staff are given appropriate feedback regarding their progress. Effective communication between staff and managers is the key to preventing burnout. Staff should feel valued as people as well as part of a team and must feel comfortable about discussing their problems with senior colleagues. Physiotherapists can protect themselves from burnout by taking a realistic view of their work and, while accepting that dedication and conscientiousness are important, should develop a healthy interest in other activities in order to promote overall development.

CONCLUSION

Patients and physiotherapists are both involved in events which have the potential to be very stressful. Physiotherapists need to help patients cope with the stress they are experiencing if treatment is to succeed, but this is very difficult if their own levels of stress are high. An understanding of what stress is and what situations are likely to produce it, provides an important first step in learning to reduce stress in ourselves and our patients. Physiotherapy managers, in particular, have a responsibility to provide a supportive working environment where physiotherapists and their patients can work happily and effectively. The idea that health professionals do not need support in their professional lives, that their own needs are unimportant and that expressing them is a sign of weakness, must no longer remain unchallenged.

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Physiotherapy: a psychosocial approach


Stress: its relation to illness, hospitalization and work

IDENTIFYING THE PROBLEM

Because of its centrality within practice, most physiotherapists will, during the course of their work, have considered the concepts of 'health' and 'health education'. Opportunities to reflect upon this subject are amply provided within the literature of the human sciences, including that of physiotherapy, where various definitions and models of health have been documented (see for example Warren, 1985, 1986; Burkitt, 1986; Twomey, 1986; Sim, 1990). Personal experience supported by written evidence, however, suggests that while many physiotherapists may be acquainted with a wide range of health models on an abstract, theoretical level, their practice is, nevertheless, predominantly characterized by the biomedical model. For example, most therapists continue to regard members of the public to whom they give a service as 'patients'. These 'patients' are perceived as 'individuals' presenting with a physical 'diagnosis': the patient is not infrequently classified as 'a back', 'a fractured shaft of femur' or 'a ruptured tendo Achilles'. The diagnosis may refer to an acute or chronic condition; the former demands immediate 'cure', the latter requires long-term management by the 'expert'.

Physiotherapists also seem to favour a model of health education (described by Burkitt, 1986; Ewles and Simnett, 1987; Coutts and Hardy, 1989) whose principal focus is on the individual and where the aim is prophylaxis or 'prevention' (at primary, secondary and tertiary levels) of that individual's problem through the dissemination of information delivered by traditional teaching approaches and methods. Thus physiotherapists attending a workshop on health education organized by the Chartered Society of Physiotherapy (CSP) and the former Health Education Council (HEC) in 1985 (CSP and HEA, 1987), reported that they perceived their role 'mainly in terms of tertiary prevention on a one-to-one basis, but increasingly moving towards secondary prevention in the form of, for example, back schools and contributing to radio programmes' with 'initiatives . . . towards primary prevention, for example, working with sports coaches and keep-fit teachers' (CSP, 1988). It is noted in the same document that physiotherapists work with individuals and groups and give specific and general 'information and advice' about
selected conditions and their management, and emphasize the importance of health education (associated with the 'treatment' and 'prevention' of specific conditions) for carers and other professional personnel. Other surveys confirm these findings. Leathley (1988) reports that 85% of her sample of physiotherapists considered 'back care education' to be 'the most important health education activity', while 47% ranked 'ante- or post-natal work' as most important. The respondents identified 'hospital staff' and 'carers, particularly those in the community' as the primary target groups for health education (see also Lilley, 1983; Lyne, 1985, 1986; Leathley and Stone, 1986; List, 1986; MacLarity, 1986; Shore, 1986; Twomey, 1986; Hayne, 1988).

Furthermore, it appears that many physiotherapists tend to equate the role of health educator with high status and power. According to the report from the CSP's workshop, physiotherapists perceived themselves as experts capable of influencing 'the system' at a policy/decision-making level by educating employers, hospital/part III managers and educational authorities, in the importance of appropriate staff training and good ergonomic design of the workplace (CSP, 1988). Unfortunately, however, this zealous and characteristically biomedical approach to health education has not met with unqualified success. Edmonds (1988) identifies the problem: 'The current debate within the National Health Service (NHS) on the approach to treatment based on the whole needs of the patient, and treating the patient as a person, is nowhere more pertinent than in the physiotherapy profession. It is unfortunate that the motivation of those who are deeply caring tends to emerge as judgemental and directive. Anecdotal evidence is embarrassingly abundant of instances where consideration of the person rather than the patient would have led to a more satisfactory outcome of consumer/practitioner interaction. Actual practice has too often resulted in the effect of 'institutionalising' and 'taking over' patients rather than seeking to care for them as people'.

Given this situation, an attempt to refocus attention on the limitations of the biomedical model of 'health' and 'health education' seems to be particularly appropriate. Clearly, within the confines of a short chapter it would be impossible to do more than to introduce a selection of the issues considered to be crucial in this area. It is hoped, however, that the following discussion will stimulate further analytical and critical reflection on the concepts of 'health' and 'health education' which will lead, subsequently, to a reappraisal of the underlying philosophy of physiotherapy, together with a re-evaluation of some of the techniques employed in its practice.

THE BIOMEDICAL MODEL OF HEALTH: ITS ORIGINS AND SALIENT FEATURES

Let us remind ourselves that the biomedical model of health evolved as a consequence of the scientific revolution which commenced in Europe in the seventeenth century. Doyal (1989) describes how 'the natural science which developed during the Renaissance transformed the Aristotelian view of the world which had dominated Western thought for 1500 years'. Doyal con-
Physiotherapy: a psychosocial approach

196

Continues: 'Increasingly, science was no longer concerned with understanding the essence or teleological purpose of the natural/supernatural world. Rather, the scientist (or natural philosopher as he was called) attempted to discover and explain those regular and recurring sequences of events which could be described and codified in a quantitative and generalisable way. It was believed that this would make possible the utilisation of nature through the making of accurate predictions based on these codified generalisations. In other words, the new science increasingly equated an understanding of the natural world with a capacity to control it.'

Within the medical context, the Renaissance scientist was preoccupied with the explanation and documentation of the body's structure and function. It is important to emphasize Doyal's point that: 'These early investigations were largely founded upon a mechanistic view of the nature of man, and of human sickness and health. That is to say, they followed the more general pattern of Renaissance science in analysing living things as sets of mechanical parts — as machines rather than organically integrated wholes'.

The Aristotelian emphasis on 'the organic unity of living things' was effectively challenged by such philosophers as Thomas Hobbs and Rene Descartes, whose mechanistic conception of human beings is generally reflected in contemporary orthodox medical practice which sanctions the biomedical model of health. Undoubtedly, the ideological roots of this model lie in Cartesianism. Descartes believed in a particular variety of dualism with which his name has subsequently been associated. This theory holds that the (immaterial) 'Mind' and the (material) 'Body' of a given individual, although they somehow interact, are essentially distinct 'entities' (Hart, 1985; Descartes, trans. Cottingham et al., 1989; Doyal, 1989). In common with other Renaissance thinkers Descartes was preoccupied with the concept of knowledge, its origins and criteria. He was committed to scientific reductionism, as defined by Popper (1972), Flew (1983) and Pratt (1989), an allegiance which influenced his mechanistic approach to physiological analysis. Descartes considered a body to be 'healthy' if, like a properly functioning machine, that body was in good working order; conversely, a body was classified as 'diseased' if an impairment of its function could be detected (Descartes trans. Cottingham et al., 1989).

Doyal (1989) points out that modern orthodox medicine is generally regarded as being primarily concerned with the 'Body' at the expense of attending to the 'Mind' and thus continues to espouse a mechanistic concept of health. Health is, 'determined secondarily to disease; if a definition of disease can be formulated, health can then be thought of as its polar opposite' (Sim, 1990). Health is thus perceived in negative terms: as the absence, or antithesis of disease. Sim (1990) suggests that 'because the two concepts are seen to lie on a single dimension, the variety of sophisticated means of detecting and quantifying disease processes in the patient are equally measures of (biological) health'. Diagnosis of a disease is contingent upon the identification of a particular collection of 'signs and symptoms' presented by the individual 'sufferer' or 'victim' and the objective is to 'cure' by medical intervention (see for example Oliver, 1983). Emphasis is on a certain kind of
PROPOSED METHOD

Having mentioned the characteristics of the biomedical model of health, we shall continue our discussion by considering some of its theoretical difficulties
as related to metaphysical, ethical and sociological issues and show how these have implications for health education. Inevitably, this investigation will reveal some theoretical problems associated with alternative models of health and health education. Turning next to an example from contemporary practice, we shall identify the biomedical model’s salient features as exemplified by the practitioner’s approach and choice of language. Undertaking this analysis will enable us to appreciate the importance of theoretical consistency in the context of health care practice. Finally, we shall propose an alternative concept of health to that offered by the biomedical model. While it is acknowledged that this paradigm is not without its disadvantages, we shall suggest that it provides a more rational theoretical framework upon which to base physiotherapy practice.

Our first criticism of the biomedical model of health may be levelled at its Cartesian foundations. Cartesian dualism has received serious challenges from exponents of metaphysical doctrines such as alternative versions of (non Cartesian) dualism and monism comprising idealism and various forms of materialism including behaviourism, functionalism and physicalism (see for example Campbell, 1970; Ryle, 1973; Teichman, 1974; McGinn, 1982; Williams, 1985; Smith and Jones, 1987). Of particular significance to physiotherapy practice is that Cartesian dualism fails to provide a satisfactory account of how interaction between two separate, contrasting ‘entities’ (mind and matter) can occur, given that, according to this theory, each possesses a different, but equal, ontological status. If the body is conceived of as a mere machine, how is it connected to the mind? (Teichman, 1974). Indeed problems of intelligibility arise when it comes to understanding what, in fact, mind is, since it tends to be described negatively: it is not, for example, the brain. If mind is not located in space, a logical difficulty arises as to how mind–body interaction can occur. How can a causal relationship exist between a non-physical substance and a physical entity? For Descartes to ‘locate’ the mind in the pineal gland and then to suggest that it can cause a physical response rests upon the contradiction that immaterial substances can be ‘located’ anywhere in space (McGinn, 1982).

Exponents of this ‘official doctrine’ are guilty of a ‘category mistake’ Ryle (1973): Cartesian dualism ‘represents the facts of mental life as if they belonged to one logical type or category . . . when they actually belong to another’. The upshot of this is the representation of a person as a ‘ghost mysteriously ensconced in a machine’. Thus a health educator, having made this initial ‘category mistake’ predictably conceives of ‘health education’ as providing the ‘ghost’ with relevant facts about ‘machine’ maintenance and then supervising the repair job! It is perhaps not surprising that many ‘ghosts’ find these facts meaningless, become disenchanted with the tedium of this work and frequently abandon their ‘machine’ when the supervisor is not watching! As Whitehead (1989) revealingly comments: ‘In schools . . . there is evidence that single lesson lectures are still commonly employed with the aim of influencing social problems like illegal drug use, sexual activity in relation to AIDS, smoking and drinking habits and so on, even though any long-term behaviour change is highly unlikely with such a method’.
Let us assume, then, that one of a health educator's aims is to change a patient's behaviour; Ryle's objections to Cartesianism lead us to conclude that the biomedical approach to practice seems unlikely to produce these permanent alterations. Ryle's behaviourist perspective prompts him to argue that the Cartesian concept of the 'ghost' in the 'machine' has no appropriate practical application in terms of its ability to describe intelligent performance since it necessarily relies upon an infinite regress. He states that: 'The crucial objection to the intellectualist legend is this. The consideration of propositions is itself an operation the execution of which can be more or less intelligent, less or more stupid. But if, for any operation to be intelligently executed, a prior theoretical operation has first to be performed and performed intelligently, it would be a logical impossibility for anyone ever to break into the circle' (Ryle, 1973). (See also Smith and Jones 1987.)

Thus, for Ryle, the question of 'how' mental activity causes physical activity is irrelevant. He claims that 'my performance has a special procedure or manner not special antecedents'. Thus on this account, it would seem to be necessary for a therapist to establish certain behavioural criteria of 'health' and 'disease' against which a person's physical state could be judged following an assessment of behavioural patterns. Once the problem has been identified, 'health education' would consist of various forms of behaviour modification until the individual displayed appropriate 'healthy' behaviour (Ewles and Simnett, 1987).

As we might expect, however, behaviourism, in common with other branches of materialism, is not without its problems. In contrast to Cartesianism, behaviourism classifies persons as merely physical bodies: mental processes are reduced to brain processes. It is a serious objection to behaviourism that because 'mind' is identified with 'brain', the theory fails to provide a satisfactory explanation of the subjectivity of human experiences, for example those of pain, or 'feeling unwell'. Thus, in the context of general health-care management, behaviourism may fail to acknowledge such subjective feelings because its primary focus would be on the person's observable behaviour. In view of this inadequacy, therefore, behaviourism seems to be only marginally superior to Cartesianism in terms of its ability to provide a satisfactory metaphysical basis for physiotherapy practice.

SOCIOLOGICAL AND ETHICAL CONSIDERATIONS

Turning now from metaphysical to considerations of a more sociological and ethical nature, Sim (1990) notes other limitations of the biomedical model of health. He observes that 'its stamp of objectivity rests upon a "realist" view of diseases — i.e. they have an independent existence which is unaffected by both the fact and the mode of their perception by the observer'. That 'the very identification of disease' is inextricably linked with the making of certain value judgements implies that diseases 'become social constructs': 'they are developed within, and therefore embody, specific social values and processes'.
We have noted above that the biomedical model owes much to a certain kind of individualism. Because its orientation is in terms of 'individual physiology, this model tends to seek only biological causes of disease' (Sim, 1990). Clearly, this perspective ignores the undeniable socioeconomic and cultural determinants of disease as identified by numerous writers (see for example Hart, 1985; Ewles and Simnett, 1987; Frank and Maguire, 1988; Hannay, 1988; Morgan et al., 1988; Turner, 1988; Armstrong, 1989). In their study of the former Health Education Council's (HEC) campaign against coronary heart disease (CHD), Farrant and Russell (1986) examined the HEC's literature *Beating Heart Disease*. Their research exposes similar weaknesses of the biomedical model. In contrast to Downie (1988) they remain unimpressed by science and highlight the inadequacy of the 'explanatory power of the conventional risk factors' utilized by the HEC to 'educate' the general public about how to avoid chronic heart disease. Underlying Farrant and Russell's specific criticism of the biomedical approach is the important general point to which we have earlier alluded: that a practitioner's concept of a person will necessarily determine how she conceives 'health'; this in turn will influence her ideas about how such persons are to be 'educated' and which methods are most suitable. Given the biomedical model's individualistic conception of persons, and given the HEC's allegiance to this ideology, it is not surprising that Farrant and Russell discover that the booklet 'focuses on the personal risk factors' of CHD and 'the responsibility for reducing risk factors is placed firmly upon the individual'. They highlight the HEC's reluctance to view the person as existing within a socioeconomic framework, reflected in the booklet's failure to mention other contributory factors to CHD prevalence such as: '... the role of the food industry and tobacco industry in maintaining unhealthy consumption patterns, or... the social and economic factors (poverty, stress associated with adverse living and working conditions...) that are related to social inequalities in diet, smoking etc., and that mitigate against attempts at individual risk factor reduction'.

As these authors emphasize, 'a model of CHD aetiology has been hypothesized that locates the primary cause of CHD (and therefore the appropriate point for intervention) in the wider social and economic environment' which 'utilizes the concept of chronic psychosocial stress as the major linking factor between an individual's environment and his or her cardiovascular system'. Thus, 'Exhortations to stop smoking, eat less fat, take more exercise, etc., sound hollow and insincere when delivered by the 'expert'. Health education that ignores social influences and whose style is prescriptive and patronizing is thus doomed to failure as is indicated in Farrant and Russell's chapter, *Lay Perspectives on Beating Heart Disease*.

Significantly, however, Farrant and Russell report that this failure in health education is not solely associated with the HEC's disregard of social issues. The bourgeois attitude often adopted by orthodox health professionals towards their patients is also considered to contribute to communication breakdown. Farrant and Russell identify misconceptions in professionals' beliefs that the prevalence of 'lay ignorance of orthodox medical "facts" about disease aetiology' justifies the corrective role of health education. Their
findings suggest that ‘it is not ignorance of “the facts” as much as the credibility the individual accords to these facts, as presented in health education literature, vis-a-vis personal “proof” that has been built up over years of observation and experience’. Thus, when confronted with professional perspectives on health, the layperson is likely to engage in sophisticated information processing in an attempt to establish which behaviours are more ‘healthy’ than others; this evaluation will then determine his or her subsequent choice of action.

Clearly, these findings must be acknowledged by all health professionals and their practice modified accordingly. One of the dangers – particularly with reference to physiotherapy – seems to be that the practitioner’s attention is often diverted by the wealth of other research and advice concerning effective methods of communication (see for example Glossop et al., 1982; Wagstaff, 1982; Hassler, 1985; Slack, 1985; Cull, 1986; Holland, 1986; Robinson, 1986; Skinner, 1986; Griffiths, 1987; Hargreaves, 1987; Hough, 1987; Jobling, 1987; Ley, 1988; Lask, 1989; Payne, 1989). This is not to deny the value of such work to practitioners; rather it is to suggest that much of it focuses on the efficacy of specific communication techniques and – with the exception of Hough’s contribution – rarely questions the professionals’ predominantly biomedical attitudes and assumptions concerning the nature and abilities of those persons designated as ‘patients’.

In connection with the above comments, it seems pertinent to examine further the role of the health worker. In this connection, Sim (1990) notes the biomedical model’s failure to acknowledge the ‘social, cultural and institutional context in which health care occurs’. He contends that this dimension is crucial for physiotherapists who ‘require an “action-orientated” theory that will make sense not only of health, but also of health care as an activity’. Significantly, physiotherapists – together with many other professional groups – often identify themselves as ‘health-care workers’ and as members of ‘the caring professions’ and Sim’s request for the development of a theoretical basis for health-care practice is surely legitimate. We might further supplement Sim’s analysis by suggesting that therapists additionally require a theory of ‘care’ and ‘caring’ upon which to base practice. It is relevant to observe that the concepts of ‘care’ and ‘caring’, while they have been hi-jacked by members of the biomedical fraternity to serve political ends, seem to be associated with a model of health which conceives of the patient as an integrated and unique human being whose overall concerns and needs form the basis of practice. Although these ideas are apparently of little interest to members of the physiotherapy profession, they have captured the imagination of other professional groups. The positive view of health associated with notions of ‘care’ and ‘caring’ has, for example, been well developed within the context of nursing where they seem to have contributed significantly to the practitioners’ understanding of the concept of ‘persons’, ‘health’ and ‘health education’ (see for example Griffin, 1983; Warren, 1988; Watson, 1988; Barker, 1989; MacPherson, 1989; Morrison, 1989; Ray, 1989).

Turning to wider issues, the biomedical influence on government ideology and policy is clear. The model’s negative view of health colours its inter-
pretation of the related notions of 'protection' and 'education', considered by Tannahill (1985) to fall under the umbrella concept of 'health promotion'. Since concentration is on the elimination of disease within the individual, 'health promotion' becomes a restricted activity, directed solely towards the "maintenance" or "restoration" of individuals' health (Sim, 1990). Leathley (1988) makes a similar point, although her notion of 'prevention' seems to carry biomedical overtones. She suggests that 'the general orientation of the National Health Service towards sickness rather than health' presents 'obstacles to increasing the preventive and educational aspects of' physiotherapists' work.

Not surprisingly, this negative orientation is reflected in central government's general approach to health matters as revealed in Whitehead's (1989) investigation into health trends in Britain. While she is encouraged by 'the evidence of growing interest in education for health ... during the 1980s', Whitehead concludes that 'the total amount of effort and resources put into education for health is still insignificant in relation to the size of the task and in relation to the resources allocated to other policies of arguably lower priority'. She continues: 'There is much rhetoric about how important health education is ... But there is very little substance behind the rhetoric. The issue has been and still is of low status and low priority in many organisations, with subsequent underfunding, under-resourcing and haphazard implementation. The fact that the national health education bodies have only been allocated approximately £1 in every £1000 of NHS expenditure is one indicator of the continuing low status accorded to health education in this country'.

Within the reactive approach characteristic of the biomedical model, there is little room to embrace the positive idea of health as going beyond the mere absence of disease in collections of isolated, freely choosing individuals. Because it cannot accommodate the concept of 'social health' the model fails to reflect crucial areas of human experience. It rejects the Aristotelian conception of society as comprising interdependent human beings. It ignores the painful truth of social inequality: that peoples' life-chances, and therefore opportunities to make choices, are necessarily unequal (Hart, 1985; Rodmell and Watt, 1986; Morgan et al., 1988; Townsend et al., 1988). Furthermore, the model conceives of health as a commodity rather than as a basic human right. Policy based on this philosophy shows no genuine desire to create a society in which the current disparities in peoples' health would be minimized. Acknowledgement of the validity of subjective human experiences would prompt central government to adopt more proactive health strategies since its principal concern would be the restoration and maintenance of social health. (For further detail of the social roots of illness and disease and inequalities in health readers are referred to Chapters 1, 2, 4 and 12.)

Burkitt (1986), Ewles and Simnett (1987) and Coutts and Hardy (1989) describe sociological models of health education which appear to be based on a recognition of the need to encompass 'lay perspectives and experiences' concerning health and illness (Sim, 1990). Acknowledging the socioeconomic determinants of health, the practitioner 'stresses the need for social planning, e.g. housing estates that allow family generations and social networks to be
maintained, challenging the power relationship between the professional and the client’ (Burkitt, 1986). As Sim (1990) suggests, this model provides an additional, and distinct, conceptual framework within which a professional may work; its importance lies in its ability to show that strictly medical concepts and definitions are insufficient if we are to understand the way in which individuals conceive health and illness and how this understanding shapes their behaviour. Certainly, the biomedical model is unable to accommodate the important social aspects of ‘handicap’ (see for example Oliver, 1983; Brechin et al., 1981).

Perhaps, however, there is a more sinister reason behind central government’s apparent preference for the biomedical above other models of health upon which to base a policy. Sim (1990) alerts us to what he perceives as the most serious objection to the biomedical model: ‘it makes those who are experts on disease the sole arbiters of health. The layperson’s views and experiences related to health are thereby disqualified’. As many sociologists observe, this has led to the ‘medicalization’ of health, in which the characteristic inequalities within the clinician/patient relationship are systematically preserved by the ‘expert’ in the interests of medical hegemony (Hart, 1985; Collier, 1989). Morgan et al. (1988) observe ‘the autonomy enjoyed by professional groups’ who utilize ‘knowledge as a powerful asset to use to attain and maintain power’. Citing Friedson (1970) these authors suggest that ‘the medical profession’s power to control what constitutes health and illness has been used to extend the medical monopoly over areas of life and behaviour which were not traditionally the concern of the medical profession’. Thus, the medical profession effectively ‘creates’ illness in order to ‘extend its professional dominance, with authority deriving from its professional status and claims of competence’. Morgan et al. (1988) cite childbirth as an area which has become increasingly ‘medicalized’ by professional intervention (see also Hannay, 1988; Armstrong, 1989; Coutts and Hardy, 1989).

Farrant and Russell (1986) offer further evidence of this ‘vested interest’ in relation to the HEC’s literature on CHD:

‘Furthermore, the “population” versus “high risk” preventive strategy debate within the medical literature, has, in part, to be seen in the context of the medical profession’s own interests in keeping coronary prevention within medical control and within a conventional paradigm of medical intervention. One of the arguments that has been advanced in favour of a high-risk strategy of CHD prevention is that it offers for physicians (and patients) a more familiar and comfortable model of medical practice. The WHO Expert notes that “Doctors often lack the training and hence also the motivation to enlarge their responsibilities beyond the care of the sick”. However, Rose points out that much harder to overcome than this . . . is the enormous difficulty for medical personnel to see health as a population issue and not merely as a problem for individuals”. Thus, whilst epidemiological theory points towards a population approach to CHD prevention, reviews of current practice and initiatives in the medical literature . . . suggest an emphasis by the medical profession on the role of high-risk screening strategies within a medical setting.’

The above issues are linked to the social questions previously considered. For how long can professionals continue to ignore the socioeconomic and
environmental determinants of disease and disability as identified by so many writers? (for example Hart, 1985; Burkitt, 1986; Currier and Stacey, 1986; Morgan et al., 1988; Hannay, 1988; Armstrong, 1989). The unwillingness to acknowledge this aspect of health together with the discrediting of peoples' knowledge and subjective experiences by professionals (Farrant and Russell, 1986) seems to be a practice in which central government covertly, but actively, colludes.

OTHER MODELS: SOME FURTHER PROBLEMS

The 'illness' model of health which validates the subjective experience of being unwell has limitations, however, not dissimilar to the biomedical 'disease' model. First, 'health' is a negative concept, derived from the notion of 'illness': its presence implies a corresponding absence of health. This perspective therefore fails to reflect the potentially complex relationship between 'health' and 'illness' either at an individual or social level. It cannot, for example, accommodate the possibility of the coexistence of both in a permanently disabled person. This individual may not feel 'ill' but it would not be meaningless or inappropriate for a physiotherapist to discuss strategies directed towards enhancing that individual's health. Conversely, a person who is considered to be in good health might nevertheless testify to feeling unwell and may be unable to identify the reasons for these feelings. Secondly, this model focuses on the importance of restoring and maintaining a person's health rather than on its positive improvement. Thus the sociological and environmental health education strategies described by Burkitt (1986) and Ewles and Simnett (1987) could be viewed in this light and not necessarily as examples of proactive policy.

This positive aspect is captured in the World Health Organization's definition, cited by Burkitt (1986) and Sim (1990), which presents health as a multidimensional, all embracing concept that could apply to almost any aspect of a person's life. The WHO defined health as complete physical, mental and social well-being not merely the absence of disease and infirmity. This definition raises problems, not least of which is related to its terminology. For example, how are we to understand the notion of 'well-being'? Is it identical with that of 'health'? On an Aristotelian analysis, the association between 'well-being' and human flourishing suggests that 'health' is a necessary but not a sufficient condition for eudaimonia – happiness (see Aristotle, EN bk. I, transl. Ross, 1986). The attainment of a happy life is to some extent dependent upon good fortune; thus it would seem possible for a person to be 'healthy' but not to experience happiness or 'well-being'.

Together with these theoretical difficulties, adopting the WHO's concept of health poses potential practical problems. Insofar as it purports to reflect a generally shared ideal, the WHO's notion of health does not fully acknowledge the view expressed by Ewles and Simnett (1987) that, "‘Being healthy’ means different things to different people”. A similar allegiance to (liberal) individualism is embodied in exhortations to ‘be open-minded in approach to
FROM THEORY TO PRACTICE

In an attempt to crystallize the arguments adduced above concerning the disadvantages of the biomedical model, it now seems appropriate to examine one health educator's account of current practice. This account highlights further difficulties associated with this particular health educator's (unsuccessful) struggle to extricate himself from a fundamental conviction in the efficacy of the biomedical approach. To focus on these kinds of ideological problems seems to be particularly relevant to a discussion whose chief aim is to encourage a more analytical and critical approach to physiotherapy practice.

David Muir, Promotions Officer at the Look After Yourself Project Centre, Christchurch College, Canterbury, outlines a training course which comprises parts of the popular Look After Yourself programme in which many UK health authorities are currently involved. That Muir's fundamental allegiance is to the biomedical model of health is evident from the authoritative and censorious tone of his opening claim: 'Good health is considered by most people to be the single most important thing that they want in their lives, and yet many do little about it' (Muir, 1989). In a characteristically Cartesian manner, he then compares bodily health with inanimate objects such as 'cars and household appliances' and condemns people because 'they prefer to wait until something goes wrong' rather than taking preventive action. Although Muir's intention seems to be to discredit the biomedical model, his language betrays an allegiance to its tenets. He asserts that: 'Health is sometimes mistaken for fitness', but rejects this limited perspective because it neglects, 'other important aspects of a healthy life-style', such as making 'sound' dietary choices, maintaining 'correct' weight and the ability to 'cope adequately' with life stress, all of which he sees as playing 'an integral part in helping to achieve the sort of health which makes you feel good'.

For Muir, then, 'health' is detectable in individuals by the application of prescribed objective criteria (including those of aesthetics, rational ability and emotional resilience). That health is also identified with 'life-style' and 'well-being', however, seems to indicate his recognition of the shortcomings of the biomedical model and, it appears, his wish to convey an indebtedness to other models; for example, the model that incorporates the subjective notion of 'illness' (Sim, 1990) against which 'wellness' is judged (see also Hannay, 1988; Armstrong, 1989; Williams, 1989). In this context, we may now enquire as to whether Muir believes that the notions of 'health' and 'well-being' refer to synonymous states. Does his concept of 'health' incor-
porate the aristotelian idea of 'eudaimonia'? (Harre, 1990). If Muir equates 'health' with 'flourishing' perhaps he also has in mind a positive conception of 'health' based on the somewhat utopian definitions of the World Health Organization (cited in Hart, 1985; Burkitt, 1986; Ewles and Simnett, 1987; Whitehead, 1989; Sim, 1990).

However eclectic Muir's conception of 'health' may appear to be, he takes it to be a self-evident truth that 'health' comprises an appropriate subject for education. The problem is characteristic of the biomedical model of 'health education' (Burkitt, 1986; Hyland, 1988). This premise, which carries the status of an a priori truth, is that if teachers 'equip individuals' with 'skills and knowledge that are appropriate to their health needs', those 'individuals' will be able to 'take positive steps' towards achieving what Muir considers to be this desirable state. Indeed, such tuition will enable class participants to 'make gradual changes' in 'their life-styles'. Muir is keen to demonstrate a commitment to a 'progressive' education philosophy: his 'integral' group training scheme is participative. Significantly, however, the objectives are couched in familiar terminology: 'gaining an understanding of relevant health topics' instructing individuals how to exercise 'safely and regularly' and teaching 'understanding and coping with stress and knowing how to practise simple relaxation techniques'.

Finally Muir manages to introduce another popular concept — 'holism' (see Flew, 1983; Burkitt, 1986; Newbeck, 1986; Newbeck and Rowe, 1986; Ewles and Simnett, 1987; Pietroni, 1987). He seeks to link his concepts of 'health' and 'health education' by advertising his training programme as an example of an 'holistic' approach to management. Muir is confident that, The importance of this "holistic" or "total" approach to health and well-being is recognized by an increasing majority of those involved in promoting good health, and many see it as essential to their work . . .'. In common with some physiotherapists (see for example Williams, 1986; Jackson, 1987), Muir perceives it to be a legitimate (and professionally advantageous) strategy to synthesize 'science' and 'art' and 'orthodoxy' and 'alternativism' within practice. Since 'holism' represents a philosophy whose principles stand in direct opposition to those of scientific reductionism, however, further questions arise. Is it empirically likely, and indeed theoretically consistent, for a health educator to subscribe, seriously, to both these theoretical perspectives? To indicate an indebtedness to both within the scope of one paper would seem to reflect either a genuine, or a contrived metaphysical inconsistency, neither of which can pass unobserved. Certainly to base practice on such a philosophical confusion cannot be countenanced, irrespective of other demonstrable weaknesses associated with the biomedical approach.

**TOWARDS A PHILOSOPHY OF HEALTH AND HEALTH EDUCATION**

That our discussion of some of the problems associated with the biomedical approach to health and health education has inevitably exposed other difficulties in some alternative concepts of health should not disconcert us. We...
should accept that disadvantages, as well as advantages, are to be found with any model which can inform practice. There are no simple solutions to this complex problem. While this idea is undoubtedly true, however, its acceptance need not, and indeed, should not, lead us to abandon our search for an attractive theoretical foundation on which to base physiotherapy. Our response to such intellectual challenges should be positive and constructive if qualitative improvements in physiotherapy are to be effected.

Sim (1990) believes that physiotherapists require a primary, proactive model of health on which to base practice. He contends that, a more ambitious and wide-ranging definition is necessary, if management is to incorporate, 'activities concerned with enhancing health and extending its boundaries'. Sim then cites two theorists, Whitebeck (1981) and Seedhouse (1986), who conceive of health in terms of human aspiration or potential. For Sim, the attractions of such a concept are twofold. First, 'a high degree of health may coexist with illness or disease; secondly, 'health as a concept extends beyond the sphere of medical care, and may even be incompatible with certain aspects of medicine'. Health thus embraces all spheres of the individual's life in which human aspirations can be realized and the WHO's definition of health (cited by Whitehead, 1989) embodies this ideal.

Certainly, Seedhouse's philosophy is attractive in many respects, as reflected in his concept of health: 'A person's optimum state of health is equivalent to the state of the set of conditions which fulfil or enable a person to work to fulfil his or her realistic chosen and biological potentials. Some of these conditions are of the highest importance for all people. Others are variable depending on individual differences and circumstances' (Seedhouse, 1986).

Because they comprise the foundations of Seedhouse's general philosophy, it is worth expanding on some of the ideas contained within the above definition. Seedhouse's concept of a person (Seedhouse, 1988) seems to owe much to the Aristotelian ideology discussed earlier, which conceives of persons as interdependent social human beings whose individual potential for achievement is inextricably linked with that of the flourishing of society in general (Maclntyre, 1985). For Seedhouse each person possesses basic rights, amongst which is the right to health. Since the attainment of a person's health is necessarily linked with the realization of, 'his or her realistic chosen and biological potentials', it is evident that Seedhouse is committed to a fundamental belief that each person has the right to claim personal autonomy, central to which is the notion of choice (see Raz, 1986 for a full discussion of personal autonomy).

Given that he adopts this particular concept of a person, it is consistent for Seedhouse to conceive of the health worker as having a duty to guarantee those basic rights. He thus characterizes 'Work for health' as 'essentially enabling' and associates it with 'providing the appropriate foundations' to facilitate the achievement of personal potentials. The health worker is encouraged to remove obstacles to the attainment of a person's 'biological and chosen goals' and to provide 'the basic means by which (such) goals can be achieved'. Seedhouse openly acknowledges the 'fuzzy' boundaries of the concept of health: 'The world is an interconnected whole: nothing is finally
clear-cut'. Using a time-honoured metaphor, Seedhouse makes a pertinent point central to all those engaged in health work: 'Work for health is work for building a solid stage, and keeping that stage in good condition. The roles that people perform, and how they choose to perform these roles upon that stage is up to the individuals provided that the platform is sound'.

Turning to the concept of 'education', Seedhouse contrasts it with 'training' which he equates with 'indoctrination' and 'which involves imparting a single set of ideas'. Seedhouse (1988) proposes a theory of education which contrasts with that espoused by the biological model. He regards education as having two principal aims: first, 'To provide the learner, either directly or indirectly, with all relevant information about a subject area'; secondly, 'to instil a childlike curiosity . . . to encourage a questioning attitude, a confidence to select and to criticize; to promote the sense that the information which is being presented is what we have now – it is not the final word; and to encourage the idea that each of us is part of a continuing inquiry'. To suggest that all our knowledge is tentative, provisional and changing and that everyone (professional and layperson alike) is engaged in an ongoing inquiry is to challenge the fundamental premises on which the biomedical model is based. This challenge, in itself, is liberating and therefore empowering.

Seedhouse’s concept of health education is derived from the synthesis of his ideas on health and education. He contends that health education 'should not indoctrinate' or be 'a propaganda exercise'. Its aim should be first, 'To ensure that all people have a good standard of general education' and second, 'To develop people’s powers of conceiving, and so to enable them to make the most of the information they have'. Seedhouse identifies what he believes to be the benefits – to professionals and to lay people – of a health education programme which embodies these aims and exhorts the health professional to strive towards them.

**SOME IMPLICATIONS FOR PHYSIOTHERAPY PRACTICE**

Some of the implications of adopting Seedhouse’s philosophy need to be identified. These seem to fall into two broad categories: those associated with personal attitude change; and those related to the practical aspects of health care and the manner of its delivery. With reference to the former category, it behoves all of us to undertake a regular re-examination of our metaphysical and ethical beliefs in relation to our role as health care workers. How we conceive of health and health education will determine the quality of our service. For example, many of us regard the therapist/patient relationship as central to clinical practice without ever questioning either the underlying assumptions associated with these concepts or, more fundamentally, our own frame of linguistic reference. That language reflects ideological beliefs and attitudes is confirmed by the periodic need to revise dictionaries. The language we use to describe the world, however, also determines the parameters within which we perceive that world. Thus the very use of the terms ‘therapist’ (agent) and ‘patient’ (passive recipient) dictates how we conceive of this relationship, and may, indeed contribute to the perpetuation of that attitude.
The fact that these terms continue to be used supports the contention that many professionals wish to preserve the inherent inequalities which characterize their relationships with members of the general public. Had there been a genuine wish to eliminate this inequality and establish a relationship founded on egalitarian principles, the traditional nomenclature would have been replaced by terms deemed to reflect these ideals. It therefore seems to be necessary to introduce a new linguistic frame of reference in order to precipitate an attitude change which has hitherto been slow to evolve. Interestingly it has been suggested by a music therapy colleague that the terms 'researcher' and 'co-researcher' deserve serious consideration as contenders. Within this frame of reference 'education' for health would be a socially shared goal, a collective enterprise, with each participant demonstrating mutual respect for personal autonomy reflected in a willingness to engage in the processes of both teaching and learning.

To focus briefly on the second category concerning the various aspects of health-care delivery, physiotherapists currently seem to encounter numerous extrinsic as well as intrinsic barriers to good practice. Lyne and Phillipson (1986) catalogue a number of these barriers and identify 'the pressure of acute referrals' as being 'the most significant barrier to health education'. They cite other problems relating to 'Workload and Work Organization' (see also Leathley and Stone, 1986) and report that 'Problems of Professionalism' and 'Communication between Professionals' further mitigate against educational activities. Whitehead (1989) echoes these problems and identifies additional obstacles to good practice. The first of these 'is almost certainly inadequacies in pre-service and in-service training' which is often 'treatment orientated'.

Whitehead (1989) alludes to the unsatisfactory practice of 'crises' treatment' and the fact that some professionals do not consider 'educational work' as 'their role', some report 'lack of confidence in educational skills and lack of support from managers who may give the impression that it is not a legitimate activity for their staff'.

CONCLUSION

How, then, are we to effect attitudinal and organizational change? How are we to overcome these various obstacles to the establishment of good practice? As Whitehead (1989) laments, 'The over-riding impression... is one of health educators attempting to swim upstream, against the current of forces which have operated to damage health or undermine educational efforts...'. Her report of lay participation, however, provides an encouraging example of what is surely good practice of the kind in which physiotherapists could become increasingly involved, given opportunities and encouragement to do so by their managers. Furthermore, Whitehead's account of community-based health education illustrates that change, although a difficult process to manage, is possible, given the initial commitment among professional health workers. And this is the crucial point. In order to establish and maintain good practice, we, as physiotherapists must be genuinely committed to this ideal: we must find the energy to examine and evaluate our knowledge, skills and
attitudes on a regular basis and be receptive to new perspectives. Where possible we must initiate and manage change within both the educational and clinical context and, perhaps most importantly, we must work to dismantle inter-professional barriers.

If these applications are summarily dismissed as the incoherent ravings of an inveterate idealist, it is difficult to find a rational argument which might serve to combat such a reaction. The only hope lies, perhaps, in directing the reader to Mary Warnock’s writings on educational practice and, in particular, to her valuable observation that, ‘It is the function of an ideal to be unattainable. It is no argument against adopting an ideal, therefore, to show that it is impossible to attain it’ (Warnock, 1977). To aim for the establishment of physiotherapy practice based on Aristotelian principles does not, therefore, imply a naive belief that this aim will ever be fully realized; rather, it demonstrates a genuine commitment to those principles and a serious intention to strive towards their realization.

REFERENCES

Health, health education and physiotherapy practice

Physiotherapy: a psychosocial approach

Health, health education and physiotherapy practice


**FURTHER READING**


There is no simple way of defining disability, it can be viewed from many and varied perspectives. Within every society there are competing definitions with some being more dominant than others at different times. These definitions, although often in conflict, gradually influence and modify each other. The definitions put forward by powerful groups within society, such as the medical profession, tend to dominate over the definitions of less powerful groups, such as disabled people themselves. It is very important to explore the ways in which disability is defined, as well as who defines it, for attitudes and behaviour towards disabled people, professional practice and the running of institutions, such as rehabilitation centres and hospitals, are based, at least in part, on these definitions.

**ADMINISTRATIVE DEFINITIONS OF DISABILITY**

Administrative definitions of disability tend to be rigid and dichotomous and are often written into legislation and Acts of Parliament. These definitions usually relate to specific areas of life such as education, employment and housing, and are used to assess whether or not people are eligible for certain benefits, or compensation.

The problem with rigid definitions such as these, is that, owing to the complexity of disability, disabled people rarely fit into the neat boxes administrators provide. For this reason administrative definitions are often viewed as unfair and divisive. For example, it is not uncommon for severely disabled people to be denied benefits, such as the mobility allowance, because their disabilities do not fit the rigid criteria demanded. Medical definitions of disability are less rigid which can lead to conflicts regarding whether a particular person is entitled to an electric wheelchair, a downstairs flat or a visual aid.

Rigid definitions of disability can be harmful in other ways. For example, until recent times children with a given impairment, such as blindness or partial hearing, were educated in special schools regardless of their other characteristics and attributes, the decision being based largely on tests to detect the level of impairment. Similarly, until 1971, children whose IQ scores...
fell below a certain level were said to be 'ineducable', but it is now known that an individual's IQ score is a poor predictor of ability or social capacity and that children with intellectual impairments need more rather than less education.

Having said this, loose administrative definitions can be even more dangerous because large numbers of people can be readily labelled 'disabled' and treated accordingly. For example, under the Mental Deficiency Acts of 1913 and 1927 people could be categorized as 'mentally deficient' without any reference to their intellect, and many were detained merely because of socially disapproved behaviour, such as becoming pregnant, or having emotional problems.

Health professionals are forced to work within the framework of administrative definitions, yet such is their power that the rules can often be bent. For example, it is not unusual for visually impaired people to be refused entry to the blind person's register by one consultant ophthalmologist, but be placed on it with little ado by another. There are various advantages to being registered 'blind' rather than 'partially sighted' but the tests adopted are crude and the dividing line between the two categories is ill-defined. Thus the decisions made depend, at least in part, on the doctor's and the disabled person's attitudes towards blindness and their ability and willingness to negotiate with each other.

DEFINITIONS OF DISABILITY BY CHARITABLE ORGANIZATIONS

Charities have tended to portray disabled people as helpless, sad, courageous and in need of care and protection (Scott-Parker, 1989). Such images, presumably believed to be the most effective means of raising money, are now thought to have caused considerable harm to disabled people by perpetuating various damaging stereotypes and myths. Charities frequently mislead the public in the type of client they portray. Organizations for blind people, for example, have tended to depict a disproportionate number of blind children with no additional disabilities, whereas in reality the majority of their clients are elderly, partially sighted or multiply disabled, people who are perhaps less likely to arouse emotion, public sympathy and support.

Many disabled people find images presented by charities offensive, as their demonstrations against telethons illustrate. Disabled people have complained that telethons serve to give publicity to companies and to provide entertainment for non-disabled people as well as boosting their egos as they donate money. Organizations such as the Campaign to Stop Patronage, would prefer the funds given to charity to be used by disabled people to campaign politically for their rights (Telethon is a Modern Day Freak Show, 1990). Through political activity such as this the portrayal of disabled people has started to become more positive. The front cover of the magazine Contact published by The Royal Association for Rehabilitation and Research (Contact, 1990), for example, shows a severely disabled boy using a computer, and the magazine of the Down's Syndrome Association (1989), is similarly full of positive
images including a forthcoming wedding and successful stories of educational integration. Images such as these, however, can be just as misleading and damaging as negative ones, for they tend to concentrate on exceptional disabled people, thereby denying or minimizing the considerable problems that the majority face; they underline the message, that society expects disabled people to be 'normal' or even superhuman.

**LAY DEFINITIONS OF DISABILITY**

Lay definitions of disability are diverse and constantly changing, they are influenced by other definitions such as those presented by charities and the medical profession. Definitions from the past, from religion and from other cultures, such as the association between disability and sin, and disability and goodness, may still linger and are sometimes reinforced in novels and plays (Karph, 1986). Negative images of disabled people depicting them as sad and pathetic, are also frequently represented in the arts of today.

Most people have a rather simplistic and superficial understanding of disability. For example McConkey and McCormack (1983), reporting on various surveys conducted among people in Ireland, found that over half mentioned wheelchairs when asked, 'What type of people do you think of when you think of the disabled or the handicapped?'. A further 25% mentioned a physical disability, with less than half being able to distinguish 'mentally ill' from 'mentally handicapped'. The results of a poll conducted for Mencap in 1982 had similar findings. Taking all of these polls together over 20% of those surveyed defined disability in terms of 'people who cannot do things for themselves'.

Disability of a family member will be defined according to the interests and beliefs of that person and his family, which in turn will be influenced by prevailing cultural beliefs, attitudes and practices. A man with a physical impairment may be considered very disabled in a family whose main interest is sport, but hardly disabled at all in a family with more sedentary interests. Likewise a child who finds difficulty reading may be seen as very disabled in a highly intellectual family, but not in a family with little interest in academic success. What is and what is not regarded as a disability is also reflected in societal structures and values. Learning difficulties, for example, have become more disabling over the course of this century as the ability to read and cope with complex situations has become more important.

Shakespeare (1975) points out that the age of the person also influences how his impairment is viewed by himself and others. Impairment or illness may be considered 'normal' or less tragic in old age depending on the particular family and culture. Disability in girls may be tolerated more readily than disability in boys, because the traditional role of the female has tended towards greater dependency. Thus ideas and perceptions of disability cannot be divorced from wider attitudes and beliefs concerning age, gender and work.
MEDICAL DEFINITIONS OF DISABILITY

The medical and health care professions are dominant and powerful agents in defining disability, though it is now clear that this situation is changing. The medical model of disability has led people to view it in terms of disease process and abnormality, where the disability and the solutions to it are firmly located within the disabled individual rather than within society. Philip and Duckworth (1982) note that research into disability has been very medically orientated. This has led people away from viewing it in terms of society or the environment and, by concentrating on individual conditions, has stunted and fragmented their knowledge of issues which concern most disabled people, such as access problems, lack of educational provision and job discrimination. The medical approach has been insufficiently broad to concern itself very much with disability from the disabled person’s point of view or the disabling effects of society itself. Brechin and Liddiard (1981) point out that the medical model has guided and dominated clinical practice with the resulting assumption that the problem and the solution lie within the disabled person.

Because the medical model lies at the heart of clinical practice it may be difficult for health care professionals to consider changing their attitudes and behaviour towards disability and disabled people. McKnight (1981) points out that the existence of many professional roles is dependent on viewing disability in terms of the medical model and that the very tools and techniques which professionals have at their disposal serve to define and individualize problems. Oliver (1983) believes that the medical model of disability may serve the needs of professionals more than the needs of disabled people and Ryan and Thomas (1987), talking of learning difficulties, state: ‘Medical model thinking tends to support the status quo. The subnormality of the individual rather than the subnormality of the environment, tends to be blamed for any inadequacies. . . . Within most institutions staff have a vested interest in not questioning the quality of the patients’ environment too radically, for they themselves are part of that environment’.

They also believe that although the causes of learning difficulties, if known at all, are usually related to socioeconomic conditions such as malnutrition and poverty, medicine has mainly concerned itself with the study of rare syndromes and its emphasis on abnormality and incurability have justified the appalling conditions under which people with learning difficulties have had to live and continue to live. They believe that, ‘Mental handicap provides a case study of the medicalization of a social problem’.

Individualizing disability is certainly not a practice peculiar to medicine, though other professions and institutions have undoubtedly been influenced by the medical model. Shearer (1981), for example, notes that the first official aim of the International Year of Disabled People in 1981 was: ‘Helping disabled people in their physical and psychological adjustment to society’.

Individualistic professional definitions, those from both inside and outside the health care professions, certainly have the potential to do serious harm. The medicalization of learning difficulties, which is now being questioned, is
one example. Another is oralism, the belief that deaf people should dispense with sign language and learn to rely exclusively on lip reading. The philosophy and practice of oralism has led Ladd (1990) to believe that human beings are capable of disabling other people far more profoundly than their actual impairments. It is certainly most unlikely that a deaf person would ever have devised such a plan. (A full account of oralism and the backlash against it is provided by Ladd, 1988.)

Other institutions within society have also taken a somewhat medicalized, individualistic stance to disability. This was so, until recently, in education where children were categorized fairly rigidly in terms of their medical condition. It eventually became apparent that categorizing children on the basis of their impairments, while paying scant attention to all their other characteristics and attributes, was far from satisfactory and, in the 1981 Education Act, the broader notion of 'special education needs' emerged as well as a resolve to educate 'disabled' children in 'mainstream' schools.

The medical model and that of most professionals, is thus individualistic. Oliver (1983) states: 'The individual model sees the problems that disabled people experience as being a direct consequence of their disability. The major task of the professional is therefore to adjust the individual to the particular disabling condition'.

As well as making a physical adjustment it is assumed that the disabled person must also make a psychological adjustment. It is thought that becoming disabled is inevitably psychologically devastating, a personal tragedy. Carroll (1961) likened the loss of sight to dying and many people, for example, Weller and Miller (1977), believe that the adjustment to disability requires a process of mourning. There has certainly been a growing trend towards counselling by health care professionals indicating a developing psychological orientation. Oliver (1983), however, rejects such ideas on the grounds that non-disabled people view disability and adjustment as individual phenomena, thus neglecting wider societal influences. He has also found that these explanations fail to tally with the experiences of many disabled people who neither grieve nor mourn and who may indeed find the experience of disability enriching. Even people who do mourn may be mourning the loss of their independence rather than the loss of bodily function or appearance, a situation which could to a large extent be eliminated by societal and environmental change.

Scott (1969) found that professionals working with blind people tended to regard their clients' problems in psychological terms. This was in contrast to the blind people themselves who viewed the difficulties arising from their blindness as practical problems. Scott noted that the difficulties expressed by the blind people were often referred to by the professionals as 'the presenting problem', implying superficiality. He states: 'Workers regard the client's initial definition of his problems as akin to the visible portion of an iceberg. Beneath the surface of awareness lies a tremendously complicated mass of problems that must be dealt with before the surface problems can ever be solved'.

Oliver (1983) believes that these psychological theories may become
Defining disability - its implications for physiotherapy practice

219

self-fulfilling, with the disabled person concluding that disability is tragic and behaving accordingly. He is also of the opinion that individualizing disability is politically convenient, as the onus for 'overcoming' any problems is placed very firmly upon the disabled person's shoulders, leaving the rest of society unchanged. Trieschmann (1980) points out that disabled people cannot win, for if they show no evidence of a psychological reaction following the onset of disability, they are assumed to be demonstrating denial which is in itself viewed as a psychological problem.

By individualizing disability the effect of the environment upon the lives of disabled people is not addressed. Indeed the environments imposed upon disabled people in the name of treatment, for example mental handicap hospitals and young chronic sick units, can have detrimental effects leading to greater dependency and an increase in existing problems of function or behaviour. In addition, as Mittler (1979) points out, people subjected to such environments may be the very people who are most susceptible to their adverse effects.

Blaxter (1976) notes that definitions of disability have become wider and more complex with disagreement, in many instances, about whether the problems of disablement should be the concern of the medical profession at all. Despite this, and the expansion of other professional groups and institutions, the medical profession has considerable control over non-medical decisions such as housing, employment and education. This has led some disabled people to complain that, although their particular impairment gives rise to no medical problems and cannot be improved by medical intervention, medicine has nonetheless been a dominant factor in their lives (French, 1987a).

It should never be assumed, however, that there is consensus regarding the definition of disability or illness between or within the medical or health care professions. Mental illness, for example, is viewed in physiological, psychological and sociological terms (Tyrer and Steinberg, 1987; French, 1989) and even as a myth (Szasz 1961). Similarly one physiotherapist may define disability very differently from another or regard people with different impairments in diverse ways. Nurses and occupational therapists may not agree on their definitions nor physiotherapists and doctors. Our perceptions of disability are 'shaped' by a multitude of factors not least of which is professional education, socialization and specialization. The effect of this is often to produce a narrowed perception of disability which can easily give rise to conflict or ineffective communication with both disabled people and colleagues.

SELF-DEFINITIONS OF DISABILITY

In the past it has been considered unnecessary to discover how disabled people view their own situation. Like most under-privileged minority groups their views have been disregarded and suppressed. Disabled people have been traditionally considered dependent and in need of care. This attitude has led to the definitions of non-disabled people being thrust upon them. Thomas
(1982) points out that with the growing 'Disability Movement' this situation has started to change. This movement has certainly gathered strength over the past decade with many disabled people talking and writing about their experiences and challenging the definitions of disability given by others. There has been a large increase in the number of organizations of rather than for disabled people, many of which are extremely active politically.

Although it should be borne in mind that disabled people form a heterogeneous group, with widely differing attitudes, there is growing evidence that their definitions of disability are thoroughly out of tune with professional workers. Safilios-Rothschild (1976) points out that alternative solutions and innovative plans presented by disabled people, have often been regarded as unrealistic by professional 'experts' who tend to view disabled people within the confines of a stereotyped role.

Oliver (1990) and Finkelstein (1990) regard disabled people's views as constituting a social model of disability, where the problems are seen, not within the individual disabled person, but within society. Thus the person in a wheelchair is not disabled by his paraplegia but rather by building design, lack of lifts, rigid work practices and the attitudes of the general public. Similarly the blind person is not disabled by lack of sight, but rather by lack of braille, cluttered pavements and stereotypical ideas about blindness. Finkelstein (1981) has argued that non-disabled people would be equally disabled if the environment was not designed with their needs in mind.

Although their views have not been addressed until recently, disabled people have never been passive objects in the labelling process. They may believe themselves to be disabled when the professional worker does not, or vice versa, they may fight for a medical label in order to avoid a more discrediting one, or avoid the label of disability at all costs. Although some may internalize the role expected of them, others will merely comply with it until their formal rehabilitation is complete. Ladd (1988) explains that many profoundly deaf people do not adhere to the notion that they are disabled but rather prefer to view themselves as a linguistic and cultural minority, one which was very nearly destroyed by the practice of oralism.

CONFLICT BETWEEN THE MEDICAL AND SOCIAL DEFINITIONS OF DISABILITY

In discussing the conflict between the medical and social definition of disability the concepts of 'independence', 'normality', 'acceptance' and 'adjustment' will be examined, for these are concepts on which disabled people and health professionals tend to disagree.

Independence

Independence is generally considered to be something disabled people desire above all else. In many ways this is true, for if a person is excessively
Defining disability – its implications for physiotherapy practice

dependent on others then he or she must fit in with their schedules and plans with a subsequent loss of freedom and autonomy. In addition, it is all too easy for the relationship between the helper and the person being helped to develop into an unequal one, with the helper having undue power and the disabled person being compelled constantly to express gratitude, or at best never to complain. Sutherland (1981) believes that disabled people are expected to play the 'weak and needy' role, receiving help with gratitude even when it is not needed. This oppression is difficult to challenge because many disabled people need some help and its continuation may well depend on expressing a sufficient degree of appreciation. This obligation is based on the often erroneous assumption that disabled people are unable to reciprocate the help they receive.

Physiotherapists and other health workers, usually regard personal independence as a major aim in the rehabilitation of disabled people, but is it always in the best interests of disabled people? Sarah, a disabled woman featured in Jo Campling's book (1981) says, 'I can sew but so slowly that it bores me to do it'. Similarly a partially sighted person who can read the telephone directory may, nevertheless, ask a friend to do so for her because of the time and effort involved, and a person with a physical impairment may ask for assistance in cleaning, cooking and dressing to give him sufficient time and energy to lead a full social life. Sutherland (1981) quotes a disabled person as saying: 'I've known a few people who, as adults, have refused to walk even though they could because it's just not worth the effort. And people have often got angry with them, often. They've been labelled lazy and all sorts of things. They're definitely considered odd if they choose to be in a wheelchair, in the same way as you're considered odd if you don't struggle to do something that you can actually do even though it takes you six hours'.

Corbett (1989) agrees, believing that self-help skills 'might be an intolerable chore to some people with disabilities' impeding their quality of life and inhibiting self-expression. She describes how people with learning difficulties can actually regress if independence is forced upon them.

We are, of course, all dependent on each other to a large extent and we all use aids, such as computers, washing machines, motor cars, aeroplanes and eating utensils, to save time and to overcome physical limitations such as our inability to move fast or to fly. We are also dependent on other people to produce and repair the aids. Despite this the dependency of disabled people tends to be regarded as 'special', as qualitatively different. The problems they face and the equipment they need, such as wheelchairs and hoists, are also regarded as exceptional. This creates beliefs among health workers and others that disabled people should 'manage' in as 'normal' a way as possible and that 'unnecessary' aids may harm them by reducing the amount of exercise they take or by making them lazy and dependent. These beliefs exacerbate the practical difficulties in acquiring the aids.

The physical and psychological stress involved in being independent, as well as the wasted time and reduced social opportunities incurred, are rarely given much attention by anyone other than disabled people themselves. Yet we do not insist that people walk six miles or even one rather than using their
motor cars, or that they should dispense with labour saving devices in case they become lazy, or dependent on the people who produced them. Indeed, to attempt to enforce such a plan would be considered extremely patronizing and a serious breach of human rights. Why then should people with motor impairments be denied electric wheelchairs just because they can physically 'manage' to walk or push a manual one? Clearly disabled people are not enjoying the same freedom of choice as other citizens and are placed in an oppressive relationship with those who have control over their lives, including health professionals.

The concept of independence is very complex and does not have to be regarded as physical but rather as a state of mind. A person who is almost totally dependent on others, in a physical sense, can still have independence of thought and spirit as well as exercising full control over his or her life. It is also very likely that non-disabled people will be dependent on the disabled person in various ways, perhaps as someone who has time to listen, or, in the case of health professionals, as a way of earning their living. Once again it is worth emphasizing that our dependence on each other does not merely involve luxury goods or extraordinary equipment, but our very survival. Corbett (1989) concludes that: 'Real independence is nothing to do with cooking, cleaning and dressing oneself. If you ask me what is my experience of being independent, I would not automatically think about self-help skills but being able to use my imagination to create fantasy, of enjoying music and drama, of relishing sensual pleasures and absorbing the natural life around me'.

Normality

Closely associated with the concept of 'independence' is that of 'normality'. The expectation that disabled people should appear normal can give rise to enormous inefficiency and stress, yet many disabled people are well into adulthood before they realize what is happening or before they find the courage to abandon such attempts (Campling, 1981; French, 1987b). Sutherland (1981) talks at length of this believing that: 'We are subjected to continual pressure to conform to a "normal" image, this is one of the major reasons for the manufacture of elaborate prosthetic limbs and hands, which are often poor substitutes for the purely functional devices such as wooden legs or metal hooks which they replace'.

This process of normalization is often at the expense of the disabled person's needs and rights. For example if a physically disabled person who can walk short distances is denied a wheelchair, he may become isolated or unsuitable for certain types of employment. The goal of 'normality' can also be physically dangerous, as when the person with a serious visual impairment avoids using a white stick. In addition, rendering a disability less visible can easily create social problems equally or more difficult to manage than if it were exposed. Sutherland (1981), drawing heavily on the experience of disabled people in encounters with health professionals, talks of this at length. He states: 'There's a tremendous emphasis on a child who's had polio or what-
ever to walk, to be as able-bodied as possible. It's like standing up is infinitely better than sitting down, even if you're standing up in a total frame - metal straps and God knows what - that weighs a ton, that you can't move in, which hurts, takes hours to get on and off and looks ugly. It's assumed that that's what you want and that's what is best for you'.

Many disabled people are well into adulthood before they manage to abandon, or at least challenge, this expectation of 'normality'. For most this is a gradual process which comes with the confidence of age, but for some it can be a sudden realization. A disabled woman in Campling's book (1981) had such an experience when she saw a group of deaf people in a restaurant: 'They were laughing and talking and didn't give a damn that the whole place knew they were deaf. My years of pretence seemed suddenly absurd. I had been making life "normal" and easy for everyone except myself'.

Because of the negative attitudes towards disability which prevail in society, disabled people and those who live and work with them, may come to the conclusion that being 'normal' is the only way to succeed. The goal of normality is thus justified in terms of social acceptance. For example, it can be argued that one of the objectives of deaf people learning to lip read or blind people learning to use facial expression appropriately, is that they will be more socially acceptable, less isolated and better able to compete with non-disabled people. Although these ideas contain more than a grain of truth, the problem with this approach is that disabled people must carry the entire burden of disability themselves, while society learns nothing of its true nature. These expectations lead many disabled people to try and become 'super-human' so as to avoid the negative stereotypes of neediness and inadequacy.

Acceptance and adjustment

Health professionals and others have seen their role as one of helping disabled people to 'accept' their disability and 'adjust' to it. Disabled people have been urged to 'overcome' what are viewed as their problems, to learn to live with them and never to complain. Any prolonged anger or depression concerning lack of access, negative attitudes, inappropriate rehabilitation, poor housing or non-existent job prospects, have been viewed as evidence of maladjustment, denial and 'chips on their shoulders'. These ideas arise from individualistic models which conceptualize disability as a relatively unchangeable, internal state of the individual, rather than societal problems which can be changed.

Individualistic conceptions of disability have been severely criticized by disabled people who have concluded that they serve the interests, not of themselves, but of the non-disabled majority. It is convenient for society that disabled people should accept what are viewed as 'their' problems and adjust to them, for in that way the status quo is maintained. As Sutherland (1981) explains: 'When a disabled person fails to internalize the rehabilitation goals set by the professionals, or who persistently pester his local social service department, he can be categorized as having problems adjusting to his dis-
ability. This conveniently leaves the existing social world unchallenged, the goals of the rehabilitator remain unquestioned and the failure of the welfare department to provide the right assistance can be ignored'.

What non-disabled person would tolerate the erosion of his basic human rights, by passively 'accepting' and 'adjusting' to poor educational and employment opportunities, lack of access to public buildings and unsuitable housing leading to institutional living? What non-disabled person would tolerate others telling her she ought to accept and adapt to these conditions and that there was something wrong with her if she failed to do so? Disabled children have been socialized from an early age into believing that these rights do not apply to them. It is often those who become disabled later in life who can see the situation most clearly.

It is concepts such as 'independence', 'normality', 'acceptance' and 'adjustment' which the growing Disability Movement is bent on challenging.

RECONCILING THE DIFFERENCES

The relationship between disabled people and health professionals has never been an easy one, for it is an unequal relationship with the professional holding most of the power. Traditionally the professional worker has defined, planned and delivered the services, while the disabled person has been a passive recipient with little if any opportunity to exercise control. As noted above the disabled person's definition of his problems and the appropriate solutions to them, are generally given insufficient weight, thereby seriously hampering the rehabilitation process; for if there is no consensus little real progress can be made.

Over the last decade or so disabled people have become increasingly organized and politically active. Centres for integrated living, coalitions of disabled people and international disability organizations, all controlled by disabled people themselves, now flourish. There are radio and television programmes promoting the views of disabled people, and an increasing number of conferences, courses, journals and books on disability issues, organized and produced by disabled academics. All of this amounts to a 'disability movement' as disabled people press for control in decision-making and for their perspectives and rights to be acknowledged and acted upon. Though still young, the movement has brought about considerable change in attitudes and practices. The pace of change has no doubt been helped by similar social movements such as those promoting 'gender equality', 'racial equality', 'consumerism' and 'equal opportunities'.

Professionals understandably tend to find these developments threatening as their status, power, role and even their jobs no longer seem secure. It has to be admitted that there are many disabled people who, disillusioned with the help they have received in the past, reject any professional involvement in the new services they are developing. However, many believe that partnership and collaboration with professional workers is important, and professionals are already assisting disabled people in developing services appropriate to
their needs as they define them. Professionals in such a situation serve as a resource to disabled people as they strive to reach their own goals. They do not attempt to dominate, to take control or to 'manage' disabled people but rather to act as 'supportive enablers', actively sharing their expertise and knowledge while recognizing and learning from their disabled associates — the term 'patient' is no longer appropriate.

Silburn (1990) explains the work of the Integrated Living Team in North Derbyshire where a physiotherapist, a speech therapist and an occupational therapist work with severely disabled people under their direction. In this situation the experiences and perceptions of disabled people are given precedence over the perceptions and judgements of the professional workers. The therapists have had to learn many new skills in order to provide a truly integrated service and have had to accept an enormous broadening of their roles and erosion of role boundaries.

By consultation with health professionals disabled people are given the opportunity to learn how the service systems operate, which serves as an important first step to their full participation in service planning and delivery. It also helps them to understand the difficulties professional people working within the system face. By working together ways can be found of incorporating disabled people in all aspects of the system including decision-making and the planning of service delivery. In this way barriers can be broken and opportunities provided to develop a more appropriate service. Such a change of relationship requires considerable maturity on the part of professionals who in the past have tended to respond to criticism from disabled people by trying to improve the existing service rather than questioning its nature. It also requires a radical shift in the balance of power making the traditional professional role untenable. This does not mean that the professional worker is no longer needed or valued, but rather that a new, perhaps more rewarding, role must be created where questions such as 'who is the professional?' and 'what is the nature of expert knowledge?' must be asked.

In this new role professional workers must be committed to the idea that disabled people have the right to control their own lives and that they should be the ones to define the agenda. Finkelstein (1982) emphasizes that disabled people should be involved at all levels of the system, rather than being used in a tokenistic way, such as being asked to talk about themselves at conferences or courses, to act, as he puts it, as 'living case files'. There must be an acceptance of the disabled person's expertise.

The separation and isolation of services, often caused by professional defensiveness and jealousies, has been a powerful factor in segregating disabled people from mainstream society. This is because the wealth of existing expertise and knowledge, relevant to studies of disability, has been insufficiently integrated and shared. Collaboration among professionals from various disciplines, with disabled people themselves, would widen perspectives and help to develop new ideas and practices. For example architects, social workers, occupational therapists and disabled people may need to join forces to effect imaginative changes in housing policy and design. Collabor-
ation in research is also needed to avoid the perpetuation of a narrow, medical view of disability. (For a discussion on researching disability, the reader is referred to Oliver, 1987.)

Disabled people must also change. They need to become active in decision-making, to take up the challenge of self-determinism and organize themselves so that their viewpoint can be delivered in a professional, knowledgeable, coordinated and articulate manner. This is not easy because, through past isolation and discrimination, for example in work, leisure and education, disabled people frequently lack the necessary skills, knowledge, confidence and assertion to bring about these changes. The very act of coming together as a group, however, helps to raise the consciousness of disabled people to their own situation and to give them confidence, indeed this is an important function of the Disability Movement and a necessary first step to effecting change.

Disabled people must be prepared to learn about service delivery systems including the professional worker’s difficulties, and be willing and able to pass on their own expertise and knowledge. Disabled people have enormous insight into disability through their day-to-day experience, but they need to develop their expertise and be prepared to share it with professionals in a learning relationship. Through past experience many disabled people mistrust professionals and may find this new role of consultation, collaboration and partnership difficult to manage. Part of the new professional role may be to assist them in acquiring these skills.

CONCLUSION

Professionals are in a difficult position in effecting change for to do so may involve criticizing their managers, their colleagues, the philosophy and practice of their places of employment and their professional education. Professional bodies are resistant to pressure from outside and are protected from radical change by the considerable power they enjoy and the loyalty they demand from members. In addition individual professional workers rarely have control of resources which is so often at the root of service delivery decisions and practice. Professionals are thus locked into work structures which are difficult to change or challenge, a situation which frequently leads to compromises not necessarily reflecting the professional worker’s ideas or intentions. Changes needed are thus not only administrative and social but also political.

Although few physiotherapists have the power or resources to bring about large changes of policy, it is wrong to conclude that nothing can be achieved by the individual. In the Open University course, The Handicapped Person in the Community (1982), it is suggested that in order to effect change, it is important for the individual to understand the nature of the problem and to spend time asking questions and seeking information which can later be shared. It is then necessary to open a discussion route, perhaps a small meeting in the physiotherapy department or a chat with an influential colleague,
where proposals for change can be made. Tact is necessary so as to avoid
offence and defensive reactions which may block or hinder the passage of the
proposal. It should always be kept in mind that small changes, for example
allowing or encouraging the disabled person to become more involved in his
own assessment and treatment, are often enormously important in their own
right and often initiate larger ones. Having more disabled people in the
physiotherapy profession may well help to effect change: perhaps the equal
opportunities policies now operating in many universities, polytechnics and
colleges will lead to more disabled people entering the physiotherapy
profession.

Physiotherapists must be accountable to disabled people and use their
services and resources flexibly. They need to extend their viewpoint well
beyond the medical perspective to include social and political models of
disability. There are already many examples of the process occurring in the
physiotherapy profession as physiotherapists move out into community
settings and as psychology, sociology and disability studies enter the physio-
therapy curriculum. Great care must be taken, however, that a broader vision
on the part of professionals does not lead to a greater control of the lives of
disabled people. Finkelstein (1991) believes that rather than health profes-
sionals exercising more power and control, the base for disability related
services should be moved from 'health and welfare' to 'environment', that
services to disabled people should be provided as a resource and that civil
rights legislation should be used as a framework for the development of
community based services.

In order to work with disabled people successfully there need to be
changes in professional education, professional practice, professional collabor-
ation and the relationship between professionals and disabled people. Change
is always stressful and it is all too easy for both disabled people and profes-
sionals to avoid it and maintain the status quo, yet both groups will experi-
ence considerable personal growth and satisfaction if action can be initiated
and change can be faced.

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DEATH AND DYING

Death, dying and bereavement are areas not normally associated with physiotherapy practice, yet the physiotherapist is often confronted with death. As Purtillo (1972) points out, a patient may die or his family may wish to discuss death-related topics. On a personal basis, the physiotherapist may suffer the death of a loved one. Death and dying are of universal concern (Feifel, 1990).

The secularist and consumerist societies of the late twentieth century have attempted to deny death in many ways. Euphemistic language describes how the deceased has 'passed away' or has 'gone to sleep', in such terms no one has died. The art of the mortician ensures that many dead people look better than they did when alive. In many instances coffins are not committed to the earth in the presence of mourners but are rested on grass-like mats used to cover the grave, with burial taking place later when the bereaved have departed. Behaviour such as this is a vain attempt to deny the reality of death. Why death became a taboo subject in recent history is not readily explicable, for by its very nature it is a totally natural event. The more sophisticated ordering of our society, with improved nutrition and health care, has prevented many untimely deaths, but death itself cannot be prevented.

Historically death and dying were dramatic events which took place in the family arena. Death was a common and natural occurrence for both adults and children. A person was born and died as a member of the multi-generational family and was dependent upon the resources available within that unit. With this type of inter-generational living, birth and death were both viewed as natural aspects of the life cycle. This type of family structure has disappeared in modern, industrialized and urbanized societies and death no longer impinges so closely on people's lives.

Since about 1970 the taboo surrounding the topic of death has been partially lifted and there has been a torrent of literature on the subject of thanatology, the scientific study of death, its causes and related phenomena, such as rituals. It was not until the latter part of the present century in our society that human beings achieved their biblical allocation of three score years and ten, and in the Western world millions of people now live into their eighth and ninth decades. Many of these people will eventually die of cancer which is essentially a disease of old age. There has been increasing interest in cancer in recent times, but it is the AIDS epidemic which has brought with it the possibility of millions of untimely deaths. These two factors may account
for the increased interest in thanatology which has provided an increasingly prominent focus for modern medical research in the management of death.

Inevitably, more physiotherapists are becoming involved in terminal care, especially in the public sector institutions. Physiotherapists have always had some contact with dying patients but their ability to cope is probably related more to their own personal philosophies than to any extensive education or professional training. Purtillo (1972), writing about the physiotherapist as part of the death-denying society, searched 12 years’ publications of Physical Therapy and could find only two articles written on the subject, neither of which was written by a physiotherapist. There is a similar scarcity of articles in Physiotherapy. This dearth of literature indicates how the subject of terminal illness and death has been neglected by physiotherapists.

**Terminal illness**

A common perception which people have is that terminal illness and cancer are synonymous, while this is often the case it is not necessarily so. Physiotherapists treat people with a wide variety of terminal conditions, which may be vascular, neurological or respiratory in origin without being cancerous. AIDS, since it appeared in the United States in the 1970s, has reached virtual epidemic proportions and Kübler-Ross (1987) suggests that this disease is perhaps the ultimate challenge since it affords society an opportunity to help those affected or to abandon them. While there may be some acceptance of death when it occurs in elderly people, AIDS has tended to claim the lives of those in their prime.

Health professionals generally have a common core of values centred around the promotion of health, the restoration of health to sick and injured people and the prolongation of life insofar as it is reasonable. Worthy and noble though these aspirations are, there are other factors which must be considered to avoid any dichotomy between caring and curing. These factors dwell in the affective domain and include a broad range of emotions concerned with the ultimate loss of life itself.

Perhaps the most quoted work in the area of death and dying is the seminal work of Elizabeth Kübler-Ross, *On Death and Dying* (1969), where she focused on the feelings of patients with cancer who were fully informed of their diagnoses. She identified stages through which terminally ill people frequently and typically pass. These stages comprise the following: denial and isolation; anger; bargaining; depression; and acceptance. This work, while it has been a cornerstone in palliative care, has had some adverse criticism because of its simplistic format. Kübler-Ross (1969) did not claim that all stages were passed through by every dying person but the use of the word ‘stages’ suggests a linear sequence. Saunders (1978) supports this classification and suggests that it describes a process of realization whereby the person eventually recognizes the inevitability of his or her own death.

Most of Kübler-Ross’s 200 subjects exhibited denial as their first reaction on hearing of their diagnosis. They believed there had been a mistake, that
the X-rays had got mixed up. Frequently second opinions were sought in the
vain hope of a more optimistic diagnosis. Denial can take other forms such as
the dying person referring to a large, ulcerative tumour as a 'wound'.
Lamerton (1973) found that the first thing people did on receiving bad news
was to deny it. Many people in their daily lives cope with bad news or
unpleasant events in this way, so it is not surprising that they adopt the same
strategy when a life-threatening illness arises. Hinton (1972) believes that
people who are dying should not be denied the comfort of make believe and
consoling daydreams. Kübler-Ross (1969) strongly emphasizes that denial is a
healthy way of dealing with uncomfortable and painful situations. It acts as a
buffer which allows people time to mobilize other, less radical, defences.
Indeed Veatch (1976) supports the view that denying a terminal illness is
what many people do to stay sane.

Staff who do not recognize denial or understand its function, may be
somewhat intolerant or judgemental and may tend to leave patients alone
with their grief. This behaviour is likely to lead dying people to become
lonely and isolated. It is vitally important that staff members do not shatter
the coping mechanisms of patients. Physiotherapists who are willing to
spend time with their patients, to sit, talk or to listen, will instill a feeling of
confidence in them that there is someone who cares and is available. It is in
such a staff member that patients are likely to confide. Most people will, in
time, come to at least a partial acceptance; few, if any, sustain denial through-
out the entire course of their illness. Kübler-Ross (1969) compares the pros-
ppect of death to looking at the sun insofar as one can only look at it for short
periods before being forced to look away until another time.

When denial is no longer easy to maintain, anger, envy, rage and resent-
ment may surface. Anger is understandable in a person who may never see
the fruits of his life's work, the happy retirement he had looked forward to or
the growth of his children or grandchildren. He may feel angry about the loss
of life itself and this may be vented on family members or hospital personnel.
It is not uncommon for this anger to be directed at God by a person who feels
that terminal illness would be more appropriate if visited upon some old and
worthless person who makes no contribution to society. Feelings of anger
may also give rise to jealousy towards the healthy people around.

Angry patients are almost impossible to please. They demand attention in
many ways and simultaneously complain that they are bothered by the staff
and cannot rest. Visits to the hospital by loved ones can be very painful and
uncomfortable and they may respond with grief, guilt or the avoidance of
future visits. Saunders (1978) has shown that many such relationships break
down because of the anger evoked by severe physical distress. However, not
all terminally ill people have distressing symptoms when the diagnosis is
made, many feel physically well which is another reason for their denial
and anger. Hinton (1972) found that to feel needed and to have a sense of
belonging is profoundly important to many people and the recognition that
their loved ones can manage without them can give rise to considerable
anger. Staff and relatives who understand this anger will realize that it is not
directed at them personally, even though they are the targets. An understand-
Bargaining is a common tactic adopted by children to get what they want and is used similarly by dying people. Many terminally ill people make bargains with God or with the chaplain. These bargains may take the form of a promise to give money or service to the church or the poor in return for a cure or a remission. Kübler-Ross (1969) found that many patients promised to donate their bodies to medical science if the doctors could cure them. Various forms of bargaining can be seen among terminally ill people all of which are attempts to postpone the dreaded day. Glaser and Strauss (1965) recognized bargaining, coaxing, persuasion and hinting as some of the ways in which patients attempted to negotiate to achieve their aims.

Depression in terminally ill people has been a controversial subject. Many people when told their diagnosis are not feeling ill and in such circumstances denial and anger are readily explicable. Glaser and Strauss (1965) believe that when a person is first told that he is terminally ill, his response is one of depression, after which he may choose to accept or reject the prognosis. In Kübler-Ross's classification of the stages of dying (1969), depression sets in when the person's health declines, when his body is thinner, weaker and more debilitated. The depression may be compounded by other losses, such as loss of breast, limb, income or social status, and almost certainly it will also be due to the prospect of the loss of life itself. Lamerton (1973) points out that some people worry about unfinished business from the past, or the anticipated suffering and bereavement of others.

Hinton (1972) believes that depression is the commonest emotional upset in terminally ill people. The sadness, apathy and misery experienced tends to be under-rated by health professionals, including physiotherapists, who may believe that such emotions are evoked entirely by the person's poor physical condition. This is an erroneous assumption, other people who have the prospect of recovery do not exhibit the same degree of misery. It is certainly not helpful to tell the dying person, 'It could be worse', for clearly it could not. Depression is normal and fully understandable in terminally ill people and Saunders (1978) believes that labelling them with psychiatric diagnoses is not helpful.

Everyone knows that life ends in death, yet many people have a private belief that death cannot touch them. Someone who has had a sudden illness of short duration may not even have contemplated his own demise. Those who have a terminal illness of protracted course are likely to come to some level of acceptance in time and are more fortunate, in some respects, than those with short-term, terminal illness, as they have the opportunity to confront and deal with the gamut of emotions which terminal illness evokes. The person may eventually become resigned and accepting of the inevitable. Attitudes to death and expressions of grief are variable but, almost always, they are influenced by a person's cultural background (Valk Lawson, 1990). Essentially people die as they live. Halper (1979) talks about the now fashionable dogma that dying people should accept death, but for many this is totally out of character with the pattern of their lives and may not be an appropriate
coping mechanism.

The physiotherapist may recognize this quieter state of mind where the patient questions the purpose of continuing treatment, no longer interests herself in reading or watching television and spends more time sleeping. The physiotherapist must be ready to discuss the continuation of her treatment with the patient and her physician. The patient's wishes are paramount but sometimes an explanation will show her that physiotherapeutic procedures, such as passive movements and chest clearance, are performed for comfort rather than cure. The patient's queries regarding the purpose of treatment, may indicate that she is not ready to die and she may need reassurance that the medical team will not give up on her.

Hopes, needs and fears of dying people

Kübler-Ross (1969), in her work with dying people, emphasizes that denial, anger, bargaining, depression and acceptance last for different periods of time and either replace each other or exist side by side. The one feeling that usually persists throughout all the stages is hope. Hope is not incompatible with acceptance and there is a growing volume of literature to support the view that patients tend to show the greatest confidence in medical personnel who offer them hope, whether it is realistic or not, the placebo effect at its best (Kübler-Ross, 1969). Halper (1979) questioned the ability to be both hopeful and resigned simultaneously and thought that acceptance was fundamentally incompatible with hope. Saunders (1978), however, found that truth and hope are not mutually exclusive, and believes that informed patients are usually better able to fight for life than others because they understand and accept the real battlefield.

Purtillo (1972) points out that terminal illness gives rise to many fears of which the physiotherapist should be aware. Communication about matters of life and death is often fraught with difficulties caused by the fear it evokes in the dying person, his family and the care-givers themselves. This often results in the communication being ineffective. Fear is a natural reaction to danger and it is easy to understand why it occurs when a person's life is threatened. What is less generally recognized is the extent to which the expression often becomes blocked, distorted or fragmented in people with incurable disease (Saunders, 1978). Many dying people admit to feeling anxious, but, according to Saunders (1978), few of them can identify the cause of their anxiety. Some may experience fear on behalf of someone else, for example a spouse or child who is affected by their illness, but they will frequently deny experiencing any fear themselves. The effect of this situation may be that the dying person restricts his communication to trivialities and pointedly ignores the opportunities given him by carers to talk about his illness. In contrast Hinton (1972) found that most dying people were only too willing to communicate with anyone who was prepared to listen.

It is not always easy to recognize the main source of a dying person's fears, for as well as pain, there are many dangers, real and imagined, for terminally
ill people to cope with. Halper (1979) mentions the fear that the doctor will give up on them too soon, that the nurse will not come quickly enough with the medication, that the aide will not come in time with the bed pan. Anxieties such as these may come in crowds. Qvarnstrom (1979) discussed fears such as loss of identity, loss of vital functions, loss of the body, loss of self-control, loss of relatives and fear of what will happen when death has occurred.

The moment of death after a terminal illness is invariably peaceful. The hospice concept of 'living until death' has ensured that pain can be assuaged in almost every instance. Many physiotherapists have had the experience of witnessing a patient's death while quietly performing passive movements or other palliative measures. Many young physiotherapists may not have experienced death among their relatives or friends and may, quite naturally, have apprehensions about encountering it for the first time in the professional situation. Quietly holding a person's hand or stroking his brow may be the last service she can give him, a final act of kindness for which no thanks can be given. Hinton (1972) states: 'The moment of death is not often a crisis of distress for the dying person. For most, the suffering is over a while before they die. Already some of the living functions have failed and full consciousness usually goes early. Before the last moments of life there comes a quieter phase of surrender, the body appears to abdicate peacefully, no longer attempting to survive. Life then slips away so that few are aware of the final advent of their own death'.

Mount (1979) reports on an International Work Group on Death, Dying and Bereavement, which first met in 1974 to propose standards of care for terminally ill people. Their needs were described in the following way:

1. To be relieved of pain and other distressing symptoms.
2. To be in an environment of care where the patient's demands can be met without his suffering the fear of being a burden and where his individuality and integrity as a person can be maintained.
3. To have time and opportunity to voice his fears and to come to terms with his illness.

It appears that pain relief is of greatest concern to the dying person (Lamerton, 1973). Hanratty (1989) describes four main types of pain in terminal illness:

1. Physical pain.
2. Mental pain (e.g. anxiety, depression).
3. Social pain (e.g. isolation, embarrassment).
4. Spiritual pain (e.g. desolation).

Physiotherapists often feel unqualified to evaluate the psychological effects of pain. Swann (1989) believes, however, that they have the skills, or can acquire the skills, to treat not only the physical symptoms but to help alleviate the associated psychological manifestations of pain.
Physiotherapy and terminal care

Terminally ill people develop physical impairment directly from the disease process or secondarily, especially in cancers, from surgical, medical or radiation treatment. With the great technological advances of recent years physicians can make earlier and more precise diagnoses; many therapies for cancer are now highly effective and patients are living longer. This has led to a need for more rehabilitation services. Rehabilitation is not a matter of physical treatment alone, but rather concerns the treatment of the whole person, someone with a mind and a soul as well as a body.

The notion of the physiotherapist treating the whole person is not new. Downie (1971) stressed the need for physiotherapists to be adaptable, to transcend their traditional role and interest themselves in everything involving total patient care. This means giving time to listen and talk to patients and to understand their reactions to impending death. The patient must be accepted and respected as he is. Knowledge of the thanatology literature is not, of itself, a recipe for assisting dying patients. There is always the danger that the physiotherapist, or any other health professional, may look for the reactions and emotions described in the literature, in an attempt to categorize the patient. Karl (1987) believes that such attempts show insensitivity to the needs of dying people and give the impression of turning their personal grief into a mechanical process.

Good terminal care may be defined as rehabilitation of dying people and is exemplified in the modern hospice (Twycross, 1981). To be most effective rehabilitation for all patients is delivered by means of a team approach. The physiotherapist in such a team will need to know the extent and range of services which the other team members can offer. Professional education can make it difficult for people to exchange roles or to tolerate the blurring of professional lines of demarcation. However, flexibility and the support of colleagues is essential if optimum care is to be given.

There are no specific techniques of physiotherapy that are employed for dying patients. In their education physiotherapists are taught the essential skills of electrotherapy, kinesiology and manipulative procedures and how to modify these techniques to suit particular circumstances and individual patients. Physiotherapists are likely to spend considerable time with their patients carrying out these treatments and are therefore likely to hear a great deal about how they feel. Hargreaves (1987) believes that touching, when it occurs as part of the therapeutic process, can indicate encouragement, support and caring. There are few people, healthy or otherwise, who do not feel better after receiving massage performed by a physiotherapist. For the dying patient it can be a potent message that he is a cherished human being.

The essence of palliative care is that the health professional must be responsive, not to the disease or even to the particular problems which arise that day, but to the dying person himself (McAteer, 1990). It should be emphasized that not all dying patients are angry, withdrawn or depressed, quite often they appear to face each day with equanimity and to live their lives as fully as they can. This life-style is possible for many if carers support
BEREAVEMENT

Reactions to death are many and varied and will depend, to a large extent, on the manner of the death and whether it was expected or sudden. When a person has died after a protracted illness the loved ones will have had time to anticipate his death and perhaps to loosen their emotional ties with him; when the death finally occurs there may be no overwhelming manifestations of grief. Worden (1983) refers to this process, of grieving before the death has occurred, as 'anticipatory grief'. The term dates back to Lindemann (1944), the father of the modern study of grief. Grief is essentially a response to loss and its intensity is related to the degree of attachment to the lost person. A person in mourning is usually bereaved by death, but people mourn a variety of losses such as loss of limb, loss of body image, loss of independence and loss of mobility. Bereavement by death has been used as a conceptual framework for understanding losses in many areas of physiotherapy practice (McAteer, 1989).

Normal grief

Grief has been the subject of much investigation in the twentieth century. In some cases it may have pathological or psychiatric manifestations but it is now accepted as a normal response to loss. A fire in the Cocoanut Grove Nightclub, Massachusetts, in the autumn of 1942, led to a classic study by Eric Lindemann (1944). He studied a large sample of people who were bereaved...
following the 500 deaths which resulted from the fire, and identified some of
the characteristics of normal, acute grief. These included:

1. Somatic distress.
2. Preoccupation with the image of the deceased.
4. Hostile reactions.
5. Loss of patterns of conduct manifested by restlessness, lack of daily
   routine and an inability to sit still.
6. Appearance of traits of the deceased in the bereaved.

When a death is unexpected, shock and disbelief are the commonest
responses. Shock is experienced even in cases where death was expected.
Shock, disbelief and denial are particularly intense when a young person dies
suddenly, for example in a motor accident. Frequently the response is, 'There
must be some mistake', or 'Is there another person with the same name?'.
These reactions closely resemble the typical response to a diagnosis of
terminal illness.

Anger is a common and confusing emotion experienced by bereaved
people. Many casualty staff have borne the brunt of this. Widows, formerly
loving wives, become angry at their dead husbands and these feelings may
persist throughout the first year of bereavement (Murray-Parkes, 1975).
Widows may be angry that they are left without sufficient funds, adequate
insurance or other less tangible goods. Worden (1983) believes that anger is
at the root of many of the problems of the grieving process.

When the shock wears away the reality of the loss becomes apparent. At
this time sadness fills the bereaved person's waking hours. Crying and general
tearfulness are common; the so-called 'pangs of grief' are well documented by
Murray-Parkes (1975). This state of sadness, anguish and despair has been
described by Karl (1987) as a 'coping phase'. The bereaved person goes about
his daily business feeling tired, aimless, confused, lacking in confidence,
indecisive, lonely and apathetic. Crying is a variable feature, since sadness is
not always manifested by tears. Many bereaved people describe how they
wake up in the morning feeling for a brief moment that the death of their
loved one was all a dream, but reality quickly shatters this moment.

The feeling of guilt is a common experience of bereaved people and is
widely reported in the literature (Lindemann, 1944; Worden, 1983). Families
often feel guilty that they did not get a second opinion, a better hospital or a
private nurse. Some feel they should not have allowed an operation to take
place. Worden (1983) believes that parents whose children die are highly
vulnerable to feelings of guilt which often focus on the fact that they could
not ease the child's distress or prevent his death. Other people feel guilty
about the sense of relief they feel after the death of their loved one, even
though they may have nursed him over a long period of time. Yearning and
pining for the dead person is entirely normal and persists throughout the
mourning period. When it diminishes in intensity it is a sign that mourning is
coming to a healthy termination.
Mourning a loss is considered an essential part of the restoration process (Imara, 1983). The term 'recovery' poses a difficulty, however, insofar as the person who is lost is not recovered. Mourning, or the adaptation to loss, is described in almost all the literature as 'grief work'. Worden (1983) identifies the main tasks of mourning as follows:

1. To accept the reality of the loss.
2. To experience the pain of grief.
3. To adjust to an environment in which the deceased is missing.
4. To withdraw emotional energy and invest it in other relationships.

As previously discussed the reality of the loss may be difficult to accept. Some practices of denial can help to mitigate against the loss and may be useful in the short term. Denial of the facts may involve a slight distortion or a more serious delusion. Seeing the person's body is often the first step towards accepting the reality of what has happened. Absence of a body, in an air crash for example, can lead to complicated or prolonged grief in those who are bereaved (Van der Hart, 1988). Parents who have been dissuaded from seeing the body of their child killed in a mutilating accident, frequently have difficulty with this first task of mourning and invariably regret not having said the last 'good-bye' (Jones, 1988).

Funeral rituals help to confirm the reality of death, especially if they take place some days later. Keeping the bedroom of a dead person exactly as it was left creates a type of shrine to his memory and is, in reality, a denial of the death. Queen Victoria took comfort from having her dead husband's clothes laid out as though he were alive. If these practices are carried out for too long the bereaved person may never get past the first stage of mourning without professional counselling intervention. It now appears that to suppress the pain of grief is to store up mental or physical dysfunction in the future (Zisook and de Vaul, 1976). Drugs which suppress these emotions are not considered suitable for most people since taking them merely prolongs or postpones the period of mourning. The funeral ritual has a valuable role to play in facilitating the outpouring of grief, but not all bereaved people will feel such pain.

For those who are bereaved the environment is totally different without the deceased person. Living without a loved one has many connotations. Murray-Parkes (1975) points out that the death of a spouse may be viewed as the loss of a breadwinner, a sexual partner, a baby sitter, an accountant or all of these. The death of a child before that of his parents seems to go against the natural order of things and is particularly difficult to accept. Some people will not be able to cope with the practical or emotional demands of the changed environment, while others will achieve new dimensions of personal growth.

The final task of mourning is to achieve an emotional detachment from the deceased which will enable the bereaved person to enter into new and meaningful relationships. This is possible when the other tasks of mourning have been dealt with and should not be viewed as disloyalty to the dead.
Health during bereavement

Lindemann (1944) showed that various types of somatic distress were evident in normal grief. Many people interpret the features of grief as being 'sick' and so they seek medical help. Many doctors in such circumstances write prescriptions for their patients which confirm them in the 'sick role'. Not only does this practice help to suppress the normal physiological and psychological manifestations of grief, but it leaves patients open to medical, psychiatric and even surgical mismanagement.

Physical symptoms associated with grief are many and varied. Lindemann (1944) lists tightness of the throat, shortness of breath, digestive symptoms, nausea and loss of strength. Murray-Parkes (1975) mentions headaches, dry mouth, a lump in the throat and aching limbs and Worden (1983) talks of
hollowness in the stomach, breathlessness, lack of energy and over-sensitivity to noise. All three mention insomnia as a significant problem of bereaved people. This may be experienced as difficulty in going to sleep or waking up after a short period of sleep. Sleep disorders can sometimes symbolize certain fears, for example fear of dreaming, fear of being in bed alone and fear of not awakening. A patient of Worden's had a means of conquering her fear of being in bed alone. She took her dog to bed with her and the sound and rhythm of the dog's breathing was a source of comfort and reassurance. She continued to sleep with her canine companion for over a year by which time she felt she could sleep alone. Worden suggests that cats may be even more suitable since they do not respond to nocturnal sounds as most dogs do.

Appetite for food was shown by Murray-Parkes (1970) to be severely depressed during the first month of bereavement resulting in loss of weight. This can be due to nausea, a feeling of hollowness in the stomach or a dry mouth. Murray-Parkes (1985) reports that the appetite for food is one of the first appetites to return and can surge to an unusual degree so that any weight which was lost in the first few weeks of bereavement is not only replaced but increased.

Murray-Parkes (1975) describes the pain of grief as the 'broken heart'. The classic broken heart on the death of a spouse reflects the puzzling association between bereavement and the death of bereaved people from heart disease. There is a significant increase in death rates from heart disease in men in the first year after the death of their wives though not all types of bereavement are equally dangerous for the heart. The death of a spouse has long been recognized as one of the most stressful of life's experiences (Schleifer et al., 1983) and clearly few survivors of conjugal loss can be entirely healthy in the first year of their bereavement. The effect of conjugal loss may be so profound as to result in future illness, demonstrating the adverse influence of separation on biological homeostasis (Oberfield, 1984).

The first study to demonstrate a connection between the immune system and bereavement was carried out by Bartrop et al. in 1977. Schleifer et al. (1983) showed that lymphocyte responses were significantly suppressed in the first 2 months of bereavement following the death of a spouse. These findings may account for the increased morbidity and mortality associated with bereavement, although it is equally possible that lymphocyte function may be affected by changes in nutrition, activity levels, exercise, sleep and drug use. Lymphocyte function in bereaved spouses could also be influenced by centrally-mediated stress effects. Psychosocial processes, such as stressful life experiences, may be associated with changes in central nervous system activity. Current research is exploring the obscure yet real links between bereavement and a wide variety of physical and psychosomatic disorders. These include certain types of cancer, arthritis, infections, skin disorders and allergies.

Jacobs and Douglas (1979) see grief as a mediating process between the loss and possible illness; there seems to be little doubt that the expression of grief in mourning is essential for health. Tears may have a potential healing value. Stress causes chemical imbalances in the body and some researchers
believe that tears remove toxic substances and help to redress the balance. Frey (1980) suggests that the chemical content of tears caused by emotional stress is different from that of tears shed as a result of eye irritation. There is on-going research to discover what type of mood-altering chemicals produced by the brain are present in emotional tears. Subjectively tears relieve emotional stress, but it is not fully understood how they do so. Research is needed to clarify this and to establish if it is harmful to suppress tears.

**Bereavement and physiotherapy**

The implications for physiotherapists treating bereaved people are considerable. Patients who have recently been bereaved may suffer from any or all of the physical manifestations of grief which have been considered in this chapter. Wortman and Silver (1989) point out that the loss of a loved one removes a major source of social support which in itself can account for some of the pathogenic effects of bereavement. It would be of considerable help to the physiotherapist to know, as part of each routine interview and assessment, if her patient has been recently bereaved, and if so who had died. Many symptoms, for example vague joint and muscle pain, can be attributed to acute grief. The physiotherapist, with even a limited knowledge of the grief process, can be of considerable help to her patients by being a good listener or non-directive counsellor. According to Sim (1990), the physiotherapist who wants to enhance and create health in others needs a more ambitious and wide-ranging definition of health than the mere removal of illness and disease. Becoming responsive to any need that the patient may have is what gives breadth and movement to the accountability aspect of professional responsibility (Purtillo, 1986). The physiotherapist who understands the grief and mourning process will convey to bereaved, but otherwise healthy, patients that while they may have physical signs and symptoms, these do not constitute sickness and should not be medicalized.

There are a number of ways in which the physiotherapist can provide practical help in promoting the health of bereaved people:

1. If sleep is difficult, rest is possible without recourse to a drug-induced sleep. Most physiotherapists have a range of relaxation techniques to offer or they may suggest some commercially produced audio and video tapes.
2. Exercise may be a useful way of encouraging relaxation if it is undertaken sensibly. Walking is probably the best and safest way to maintain cardiovascular fitness. It may also help to enhance the immune system and lift depression.
3. There is no substitute for balanced, wholesome meals and the bereaved person should be encouraged to take care of her diet.
4. A medical check-up for bereaved people is a good idea. The patient should not be labelled a 'hypochondriac' if there are physical signs and symptoms of emotional distress. They are real and should be regarded as such.
Physiotherapy: a psychosocial approach

5. The physiotherapist should recognize when the patient needs to be referred to a bereavement counselling service. Particular types of death, such as stillbirth, sudden-infant-death-syndrome, suicide, abortion and homicide are usually catered for by specialist counsellors or other helping agencies.

6. Reaching out to another human being will always help to dispel loneliness and isolation.

Professional carers are not immune from grief themselves. Physiotherapists may mourn the loss of a patient they have become attached to and may feel anger, guilt and remorse when such a loss occurs. They, too, need help, understanding and support which sensitive colleagues should be ready to provide.

CONCLUSION

Working with dying and bereaved people is neither depressing nor unrewarding. Death and dying are everyday realities. Fowler (1989) believes that in some respects health professionals are guilty of cultivating an expectation of a painless life without suffering. Life is painful and full of sorrow for many people, but death need not be so. Working with fellow human beings who are facing death, has many rewards for the physiotherapist, not least of which is the very significant personal growth and development she is certain to experience. As Kübler-Ross (1975) states: 'Death can be very hard to face, and we might be tempted to avoid it and flee from having to confront it. But if you have the courage to deal with it when it comes into your life — to accept it as an important and valuable part of life — then whether you are facing your own death, that of someone in your care, or that of a loved one, you will grow'.

REFERENCES


Death, dying and bereavement


This chapter examines lay perspectives and knowledge about health and illness mainly from a sociological point of view. Lay knowledge about health and illness is an important area to examine for a number of reasons. First, sufferers, and those who make up their social networks, call upon it to make sense of signs and symptoms and other health problems. While lay knowledge may be influenced, in terms of its structure and substance, by scientific knowledge given by professionals and/or through the media, it is nonetheless different from professional, scientific knowledge. Secondly, lay health knowledge is important because it may influence health-related behaviour and other behaviour. Lay knowledge may, for example, influence decisions concerning patterns of food consumption, decisions to self-medicate, to go to the doctor or to do nothing. Finally, lay perspectives on health and health care are important as they can be used, along with assessments of medical effectiveness and economic efficiency, to evaluate health care programmes.

These are three practical illustrations of the need to examine lay beliefs about health and illness. The approach to the subject has changed over the last decade or so, but before recent research is outlined the more traditional perspective will be briefly discussed.

THE TRADITIONAL PERSPECTIVE

This perspective is well represented in what has been popularly termed the Health Belief Model. The model was extended by Janz and Becker (1984) and is used to predict compliance with official health recommended actions such as screening, immunization, diet, exercise, personal habits and entering or continuing treatment programmes. Thus it covers not only the uptake of health services but also compliance with recommended health action, for example that given in health education campaigns. The model consists of a number of dimensions of health beliefs which comprise the concept 'readiness to undertake recommended compliance behaviour'. These dimensions include motivation, value of illness threat reduction and probability that compliant behaviour will reduce the threat of illness. In addition it is suggested that demographic, structural, attitudinal and interactional factors can modify and enable action. The approach can be described as the 'ballistic' approach, since the image of the proto-patient is one of a missile ready to be hurried towards the health services. The view is that these different dimensions of health beliefs work in concert to produce a decision to act or not.
An alternative construct or framework which is also rooted in learning theory, is the health locus of control. The general principles behind the health locus of control are that people who feel they control their own health are likely to engage in healthy behaviour and to act in accordance with the recommendations of official health agencies, whereas those who feel powerless to control their own health, will be less likely to do so. Since its original inception the general construct of the health locus of control has been modified (Wallston et al. 1978) and the favoured concept is now that of the multidimensional health locus of control. This construct consists of three distinct dimensions of belief about health: the internal; the powerful other (e.g. the doctor or physiotherapist); and chance. People who score high on the internal scale are more likely to believe that health is the result of their own behaviour, while those who score high on the other two dimensions believe either that health depends on the power of health workers, or on chance, fate or luck.

While both these approaches have been popular, there are some fundamental problems which occur at both the conceptual and empirical level. At the empirical level studies have shown that both models have limited explanatory value. For example, a recent study by Calnan (1989), using data from two large scale community surveys \( n = 4224 \), examined the relationship between multidimensional health locus of control and exercise, cigarette smoking and alcohol use. The results showed that none of these relationships were more than modest in strength even within different social and economic contexts. Obviously this analysis did not exhaust all health behaviours, for example dietary practice was not included.

Similarly, in studies examining the predictive power of the health belief model, the evidence suggests only a modest relationship between the belief dimension and behaviour (Langlie, 1977). Calnan and Rutter (1986), examined the predictive power of the health belief model for explaining changes in the practice of breast self-examination. Three groups of women were investigated — 278 who accepted an invitation to attend self-examination classes and were taught the techniques in detail, 262 who declined the invitation and 594 controls to whom no classes were offered. Beliefs and self-reported behaviour were measured shortly before the classes took place and again a year later. The results suggested that beliefs do predict behaviour, for both perceived susceptibility and perceived benefits/barriers made significant contributions to the belief behaviour equations and the relationships were generally highly statistically significant.

To that extent the model was supported. However, the evidence also suggested that the relationship between the behaviour and the dimensions of health which the model stresses was not a strong or a simple one. Two pieces of evidence in particular deserve attention. First, only a small proportion of the variance was explained in the analyses, which is also a common finding in studies using the health belief model, the figure was never higher than 25% and was generally much lower. It was also noticeable that the greatest amount of variance was explained in the control group, where the smallest amount of behaviour change was found. The second piece of evidence was that a supplementary analysis of the data showed that prior behaviour was a stronger
predictor of subsequent behaviour than were beliefs. When prior behaviour was introduced into the analysis, the proportion of variance explained was increased markedly — as much as 48% in one case. In summary, this empirical evidence suggests that the health belief dimensions identified in the health belief model and the health locus of control have limited explanatory value.

It is important that physiotherapists gain insight into patients' beliefs about health and illness as this may affect their behaviour. For example, a patient who believes he has control over his illness may be more inclined to work hard to recover than one who believes in the curative powers of the physiotherapist. Eachus (1990) states: 'Patients who do not believe that they are, at least in part, responsible for and can influence, their own health, are likely to prove particularly frustrating. This will be particularly true for those conditions which require the active participation of the patient during the course of treatment'.

Eachus (1990) measured the health locus of control of physiotherapy students and compared it with that of the general public. He found that the students' beliefs were basically very similar to those of the general public, with very little change occurring over the course of their professional education. The physiotherapy students were slightly less inclined to believe that illness was the result of chance factors or that they could influence its course. A rather larger difference was seen with regard to powerful others, with the physiotherapy students having less belief in their power to control illness. Eachus states: '... it might be expected that the public attribute greater power to physiotherapists than student physiotherapists do themselves'.

In addition to the weaknesses at the empirical level there are also problems at the conceptual level. Some of the conceptual weaknesses of the health belief model have been discussed elsewhere (Calnan, 1987). The concept of perceived vulnerability to illness in general or to a particular disease, is central to the health belief model (Janz and Becker, 1984). The concept appears to be derived from epidemiological models which, using probability theory as their basis, identify the range of factors that might influence a population's or an individual's vulnerability to disease in general or to a specific disease. The concept has been shifted to the area of health behaviour where it is argued that certain levels of vulnerability are associated with a greater likelihood of compliance with officially recommended health actions. This approach has been accepted and adopted by those who are involved in designing health education campaigns where one of the major objectives is to educate the individual into an awareness of how 'at risk' she is to certain diseases.

One of the conceptual problems of the health belief model, however, pertains to the concept of perceived vulnerability to illness. Calnan and Johnson (1985) explored the concept through an ethnographic study and found that it tended to embrace a wide range of beliefs and feelings. Respondents very rarely said with certainty that they felt vulnerable to a specific illness unless there was some concrete justification for doing so, such as the presence of signs and symptoms. A clear distinction was also made between worries about diseases such as cancer, and actually thinking that they would or might develop them. The possibility of getting a disease was more
frequently mentioned by respondents, although this was not based on a probability model of disease causation, but rather reflected a lack of good evidence, such as previous experience of the illness in question. For some people even thinking about the possibility of getting a disease was viewed as a sign of 'neurosis'.

The models of disease causation which predominated appeared to derive from the medical model in that the respondents tended to use criteria that characterized disease as a fundamentally biological phenomenon with a specific aetiology. Little emphasis was placed on behavioural elements, and social and economic factors were completely ignored. Hereditary explanations were commonly used by both groups but usually as collaborating evidence in the interpretation of the significance of symptoms. According to these data, perception of vulnerability has little to do with health and more to do with the experience of illness and how it occurs.

A similar criticism could be applied to the health locus of control in that it focuses solely on the medical definition of health, i.e. health as the absence of illness and dependence on medical professionals to manage health problems. Yet evidence from ethnographic research has shown that lay conceptions of health include many dimensions such as health as being strong, health as being fit and active and health as the absence of illness (Calnan, 1987). Thus the instrument is probably tapping people's beliefs about illness rather than their beliefs about health. It may therefore be more valuable for explaining the use of curative or preventative services, which are more concerned with the early detection of disease, and predicting behavioural change in those suffering illness, than for maintaining good health or predicting the behaviour of the 'healthy'.

ETHNOGRAPHIC PERSPECTIVE

One of the assumptions which is inherent in the models described in the previous section is that the public shares the same values and interests as the medical profession, accepts the authority of the profession and has faith in medical knowledge and medical expertise. In this context the lay person is depicted as passive and uncritical. In contrast, the ethnographic perspective suggests that the provider and the consumer may have different and even conflicting perspectives. The image of the lay person in this approach is one who is active and critical, who manages his own health requirements and is discriminating in his use of medical knowledge, advice and expertise. The doctor is seen by the potential patient as one source of advice within a network of consultants. There is a shift away from an emphasis on explaining behaviour in terms of medical rationality, towards attempting to understand the lay person's actions in terms of his own logic, knowledge and beliefs. The ethnographic approach involves a shift away from such questions as, 'Why do people fail to follow officially recommended advice and practices?', to, 'Why do people comply?', and to much broader questions such as, 'What is health and what is illness?'.
LAY CONCEPTS OF HEALTH

Previous approaches such as the health belief model seem to assume that as a whole the general public's definition of health is congruent with official medical definitions. The assumption is surprising given that there is little consensus among professional groups about how health should be defined. Official definitions highlight both the positive aspects, i.e. feelings of well-being, and the negative, disease-orientated aspects, i.e. the absence of disease. These and other definitions are also found in lay representations of health. Evidence from the Health and Life Style Survey, comprising about 9000 men and women, showed that three different concepts of health were prevalent (Blaxter, 1990). The first was positive fitness, that is having strength and energy and an efficient or athletic body. This concept was most prevalent among men, young people and the better educated. The second concept was a social or functional one associated with the requirements of living, it was most common among old people. The final concept was 'not being ill' which was found equally in all social groups, although more often among women than men. This has implications for the physiotherapist as her patients' definitions of health and illness will differ one from another and may be out of line with her own.

Explanations for the presence of these different dimensions of health in lay concepts have emphasized the power and influence of scientific medicine which uses the medical model of health (the absence of disease) in combination with the influence of more traditional values such as the importance of work. However, perhaps one of the most interesting explanations comes from Crawford (1984), who elicited ideas about health and illness from 60 mainly white, middle class adults living in Chicago. He found that there were contradictions in people's definitions of health. On the one hand health was seen in terms of control and discipline and the importance of maintaining a healthy body for work, and on the other it was seen as a 'release' where being healthy was concerned with pleasure seeking and satisfying desires. Crawford explains these contradictions in terms of the demands made upon Americans by capitalist society. The stress on health as discipline is congruent with the ethics of present day employment, with ideas of a disciplined workforce, holding down jobs and producing goods and services, but at the same time industry requires market outlets for its goods, hence all the advertising which encourages self-indulgence and 'release'.

These studies have suggested that the public holds concepts of health which contain a range of different, sometimes contradictory elements. But when are these concepts used in practice and how far are concerns about health a priority for the majority of people in their daily lives? This particular issue was examined in a recent study by Calnan and Williams (1991) where they attempted to identify how salient health was in people's daily lives. The evidence from this study showed that matters of health rarely surfaced in people's descriptions of their lives and, when it did, only in the context of illness. Neither did a concern with health emerge in the context of most behaviour. It was only in relation to diet and food consumption that health
HEALTH MAINTENANCE

Some logical connection between concepts of health and beliefs about health maintenance is evident, in that a dimension of health which is very prevalent in lay concepts of health, is that of being fit and active and strong. This is at least logically connected with lay ideas about health maintenance, as evidence has shown that diet and exercise are the most popular means of maintaining health (Blaxter, 1990; Calnan, 1990). Calnan (1989) found that respondents' ideas about health included, 'Well balanced diet and plenty of exercise' and 'To eat properly and exercise and walk instead of going by taxi'. Regular exercise is clearly logically linked with health as fitness and health as activity, whereas food and diet can be viewed as 'fuel' for maintaining levels of energy and providing the resources necessary to keep active and fit in order to perform daily tasks.

Studies of food and health beliefs have shown interesting differences between social groups. For example, Calnan (1990) compared working class women and middle class women and showed that in contrast to the middle class women's emphasis on a balanced diet and 'everything in moderation', the working class women were more concerned about meals being substantial and filling. This was particularly evident when the two groups discussed notions such as a 'balanced diet'. There were also some similarities between the two groups. For example both agreed that good diets should be based on 'fresh' food and vegetables. The following was a typical response: 'I would say all fresh food is good and processed food I don't believe in. I mean those ready made meals I don't believe in. I don't believe in fish fingers or frozen things - you never know what's happened to them. It's all right going into Safeways and getting them off the shelf, but where have they been before that? Fresh goods are more nutritious. Well they have not been preserved and I don't know I suppose it's the fact I can see what I'm buying and also to me it tastes better'.

A similar emphasis was placed on 'fresh' food in a previous study by Calnan (1987). It appears that the women in these studies operate with ideas about diet which are products of periods where there was a shortage of food, such as during the war years and the depression when fresh food was in short supply and when items, such as fresh fruit, were regarded as a symbol of prosperity. With a group of younger women, however, Calnan (1990) found that concerns about fresh food were a product of more contemporary ideas. The data indicated a dislike of artificially packaged or processed food and a preference for 'natural' food. Food additives were high on the agenda of this generation of women as potential sources of ill health.
ILLNESS AND ITS MANAGEMENT

The public's conceptions of health and its maintenance also provide a general framework for making sense of signs and symptoms of illness. Studies have shown that sufferers and their families, when faced with a disturbance in body functioning, ask a series of questions which include, 'What is happening?', 'Why is it happening to me?' and 'Why is it happening now?'. Sufferers turn to their own theories of causality of disease in an attempt to answer some of these questions. These theories will be considered later but before this the focus will be on the meaning of illness.

What is illness

'Disease is something an organ has: illness is something a man has' (Helman, 1981).

Disease and illness are distinct and the relationship between the two is not simple. Diseases may be discovered, for example through screening, but the person concerned may not be experiencing any change in bodily functioning. Conversely, a person may have signs and symptoms in the absence of a disease process.

How do lay people perceive illness? Not all problematic signs and symptoms lead the sufferer to define herself as ill and in many cases 'health' problems are normalized and accommodated and people continue with their everyday routine tasks. Locker (1979) has argued that actions such as staying in bed, not going to work and going to see the doctor characterize people who are ill. He believes that illness is essentially a moral category where those labelled as ill are usually absolved of responsibility for action because the major causes of illness are believed to be outside their control, i.e. illness is viewed in terms of biological disorder.

Herzlich (1973) in her study of a sample of middle-class French people, found that respondents conceived of illness as inactivity and discussed their reactions to illness in terms of their response to inactivity. The significance of inactivity for lay people is well illustrated by a respondent of Calnan and Johnson (1983) when discussing the possible impact on her life of having breast cancer: 'That's the funny thing about it because I don't think they fear pain or mutilation. Even I can't understand that. Everyone's got some fear of death but then we all know that we can die by so many other means, so it can't be just death. Perhaps it's the thought of being incapable and somebody having to look after you and not having your own mind, or being able to carry on with your life. I think that's probably my fear, all of a sudden perhaps being up in a bedroom with nobody to talk to except those who are very close popping in to say hello'.

This respondent identifies the more negative and destructive influences of inactivity and views illness as a destroyer. It illustrates one of the three types of response to illness inactivity that Herzlich (1973) identified. People who respond to illness in this way might be less likely to seek medical care because
Lay beliefs about health and illness

of a refusal to acknowledge the problem. This might describe women referred to as 'deniers' by researchers investigating people with breast cancer, who delay medical consultation. Reluctance to seek medical care might also arise if it is thought to be of limited value. For example one of Calnan and Johnson’s (1983) respondents states in relation to breast cancer, 'Well, I mean they can’t really cure it can they . . . in spite of what they tell you?'.

The other two types of response to illness identified by Herzlich (1973), are described as ‘illness as an occupation’ and ‘illness as a liberator’. Those who explained illness in terms of an occupation emphasized the need to fight and control it. When defined in this way the respondent might do anything possible to manage the illness including seeking medical care. The group who saw illness as a liberator described illness or inactivity as a source of freedom from their everyday commitments. In these cases there was also a likelihood of consultation with the medical profession. The way people respond to illness has obvious implications for physiotherapists. For example a patient who feels liberated by his illness is likely to behave very differently from a patient who fights to control it. Eachus (1990) is of the opinion that if the physiotherapist has different views to his patient concerning the appropriate response to illness, there is likely to be conflict between them. He believes there is, on occasions, some justification for attempting to change the patient’s beliefs. He states: 'The patient who can be encouraged to take active responsibility for his health is likely to benefit in terms of more rapid and successful recovery, as well as feelings of increased participation and satisfaction with the treatment process'.

Other studies have focused on the social processes involved in illness behaviour and help-seeking behaviour. The first cognitive stage involved in this process is the initial identification that something is wrong and an attempt to apply, if possible, a diagnostic label to the problematic experience. Helman (1981) has pointed out that each individual has a unique relationship with his body and thus his own personal models about what is abnormal and what is not. What is more difficult for the sufferer and significant others (e.g. relatives and friends), however, is applying a general label to the problematic experience. For example, there seems to be considerable variation and uncertainty about what a breast lump (possibly an early sign of breast cancer) would look like. One woman in a study by Calnan and Johnson (1983) stated: 'One of my friends who had breast cancer was in her fifties and she just told me one day that she had a lump in her breast and at that time I did not know that it was more dangerous to have little lumps than a large lump, yet the first friend of mine told me she had a lump like a pigeon’s egg. So I just do not know. It is one of those subjects that one tends not to go into carefully'.

Some resolved the uncertainty by adopting a policy of 'If in doubt go to the doctor'. For example one woman stated, 'I think that if I found a lump, whatever size, I would go to the doctor and say, “look I’ve found this little lump”'. The policy of going to the doctor with any sign or symptom does, however, have its costs as a respondent clearly stated: 'Well I had a small pimple on the nipple on the left side so I went along – one has to make an appointment at our doctor . . . I telephoned to make the appointment for the
following day, went along to the doctor and there was no pimple. I felt such a fool. He said to me "No, there's nothing the matter".

This respondent was particularly concerned about wasting her general practitioner's time with what she considered to be a minor ailment and it illustrates the difficult position patients find themselves in. On the one hand they are uncertain about whether their signs and symptoms are serious and would like to go to the doctor to ease their minds, but on the other hand, they do not want to be seen as 'bad' patients by their general practitioners or the type of people who over-utilize the service. For example one respondent stated, with reference to the early diagnosis of breast cancer, 'Oh, I would not think my doctor had time for that sort of thing. He would go mad if I bothered him with nothing'.

This leads to the second cognitive stage in the illness behaviour process which involves decisions about what to do about the health problem. The sufferer and significant others, have the options, at least in theory, of ignoring the problem, waiting and seeing what develops, or deciding to do something about it which might involve self-treatment or seeking outside help.

The number of empirical studies which have examined decision rules that people use to decide what to do about health problems, using this particular perspective, is small. However, Cowie (1976) in a study of cardiac patients, examined the ways in which signs and symptoms were evaluated and how patients responded to them. He found that their responses were coloured by the context in which pain was experienced. Perception of the need for urgent medical attention was more likely to occur when the pain was sudden, acute and unexpected. However, 16 of the 23 patients initially applied a common sense lay diagnostic category. Some identified the pain as a bout of indigestion and others related it to a recurrence of other minor illnesses they had recently had.

This process of normalization was upset by their failure to understand the physical experiences in terms of the interpretive framework available to them and by changes in the quality and duration of the problematic experience. Cowie reports that this sometimes happened when lay others, such as spouses, evaluated something as wrong when the sufferers were not behaving in accordance with their spouses' conceptions of how they normally behaved. Thus, decisions to seek medical care tended to occur when sufferers and significant others could no longer account for signs and symptoms within their framework of everyday knowledge.

Clearly, uncertainty about what is wrong is a significant influence on people's decisions to seek medical care. However, in relation to cancer, uncertainty can have an inhibiting effect. For example, a woman in a study by Calnan and Johnson (1983) stated that sometimes she was hesitant or nervous about seeking medical help. She explained when this occurred: 'If I have got something pretty foreign to me and I cannot sort of create a self-diagnosis, I automatically think the worst. I feel that this is what everybody does. . . . For instance, should I have a lump appear on me I would automatically think it must be cancer because I had a friend who was about 3 months younger than I was - she just suddenly died of cancer - and it hit me - and I thought that . . .'.
In these circumstances some women may consult their doctors because they feel they should and because they want to know what is wrong. However, others might prefer to stay ignorant because they believe that nothing can be done about it anyway. Robinson (1974) has suggested that sufferers, although aware of the salience of their signs and symptoms, still tolerate and accommodate them on the grounds that the social, psychological or economic costs of accepting the illness, in terms of the dependent sick role and seeking medical care, far out-weigh the benefits. (For further discussion of pain, illness behaviour and the sick role the reader is referred to Chapters 11 and 12.)

**MAKING SENSE OF SIGNS AND SYMPTOMS**

Lay theories about disease causation are important for interpreting and making sense of signs and symptoms. The available evidence suggests that people hold specific theories about a range of diseases, although there is a mode of thought or logic common to these theories. For example, heart disease and depression are viewed as products of an imbalance between the individual and the environment. A logic of degeneration is inherent in lay theories about diseases such as arthritis, and a logic of invasion in others such as AIDS. Calnan (1987) found that cancer was the disease with which people found the most difficulty identifying a clear logic of causality because it is shrouded in mystery. One respondent said: 'I really have no idea but it's just sort of a nasty bogey that is tucked away in the back of the cupboard. I have no idea — my husband's brother, he died of cancer when he was twenty eight'.

People's theories about the causality of illness also have implications for feelings of control and responsibility. For example the following quotations concerning heart attacks and AIDS, taken from a study by Calnan and Williams (1991), suggest that some diseases are viewed as punishments which people bring upon themselves, whereas others are thought to be outside their control.

'That's a load of nonsense. Heart attacks, some people have defective hearts, some people cause their hearts to be defective through smoking. I suppose you could say they deserve it in a way, but in the case of a smoker it's self-induced, obviously the person who has been born with a defective heart can do little about it.

'Well, if you are daft enough to use a dirty needle, and stick it in your arm you get what you are asking for. If you are sleeping around with the wrong people or indeed anybody, and you know you don't have the right precautions, you're asking for what you get. That's a very broad view, but there's always the unlucky one who gets you know...'

Thus for some diseases some degree of responsibility is imputed, although as Pill and Stott (1982) point out, the majority of people feel that illnesses are caused by factors outside their control such as hereditary or environmental factors.

Evidence from empirical research suggests that people's theories about disease causation not only contain ideas about the typical circumstances likely
to produce an illness but also stereotypes or images of those types of people who are particularly vulnerable to a specific disease. For example West (1976) showed how parents with children with epilepsy sometimes doubted the clinical diagnosis as their child's identity did not match up with what they considered to be a typical epileptic. The type of person thought most likely to develop coronary heart disease was described in a study by Calnan (1991) as the anxious and nervous type. This stereotype was similar in some ways to that used by people to characterize those who are particularly vulnerable to breast cancer. A respondent in a study by Calnan and Johnson (1983) said: 'Well, these two women I know who have had breast cancer, they are both highly nervous people. When I say nervous I do not mean that they are frightened of their own shadows but they are both very thin. They are both wiry people, probably people who tend to live on their nerves'.

This image of the thin and nervous person being particularly vulnerable to cancer is compatible with how Sontag (1979) has portrayed the vulnerable person, who she describes as internally repressed. Thus, the lay person, when assessing vulnerability, or the meaning of symptoms, asks himself if the circumstances are compatible with his theory about the causation of the disease and whether he is the type of person who is likely to get it.

CONCLUSION

The aim of this chapter has been to illustrate lay perspectives on health and its maintenance and on illness and its management, by drawing on different kinds of empirical material. The material clearly illustrates that lay people have their own complex models of health and illness which they use to make sense of health problems and other health-related matters. This health knowledge influences their decisions to seek professional help and affects their response to professional treatment and their reaction to illness and disability. Sim (1990) believes that physiotherapists should attempt to understand and respect the lay beliefs of their patients. He states: 'Lay theories of health and illness should be assessed as to their usefulness. If they are functional in aiding people to make sense of, or come to terms with, their health experience, then they are valid. Their "rightness" or "wrongness" is largely an irrelevance'.

REFERENCES

Lay beliefs about health and illness


'Nothing is so obvious as a baby, and yet he eludes us. He grows so rapidly that he almost escapes our understanding' (Gesell, 1946).

Parents exclaim, 'He grew up before my very eyes', or 'the years flew by', as suddenly young children become adults and have to cope with the responsibilities that are part of life in our modern society. Progress from day to day is usually so smooth that it is difficult to detect the existence of distinct stages of development. Yet one may just be conscious of subtle changes in behaviour which signal not only quantitative differences, but more importantly, qualitative differences. Both reflect underlying processes of developing awareness, knowledge and skill. It is when part of the process goes wrong that parents and clinicians alike need a conceptual framework and language in common by which to understand the phenomena of illness, disease and disability, their origins and prognoses. Physiotherapists as part of an interdisciplinary team, need to understand not only the development of the child but the social and psychological implications of any disorder for the child and his family. Most children suffer from illness at some time in their early years. This can bring them into unfamiliar situations in which strangers carry out unexpected procedures. It is part of the physiotherapist's role to ensure that anxiety is kept to an absolute minimum.

AN OUTLINE OF NORMAL DEVELOPMENT

Development begins from the moment of conception; indeed research into the growth of the baby in utero has resulted in a realization of just how much development occurs before birth and how much the fetus responds to early stimulation. Normal brain function depends on normal growth, nutrition, a stimulating early social and emotional environment, and nurturing carers.
A series of neurological transformations take place which lead to maturation and the development of function.

It is important to recognize that children develop in different ways and at different rates. Children are not born with a full set of faculties ready to analyse and explore their new environment, but rather their development is a result of slow changes in response. These responses are initially reflex in nature – rooting, sucking, palmar grasp – but gradually the baby is able to respond more actively and purposefully to the environment.

Development is often described in terms of motor milestones but it is much more than that as sensorimotor, perceptual, cognitive and social skills are all combined. The physiotherapist assesses the child's ability to move in terms,

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**Fig. 18.1** Basic sensorimotor milestones.
not only of the developmental milestones, but also in terms of the quality and symmetry of movement. The major motor milestones are shown in Figure 18.1.

**Abilities at birth**

Newborn infants have an immature nervous system and initial exploration of the environment is elicited through accidental sensory stimulation. The infant responds to movement, rocking and stroking, which helps to develop the vestibular and somatosensory systems. Bonding and attachment, which may have already begun before birth, become strengthened during the first weeks of life (Shaffer, 1985).

**The first 3 months**

At birth the baby still adopts a flexed fetal position, unable to keep his head in the midline but resting it to the preferred side. The sucking, crying and smiling reflexes become modified by the feedback the baby receives. During this time contact is made with objects more through vision than manipulation, and the baby begins to recognize his parents’ faces.

**Three to 6 months**

The child can keep his head in the midline with no lag on pulling up to sitting. He can lift his head when prone lying and can balance supported on his forearms. When the child is propped in sitting he can grasp objects using the thumb base and ulnar three fingers, and also begins to lift his arms to be picked up. He gains increasing symmetry in movement and begins rolling and pivoting. Mobiles, pram beads, rattles and musical and highly coloured toys, gain his attention and he reaches out to grasp them.

**Six months**

Rolling, pivoting and creeping (moving along on the stomach), enable the child to explore the area near him. Objects are manipulated and mouthed. The child begins to follow toys, watching to see if they disappear out of sight. He balances well in propped up sitting and begins to move from one posture to another.

**Nine to 12 months**

The child becomes more mobile, using the furniture to pull himself up to standing, and crawling to explore surfaces and cupboards discovering many
Psychological development of the child

Different textures. Some babies like to lie on soft blankets, others learn that grass feels 'prickly' and will not explore beyond the margins of their rug on the lawn. As object permanence (the realization that objects still exist when they cannot be seen) develops, the baby can anticipate responses in action games like 'peep-bo' which become great fun to play.

One to 2 years

At about one year old the child is well able to pull himself up into standing and the first stages of walking begin providing him with more opportunities to develop balancing skills. Between 10 and 18 months the child has usually taken his first steps. Symbolic understanding develops and dolls and teddies become popular. Noisy toys, and play with everyday objects such as saucepans and spoons, develop between 15 and 24 months. Large toys provide stimulating, imaginative play, while mother and toddler and nursery groups, which begin at this time, help children to develop social skills. Children of this age learn to recognize pictures and say their first words. Eye—hand coordination improves and some children are able to cope with two and three piece jigsaw puzzles. Playing in parallel with other children may be interrupted by some group play, but sharing and taking turns has not entered the social arena at this stage.

Two to 3 years

Simple sentences emerge, picture books are enjoyed and 'make believe' play starts. A more adaptable grasp is learned for manipulation and the child learns to hold a pencil, is more skilful at feeding himself with a spoon, and begins to help with dressing. At this stage children enjoy movement activities such as swinging and bouncing games and their gross motor skills develop rapidly. Many can manage trundle toys and bicycles, and equipment such as see-saws and slides which help to develop their spatial awareness. Gross motor activities all help to develop coordinated movement, whereas dressing up games help to cultivate perception of body image and body parts. Fine motor skills which require eye—hand coordination and shape perception, develop by playing with toys such as posting boxes and jig-saw puzzles.

The first 3 years of life are crucial for development as the rate of brain growth is more rapid than at any other time (Gaddes, 1985).

Three to 4 years

Throwing and retrieving balls, building trains with bricks and listening to stories all develop at this stage. The child learns the difference between one side of the body and the other which helps with dressing and undressing, but buttons are still difficult. There is a marked increase in the child's vocabulary at
this time. Singing games, running and balancing on narrow edges develop and are all enjoyed. Children of this age like to look at books, play with puppets, paint, draw and play with construction toys such as Lego.

Four to 5 years

The child learns to dance and skip and some just manage to hop. They gain fluent speech, begin to develop hand dominance and can use a knife and fork. They are able to copy squares and circles, count up to five, match colours and relate pictures to objects. They use speech to direct their environment. The more outgoing child is able to swing on ropes and climb ladders. Games like playing shops become more sophisticated and the development of fine motor skills enable them to draw pictures, use scissors and cut and stick. At this stage they also start learning to read. Physiotherapists should remember that the rate of development is tremendously variable and each child should be treated as an individual.

COGNITIVE DEVELOPMENT

Cognition is the sum total of those mental processes which incorporate perception, learning, memory and reasoning, both verbal and non-verbal. These processes require successive levels of neural integration which, if absent or incomplete, lead to deficient functioning. Deficiencies which exist at one stage of the process are likely to have repercussions throughout that part of the nervous system, indeed another part of the nervous system may need to compensate for the deficit. Identification of the stage at which breakdown of cognition occurred will help determine the appropriate treatment.

Attention and concentration

Before children perceive a particular sensory input they must orientate themselves to relevant incoming stimuli. It is important for physiotherapists to understand what to expect from children at different stages and to reflect on the ways in which they ask them to perform activities. Cooper et al. (1979) have described six levels of 'attention control' which appear in successive stages determining the child's ability to respond to instructions.

Stage one

At this stage frequent distractions by different features of the environment interfere with the consolidation of learning. The therapist has to 'catch the child's attention' before assessment or treatment can begin and before the child is able to respond meaningfully.
Stage two
At this stage there is rigid attention to one aspect of the environment to the exclusion of others, preventing integration of sensory experiences from different modalities. Often the child attends to unwanted stimuli making it difficult for him to redirect his attention.

Stage three
The adult can easily switch the child’s attention, but the child still cannot attend to more than one stimulus at a time. The physiotherapist needs to demonstrate through play the ways in which the child could join in the activity and keep the level of interest consistent during the treatment session so that the child completes the chosen tasks.

Stage four
Voluntary control of attention by the child is beginning to emerge. He listens when his name is called and can remember instructions just long enough to redirect his efforts when he returns to an activity.

Stage five
Integrated attention to both task and instruction simultaneously is achieved enabling the child to follow a sequence of instructions while carrying out the tasks, for example, climbing a bench, sliding down a ramp and hiding under a parachute.

Stage six
Advanced integration is attained when the child can continue with self-directed activity for long periods while occasionally breaking off to assimilate new instructions.

These stages overlap considerably and children differ greatly regarding the time at which they reach each stage. Some children suffer from a congenital inability to direct their attention which may be inherited or acquired through cerebral trauma which can have negative consequences for emotional adjustment (Taylor, 1986). These children are not ‘naughty’, they need understanding concerning the effort and concentration they must expend to complete a task. An understanding of the parent who feels she cannot cope any longer, or the teacher who has the child in her class all day, helps the therapist to prioritize the treatment. Activities which will increase the child’s concentration need to be devised and followed through if they are to be effective. Group physiotherapy may help as it enables children to relate to others, to learn rules and to take turns. Achievement and success are important as they help to motivate the child and encourage him to attempt new tasks. The tasks
given must provide a high level of success but, at the same time, must stretch the child, providing him with just the right level of challenge.

**Piaget’s theory of cognitive development**

The development of the mental processes by which children solve problems and acquire sophisticated concepts has been described by Jean Piaget (1969) who evolved a theory of genetic epistemology which accounted for how children come to know and understand their world. This includes an explanation of how mathematical, scientific and moral concepts are evolved in childhood. He describes intellectual development as beginning in the first 18 months of life with the ‘sensorimotor’ stage, where the child develops an understanding of reason and causality without recourse to abstract thought or language. From 18 months to 7 years the child emerges through the period of ‘pre-operational thinking’ which is characterized by unsystematic, illogical thought and reasoning, but from 7 to 11 years the child’s thinking becomes more logical and he begins to coordinate the more abstract qualities that define objects and relationships, thus he begins to understand that a ton of coal has the same mass as a ton of feathers. The child then progresses to ‘formal operations’ characterized by hypothetico-deductive reasoning. At this stage he is able to think in terms of a variety of possible solutions to a problem simultaneously. As children mature through these developmental stages their questions about life and about themselves become more sophisticated and complex. They may start to ask, ‘Why me?’, ‘Why this disability or illness?’. Physiotherapists must be ready to answer these questions and help children through difficult times, sometimes referring them to a clinical psychologist for further help.

**LANGUAGE DEVELOPMENT**

Chomsky (1957) postulated that language is an innate and universal characteristic of all humans which requires appropriate stimulation to produce the variety of ‘surface structures’ of grammar which are present in the different languages of the world. It is important for the physiotherapist to distinguish between speech and language; speech refers to the articulation of expressive language, language to grammatical rules and comprehension. In the case of children with brain dysfunction, speech articulation may be physically impaired (dysarthria) or disorganized in execution (dyspraxia). These disorders may be differentiated by appropriate tests. The child who cannot understand the therapist’s instructions will become distracted and uncooperative; songs and action rhymes all help to maintain her attention and interest.

Children who have not started to talk by the age of two may have a specific language delay or disorder which sometimes occurs with a more general delay of development. Language plays a vital role in the learning
process and language disorders are usually part of a wider learning disability (Lerner, 1989). Failure of communication can contribute to behavioural problems (Richman et al., 1982), but communication problems can be minimized by a variety of aids which are now available in conjunction with sign language. Speech is dependent on adequate hearing to allow processing of auditory information received by the brain. The speech therapist uses observation and standardized tests, including tests of picture recognition.

EMOTIONAL AND SOCIAL DEVELOPMENT

Equally important, but perhaps less tangible, is the emotional and social development of the child. Most investigators agree that this begins with the relationship between the child and the primary carers. Where parent figures provide a secure, controlled, response to the child's needs, the evidence suggests that he grows up with both high self-esteem and self-confidence, allowing him to act in the adult world with initiative and self-reliance (Higgins et al., 1983). Emotional attachment is not only crucial for a sense of security, but there is evidence that it is also essential for developing a sense of moral responsibility towards others (Kitwood, 1990). The child's development of social relationships involves gradual differentiation of the fundamental feelings of 'belonging' to a particular parent or family, to a feeling of belonging to a more extensive group or network within a particular society. The physiotherapist must be sensitive to any social and emotional difficulties the child may have as they may influence the results of assessment and the outcome of treatment. (For further information on child development the reader is referred to Shaffer, 1985; Sheridan, 1989; Illingworth, 1990; and Holt, 1991).

SCREENING

The aims of screening are:

1. To identify illness or disability enabling treatment to be implemented early, thereby reducing the effects of the condition (Hall et al., 1990).
2. To enable genetic counselling to be provided so that the birth of a second child with a similar disorder can be avoided, according to the wishes of the parents.
3. To give parents an early diagnosis on which to base their plans for the child and the entire family – the physiotherapist may be involved with early screening procedures as an adviser in the surveillance team.

Screening is a complex and controversial topic. The Hall Report (Hall et al., 1990), which was concerned with the difficulties of predicting development, regards routine, detailed surveillance of children as wasteful and unnecessary. It advocates more parental responsibility for referring children to profes-
Physiotherapy: a psychosocial approach

PHYSIOTHERAPY ASSESSMENT

The physiotherapist should have sufficient knowledge and experience to estimate the probable impact of a child's disability on her future development, although predictions are hazardous and professionals should keep an open mind. The successful assessment of the child depends firstly on achieving a good rapport with her, which means relating at a level and in a way which is appropriate and acceptable to the child. The assessment must be handled in a non-threatening, cooperative and encouraging environment. Specific assessment of muscle tone, joint range and so on, may be achieved once the child has established a confident relationship with the therapist. The interpretation of information gained from formal assessment must be carefully balanced against experienced observation by the therapist and the parents or carers.

For the child who has a developmental delay, special attention must be given to the history of her present situation or inaccurate interpretations may be made. Being immature in understanding as well as experience, and sensing their extreme dependency on others for emotional as well as physical survival, children are particularly vulnerable. The familiarity and predictability of their immediate environment play an over-riding part in their willingness and ability to perform at an optimum level in the limited time available for assessment. It is therefore essential that the physiotherapist seeks information on a particular child's development from a variety of sources. Consultation with parents, other relatives, the family’s general practitioner, the health visitor, the child’s teacher or playgroup leader and other team members all helps to build up a composite picture of how she functions. Children vary considerably in their ability to perform, according to their self-confidence and the relationship they have with those present, and in order to evaluate the importance of relevant factors in each particular child's case, the therapist must have a sound knowledge, not only of developmental milestones, but of the contributory influences in the child's life.

Assessing an adult patient is very different from assessing a young child. Adults can explain the nature of their problems in the context of their life experiences, but young children can give little background information to help the assessor who must rely on the abilities of the people in contact with the child to describe her and her environment. Early assessment of the child is important to identify problems so that intervention can begin as soon as possible. When assessing the child emphasis must be placed on her abilities, and care must be taken not to place her in situations of failure.

The therapist must conduct the assessment interview sensitively as it can be a stressful time for the family. Often the parents do not know the diagnosis, in fact the paediatrician may have referred the child for a physiotherapy
assessments to help in the diagnostic process. The physiotherapist's assessment begins from the moment the parents bring the child into the room. Observation of the parents' handling and interaction with the child will give some indication of their relationship with her. It must be remembered, however, that their behaviour is likely to be affected by the environment and the situation they are in, so the first meeting may not give a very accurate picture. Care must be taken in preparation of the room which should be warm and inviting with suitable toys available. Interruptions should be kept to a minimum. The assessment, which is on-going and rarely completed at the first meeting, forms the basis of the therapist's relationship with the child and her family. (For further information on clinical interviewing the reader is referred to Chapter 10.)

Children rarely enjoy undressing in a strange environment and the physiotherapist must judge how much her insistence on this will jeopardize cooperation. If children do not want to undress the therapist must not jump to the conclusion that they have suffered abuse, but she must be familiar with child protection procedures and the changes which have been introduced since the implementation of the Children Act (1989).

Delayed milestones may not be indicative of a problem unless they cause a functional or developmental difficulty for the child. Children from different cultural backgrounds may reach milestones at different ages and this should be taken into account at assessment. Physiotherapists must be aware of cultural differences in child rearing practices when offering advice to parents. Parents should be fully informed of the probable progress of the child and be fully involved in the treatment as this can do much to alleviate anxiety. The opportunities children have for play and learning, as well as the attitudes of the parents towards their children's illnesses and disabilities, are important in determining their future prospects.

It is essential for the physiotherapist to have play skills to win the child's confidence in both assessment and treatment. It is recommended that physiotherapists spend time playing and handling non-disabled children in order to become familiar with the subtle differences in their development. Therapists must understand that an active 2 year old is not going to cooperate and attend to a task unless it is presented in a play sequence.

Children may get angry, frustrated and bored if the task is, to them, meaningless and carries little or no reward. It takes time to build up the child's trust and therapists should not feel guilty if they do not 'treat' the child immediately. When talking to the child, questions should be 'open-ended', for example, 'What could you do with this toy?' or 'What game shall we play now?', rather than 'closed' questions where the child is only permitted to answer 'yes' or 'no'.

Often the child will need an assessment of his psychological development. This information is available to the physiotherapist and will enhance her overall plans for intervention and management of his disability or illness. The psychological assessment of a child can be undertaken in various domains of development: the intellectual, the cognitive, the social and the emotional. None of these are amenable to exact measurement or prediction, but it is
ILL AND DISABLED CHILDREN

Hospitalizing children may adversely affect their social and emotional development, and illness may interfere with development and cause delay. Hospital provision for children should be separated from areas where adults are treated and all staff working with children should, ideally, be trained and experienced in paediatric care. Physiotherapists need to be aware of the anxieties of parents, especially after diagnosis has been made or when children appear to regress physically as a result of illness. The number of times a child has entered hospital, the nature of the circumstances and the availability of appropriate support at the time, will influence his reactions and acceptance of the situation. Fear of parental rejection is a feature of hospitalization for young children and therefore family contact is important to decrease, not only the anxieties of the child, but also those of his parents. The NAWCH Report (1989) (The National Association for the Welfare of Children in Hospital) has made many recommendations that should make hospitalization less threatening for children and their families. They recommend that stays in hospital should be kept as short as possible and that community teams should be developed to support families after early discharge or when children are
acutely ill or terminally ill at home. Some community staff have little experience in this field so training and support are essential.

To make physiotherapy treatments less threatening, it is common practice for physiotherapists to wear ordinary clothes, rather than uniforms, when treating children, or to wear uniform tops which are attractive to children. Play is the preferred medium for therapy, for example, games and songs, can be used to gain the child’s interest and cooperation. An adequate explanation of what the physiotherapist is doing is essential not only for the child, but also his parents and the ward staff. Procedures such as chest percussion, where the child is tipped and patted, can be difficult for parents to accept unless an adequate explanation is given. If tipping and percussion are needed, they should be explained carefully and a game or story be introduced to help the child accept it. Teddies, puppets and dolls can have chest physiotherapy too, as well as treatments like stretchings or wearing plaster casts. All this helps the child to come to terms with the procedures, gives opportunities to talk about them and to play out anxieties in a non-threatening way. Words like ‘frightened’ and ‘pain’ should be avoided as these immediately signal threat in the child’s mind. Children need to express their anxieties rather than suppress them and the importance of communication between children and ward or community staff, as well as staff and parents, cannot be overestimated. Parents should always be listened to and caution should be exercised when talking over the child.

The psychological effects of illness upon children has been the subject of considerable research. From the point of hospital admission, the child may be disturbed by separation from her parents, and by her subjection to unfamiliar procedures by anonymous people who appear to inflict pain deliberately. The child may finally be discharged home suffering discomfort and an altered perception of herself. As children grow older their concerns differ; for pre-school children, it is fears about separation which are most pronounced, for primary school children fears about physical damage to the body predominate and for teenagers the feeling of violation to their identity as emerging independent beings is dominant (Eiser, 1990). On the other hand, it has been found that short admissions with adequate preparation and good contact with parents have no discernible negative effect upon children when followed up one year later (Shannon et al., 1984). It is more often the case that frequent hospital admission and unplanned separation from parents leads to chronic problems of adjustment later on (Rutter and Madge, 1976). In these cases it is difficult to disentangle the child’s experience from its effects upon family life and the way in which that may rebound upon the child. Parents may, for example, have become so anxious that they are unduly permissive with the child long after he has left hospital.

Therapists must understand the psychological processes children and their parents are dealing with and provide help and support. If the child’s treatment is drawn out over months or years, enormous pressures may build up around issues of travel to hospital, inadequate finance, loss of time with other family members, especially spouse and other children, as well as inability to communicate and share common anxieties. Relationship problems which existed
within the family before hospitalization will almost certainly be exacerbated by the experience, although if there was unity beforehand, relationships can sometimes be strengthened by common adversity. Siblings may mature more rapidly and parents may share their roles more flexibly, in order to accommodate necessary changes in family functioning (Eiser, 1990).

Some children with developmental delay may eventually suffer long-term disabilities. The child's development may go wrong from the moment of conception, insofar as the particular sperm and ovum contain defective genes which deform the growing embryo, or lie dormant until their influence becomes evident later in life. Increasingly, with improvements in techniques of tracing defective genes (described by Newell, 1989), and as a result of large epidemiological studies (Hall, 1989; Naeye et al., 1990) researchers are placing more emphasis on the prenatal contribution to brain dysfunction, than upon the potentially traumatic effects of birth itself. Whatever the cause, doctors, therapists and teachers are turning more and more to the subject of developmental psychology for a deeper understanding of the impact of illness, disease and disability upon the child, his family and society. Accumulating evidence of biological factors in behavioural processes has been reflected in associated signs of neurological dysfunction (Gaddes 1985) as well as reactions to allergy and inherited traits of temperament (Chess and Thomas, 1984).

Paediatric physiotherapists spend a great deal of their time treating disabled children, and must be concerned with all areas of their development. Children with motor impairment such as cerebral palsy and spina bifida, for example, are limited in their ability to explore the environment which may lead to frustration, lack of motivation, loss of learning opportunities and social isolation (Sherbourne, 1990). Autistic children appear to have disturbances in sensorimotor integration and various forms of physical therapy have been suggested to ameliorate the effects of the condition upon the child's emotional security and ability to learn (Frith, 1989).

Physiotherapists also work with children with learning difficulties which relate to developmental delay, speech delay, cognitive impairments, attention disorders and socio-emotional problems. Learning difficulties arise through environmental disruption or deprivation, inherent lack of ability or as a result of injury or pathology affecting the brain. These causes often interact, thus a child with a congenital condition such as Down's syndrome, or a child who sustains a head injury, can improve significantly with appropriate environmental stimulation. Many children are, of course, multiply disabled with complex and interacting problems which challenge the ingenuity of all involved.

Learning difficulties may be caused by failure of sensory integration. Children with specific learning difficulties may learn, not only from specific skill acquisition, but also through integration of sensory input. Sensory integration therapy, using stimulation of the vestibular, proprioceptive and tactile senses, along with more traditional intervention, has been advocated by Ayres (1979) and Pratt and Allen (1989). Ayres (1972) hypothesized that organization of sensory input can alter neural processing, improving children's chances of good academic performance and improving their self-esteem and
THE INTERDISCIPLINARY TEAM

The multidisciplinary approach has been advocated for many years, but is now frequently replaced by the interdisciplinary model in which skill sharing, including those of the parents, is advocated to reduce the sometimes large number of professionals working directly with the family. Interdisciplinary working provides an appropriate team basis for interacting with the family and a named ‘key worker’ is responsible for communicating information between the team and the parents. After the parents have been told the diagnosis, sensitive support may enable them to progress successfully through the stages of grief which tend to follow the loss of the ‘normal’ child they hoped for or have lost, and coming to terms with the new identity of the child who is impaired in some way. Almost without exception parents will ask, ‘Will he be independent?’, ‘Will she walk?’. Parents rely on therapists and press them for very specific and detailed prognoses. Therapists should be helpful and supportive but be cautious as predicting outcomes is difficult and Hockey (1991) believes that labelling children can be very harmful.

Paediatric physiotherapists sometimes work in special schools or mainstream schools where they help support disabled children. They work alongside teachers to assist disabled children in all aspects of their development. Physiotherapists working in schools must liaise with the teachers over the most appropriate ways in which to intervene. It may be best to withdraw the child from the classroom for treatment, or to work in the classroom where teaching staff and classroom assistants can learn to help the child with his programme when the physiotherapist is not there. The physiotherapist must remain in touch with the parents or residential staff to monitor and evaluate his progress and review the treatment programme. Play remains the ideal method of treating a younger child but as the child gets older treatment in groups, swimming clubs and gym activities are very useful and are usually enjoyed. Paediatric physiotherapists may also become involved with the health education and disability awareness education of non-disabled children.

PARENT/PROFESSIONAL PARTNERSHIP

The last 30 years has seen a gradual transformation in the relationship between professionals and patients. Although this development has been uneven, there has been a slow but steady change in the ethos of this relationship. Previously professionals adopted the ‘expert model’ (Cunningham and Davies, 1985), which assumed that professionals always ‘knew best’ what was in the child’s interest. More recently the ‘consumer model’ of the professional/patient relationship has gained ground, where the patient’s expertise is sought...
Physiotherapy: a psychosocial approach

and where the patient is given encouragement to take the initiative and to generate ideas.

This relationship makes more demands on the physiotherapist who requires the necessary training and psychological insight to respond sensitively to the individual needs of each child and his family (Cheston, 1990). In the past families may have defaulted from treatment or failed to comply against a background of one way communication from the therapist, but now a new era is evolving where parents enjoy the respect which is rightfully theirs to negotiate the most suitable treatment to meet their child’s needs. Decision-making is carried out in a partnership, with the professional providing informed opinion on the most appropriate techniques to use at different stages, and the parents adapting the techniques, under the professional’s guidance, to suit the individual needs of the child and the family, at home and at school.

Wherever therapists encounter difficulty in gaining the cooperation of the parents, it may be, among other possibilities, symptomatic of a psychological defence mechanism on the part of the parents, which is normally subconscious. Parents are not usually obstructive out of choice but may react to situations where they feel their competence and intentions are being questioned. While no physiotherapist would intentionally attempt to make a parent feel threatened, all too often in the past misunderstandings have arisen, through failure of communication, which has usually been the result of inadequate understanding of each other’s perception of the situation. All therapists should gain a reasonable level of competence in counselling skills as a prerequisite for successful communication when treating children with their parents. (For further information on communication and counselling the reader is referred to Chapters 8, 9 and 26.)

No matter how expert the therapist is, treatment is only as successful as the parent’s willingness to put it into practice. Parental compliance has much to do with the physiotherapist’s attitude and behaviour, she should not merely treat the child within the limited confines of the treatment session, but enable the parents to translate the treatment into all aspects of everyday life. This is the aim of both the Bobath and conductive education (Peto) approaches. Parents may sometimes rush to try out new treatment approaches which are highlighted in the press, or raise considerable sums of money in the hope that a ‘cure’ will be found. Therapists must understand the parent’s need for hope and for further opinions, they must know what research is worthy of consideration when giving advice but, at the same time, be prepared to keep an open mind.

CONCLUSION

It is clear that physiotherapists need a clear understanding of child development to enable them to assess accurately the needs of the child and the family and to give appropriate treatment. The child and his family need help and understanding from the physiotherapist. Physiotherapy practice is altering as
resources, support services and legislation change, the child and her family now have more rights, more opportunities to challenge the provision provided and a greater opportunity to state their own point of view. Physiotherapy practice must reflect these changes, providing the most effective service to meet the needs of the child and the family at home, in school and in hospital to ensure that the child develops to her optimum potential. There must be integration between hospital and community services, and the recent Children Act (1989) should help to provide more effective, equitable and accessible provision for children with special needs.

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Physiotherapy: a psychosocial approach


Physiotherapists working in departments other than sports clinics, child health or obstetrics and gynaecology, are probably aware that many of the patients they attend to are technically old. They may not realize, however, that old people, together with very young people, form the bulk of their clientele (Physiotherapy, 1987).

Most of the elderly people who are referred for physiotherapy present with a single health problem such as low back pain, a fracture, a hernia, a chest infection. Apart from the date of birth on their referral form, and perhaps a few more wrinkles and grey hairs, there is nothing much about these people to suggest that they are very different from people 10 or even 15 years younger, and on the whole they are not (Hunt, 1978).

These clients are to be distinguished from very old people, who have been fortunate in reaching their eighth or ninth decade of life but have been unlucky enough to have accumulated several health problems. These old people are usually under the care of a specialist in old age medicine (Young, 1989).

In this chapter I shall focus on changes in cognitive processes (to do with the acquisition and use of knowledge) which we can all expect as we grow older. Awareness of these changes may help therapists to understand their elderly clients even better. I shall not cover the particular psychological changes associated with dementia. Therapists working with these clients have to acquire specialist communication skills, some of which are reviewed by Woods and Britton (1985), Church (1986) and Holden and Woods (1988).

All the time we must bear in mind that most old people are not patients. Most old people, at least those under 80 years of age, are living in the community and having as good a time as the rest of us (Hunt, 1978).

**PRIMARY AND SECONDARY AGEING**

Old age is not itself a disease, but the older we become the more likely it is that we shall acquire pathologies. Perlmutter and Nyquist (1990) for example, found that the 60–90-year-old people in their sample reported significantly more symptoms of physical and mental health problems than did their 20–40-year-old subjects. These pathologies may be the result of youthful
ignorance or self-indulgence, the consequence of poor housing or working conditions or the result of previous trauma. Few of these conditions will place severe limits on our life-style. However, the increased possibility of even subclinical ill-health as we grow older has led to the distinction between primary and secondary ageing (Busse 1977).

Primary ageing encompasses those changes that we can all expect to take place to some extent as we grow older. In terms of onset and duration these changes show a fairly strong relationship to chronological age and are largely, but not exclusively, biologically determined. They occur in highly similar ways for all individuals in a given culture.

Secondary ageing refers to those processes which do not affect everybody to the same extent and are usually attributable to injury and other health problems. They do not occur in the same way to all individuals.

This distinction implies that old people, even in one culture at one point in historical time are very variable. Because each person's life experiences are different, the longer we live the more different from each other we become. It is much more difficult to visualize the typical 80-year-old person than it is to conjure up a picture of the typical 4-year-old child. There are also going to be differences between age groups at any one point in time which may be attributable to the effects of ageing itself but also to differences in the context in which generations of people have grown up (cohort effects). National policy on education or health care, the occurrence of wars, food shortages and disease epidemics for example, as well as cultural norms regarding appropriate age-related behaviour may all influence the way in which a person develops (see Sugarman, 1986, for a review of these issues). Below I shall show how between-cohort variability can have critical implications for researchers seeking to understand the way people change with age.

DO WE BECOME LESS INTELLIGENT AS WE GROW OLD?

Although most people intuitively understand what is meant by 'intelligence', psychologists are not yet agreed on a single definition. Bromley (1988) suggests that it is the ability to organize and expand one's experience. It is not, however, usually conceptualized as a single unified construct but as a system of abilities, perhaps a hierarchy, which develop in different ways (Hayslip and Panek, 1989; Schaeie, 1990).

A commonly used intelligence test is the Wechsler Adult Intelligence Scale (WAIS). The full scale consists of 11 sub-tests, a person's score on each of them is summed to yield his final score. A cross-sectional study is one in which data are collected at the same period in time from groups of people of different ages. Figure 19.1 represents WAIS scores gathered in this way and it suggests that people's intellectual abilities peak in the mid-twenties and decline steadily after that (Botwinick, 1977; Labouvie-Vief, 1985; Bromley, 1988).
But between-cohort variability poses a problem for cross-sectional studies as the effects of primary ageing may be confounded with cohort effects. For example early studies showed how the WAIS curve could be mapped onto a histogram of the numbers of years each cohort had, on average, spent in school (Birren and Morrison, 1961). Old people who participated in these studies had also had less opportunity for schooling than the younger cohorts; thus age was confounded with amount of education.

Not all the WAIS sub-tests, however, show the same pattern of rapid decline starting in early adulthood. One group of sub-tests, designated verbal, are not performed under time-limits. They draw on stored wisdom and are related to educational achievement. The subject must, for example, recall miscellaneous information, explain the meaning of words and of familiar facts. In contrast, another group, called performance measures, have time-limits on their completion and tap abilities which are relatively unaffected by educational attainments but require mental speed. For example the testee has to arrange a set of pictures into a logical sequence, to detect omissions and errors in pictures of familiar objects and to recode a set of digits as abstract symbols (Bromley, 1988 describes the WAIS tests in detail).

Figure 19.2 illustrates the shape of the curves that emerge when results for the verbal and performance WAIS sub-tests are plotted separately. Older people’s decrement in total test scores is seen to be due for the most part to their inefficiency, compared with younger people, on the performance sub-tests. This finding is very robust: it has been demonstrated for different races, for different social classes and for men as well as women (Eisdorfer et al., 1959). Furthermore, a similar pattern of results appears in data gathered with other types of intelligence test (Hayslip and Panek, 1989).

Between-cohort differences, i.e. generational differences, tend to exaggerate the apparent intellectual deterioration in old age. Longitudinal studies,
which record age changes in the same individuals over time, show less decline in test performance. They also suggest it starts later in life than cross-sectional studies imply. But problems of distortion are also associated with this type of investigation — it may underestimate change. People who score rather poorly on intelligence tests when first recruited to a study appear to be more likely to drop-out for one reason or another than those who score better (Siegler and Botwinick, 1979). Hence the people available to be tested later in the study tend to be the cleverer ones in the original sample.

To overcome these difficulties, sophisticated study designs have been developed which combine elements of both cross-sectional and longitudinal studies (Sugarman, 1986; Hayslip and Panek, 1989).

Research conducted in this way confirms that various intellectual abilities change at different rates (Labouvie-Vief, 1985; Schaie, 1990). The peak of overall intellectual capacity, which sets limits on performance in the absence of any effect due to poor health, lack of education or absence of motivation, is probably reached in the 20s coinciding with biological maturity. After that people gradually become less proficient at tasks such as reasoning, problem-solving and integrating new information especially if performing under time pressure. However, noticeable decline in these skills may not become apparent until the 50s or 60s or even later. Our knowledge and experience-related abilities show little or no decline although they may plateau later in life. Schaie (1990) emphasizes inter-individual variability. In the Seattle longitudinal studies, the incidence of significant decrement was quite limited until age 60 and even by age 81 it was apparent in only 30–40% of participants. Very few individuals showed global decline in all mental abilities and about 50% of people in their 80s maintained their level of previous functioning in most of them. Beyond that, however, most people did show evidence of global decline.
DOES HEALTH STATUS AFFECT MENTAL PERFORMANCE?

Clearly, organic diseases of the brain such as multiple strokes, Alzheimer's disease or Parkinson's disease can directly impair mental functioning, but quite mild, general health problems also seem to have an effect. Studies have shown a relationship between even slightly raised blood pressure and poorer performance on a variety of psychological tests (Elias et al., 1990). The same relationship has been found for self-reported as opposed to objectively measured health status. All of the subjects in Perlmutter and Nyquist's (1990) study rated their general physical health as above average for their own age group but even so the better they reported their health on a more detailed questionnaire, the better, in general, was their intelligence test performance.

Most of these studies are, however, correlational and so the causal direction of the relationship cannot be established with certainty. It is just possible, as Perlmutter and Nyquist (1990) point out, that in their study poorer intellectual functioning might have led to poorer self-perceptions of health, especially mental health, rather than the other way around. Also, whatever is causing subjects to have raised blood pressure may also be causing their mental performance to deteriorate rather than the raised blood pressure itself being the direct causal agent.

In general then, therapists would be unwise to assume that all old people are experiencing the same amount of change in intellectual performance. Deterioration will be less noticeable, if at all, among old people who have had the benefit of good education, are healthy and living stimulating lives and there will always be some old people who function at higher levels than some young people.

WHY DO WE PERFORM MORE SLOWLY IN OLD AGE?

It is tempting to attribute all the slowing in performance apparent as we age to peripheral factors involved in the time required to sense the stimulus and to make the response. That is, to changes in sense organs, in speed of muscle contraction, in range of joint movement. Research shows, however, that slowing is due, for the most part to changes in the central mechanisms responsible for interpreting incoming stimuli and for deciding on the appropriate response to make (Welford, 1962, 1977, 1985; Salthouse, 1985; Hayslip and Panek, 1989).

Decreased nerve conduction speed might be thought responsible. Nerve impulses do travel slightly more slowly but only by about 4 milliseconds per metre of nerve (Welford, 1977). Nor can changes in sensory mechanisms account for a great deal of the decrease in speed of behaviour. As we grow older we have more difficulty in bringing objects we see into focus, we become more susceptible to glare, require more time to adapt to the dark and our visual acuity decreases so that less detail can be appreciated. We also experience some loss of hearing especially for high frequency sounds as well as alterations in other senses (Hayslip and Panek, 1989). These changes
probably mean that the strength of signals from the sensory receptors to the brain is diminished but evidence from simple reaction time (SRT) and choice (or complex) reaction time (CRT) tasks suggests that this change contributes only a little to reduced performance speed (Welford, 1985).

In an SRT task subjects must respond as quickly as possible, usually by pressing a button or raising a finger from a button, to the onset of a signal such as a light or sound. The actual amount of movement required is minimal. Even so, older people are 10—20% slower than young people (Welford, 1977), although this may be partly due to changes in muscle fibres (Bassey, 1985). In CRT tasks the movement required to respond is similar but rapid thinking is necessary to work out which response to make. For example there may be several different light signals, some needing a button to be pressed with the left index finger when they flash on and others needing a button to be pressed with the right index finger when they flash on.

As the decisions to be made become more complex, the more mental operations will be required to select an appropriate response. An age-complexity interaction in response time has been found, the more complex the decision, the more time older adults need to respond. This suggests that much of the age-related slowing in performance is due to slower thinking time. Various other explanations, however, have been proposed for this phenomenon. Motivational factors have been observed to contribute to slower performance in old age: emphasizing accuracy at the expense of speed or increased difficulty in ignoring irrelevant information (for a review see Hayslip and Panek, 1989). Salthouse (1985) among others, however, argues that changes in the central nervous system (CNS) can account for all age-related intellectual slowing.

So far, not enough evidence has been accumulated to support any specific explanation for CNS slowing. One explanation is based on the concept of signal to noise ratios. Whether or not a person detects a stimulus, such as an auditory or visual signal, depends on the strength of the stimulus itself relative to the amount of conflicting, irrelevant, background “noise” that is also impinging on her sense organs. Thus the likelihood of a stimulus or signal being successfully detected depends on the signal to noise ratio. For example, it is more difficult to hear someone over a poor, crackly telephone line than over a clear crackle-free line. It is also more difficult to hear a caller who mumbles quietly than one who speaks clearly and it is very difficult indeed to understand a mumbler over an unclear line and with a car-engine being revved in the background.

As we have noted above, changes in the sense organs may result in weaker signals entering the central nervous system in old age. Welford (1962, 1977, 1985) hypothesizes that these weak signals may also then have to compete against increasing levels of neural noise in the CNS itself. Neural noise may arise as a result of age changes in neurones and their connections. So the person may have to allow more and more signals to accumulate before the nature of the signal can be registered and interpreted. Alternatively, Cerrella (1990) suggests slowing is due to more and more breaks in the neural network which makes up the CNS, accumulating as we age. These breaks simply mean
that nerve impulses are often diverted and hence need more time to reach
their destinations.

We must, however, avoid stereotyping all old people as slow. For one
thing slowness in decision-making may not be particularly apparent in every-
day life. Also, as Rabbitt (1986) makes clear, not all old people deteriorate and
some remain very proficient until very late in life. He tested 998 people aged
18 to 92 on various reaction time tasks. Of the people aged between 75 and
85 years, 10% performed as fast and as accurately as the best subjects aged
30–50 years.

DO WE LEARN LESS EFFICIENTLY AS WE AGE?

Maybe the decrease in our speed of information processing as we grow older
can explain some or much of our reduced memory proficiency. Of course, we
can still learn new information and new skills in old age, a foreign language,
for example or how to operate a calculator or a word-processor, but we tend
to need more time to do so.

In everyday life, this slight slowness is not especially apparent but it
becomes more so when an old person feels rushed, fatigued or is asked to
tackle several tasks at the same time. Remembering items learnt by rote is
hard at any age but becomes even harder in old age. This is particularly true
of people's names (Cohen and Faulkner, 1984).

The difficulty with names is understandable. There is no reason, apart from
my parents' whim why I was given the name I have, there is nothing about
my face that dictates that I should be called Janet, other people just have to
rote learn the connection between me and my name. In contrast most other
information that we need to recall is embedded in a rich network of related
material allowing alternative paths of access.

Five stages have been identified in the process by which material is learnt
and then recalled (Welford, 1985):

1. Material is perceived and comprehended.
2. It is held for a few seconds in short-term memory (STM) until it is either
   lost or passes to the third stage of processing. These items are in
   conscious awareness and are lost rapidly if not processed further.
3. Registration in long-term memory (LTM) occurs, i.e. the material is
   encoded into a durable memory trace.
4. The coded material is stored in long-term memory until required.
5. It is recovered from long-term storage.

This model shows that memory itself is conceptualized as a number of
processes rather than a single 'box' in the head. Because memory cannot
be seen, it is not a thing that can be examined through a microscope, its
constituent processes are inferred by the way people behave in carefully con-
trived study situations. Thus different study designs elicit different types of
memory behaviour. In due course, with the accumulation of evidence, a con-
sensus is arrived at and a name agreed for a particular pattern of behaviour. As a result there is a complex terminology related to the study of memory which can be confusing to students new to the area.

So where among the stages of learning and remembering do our inefficiencies show up most as we grow older?

First stage: several processes are involved when we perceive and comprehend the material to be learnt. I have already described how age changes in our peripheral sensory mechanisms can reduce the quality of incoming signals reducing the likelihood that they will be efficiently registered. So difficulties at this stage may contribute to reducing older people's learning proficiency. We do not, of course, remember the stimulus itself but our interpretation of it, what it means to us (Hayslip and Panek, 1989).

Second stage: short term storage. This type of memory is to be distinguished from memory for recent events, e.g. 'What did I ask you to do five minutes ago?'. According to current thinking that information will already be in some form of long-term store (Craik, 1977; Poon, 1985). Short-term memory (STM) has a limited capacity and items are dealt with in a matter of a few seconds. They are held in awareness, and this part of the memory system is thought to have a controlling function for all thinking and remembering activity (Craik, 1977; Baddeley, 1986). There is, however, evidence that some stimuli may be processed without reaching conscious awareness (Dixon and Henley, 1980).

One way to measure STM capacity is by the serial memory span task which also forms one of the WAIS sub-tests. A person is presented, either visually or verbally, with a sequence of digits or letters at the rate of one every two seconds. Immediately, she has to repeat the list in the same order in which it was presented. Her score is the longest string of items that can be correctly reproduced.

Most people between 20 and 60 years of age can manage to reproduce six to seven items without any trouble. The average may drop slightly in the 60s and 70s to five to six items depending on the type of material to be remembered (Craik, 1977). It seems that, provided that the material does not have to be changed in any way, such as repeating it backwards (backwards memory span), this ability does not decline markedly in early old age, although it may do so in late old age.

These results suggest that STM capacity is not greatly affected by age (Welford, 1985). The memory span task, however, reflects a rather passive form of storage and when more demands are placed on STM processes, such as that required by the backward memory span task, age-related decrements appear (Bromley, 1958). Older people are likely to have difficulty in simultaneously holding and manipulating information being held in awareness. In practice this problem may be apparent in tasks such as mental arithmetic or in keeping track of who said what in a group discussion (Rabbitt, 1981).

Baddeley (1986) has sought to explain this tendency in terms of a working memory model of STM where STM is thought to be made-up of several sub-processes. They comprise a central executive supplemented by various slave systems all with limited storage capacity. One of these is responsible for
rehearsing verbal material and another for maintaining visuo-spatial material in awareness. The central executive itself probably exerts an overall controlling function as well as being able to store limited amounts of material. This model is summarized by Smyth et al. (1987). Baddeley (1986) suspects that the central executive's storage capacity may well decrease with age, if so the reduction in processing resources may affect many aspects of mental performance (Hultsch and Dixon, 1990).

Third stage: the perceived material is encoded into a memory trace for long-term storage. To encode the material it must be stored briefly while it is manipulated simultaneously in some way such as rehearsing it, reorganizing or regrouping it.

The more elaborately items are encoded, i.e. the more information about them that is processed, and the more effective the strategies developed for organizing the material, then the more efficiently it will be retrieved at the fifth stage (Arenberg and Robertson-Tchabo, 1977; Poon, 1985). For example encoding verbal material in terms of its meaning leads to it being retrieved more easily than if it were processed in terms of its sound. For this reason rote learning is an inefficient learning strategy. Old people do not seem to engage spontaneously in the most effective encoding strategies and when they are instructed how to do so the outcome is still not as good as that of younger people (Hulicka and Grossman, 1967).

Also, compared to younger people, it appears that old people are more easily distracted. Kay (1951) showed that if an old person makes an error in a learning task, he may persist in making the same mistake over and over again. Old people seem to have difficulty in eliminating previous errors.

Encoding operations require additional mental space. From one perspective it appears that the available space in terms of working memory capacity may decrease in old age (Baddeley, 1986). Looking at it another way, Welford (1985) argues that old people's slower encoding is due to decreased signal to noise ratio in the CNS. Older subjects, he suggests, have to accumulate more information to achieve an effective signal which they can then process. Salthouse (1985) accommodates both perspectives when he claims that loss in working memory capacity and other learning and remembering losses with age can all be accounted for by a slower information processing rate.

Fourth stage: the long-term store probably has a huge, even unlimited, capacity. The memory traces maintained there are not in awareness. Old people probably have few problems at this stage as they do not appear to forget more readily than younger people (Welford, 1985).

Fifth stage: old people have difficulties in retrieving material from long-term store. The more material they have to recall, the worse they are compared with young people. However, under certain conditions their performance does not differ very much from that shown by young people (Craik, 1977; Poon, 1985; Hultsch and Dixon, 1990).

In a free recall memory test the subject has to remember as much of the material he has learnt as possible and report it in any order. In a recognition memory test, however, he has to identify this target material, by distinguishing it from new items that were not presented at the pre-test. Both young and
old people are much better when they are tested by recognition than by free recall. But although the young are still better than the old, the difference between them is less than under free-recall conditions. Thus old people benefit most from the retrieval support offered by the recognition condition (Perlmutter, 1979).

Retrieval support means that the array of possible items to be recalled is reduced, so the subject does not have such an extensive search to find the required information. Old people can, like young people, benefit from cueing which also offers retrieval support (Craik, 1977). For example giving the first letter or syllable of the word to be recalled (‘My name begins with “J”’) or hinting at the category of material to be recalled (for apple: ‘It’s a fruit’, ‘You can eat it’). Therapists can make good use of retrieval support in appropriate circumstances.

Retrieval support benefits old people even more than young ones. So part of their memory difficulty may arise from actual retrieval deficits such as inefficient searching of the memory store. But, as we have seen, even with retrieval support they still do not recall as much as younger people. It seems, therefore, that old people’s difficulties with recall also arise from poor encoding at Stage three (Perlmutter, 1979). If material is not elaborately encoded, especially in terms of meaning, then it is more difficult to locate and retrieve.

**WORKING WITH OLDER ADULTS**

It often helps us to understand old people to think in terms of processing capacity or resources available for mental activity. As we have seen, these resources, like those for physical activity, are likely to decrease in later life. Starting with changes in the nervous system, a chain of events appears to lead to slowed information processing and on to restricted working memory capacity. In most day-to-day business, however, this restriction may be of little consequence, the elderly person can cope within her available capacity. If she becomes tired, however, feels unwell or is stressed in some other way, her coping resources may be overloaded to the extent that her performance suffers. In a similar situation a younger person, who will have more reserves of resources may not suffer a noticeable deterioration in performance.

Therapists, therefore, should be alert to an older client’s needs in these respects. For example it might make a difference whether or not a client has been able to have a nap on her bed after lunch or just been left to doze in her armchair. Some elderly inpatients, who are often woken quite early, have been known to fall asleep in the physiotherapy department because they have been so tired!

There are two main strategies to avoid overloading mental resources:

1. Allow the older person plenty of time to carry out a task.
2. Do not ask an older person to do more than one thing at a time.

A client’s habitual style of conversation is often a guide to her capabilities. If she answers questions with sensible, lengthy and complex utterances rather
than monosyllabic ones, it suggests that her working memory can cope with processing lengthy, complex utterances from the therapist. If this does not appear to be the case the therapist is advised to speak to the client in short, simple phrases. For example, 'Mrs Jones' (pause to catch client’s attention), 'please sit here' (indicate, pause), 'please sit on the side of your bed' (repeat as necessary). All unnecessary words are dropped, the key phrases stand out, they are not embedded in a matrix of extraneous niceties. The tone of the therapist's voice is friendly and pleasant and she smiles at Mrs Jones. We can convey politeness and empathy by our manner and touch even if our words may sometimes have to be pared down to essentials. Whereas it would usually be inadvisable to put your arm around the shoulders of a younger outpatient or inpatient and give that person a hug, old people may appreciate the warmth this gesture conveys. They often lack physical contact especially if they do not have any living friends or relatives. But we cannot assume that all old people would welcome such intimate contact!

To any elderly person, learning a new skill such as manoeuvring a wheelchair or walking with a frame may be stressful if the teaching is rushed. To avoid stress on mental resources, it is advisable to keep instructions short. Provide one chunk of information at a time and then allow time for each chunk to be encoded before adding the next one. For example the instructions for relearning a familiar activity such as standing up from a chair can be overwhelming if quickly listed in one go: 'Please move your bottom to the front of the seat and put your feet well underneath you and push up from the arms of the chair with your hands'. In this situation the rapidly incoming information may interfere with the processing of items already being held in working memory. The client is effectively being asked to perform two tasks at the same time, take in the new information while still dealing with the previous chunk. (For a review of research findings on old age learning see Peterson, 1989.)

In a group discussion, the participants also have to do several things at once. They have to remember what was said, and who said it as well as work out what they may wish to contribute. Rabbitt (1981) found that older people often had difficulties even when they had perfectly good hearing. He advises younger people unostentatiously to up-date elderly participants about what is going on if they appear to have lost track of the proceedings. Rabbitt’s work suggests it may be inadvisable to arrange activities for large numbers of old people grouped together, probably six or eight is most satisfactory.

Many age changes besides those to do with cognitive performance affect the ease with which we can elicit elderly patients’ cooperation. I do not plan to cover all of these in this chapter but French discusses ageism in Chapter 5 of this book and Kemp (1985) makes several useful observations. Foremost among these is the need to foster the older person’s self-concept. As Rodin (1986) and Coleman (1986) also make clear, old people risk developing feelings of incompetence. Most of their achievements are behind them and they are faced with failure more often than are young people even in the simplest of daily activities. Obviously this risk increases if the person suffers a mobility problem. The rehabilitation therapist can bolster his elderly client’s
Physiotherapy: a psychosocial approach

self-concept, and hence more easily elicit his cooperation in several ways. In particular:

1. Show respect for the person's past achievements.
2. Recognize and acknowledge current achievements and successes.
3. Set achievable mobility goals.

CONCLUSION

However trivial her patient's success may appear to her or however small an achievable goal may seem—the old person may have had to expend considerable energy to reach it. She may also have had to overcome pain, fatigue and fear. Our elderly patients should not fail at their rehabilitation tasks, if they do so, it may be the therapist's fault.

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'The supervisory role can be seen as a final stage in the development of the professional role — that of learning to teach the art that one has acquired oneself' (Ford and Jones, 1987).

This chapter will consider the role of physiotherapists as educators in the clinical setting, with particular reference to those involved in the education of students. Sotosky (1984) contends that to educate others is part of the professional role and that the work of the physiotherapist can be defined as having three major functions: clinician; researcher; and educator. Coates (1986) believes that experienced, practising physiotherapists are better placed and better qualified than college tutors to teach clinical skills to physiotherapy students. It is also likely that the attitudes and knowledge students acquire in the clinical situation are more profound and lasting than those acquired in the college setting. This places considerable responsibility on clinical tutors.

The title of 'clinical supervisor' implies that the physiotherapist is merely watching and directing the students' work. This diminishes her role, for in reality she is engaged in the complex and multidimensional task of teaching and helping students to learn. Thus the title 'clinical tutor' is more appropriate and will be used throughout this chapter. The clinical tutor is not merely assisting students to acquire facts and master procedures, but also to relate theory to practice and to develop appropriate attitudes and behaviour. The clinical tutor must be able to motivate students and to modify the clinical environment to suit their needs. Students should ideally be stimulated but not over-anxious, be given adequate responsibility but not left to flounder, and be exposed to the realities of illness, disability and death without being overwhelmed by them. Individual differences between students and the stage they have reached in their education must also be considered.

LEARNING THEORIES

There are many contrasting learning theories arising from different schools of psychology. Contemporary teaching practice is eclectic and the ideas presented in this chapter are drawn from various schools of thought. However, an outline of some of the main learning theories will be given.
Teaching and learning in the clinical setting

Behaviourist theories of learning

The behaviourists view learning as resulting from stimulus–response connections. Beneficial responses to various stimuli tend to be repeated and to become established, whereas harmful or unsuccessful responses tend to diminish or disappear. Thus learning can occur through trial and error and is established through practice. It is also possible to influence the learning process by providing people with rewards and punishments which ‘shape’ their behaviour in a given direction. Human beings are very sensitive to subtle signals of approval and disapproval from others and in this way we affect each other’s behaviour and learning patterns. The behaviourists do not view the mental processes of the individual as important in the understanding of the learning process but rather concentrate on behaviour.

Cognitive theories of learning

Cognitive learning theorists view the learner as an active processor of information. They are interested in his mental processes rather than his behaviour, and place great emphasis on his prior knowledge and assumptions. Over time our existing knowledge and experience of a given subject area become organized into a mental framework, often referred to as a ‘schema’ or ‘set’. We tend to interpret new events, assimilate new information and approach new learning tasks in accordance with these schemas. Thus when students start their clinical education they already possess cognitive schemas, sometimes rather sketchy but often very rich, in which to fit new knowledge. The more complex the existing schema, the easier it is to understand, assimilate, interpret and remember new information. For example, it will be less effort for a physiotherapy student to understand the pathological changes of pneumonia if she has knowledge of the respiratory system.

The clinical tutor should be aware of the extent and complexity of the student’s existing schema which will vary from one individual to another even at the same stage of their education. It is easy to over-estimate or underestimate students’ knowledge. Some students feel inhibited about asking questions whereas others may be reluctant to reveal considerable knowledge and expertise for fear of being thought boastful or of causing embarrassment. The clinical tutor should aim to help the student enrich his knowledge by linking new with existing material, challenging prevailing ideas and forming bridges between theoretical and practical knowledge. The more linkages made the easier it is for the student to remember the material. Thomas-Edding (1987) believes that clinical tutors sometimes expect students to organize and assimilate information as efficiently as themselves; once knowledgeable on a subject it is very difficult to imagine or remember ignorance or confusion.

Prior knowledge, or an existing attitudinal ‘set’ may inhibit rather than enhance learning. People are motivated to maintain psychological homeostasis or balance and tend to resist knowledge if its incorporation gives rise to imbalance and the need to reorganize information and attitudes. If a piece of
Physiotherapy: a psychosocial approach

The Gestalt theories of learning

Gestalt theorists believe that, 'the whole is greater than the sum of the parts'. Just as a whole symphony is greater than the sum of the notes so the Gestalt theorists believe that mental processes, including learning, can only be comprehended in terms of their entirety. The concept of 'insight' is used by the Gestalt psychologists to describe the phenomenon whereby people experience a sudden flash of inspiration. They believe that this occurs as the result of a rapid reorganization of the learner's experiences. Controversy exists regarding whether tasks should be learned by breaking them down into parts or leaving them whole. Gestalt psychologists favour the latter approach, though Pask (1976) believes the success of either approach varies according to the individual's learning style.

Learning by observation and participation

It is possible to learn a task by watching others perform it, and this may be very helpful to the student initially, but it is rarely sufficient in the learning of a new skill. There is considerable evidence to suggest that people learn best if they are actively involved. Thus it is important that students are given sufficient opportunities to carry out tasks themselves with adequate help. More passive methods of teaching do, however, have their place (Brown and Atkins, 1988; French, 1989b). Repetition, to the point of over-learning, is necessary to become really proficient and also helps to substantiate the learning. Variety is, however, important to stimulate interest and avoid boredom. Ford and Jones (1987) point out that skilled workers often have a tremendous urge to intervene when students are attempting to learn a new task and that this increases the student's dependency.

In order to learn 'to be a physiotherapist' the student needs space to be alone with her patients and develop rapport with them. Students vary in this respect and the clinical tutor should aim to give the correct degree of help and support while allowing the student to gain confidence. This can be difficult if it is felt that the patient will suffer in any way. Many researchers, for example Scully and Shepard (1983) have spoken of the conflict which clinical tutors face when considering the needs of students and the needs of patients. The number of patients under their care may not be reduced to compensate for the extra work of teaching and they may have demanding administrative tasks to attend to as well.
Transfer of learning

Positive transfer of learning from one task to another is said to occur when the earlier learning task facilitates the later learning task. Negative transfer is said to occur when the earlier learning task hinders the later learning task. In general when two tasks are superficially similar though requiring different responses, transfer is likely to be negative (Child, 1973).

If someone learns to perform a task inaccurately it can be more difficult for him to correct his response than it is for a novice to learn the skill. A person who has learned to type with two fingers, for example, will probably find it more difficult to learn the correct method than someone with no experience of typing. Rogers (1977) believes that training exercises can adversely affect performance of the real task unless the two are very similar. It is obviously important for clinical tutors to ensure that students learn tasks correctly the first time. Burnett et al. (1986) believe that transferring knowledge is more successful if students are taught through a problem-solving approach rather than a didactic approach. (For a full discussion of learning theories readers are referred to Curzon, 1985; Brown and Atkins, 1988.)

INDIVIDUAL DIFFERENCES

Individual differences between students affect how well they learn and their preferred learning styles. No one factor in isolation is particularly predictive of success in higher education.

Intelligence and prior academic performance

There is a low positive correlation between IQ scores and academic success at degree level with a similarly low correlation between ‘A’ level GCE grades and degree success (Beard and Hartley, 1984). Rheault and Shafernich-Coulson (1988) found no correlation between the academic and clinical grades of physical therapy students, though their findings conflict with those of Pickles (1977). It is important that the clinical tutor should not pre-judge the student on the grounds of his academic achievement as this may not relate to his clinical abilities. Jobling (1987) points out that success in higher education is as much a function of personality as intellect.

Extroversion and stability

There is a tendency for introverted students to achieve higher grades at degree level than their more extroverted peers (Entwistle, 1975). This is probably because introverts tend to have better study habits and are more tolerant of solitary activities such as essay writing and research. They also
differ regarding the teaching methods they prefer. Extroverts are sociable and tend to like group discussion and working with others, whereas introverts often prefer lectures and working alone. Thus the traditional teaching practices of higher education may favour the more introverted students. Introverts do not contribute readily when in a group but if asked to deliver a paper or run a seminar the quality of their work is usually very high. There is no evidence that people who do not contribute to group discussions learn less. Stability is another personality characteristic which seems to be predictive of success in higher education.

It is interesting to note that the occupational stereotype of the physiotherapist, when measured by Eysenck's Personality Inventory (Eysenck, 1967), is one of a slightly neurotic extrovert (Child, 1974; Jobling, 1986). With the growing concern for academic excellence and research activity in the physiotherapy profession, perhaps candidates of more diverse temperament should be selected and encouraged to apply.

A combination of factors has greater predictive power than any one factor. Entwistle and Brennan (1971) found that high levels of success at degree level were positively correlated with introversion, good 'A' level grades, good study habits and examination technique, ambition, tough-mindedness and conservatism. Snow (1978) found that general ability, anxiety, prior knowledge and achievement motivation, consistently affect educational achievement.

Cognitive styles

Messick (1978) states that, 'Each individual has preferred ways of organizing all that he sees and remembers and thinks about'. These preferences are termed 'cognitive styles'.

Honey and Mumford (1982) devised a questionnaire which identified four learning styles; those of activist, reflector, theorist and pragmatist. The activist likes activity and new experiences, thrives on challenge and enjoys crises. The reflector, on the other hand, likes to ponder, is thorough and cautious and prefers to take a back seat. The theorist is rational, has a logical step-by-step approach to learning and is concerned with basic concepts. The pragmatist is eager to initiate action and likes to try out new ideas.

Most people have one or two preferred cognitive styles. No styles can be said to be superior to any other, but rather each is suited to learning different tasks or aspects of a task. Thus individuals may seek or avoid certain areas of learning or activity according to their preferred cognitive styles. The theorist, for example, may be loathe to apply his knowledge and the pragmatist may not fully understand the basis of her actions. Although at first glance the pragmatist may appear to suit the role of physiotherapist best, all four styles are relevant to physiotherapy practice.

The clinical tutor will have her own preferred style or styles of learning and may find it difficult to help or respond positively or adequately to students with different styles. This is a problem for all teachers. Honey (1988)
concludes that people with all four styles within their repertoire are best equipped to teach but, unfortunately, only a minority of people are so versatile. Jobling (1987) believes that, 'the more versatile the teacher is in her style the more effective her teaching'. However, Reid (1984) contends that the teaching methods used have to be compatible with the personality of the teacher.

The clinical tutor should to some extent adapt to the differing learning styles of students but should also encourage them to learn and perform in ways they find more difficult in an attempt to increase their overall effectiveness. At the same time the clinical tutor should analyse his own preferred learning styles and try to widen his repertoire so as to teach more effectively. This is no easy task for cognitive styles are firmly rooted within our personalities (Messick, 1978).

Many other cognitive styles have been described. Hudson (1966) made the distinction between the 'converger' and the 'diverger'. The converger enjoys thinking about technical, impersonal matters, likes argument to be clearly defined and logical and to know whether she is right or wrong. She is not interested in probing into topics of a personal, emotional nature, nor in controversy. The diverger is the reverse, she enjoys controversy and uncertainty but is not interested in technical matters. Hudson found that convergers tend to specialize in physical sciences whereas divergers favour the arts, law and business where decisions are made on the basis of probabilities. Beard and Hartley (1984) contend that divergers are difficult for teachers to cope with as they tend to think outside the structures provided for them.

Pask (1976) described the cognitive style of the 'holist' and the 'serialist'. Serialists like to take a step-by-step approach when solving a problem, whereas holists like to look at the problem in its entirety. Another style is 'field dependence' versus 'field independence'. According to Messick (1978) the field independent person is able to isolate factors from their global context, is analytical and has an impersonal orientation. The field dependent individual, on the other hand, tends to view situations globally, lacks competence in analytic functioning, has a social orientation and is socially skilled.

Only the minority of people tend to extremes, most showing a slight tendency to adopt some learning styles rather than others. All learning styles have advantages and disadvantages and are beneficial to physiotherapy practice in their different ways, their effectiveness varying according to the task. The individual's preferred learning styles, though deeply rooted in personality structure, are not fixed and can be modified and extended.

THE STUDENT'S STATE OF MIND

The student's state of mind will have a large effect on her ability to learn and the clinical tutor will often be in a position to influence this. An important consideration is the student's level of anxiety. Brown and Atkins (1988) believe that 'significant learning only takes place in non-threatening environments'.
Trait anxiety, the individual's general tendency to be anxious, and state anxiety, the individual's level of anxiety in particular situations, though positively correlated are distinct. Thus the environment can be modified to alter the anxiety level of the student. The Yerkes-Dodson Law (1908) states that if arousal is either very high or very low, performance and the learning of complex tasks is adversely affected. If arousal is too great the student is unable to concentrate and apply herself to the task and if it is too low she will tend to be apathetic and under-stimulated. The level of a person's anxiety is not very easy to assess as various measurements — physiological, behavioural and self-report — tend to correlate poorly.

The task of the clinical tutor is not to eliminate the student's anxiety but to prevent it from becoming debilitating. Various studies have shown that physiotherapy students feel anxious about the clinical aspect of their education. Cupit (1988) asked physiotherapy students to say in a word how they felt about starting clinical work. Words such as 'petrified', 'scared', 'worried' and 'uncertain' were very common. He also found that many students doubted their knowledge and were worried about harming patients. Ramsden and Davitz (1972) found that physiotherapy students were both apprehensive and excited about the prospect of embarking on clinical work. They were worried about their level of knowledge and their ability to relate well to staff and patients. Walish et al. (1986) interviewed 20 physiotherapy students and found they were most concerned about interpersonal relationships; worries about treatment techniques and administrative procedures were also expressed.

Being in a familiar place with familiar people reduces anxiety. Thus the clinical tutor can help the student control his level of stress by giving him clear instructions and information and taking care to orientate him within the hospital and department. The information given should be paced so that he is able to assimilate and retain it. Probably the most important factor is for the clinical tutor to create an atmosphere where the student feels able to ask questions even if he feels he ought to know the answers or has been told before. This type of relationship is very helpful to the clinical tutor too as she will receive feedback which will enable her to understand the student's difficulties and limitations as well as improve her own performance. On rare occasions students may lack sufficient anxiety to stimulate action and learning; in such a situation it may be necessary to increase their level of anxiety a little.

The relationship with the student may also create various anxieties for the clinical tutor. She may be anxious about assessing the student, afraid that her limitations will be exposed or that her ideas and practice will be challenged. Such feelings usually diminish as the tutor becomes more experienced but can lead to an authoritarian, over-controlling attitude and style in order to protect herself.

Any emotional problems the student may have are also likely to interfere with learning. There is a tendency to view the student years as a happy and carefree time but it can be a difficult period when many adaptations have to be made as the individual reaches full adulthood. Maslow (1943) believes that the desire to achieve intellectually and reach one's full potential can only be realized when more basic needs are satisfied. He expressed this idea in terms
Teaching and learning in the clinical setting

The will to learn depends on internal motivators, for example, interest, enjoyment or wanting to achieve, and external motivators, for example praise, money or passing examinations. Internal and external motivators do, of course, interact, for example being praised may increase interest and being paid for a task may increase its enjoyment. Thus although internal motivators tend to be more powerful, they may be enhanced or diminished by external factors. External motivation has little effect if internal motivation is seriously lacking but happily this is not a common circumstance with physiotherapy students. Although students should take some responsibility for their own motivation and learning, the clinical tutor is very well placed to enhance internal and external motivation.

Positive reinforcement

Motivation is increased by giving praise and encouragement to desired behaviours. In British society we have a tendency to congratulate others and ourselves rather too infrequently. Bendall (1975) surveyed student nurses and found that most of the reinforcement they received came from the patients. Positive reinforcement enhances the individual's self-concept which Purkey (1970) and Thomas (1980) found can have a large effect on achievement. If praise is given it must be genuine or the student will receive false feedback and will lose confidence in the clinical tutor and respect for him.

Negative reinforcement

Negative reinforcement refers to criticism, punishment or the expression of disapproval. Criticizing specific acts can be effective in enhancing learning but a general attitude of criticism and punitiveness is likely to affect adversely the student's motivational state. It is unusual for a student's performance to be
wholly bad and criticism can be tempered with praise and suggestions for improvement. Criticism should be related to specific problems which can be changed, rather than directed at the learner's personality as a whole. Booy (1986) believes that it is very important to be objective and specific especially now that the student can appeal against an assessment decision. It should also be appreciated that the way the student performs may be greatly influenced by the clinical tutor's presence.

By giving reinforcement, either positive or negative, the clinician will be providing valuable feedback to his students enabling them to adjust to requirements and improve their performance. Although improvement can occur without knowledge of results it is greatly enhanced if feedback is given. Feedback is most useful if given immediately and regularly, it can then be easily related to the behaviour it concerns and gives the student time to improve. Students should always be given the opportunity to discuss or disagree with what is being said. Unresolved misunderstandings and suppressed resentments only serve to demotivate both tutor and student and sour the relationship.

Success

Success is highly motivating and will facilitate learning, thus the clinical tutor should attempt to ensure high levels of success in her students. The pace of learning should ideally be adjusted to suit the individual student so that success is assured. As well as succeeding most students like to feel they are being stretched intellectually or there is a danger of boredom.

Interest and enjoyment

Interest and enjoyment were cited above as internal motivators. The clinical tutor should try to ensure high levels of interest and enjoyment in her students. This can be achieved in many ways: by providing a varied case load; teaching new techniques; involving the students in in-service training; and organizing visits to other departments. Most students lose interest if their work is too routine. The general atmosphere of the department - how approachable the staff are, how welcome students feel - is vitally important regarding their level of enjoyment.

Competition and cooperation

Competing and cooperating with others can be highly motivating and can enhance learning. Cooperation is more relevant to the clinical situation than competition. It is important that the clinical tutor creates a situation in which the student feels he belongs and is contributing meaningfully to the work of the department.
Motivation and achievement

Although it is important to consider the effect of motivation on learning and achievement, it is interesting to note that the correlation between student motivation, as measured by students themselves, and achievement, is quite low (Entwistle et al., 1971). People who work the hardest are not necessarily the most motivated nor satisfied (Vroom and Deci, 1970). Thus the behaviour of students is not a perfect indicator of their attitudes or feelings. This is not too surprising when we consider the many constraints on the way we behave.

If the student appears to be uninterested, unmotivated or achieving poorly there is a tendency to spend less time with her and be more critical of her, with the possibility of worsening her state of mind and creating a vicious circle. Brophy and Good (1970) found that school teachers behaved very differently towards high achieving and low achieving children. They praised low achievers less than high achievers and criticized them more. They also gave low achievers less time to respond and tended not to stay with them in situations of failure. It is likely that the same dynamics operate between clinical tutors and students as well as between patients and therapists.

Behaviour, including learning, is at least as much determined by the interaction between the individual’s characteristics and the situation, as by the individual’s characteristics alone (Argyle et al., 1981). Many psychologists and sociologists believe that the emphasis on the individual is an unfortunate misdirection of focus. Thus rather than counselling or criticizing the ‘unmotivated’ student or the student who is failing to learn, it might be more fruitful on occasions to examine the organization in which she is placed. The clinical tutor is clearly a very important influence in determining the student’s environment and is therefore in a key position to influence her learning.

PROFESSIONAL SOCIALIZATION

‘... the most forceful, professional socialization is likely to occur during clinical practice. Contact with patients, members of the health care team and exposure to clinical realities generate powerful positive and negative feelings’ (Burrows, 1990).

Professional socialization can be viewed as a process whereby individuals are shaped to fit the needs of the profession. Peat (1985) believes that this process takes place mainly in the clinical environment. Professional socialization is not fully understood; concepts have been borrowed from studies of child socialization, but this is inadequate because the adult has had more experience and is subject to more diverse influences. It would be wrong to think of students as passive recipients ready to absorb the values and norms of the profession they have entered. Students both accept and reject what is delivered to them and there is usually a powerful student culture exerting far more influence than senior members of the profession.

Individuals who are selected for training are often similar to those already in the profession (Mercer, 1979). This ensures that the socialization process
has already begun. Despite this, students often enter their professional education with preconceived and idealistic views of what the work entails. The sudden shattering of these views when clinical work is commenced has been referred to as ‘reality shock’ and the requirement to change rapidly from a schoolchild to a sensitive and highly responsible adult, as ‘role ageing’. Atkinson (1981) found that the attitudes of medical students moved from idealism to cynicism as their education progressed.

Students are exposed to a wide variety of models as they progress through clinical education. Although the occasional model may be a ‘star’, Burrows (1990) points out that most serve as partial models with the students internalizing a variety of values from each. Some may serve as ‘anti-models’ highlighting what the student does not want to become. Many studies show, however, that professional models are not particularly influential (Atkinson, 1981).

The process of socialization encourages conformity. There is, however, considerable evidence to suggest that those with minority views are often right and can have a profound effect on the cognitions of the majority (French, 1989a). Burnard (1989) states that, ‘the true innovators in nursing will be and always have been outsiders’. He believes that non-conformists are very valuable members of professions, as they tend to seek the truth whatever the cost, but he recognizes that they have a very difficult time and often leave the profession. It is important for the clinical tutor to bear this in mind in his dealings with students who do not conform.

Because physiotherapy is not a clear-cut scientific enterprise, students will inevitably receive varying and conflicting messages from staff both in the college and the clinical field. This not only applies to the acquisition of skills but also to learning the role of ‘physiotherapist’ itself. The nature of the role has become less clearly defined over the years and there is also less agreement concerning the nature of ‘professional’ values and behaviour. This can be difficult for students who are expected to fit successfully into a wide selection of departments during their education and are assessed by a variety of clinical tutors. The confusion has the potential to cause anxiety and interfere with learning. It is important that the clinical tutor is aware of the confusion to which students are subject and if she has any definite views on issues of professionalism or techniques which she wishes students to adopt, these should be articulated clearly. It is common for students to believe that the confusion they feel, regarding treatment techniques and behaviour, springs from within themselves rather than being an external reality.

CREATING A LEARNING ENVIRONMENT

Contemporary learning theory and teaching practice are eclectic. Griffiths (1987) views learning as ‘a process of drawing out from within’ and a teacher as a facilitator who is responsible for promoting or hastening the process. Brown and Atkins (1988) claim that people are ‘natural decision-makers and problem-solvers’. Mason (1984) believes that the two major dimensions of
successful teaching are understanding the subject matter and the ability to create a learning environment and form relationships with students. Beard and Hartley (1984) point out that under-achievement is caused by many factors unrelated to intellect such as debilitating anxiety, emotional difficulties and a lack of security.

Mathews (1987) suggests various factors which enhance the experience of learning for nurses on the ward. These factors are also applicable to physiotherapists. They include a positive attitude from the person in charge, awareness by trained staff of their teaching responsibilities, a high morale, an emphasis on the needs of the patient rather than the needs of the ward and the encouragement of students to ask questions. Marson (1990) reaches similar conclusions. Mathews (1987) believes that most learning in the clinical situation takes place, not by formal methods but by example – the way qualified staff interact with patients and relatives, how they plan treatments and how much responsibility they give to students. Formal teaching does, however, have its place and there are many books and articles on the subject which clinical tutors can consult (Rogers, 1977; Beard and Hartley, 1984; Curzon, 1985; Brown and Atkins, 1988; French, 1989b,c,d,e).

Whitely (1988) gives various tips on how the ward can be used as a teaching environment, including use of patients' notes, the display of wall posters, the availability of textbooks, participation on ward rounds and the involvement of other professionals and departments. Creating a suitable learning environment is not, however, an easy task. The clinical tutor must adapt to individual needs as well as deal with clinical and administrative responsibilities. In addition, some of the necessary requirements for successful learning actually oppose each other. Pelz (1978) points out that: '... creative problem-solving requires the presence of two somewhat contradictory conditions: on the one hand there must be some source of security ... on the other there must be some source of challenge'.

It is the task of the clinical tutor to help promote both.

**Students' views on clinical teaching**

Various studies have been conducted where physiotherapy students have been asked to give their opinions on clinical education. It appears from these studies that students view clinical tutors' ability to communicate and their interpersonal skills as more important than their teaching ability and professional skills. Emery (1984) asked physical therapy students, who had completed their clinical education, to rate the importance and frequency of 43 previously identified clinical tutor behaviours. These behaviours were classified as relating to communication, interpersonal relationships, professional skills and teaching skills. The students considered all the behaviours valuable but the tutor's interpersonal skills and her ability to communicate were considered more important than her teaching capabilities; her clinical skills were considered least important of all. It is interesting to note that the behaviours considered least important were the ones most frequently demonstrated.
Concentrating entirely on the pursuit of clinical excellence can be destructive. Best (1988) states: 'Some supervisors are exacting task-masters and in their determination to produce competent clinicians often destroy the student's developing confidence so that they are unable to perform'.

Orton (1984), in her study of the clinical education of student nurses, found that students rated highly considerate and understanding sisters, who treated them as learners rather than workers and who generated a team spirit. They rated highly those who spent considerable time teaching on the ward especially if they used existing ward facilities to do so. Stritter et al. (1975) asked third and fourth year medical students from one medical school to state the most important clinical tutor behaviours. The following six factors emerged: active student participation; the teacher's attitude towards teaching; emphasis on problem-solving; student centred instruction; a humanistic orientation; and an emphasis on references and research. Similar factors were identified by Yonke (1976) and Neville and French (1991).

**Clinical tutors' attitudes to teaching**

May (1983) surveyed a large number of physical therapists in the USA by means of a questionnaire. Most believed teaching was an important aspect of their role but few thought it was a natural skill. Most of the therapists said they had learned to teach by 'trial and error'. Scully and Shepard (1983) conducted an observational study of physical therapists in the USA which included semi-structured interviews. They note that teaching activities in clinical practice are dissimilar to those used in college settings and believe that clinical teaching methods have never been adequately defined. Various advantages and disadvantages were expressed regarding working with students. Respondents commented on lack of privacy, reduced contact with patients and difficulty managing time. It was necessary for the student to be a good 'guest-in-the-house' and to understand and abide by 'house rules'. Other respondents mentioned the enriching effect students had on the whole department and that the high exposure given to the work place improved staff recruitment. Sotosky (1984) found that clinical tutors had very positive attitudes towards tutoring, though they were dissatisfied with the training they received and wanted to learn more about teaching. Very similar results have been found by Cupit (1988) and Neville and French (1991).

It is clear that the student has to cope with a variety of philosophies and teaching styles as she moves from one department to the next. Scully and Shepard (1983) believe that she often walks a tight-rope between 'student' and 'therapist' in the way she is expected to behave and that her status among other staff depends on how she is treated by the clinical tutor.
CONCLUSION

The role of the clinical tutor is complex and multifactorial. Greater support and education are almost certainly overdue and need to be developed. The enhancement of teaching skills and the ability to create an environment conducive to learning will not only benefit students but also junior staff and patients, in fact anyone in the department who is keen to learn. In addition many of the qualities that a clinical tutor needs are those required of an effective manager or leader, thus the skills are not specific to teaching but can be generalized to other aspects of the physiotherapist’s work.

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Teaching and learning in the clinical setting

WHAT IS SPORT PSYCHOLOGY?

The first article on sport psychology was written by Triplett (1897) who noted that cyclists pedalled harder when competing with others than when cycling alone. Applied sport psychology has only been in operation for some 20–25 years, and it is important to note that Kremer and Scully (1991), in an overview of sport psychology, point out that on the one hand most articles on the subject are written by non-psychologists, while on the other the majority of psychology texts and courses do not contain any material on sport.

Until the 1960s, succeeding in any kind of sport was largely a matter of using to the fullest advantage whatever nature had bestowed in the way of athletic ability. To competitors in the early Modern Olympic Games, training for an event was regarded as being against the true spirit of amateur sport, but attitudes have changed and athletes now train seriously to give themselves an advantage over their opponents. It was not until comparatively recently, however, that athletes and coaches began to realize that while two athletes could seem alike in both fitness and technique, one won competitions more often than the other and the likelihood of that individual winning and the other losing was more marked when the contest was particularly important.

Clearly then, there are factors to be taken into account which are concerned with mental aspects of competition rather than with fitness or technique. For many years competing teams have adopted various strategies for what is now referred to as ‘psyching out’ opponents, but only comparatively recently has it been recognized that the psychology of sport has a place alongside fitness training and coaching. Indeed, there are some elite athletes and coaches who claim that in high level competition psychological factors are more important than anything else regarding their performance. When watching sport on television or listening to it on the radio, comments made by players, coaches and commentators often refer directly to psychological aspects of performance. We hear about ‘mental pressure’, ‘having a psychological advantage’ and ‘the will to win’. Similarly, athletes often attribute the outcome of a competition to psychological factors. Comments such as ‘we were more
determined', 'I felt confident' or 'I couldn't concentrate' are often heard. When opponents are virtually equal in all physical respects, psychological factors are regarded as most important in determining who wins and who loses.

Kremer and Scully (1991) believe that sport and psychology have much to offer each other and regret that the links between the two disciplines are not closer, suggesting that many areas of psychology relate closely to sport. Areas of cognitive psychology that are of importance to sportsmen and women for example, include the ways in which thoughts and feelings affect performance (Williams, 1986), motivation, individual decision-making and mental rehearsal.

A fundamental issue is whether athletes are born with psychological characteristics favourable to good performance in sport, or whether they learn to withstand the pressure of competition and the ability to recover from a losing situation to win. The current view is that while personality does contribute something to the ways in which athletes respond to competition, it is more likely that their behaviour is the result of previous learning. A person who is quiet and retiring in everyday life, for example, may exhibit outgoing and aggressive behaviour on the sports field because such behaviour has been reinforced in that particular situation in the past. In this context recent research by LeUnes et al. (1988) and by Cockerill et al. (1991) has examined mood state on performance, while Ewart and Hallenhurst (1989) have investigated risk-taking and the effects of this in sport.

Clinical psychology and social psychology are other areas which have been applied to sport, as coaches and others try to help sportsmen and women cope with cognitive and behavioural problems through counselling, stress management and techniques for self-control. Evidence is also available to link mental health and exercise (Morgan and Goldstein, 1987), with exercise being used as a treatment for depression. In the area of social psychology, group cohesion, social influence, aggression, and crowd and spectator behaviour are all important considerations in sport. A useful review of these issues is provided by Cox (1990). Other areas of psychology which can be related to sport are physiological psychology and psychopharmacology. Morgan (1985), for example, has investigated 'runners' high', and associated it with the release of endorphins, while Mottram (1988) has written about the contentious issue of the effects of drugs on athletic performance.

The sport psychologist can have many roles to play; teacher, counsellor, researcher, training-programme analyst, tester, motivator and team member. Sport psychology is concerned with understanding those factors which affect the behaviour of athletes, and the role of the sport psychologist is to help the individual athlete and the team to strengthen desirable behaviours and to eliminate the undesirable. Although there have always been coaches and teachers who have established enviable reputations for getting the best out of difficult athletes, the increased emphasis placed upon winning, and the amount of training necessary in order to win, means that psychological issues are now too important to be left in untrained hands. It is, however, vitally important that all members of support teams involved with athletes, including physiotherapists, understand the role of the sport psychologist and have sufficient
knowledge of sport psychology to incorporate its principles into their own practice where appropriate. If this is not achieved, athletes may be given equivocal advice which, in itself, may cause psychological harm.

According to the outcome of a series of interviews with athletes and coaches prior to a recent Olympic Games (Orlick and Partington, 1987) the most effective sport psychologists were regarded as:

1. Interested in the sport itself.
2. Good listeners.
3. Able to provide practical examples of psychology in action.
4. Non-threatening and able to establish a rapport with individuals.
5. Positive in attitude, flexible and knowledgeable.
6. Able to teach effective relaxation and other techniques to free athletes from tension.
7. Able to provide advice about effective goal-setting and having multiple contacts with athletes.

In addition, coaches felt that sport psychologists should be able to:

1. Define the mental skills needed of the athlete.
2. Conduct group meetings to improve communication between coaches and athletes.
3. Teach mental skills such as concentration and refocusing.
4. Counsel athletes to help them deal with personal problems and to cope with stress.
5. Assist the coach by providing feedback about the effects of coaching on athletes.

It is a misconception to regard the sport psychologist as entirely concerned with problems and problem athletes. Indeed, this misconception has made some individuals reluctant to become associated with the kinds of services that sport psychologists can deliver. Sport psychology is not just about identifying problems and finding solutions to them, it is about helping coaches and athletes to understand how the performance of all athletes is influenced by psychological factors and how strengths can be enhanced and weaknesses eliminated. For example, many athletes become over-anxious before an event and this has the potential to affect their performance adversely. In this situation the sport psychologist can help them to understand what anxiety is, how it is caused, and how it can be controlled. Physiotherapists should be sufficiently knowledgeable about sport psychology to ensure that their own practice enhances rather than limits that of the sport psychologist.

THE INJURED ATHLETE

In almost every competitive sport, both amateur and professional, injured athletes represent an unacceptably high proportion of participants. Although
many injuries are of a minor nature and are not incapacitating, others require urgent treatment or may be chronic, causing the player to stop participating in sport for weeks, or even months. What is more, it has become almost de rigeur to be injured and even to be proud of it as, in ancient times, someone with a battle scar might have been. Many injuries appear to have their origins in overtraining, thus an injury can serve to symbolize hard work and commitment.

In 1988 the Great Britain team for the Seoul Olympic Games were reported to have had some £428 000 available for medical treatment. Either a large number of injuries were expected or the treatment of any which did occur was believed to be very expensive. It is, of course, essential that medical and physiotherapy services are made available to international athletes: the increasing number of physiotherapists, osteopaths, podiatrists and other professionals who are offering treatment to the injured athlete reflects a demand for such services at all levels.

The psychological needs of the patient with a sports injury

It is remarkable that there has been so little recognition of the need for psychological treatment for injured athletes. In 1989 two editions of the British Physiotherapy Journal (October and December) were largely devoted to the topic of physiotherapy in sport, yet none of the articles addressed psychological issues. Similarly, a search of the journal of The Association of Chartered Physiotherapists in Sports Medicine, Physiotherapy in Sport, revealed no articles directly relating sport psychology to physiotherapy practice. In order to effect a successful rehabilitation programme there are fundamental psychological as well as medical needs to be met. It has been pointed out by Eldridge (1983) that the emotional conflicts associated with sports injuries can remain undetected, and that patients have few opportunities to receive practical guidance about how to reconcile a sudden loss of a significant part of their lives, even though that loss is likely to be temporary. Such perceived losses, be they real or imagined, can represent a severe retardation of the healing process for many athletes if their needs are not considered sympathetically. The psychological significance of sport is of considerable importance to many individuals, especially to those who have developed a positive self-image through their involvement in it and who may consider themselves unsuccessful in other aspects of life.

If we subscribe to the ancient maxim mens sana in corpore sano, then it surely follows that an unhealthy or an injured body may be associated with an 'injured' mind. Eldridge (1983) suggested several ways in which the sport psychologist might work effectively with the sports-injured patient. It is important, for example, for athletes to be able to express the relevance of physical activity and sport in their lives and to explain, in psychological terms, what their injuries mean to them. Their perceived competence as people and their self-esteem may be adversely affected by an injury. Help is also required in developing adaptive behaviours to help athletes reframe their perceptions
of the situation so that the potential benefits of being out of action for a while can be assessed. Benefits might include having an opportunity for forward planning and goal-setting, having the time to acquire relaxation skills and learning to develop visualization techniques.

While it is not disputed that an important cause of sports injuries reflects the amount of body contact permitted, the condition of the playing surface, and the nature of the equipment used, it is likely that factors within the participant will also influence the likelihood of injury. Kerr and Fowler (1988) talk of 'external' factors and 'internal' factors and have indicated that, despite improvements in coaching, safer equipment and better medical care for athletes, the incidence of sport injury is increasing. Lewin (1989), the physiotherapist at Arsenal Football Club, reported that over the course of a full Football League season, 91% of the players received an injury, with most occurring during matches. A fifth of the injuries were serious with a recovery time of at least one month. It is probably an over-simplification to describe the internal factors as merely the 'effects of pressure' or the 'presence of stress', but there seems to be little doubt that an athlete's psychological state before, at the time of, and after injury, would benefit from close investigation.

The concept of accident proneness suggests that personality factors might prove to be a fruitful area of research. However, sport psychologists have known for some time that personality per se is a poor predictor of athletic performance. Similarly, occupational psychologists have found little substantial evidence to suggest a link between accidents at work and personality factors (McCormick and Ilgen, 1987). Personality and the situation prevailing at the time, however, merit further study. The well-known work by Holmes and Rahe (1967) that relates stressful life events to illness, has implications for injuries as well, an issue which will be discussed later in the chapter. At this stage it is sufficient to say that when counselling athletes, it is often apparent that the reasons put forward by them to explain their poor performance, frequently have no obvious connection with that performance. It is important to remember that while a young athlete is developing physical skills and fitness, he is often coping with many potentially stressful changes in life as he moves into adulthood; he may have left the security of home for higher education, begun a career, developed a close personal relationship with a future partner, and acquired major financial responsibilities. Each of these factors can influence his behaviour, including his sport behaviour.

In view of this, the sports medicine team should ideally contain a qualified, knowledgeable and experienced sport psychologist to identify the psychological antecedents of injury and assist in the athlete's rehabilitation. It has been suggested by Wiese and Weiss (1987) that there are four major concerns for psychologists working with injured athletes: the antecedents or causes of injury; the behaviour of athletes in response to injury; methods of rehabilitation; and deciding when a return to competition is possible. While it is true that good coaches will know their athletes very well and will be sensitive to their various idiosyncrasies, many coaches, usually the better ones, find themselves working with so many athletes that personal contact with individuals becomes less and less frequent. For the vast majority of coaches in all sports,
time with athletes is spent mainly on physical conditioning and technique training, with few opportunities for post-event evaluation or discussion with particular individuals.

The sport psychologist can be of benefit in the implementation of goal setting as an aid to recovery. The need to set short, medium and long-term goals is familiar to the majority of individuals who are interested and involved in sport. The psychologist can explain the rationale for such goals, and the knowledge that someone is interested in contributing to his recovery can help the athlete to progress to full fitness.

It needs to be remembered that enthusiastic, competitive athletes allocate a major portion of their lives to sport and anything that seriously disrupts this is potentially harmful psychologically. Athletes will be helped if they understand the emotional responses which may emerge if they are injured. The most important single skill that the coach, physiotherapist or other member of the sport team can possess is the skill of good communication; Wiese and Weiss (1987) believe that motivation and communication are the two major factors associated with psychological recovery from injury sustained in sport. It is only by spending time talking, and especially listening, to the athlete that an open and trusting relationship can be established and nurtured. Quite often the athletes themselves are able to explain the likely reasons for an injury if given the time and encouragement to do so. Those who provide a medical service for sportsmen and sportswomen need to be aware of the importance of good communication skills.

There is much anecdotal evidence to show that athletes recover quickly when physiotherapists are interested in them as people, rather than focusing attention exclusively on the injuries. Clear and precise information on the nature of injuries and how to cope with them (Berry, 1989) and a realistic appraisal of healing time is also needed. ‘Come back in a week and we will see what it looks like’, is not the advice the athlete is seeking, even though an initial period of inactivity is usually what is medically desirable. Being active people, competitive sportsmen and sportswomen are looking for a programme of active recovery, thus a period of inactivity may not be the best prescription. Physiotherapy, massage or an alternative exercise programme during the recovery period, are likely to be received readily and will be more successful than instructions to rest. (For further information on communication the reader is referred to Chapters 8 and 9.)

Lynch (1988) has suggested that every athlete should have a ‘complete physician’ who is not only skilled in treating his physical injuries, but who is also prepared to call upon the services of a psychologist to explain issues such as the nature of competitive stress among athletes. In sessions such as these, athletes can learn what stress is, how it manifests itself and how to control it. Few athletes are likely to have considered how their perceptions of a situation can affect their responses to it. Perceptions of earlier experiences are usually sharper and more focused if they had negative consequences. For example, the perception of physical pain, a poor performance, feeling ill and letting others down will be more vivid and recalled more easily than situations of success. Negative perceptions can lead to physiological over-arousal, which
Personality, attention and injury

It is recognized that personality accounts for only a small percentage of the variance between athletes and others and between athletes involved in different sports. However, some studies using the Sixteen Personality Factor Inventory (16PF), developed by Cattell et al. (1950) have yielded useful psychological information about the injured athlete. Valliant (1981), for example, showed that when a group of injured runners were compared with a group of ‘non-injured’ runners, personality differences were found. It was concluded that while injuries could be attributed to both the runners’ weight and the total distance run each week, the injured runners were more tough-minded and reserved than the non-injured group. A subsequent review of the psychological correlates of injury by Bergandi (1985) supported the tough-minded versus tender-minded hypothesis. He also confirmed that psychological distress, either as a direct outcome of athletic competition or from another source, contributes to the incidence of injury among athletes. However, while there are a number of studies that support a personality-injury-proneness relationship, at least an equivalent number have demonstrated that no such relationship exists.

Perhaps a more promising line of research lies in the area of attention as an influential variable affecting the incidence of sports injuries. It has been demonstrated on many occasions that over-arousal results in a narrowing of attentional focus. Nideffer (1976) developed a test of Attentional and Interpersonal Style (TAIS) which has been used widely to investigate the differential perception and personality characteristics of athletes and non-athletes.
To date, the results from the sport-related studies have proved equivocal, but the TAIS can demonstrate significant potential when used as a counselling tool with individual athletes. A study of 335 athletes by Bergandi and Witting (1988) has indicated that the TAIS may be a useful device for predicting the possibility of injury among athletes. Although their results did not produce conclusive evidence that attentional deficits were linked closely with accident-proneness, they highlighted the possible use of the TAIS, and other measures of attention, as a screening device. It is proposed that when used alongside more objective laboratory based measures of attention, the TAIS might provide the sport psychologist with useful data which can be presented to the athlete and coach to help the formulation of intervention strategies.

If it is accepted that high physiological arousal is associated with negative cognitions during the execution of a complex motor task to the extent of producing psychological stress, then it is appropriate to consider stressful life events as precursors to injury in sport. This issue was alluded to above and has been considered by Anderson and Williams (1988). Their model of stress and athletic injury suggests that the stress response to a given situation in sport is an amalgam of the athlete's cognitive appraisal of that situation, especially in respect of its importance at the time, and the accompanying autonomic nervous system response. These authors have proposed that those athletes who possess the personality characteristic of elevated trait anxiety, who live in a stressful environment and who possess few response strategies for coping with stress, will respond to potentially stressful situations in sport with increased muscle tension and attentional narrowing. The outcome is that such individuals are more injury-prone than those with an opposite profile.

It is worth reinforcing the position of previous injury in the stress— injury model. Any physiotherapist who has treated people with sports injuries will be aware of the desire of athletes to return to training sooner than is desirable. A premature return to training is frequently accompanied by the athlete unconsciously 'protecting' the injured part, which in turn places undue mechanical stress upon a different part of the body. The outcome may be a secondary injury, together with further damage to the injured site. Thus, Anderson and Williams (1988) have emphasized the need to determine both the nature and the extent of earlier injuries as a way of helping to prevent future ones.

### Stress and injury

The Social Readjustment Rating Scale was designed by Holmes and Rahe (1967) to determine the effect of stressful life events on subsequent illness and injury. Bramwell et al. (1975) created The Social and Athletic Readjustment Rating Scale by incorporating items appropriate to sport (SARRS). This research instrument was used by Cryan and Alles (1983) to examine the relationship between life stress and injuries in American footballers. It was found that the greater the degree of life stress among players, the greater the
likelihood of them sustaining an injury while training or playing. The implications for those treating sports injured athletes are manifestly clear, although there remains a need for more research using the SARRS. It is a helpful aid to injury diagnosis and to the prescription of treatment if the practitioner is aware of the extent of an athlete’s susceptibility to injury in terms of psychological factors.

OVERTRAINING

Kuipers and Keizer (1988) have reviewed the literature on overtraining and suggest that while mild forms of overtraining, which may be called ‘over-reaching’, can be remedied by a reduction in training load and intensity, more chronic forms of overtraining often take months from which to recover. In order to benefit from training it is necessary to overload the athlete so that the so-called ‘training effect’ will occur. Should the overload be greater than the athlete is able to sustain, then the risk of injury, longer-term overtraining (staleness), or both, is high. Typically the sympathetic nervous system is activated and an elevated resting heart rate, general fatigue, weight loss, and irritability become more common. It is also usual for overtrained athletes to be susceptible to infections, especially colds.

Less easy to notice, however, is that form of staleness which manifests itself via parasympathetic activation. This condition is not easily diagnosed because some of the desired effects of training are incorporated within it, for example resting heart rate is lowered and plasma lactate levels are reduced, which Kindermann (1986) explains is caused by decreased sympathetic activity during exercise. However, these manifestations are accompanied by depression. The Profile of Mood States Questionnaire (POMS), developed by McNair et al. (1971), has been found to be diagnostic of overtraining. For example, it was used by a colleague Conrad Raine and myself to identify the effects of overtraining among some of the Australian cricket squad prior to their successful visit to Pakistan for the World Cup Competition in 1987. An advantage of POMS is that it is easy to administer and score.

Current opinion suggests that variety in training might be the answer to avoiding the physical, as well as the psychological, effects of excessive training. The rapidly-emerging sport of triathlon, which consists of a consecutive swim, cycle and run programme, provides such variety. Not only do swimming and cycling provide variation in aerobic and strength training that would normally be undertaken by running, but the psychological benefits accruing from simply changing the training mode can be valuable. Athletes are well known for adding to their training schedule when they feel particularly healthy and physically fit, a practice which Kuipers and Keizer (1988) have suggested can lead rapidly to staleness. Some sport psychologists have highlighted the addictive properties of exercise (Thompson and Blanton, 1987). The psychological features of the syndrome are similar to those of excessive training and are manifested in symptoms of depression, aggression and sometimes confusion.
If a physiotherapist asks an athlete to reduce training or stop it altogether for a time, he is unlikely to comply; an alternative approach, which many physiotherapists utilize, is to encourage other activities. For example, if the patient is a runner, he can be encouraged to swim or cycle; thus a good workout is possible, the need to train is satisfied, and rehabilitation of the injury can proceed at the same time.

While the precise physiological mechanisms associated with overtraining remain unclear, despite its frequent occurrence, it may best be monitored by a sympathetic coach who is able to notice symptoms such as an absence of enjoyment, loss of appetite, and sometimes a tendency towards anorexia (Ryan, 1983; Pyne, 1989). While athletes are particularly likely to be adversely affected psychologically by injury and overtraining (which, in itself, may be considered a form of injury), ballet dancers are also reported to suffer from psychological disorders of this kind. Although the best coaches are keenly aware of the relationship between injury and psychological trauma, they may choose not to involve themselves in its treatment, principally because they do not know how, but also because they do not want to remove a good player from a squad, even temporarily.

CONCLUSION

A qualified and experienced sport psychologist is able to work alongside the athlete, coach, and physiotherapist to ensure that the time spent developing fitness and technique is not wasted. Physiotherapists also need a thorough understanding of psychology, as it relates to the injured sportsman or woman, if their treatments are to be successful and if they are to return athletes to their former state of fitness. Hall (1989) believes that physiotherapists working with athletes need to be good counsellors as well as being enthusiastic about sport. We all know that being fit does not necessarily mean being healthy, but psychological health should be regarded as just as important as physical health both by athletes themselves and those who support them.

REFERENCES


Physiotherapy: a psychosocial approach


Addiction is a word which is used in a variety of ways. A person may be addicted to football, his girlfriend or to strawberries. In this chapter the focus will be on addiction to those legal and illegal drugs which are considered to be harmful, for example nicotine, alcohol and heroin. Attitudes towards drug taking is culturally determined and changes over time. People who take non-addictive, illegal drugs, such as LSD, may receive harsh punishments, whereas those who take addictive drugs which are legal, such as alcohol and nicotine, are tolerated.

People are addicted, or are likely to become addicted, to a variety of substances. In Britain these include prescribed medicines such as Valium, legal substances, such as alcohol and tobacco (which to a large extent are socially sanctioned), and illegal substances such as cocaine and cannabis. Apart from the addiction itself, there may be adverse secondary effects associated with obtaining the substances. It is relatively easy to obtain prescribed drugs, more costly, although not usually prohibitively so, to obtain alcohol and tobacco, while it tends to be very costly to obtain illegal substances. Thus there are consequences regarding the payment for the habit which may lead to crime or the denial to themselves of essential items such as food and clothing. It involves considerable cost to become addicted to a drug and the maintenance of the habit may become a way of life. Taking drugs may serve to satisfy a variety of needs, for example curiosity, reduction of anxiety, friendship and recreation. Being 'on drugs' may carry a certain status for the young, alternatively it may be a form of rebellion against society or a real cry for help.

In many cases, addiction carries serious health risks which may be lethal; the respiratory disorders and cancers associated with smoking, the damage to the liver and brain associated with alcohol, are all examples. In addition there are many harmful effects associated with illegal substances, including the passage of hepatitis and AIDS when needles are shared for injecting the drug. The lifestyle of drug addicts may predispose them to illness and an early death, more so than the drug itself. This, in part, is due to the attitudes of the wider society which may blame them for their habit, deny them access to the addictive substance or force them to conduct their habit in secrecy.

The Diagnostic and Statistical Manual of Mental disorders (DSM-III, 1986), classifies the addictions under the organic brain syndromes where they come under the heading of 'intoxication and withdrawal'. Thus they are associated with changes in the functioning of the nervous system. This does, perhaps, over-emphasize organic features, for there are really two types of addiction; physiological addiction and psychological addiction. With physiological addiction the substances induce changes in the body's function which is less evident in psychological addiction, although there may still be a craving.
for the substance. A substance may, of course, induce both physiological and psychological dependence.

Intoxication is characterized by maladaptive behaviour and a substance specific syndrome. The most common changes are disturbances of perception, attention, thinking, judgement, emotional control and psychomotor behaviour such as movement and speech. Wakefulness can also be a problem. Social drinking of alcohol would not be included here unless it led to the above features. How rapidly a person becomes intoxicated depends on a variety of factors including, gender, the amount consumed, the size of the individual, the speed of consumption and the individual’s tolerance.

When an individual ceases to take a substance to which he is addicted he will experience symptoms of withdrawal. Indeed addiction, by definition, is characterized by withdrawal. Withdrawal, depending on the substance, can give rise to a variety of disturbing feelings. There may be nausea and vomiting, changes in mood and sleep patterns and even convulsions. Very often there is an overwhelming desire to take the substance which in many cases is done to allay the unpleasant features of withdrawal. In general a further feature of addiction is that over time larger quantities of the substance are required in order to obtain the same effect. If there are no untoward effects when a person stops taking a substance, that person is not addicted. This is not to say that there may be no untoward consequences, the individual who becomes intoxicated with alcohol on only one occasion may suffer from a hangover or behave in a reprehensible manner, but he is not necessarily addicted. There are many mood changing drugs which are not characterized by withdrawal effects and are therefore not addictive, these include LSD, a well known hallucinogen. However, this is not to say that such substances do not cause concern, the amount of effort expended by Governments all over the world to control their use, certainly suggests otherwise.

There have been changing fashions in the terminology associated with addiction. For example the individual who consumes excessive alcohol on frequent occasions may be given the label of ‘alcoholic’, but others prefer the more cumbersome label of ‘someone who abuses alcohol’. One of the reasons for this change is that the term ‘alcoholic’ implies the presence of a disease process and that the individual has entered the ‘sick role’. It is assumed that the person is not responsible for her situation but rather that she is the unfortunate victim of circumstance, rather like someone who catches the ‘flu, and that she should be sympathetically treated and given appropriate medical attention. On the other hand, the label ‘alcohol abuse’ implies that the individual has a choice, that she has chosen to become dependent on the substance and that she can choose to break the habit if she so wishes.

SOCIALLY AVAILABLE DRUGS

Alcohol is one of the best known substances of addiction. The intoxicated person may be aggressive and show impaired judgement. He may have a flushed face, slurred speech, an unsteady gait and muscular incoordination.
He may be loquacious, have impaired attention, be irritable, depressed, euphoric and have lability of mood. The individual's normal behaviour may be exaggerated, for example a suspicious person may become paranoid. The individual may have amnesia and be unaware of events which occurred under the influence of alcohol when he recovers, the well known 'blackouts'.

Donaldson and Donaldson (1988) point out that intoxication may have social consequences. It has been estimated that half of all road traffic accidents involve an intoxicated individual, either a pedestrian or a driver. There is evidence that almost half of all murders are committed while the murderers or their victims are intoxicated. People who abuse alcohol frequently lose both their jobs and their families and may descend into vagrancy, though this is by no means inevitable. Intoxication may be lethal if the respiratory centres of the brain become depressed or if the individual chokes on his own vomit.

Thus intoxication means taking alcohol on one occasion until it has a measurable effect upon behaviour, addiction means taking alcohol on repeated occasions until the individual becomes physiologically and/or psychologically dependent on it, and withdrawal means that the individual experiences symptoms, including a craving for alcohol, when he stops taking it.

Symptoms of withdrawal from alcohol can last for several days and can be very disturbing. There may be a coarse tremor of the hands, tongue and eyelids, nausea and vomiting and a general feeling of weakness. Autonomic hyperactivity, such as tachycardia, sweating and elevated blood pressure, may also occur. The individual may experience irritability, anxiety and depression and may suffer delirium tremens (the DTs) which are characterized by delusions, hallucinations and agitation. The nature and intensity of the withdrawal symptoms will depend on the extent of intoxication. In severe cases there is the risk of alcohol amnesic disorder which, although possible to treat successfully with thiamine, can become a permanent feature. In very severe forms Korsakoff's syndrome, a type of dementia, may develop.

The amount of alcohol consumed may be measured in units. These are the equivalent of the standard measures used in public houses. Thus one unit is one measure of spirits, whisky, gin, etc., half a pint of beer or a glass of wine or sherry. These each contain approximately 8.5 grams of alcohol. It is recommended that the weekly consumption for women should be no more than fourteen units and for men no more than twenty one units (Robertson and Heather, 1986).

Dependence on alcohol may develop to the extent that the individual drinks daily and may wake with signs and symptoms of withdrawal which are only relieved by further consumption. A variety of methods have been used for the control of drinking. Most of these are reactive techniques in that the person has already developed a problem. The individual may require detoxification, which is often carried out within a hospital setting. This entails withdrawing the individual from alcohol and preventing his access to it. The more distressing symptoms of withdrawal can be relieved by tranquillizers. Later, counselling may be given and the services of Alcoholics Anonymous used.

Another common addictive substance is nicotine associated with smoking tobacco. Physiotherapists are often involved in treating disorders of the
Physiotherapy: a psychosocial approach

respiratory system which result from this habit. Nicotine itself is relatively harmless, it is the associated tars and level of carbon monoxide in the bloodstream which cause the problem. When an established smoker attempts to give up the habit she may experience irritability, anxiety, restlessness, drowsiness, difficulty in concentrating and a craving for tobacco. Some individuals who give up smoking do not suffer in this way, in which case it can be argued that they were not addicted in the first place.

Alcohol and tobacco are, to all intents and purposes, freely available in our society. So is caffeine which is a major component of coffee, tea and 'Cola', among other substances. The individual who is addicted to caffeine and who attempts to give up may experience restlessness, excitement, a flushed face, nervousness, insomnia, muscle twitching, a rambling flow of thought and speech, cardiac arrhythmia and gastrointestinal complaints.

ILLEGAL SUBSTANCES

The use of illegal substances is likely to invoke law enforcing personnel, such as the police and customs officials. The possession of such substances often leads to harsh penalties including imprisonment and, in some parts of the world, death. However, these illegal substances do not necessarily have strong addictive properties.

Cannabis, also known as hashish and marijuana, is derived from the cannabis plant. It may be taken orally or smoked. It gives rise to feelings of euphoria, an intensification of perception, relaxation and a feeling that time has slowed down. The individual frequently experiences a strong sense of personal well-being where he may be indifferent to his surroundings. Unpleasant effects may also occur such as panic attacks, paranoid ideas and a feeling of imminent death. Hallucinations are rare.

A more important group of illicit compounds are the opiates derived from the poppy plant, they include heroin and morphine. Other substances in this group, such as meperandine and methadone, are synthetic. The latter two compounds may be used to help relieve the symptoms of withdrawal. They may all be taken by mouth, intravenously, subcutaneously or by the intranasal route. When taken in this way they may lead to euphoria, apathy and psychomotor retardation. Constriction of the pupil is almost invariably present. The individual is drowsy, has slurred speech and poor attention and memory. Complications can occur following intake of the opiates which include coma and respiratory insufficiency leading to death. These complications can be countered by injecting a narcotic antagonist such as nalozone.

With the opiates there is a high risk of addiction and therefore of withdrawal symptoms when an attempt is made to give up, so-called 'cold turkey'. The features of withdrawal include tearfulness, dilatation of the pupils, sweating, diarrhoea, excessive yawning, increased heart beat, fever and insomnia. These symptoms can commence within a few hours of the last intake of the opiates and continue for a number of days. A more fashionable drug of intoxication, still within the illicit category, is cocaine which is commonly applied to
the mucous membrane of the nose. Intoxication engenders feelings of elation and loquacity but also includes unpleasant symptoms such as increased perspiration, nausea and vomiting.

MEDICALLY PRESCRIBED DRUGS

The third group of substances which may cause addiction are those which are medically prescribed. This is an example of iatrogenic illness, that is illness which results from medical treatment. The two commonest types are the tranquillizers, used to control anxiety, and the hypnotics, used to induce sleep. Benzodiazepines are the commonest form of tranquillizer and include diazepam (Valium) and oxazepam. Common hypnotics include chloral hydrate and methaqualone. The signs and symptoms of intoxication associated with these compounds are very similar to alcohol intoxication except that aggression is not usually evident. It should be said, however, that aggression associated with alcohol abuse can be at least partly attributed to the circumstances in which it is taken. Recently there has been much concern expressed about the number of people who seem to be addicted to the tranquillizers and general practitioners have come under increasing pressure to prescribe them with caution. One confounding factor is that when an anxious individual ceases to take tranquillizers it is difficult to establish whether an increase in anxiety is a withdrawal symptom or a return to his original psychological state.

THE PHYSIOLOGY OF ADDICTION

Olds and Milner (1954) found 'pleasure centres' within the brain. If stimulating electrodes are placed in certain areas of the rat’s brain the rat will work to keep the stimulation turned on, even at the expense of essential biological needs such as food. When an individual takes opiates there is an increase in the activity of the parasympathetic nervous system which is evident from a slowing of heart and respiratory rate and constriction of the pupils. When he ceases taking the drug there is an increase in the activity of the sympathetic nervous system. The opiates have been used since time immemorial for the relief of pain and it has now been suggested that the body makes its own morphine-like substances (Khachaturian et al., 1985). It is thought that these act within the pleasure pathways of the brain and that when an external source is used the body’s own manufacture is decreased, a situation which may persist when the external drug is withdrawn. Thus when an addicted individual ceases his drug taking behaviour he has neither an internal nor an external source of the drug. This situation leads to symptoms of withdrawal. Schulsinger (1980), working in Denmark, found evidence for a genetic predisposition to alcoholism which was stronger for those categorized as type two alcoholics. The behaviour of these people is characterized by frequent episodes of fighting leading to arrests, low psychological dependence on alcohol, impulsiveness, distractability and neither guilt for their actions nor
Physiotherapy: a psychosocial approach

fear of becoming alcoholic. Those categorized as type one alcoholics, on the other hand, tend to be inhibited, sympathetic and sentimental. Julien (1981) notes that babies born to women who are addicted to drugs may also show signs of dependence. Thus there is substantial evidence of physiological dependence.

THE PSYCHOLOGY OF ADDICTION

The psychology of addiction has tended to focus on the stimulus cues associated with the habit, which has led to a number of behavioural interventions. If rats are injected with morphine once a day for several days in a particular site, then there comes a point when merely placing them in the position to receive the injection will cause the bodily changes associated with it (Eikelboom and Stewart, 1981). This is akin to Pavlovian conditioning (see Chapter 27). Some addicts, so-called 'needle freaks', can gain a partial 'high' by just inserting a needle without giving themselves an injection. The ritual of taking the drug is often more important than the drug itself. When the expectation of a drug-induced response actually gives rise to that response, even though the individual has been given a neutral compound, the placebo effect, which is so important in the evaluation of drugs, is operating. (For further discussion of the placebo effect the reader is referred to Chapter 25.)

Rats will learn to go to an alleyway in which they will receive an injection of amphetamine (La Cerra and Ettenberg, 1984). This demonstrates the reinforcing properties of drug effects. Tolerance is a phenomenon often associated with drug taking whereby larger and larger doses of the drug are required to obtain the same effect. Intriguingly, if the environmental circumstances are changed tolerance may be decreased. Siegal et al. (1982) report that rats who had developed tolerance, following the injection of increasing quantities of heroin, often died when given the same dose in a different environment. This could be a partial explanation of the lethal effects of heroin in some heroin addicts when they take a high dose in different circumstances from usual, and of the extremely variable and unpredictable effects which marijuana has from one person to another and from one occasion to the next in the same individual.

The adaptive hypothesis of addiction, put forward by Alexander and Hadaway (1982), suggests that most addicts use drugs to reduce distress caused by other problems and that once the other problems have been reduced the person may well give up taking the drug with apparently few if any withdrawal effects. Of American soldiers who were addicted to heroin during the Vietnam war only 12% relapsed within 3 years of returning home. Addiction should therefore be viewed in terms of physiological, psychological and social change and as an interaction between the drug, the user and the environment.

SOCIAL AND POLITICAL CONSIDERATIONS

Although drugs can be viewed as a matter of medical concern, their use is also influenced by social, economic and political factors. An example of this is the
opium wars in China. Sailors had their rum rations to help them tolerate harsh conditions on board ship and little attention was paid to soldiers taking drugs to Vietnam. The exchequers of numerous governments have been greatly expanded by the duties on tobacco and alcohol, thus although in many ways they would like to reduce addiction among the population, to do so would influence adversely their finances. The main factor to be weighed against this is the high cost of substance abuse in terms of days lost from work and health service expenditure. The producers of substances such as alcoholic beverages and cigarettes also have a vested interest in maintaining high levels of consumption.

Governments have at times made strenuous efforts to control substance abuse, as in the days of prohibition in the USA. Most countries now have quite stringent regulations about the amount of alcohol permitted in the bloodstream while driving a motorized vehicle or performing certain occupations such as that of airline pilot. Such regulations are relatively effective in controlling behaviour under highly prescribed circumstances but are less effective in controlling general behaviour.

The control of general behaviour is often viewed as a matter of education and increased awareness by the population. Such awareness can certainly lead to a modification of drug taking behaviour. Following the Royal College of Physicians' Report in 1977, which demonstrated a link between cigarette smoking and lung cancer as well as other respiratory diseases, cigarette smoking reduced in popularity and is now considered less desirable, with people either giving up the habit or turning to cigarettes with filter tips. Measures by Government can also have an effect on drug taking behaviour. Both cigarette packets and cigarette advertisements now display a Government health warning, with cigarette packets also displaying the tar content. The amount of cigarette advertising is now legally restricted, with none permitted on television.

There are also more and more restrictions on where people can smoke; the London Underground has prohibited smoking on its premises and restaurants are increasingly segregating smokers. These measures have been influenced by disasters such as the Bradford football stadium disaster and the Kings Cross fire disaster which are believed to have commenced with a carelessly thrown match rather than with the act of smoking itself. As the habit of smoking is increasingly condemned it becomes more difficult for people to persist with the habit. Several reports indicating that passive smoking can induce respiratory disorders have given non-smokers another weapon within their armoury to discourage the smoking fraternity.

Such changes in behaviour are unlikely to apply to all people addicted to drugs. One of the reasons for this is that, at least with the illicit drugs, the addict is not on general view and is more likely to belong to a sub-culture which excludes non-addicts. Hence heightened awareness and public education will be less relevant to the majority of this population who are likely to receive substantial pressure to maintain their habit from the sub-culture of which they are a part.

There is a sense in which society creates drug addicts. People who are
labelled in this way tend to be viewed in a stereotypical manner where their past and present behaviour is interpreted in terms of the label. In time they come to view themselves in a similar way. This is summed up in Thomas's (1966) frequently quoted remark that if people define situations as real they will become real. When society labels people as deviant it reacts against them, alienating them from ‘normal’ people. In turn the deviant group responds by developing its own norms and sub-culture leading to a process of ‘deviancy amplification’. There is eventually little chance of them re-entering mainstream society.

Deviancy amplification is illustrated in a study by Young (1971) with marijuana smokers in Notting Hill Gate. Being defined as deviant by society led to their isolation and alienation which in turn resulted in closer cohesion, the development of group norms and greater deviancy. This process of deviancy amplification was further enhanced by intense police activity, increased public indignation and the group’s heightened consciousness of itself. This, in turn, gave rise to increased secrecy with greater value being placed on the drug and the drug taking behaviour. Thus the stereotype of ‘drug addict’ began to be realized. This process can lead to a ‘fantasy crime wave’ as more and more people are arrested and, perhaps more seriously, to the development of a strong feeling of identity and more contact with other drug users, including those taking dangerous drugs. The reactions of society to relatively minor instances of deviance have been termed ‘moral panics’. They tend to occur at times of rapid social change and Erikson (1966) believes that, by concentrating on behaviour considered to be deviant, they serve the function of defining the norms of mainstream society.

CONTROL OF ADDICTION

Earlier in this chapter the adverse effects of intoxication and withdrawal from a variety of substances were described, yet many drug abusers take their substance of choice because of the pleasurable effects it induces. Many individuals enjoy the taste of alcohol and the effects which it brings and the same applies to most substances to which individuals become addicted. Taking the drug therefore provides positive reinforcement which is likely to lead to persistence of the habit. For reinforcers to be effective they should come into play very soon after the behaviour, which is exactly what happens in the case of these drugs. It might be thought that a hangover would act as a negative reinforcer, but a hangover occurs several hours after the alcohol has been consumed and the delay greatly reduces its power to change behaviour.

One of the methods for controlling drinking behaviour is to attempt to change the positive reinforcers to negative reinforcers. Hebbelinck (1965) describes how this can be attempted with the drug Antabuse, which is a more or less neutral substance having no untoward effect unless taken with alcohol. If the individual takes alcohol while taking the drug he very rapidly becomes extremely nauseous. Essentially the negative reinforcement of a hangover is brought forward in time and the pleasant effects, the positive reinforcers, are
Addiction

eliminated. In effect the individual can no longer take alcohol while taking the
drug, the goal being to stop alcohol consumption altogether, a goal shared by
Alcoholics Anonymous.

This approach is problematic for many people who find it too stringent and
wish to continue drinking but in a controlled manner. Alcohol, like most
drugs, is consumed within a social context and that social context may be
very important to the person concerned. The person who abuses alcohol may
drink within a public house, a wine bar or in a social club. Within these
settings he may have numerous social relationships and be part of a strong
social network. If he stops drinking alcohol he may find this social network
disintegrating or he may feel obliged to stop participating in it. Thus the
goal of stopping drinking alcohol will have the secondary, but nonetheless
important, effect of reducing his social relationships. It is true that Alcoholics
Anonymous provides a strong and supportive substitute culture but one
which is markedly different from that associated with drinking. This leads
many people to consider that a goal of controlled drinking is more appropriate
than a goal of no drinking.

Some attempts to produce controlled drinking place a strong emphasis on
the circumstances in which drinking takes place (Robertson and Heather,
1986). These methods rest on the belief that part of the drinking habit is
associated with specific environmental circumstances, such as helping to
induce sleep, relieving boredom or having a calming effect in social situations.
These behavioural methods involve keeping records of the drinking behaviour,
such as the time of day when each drink is taken, the amount consumed, the
type of beverage, the venue in which the drinking takes place, the people the
person drinks with and the ongoing activity at the time. These data are kept
over a period of several weeks and appropriate strategies to avoid excessive
drinking behaviour are then devised and put into practice. Although environ-
mental factors are important with regard to drinking behaviour, there is also
the possibility that the habit has become intrinsic, that the pleasure associated
with it has become so ingrained that the addicted person drinks and smokes
for its own sake and that the environmental circumstances have become
secondarily associated with the habit. Despite strenuous attempts to reduce or
overcome addictive behaviour, relapse rates are, unfortunately, rather high.

Rimm and Masters (1979) describe the technique of covert sensitization.
This is an imagery technique in which the individual is asked to imagine
indulging in her addictive behaviour. As she develops the image an aversive
image is paired with it. This aversive image is given in vivid detail and often
centres on a nauseating scene which may involve faeces, vomiting, urine and
bodily harm. Over a series of sessions the two scenes become linked, as in
Pavlovian conditioning, so that when the individual is next tempted to
indulge, images and feelings associated with the nauseating scene are aroused,
which deter her.

Another technique is that of response cost programmes. Here the individual
must give a valued item, usually money, to his therapist when he indulges in
the addictive habit. This is viewed as a punishment. The goods can be re-
covered if the addictive behaviour is controlled, for example by smoking
fewer and fewer cigarettes. Nolan (1968) used a self-control technique in which the individual could only smoke while sitting in a certain chair which was so placed that television could not be watched. In addition reading was prohibited and members of the family were not permitted to speak to the individual. These restrictions greatly reduced the consumption of cigarettes which rapidly ceased altogether when the chair was placed in the cellar. Stimulus satiation has also been used in the control of smoking behaviour, where the individual is forced to over-indulge. Marrone et al. (1970), for example, had their clients chain smoke continuously for periods of 10 hours. It would appear that part of the success of this approach is due to the development of strong feelings of aversion to the addicted substance. In a number of cases these techniques have been supplemented by the use of hypnosis. In the hypnotic state the subject becomes more suggestible and will accept statements made by the therapist which would have a less enduring impact in the non-hypnotic state.

CONCLUSION

In this chapter an overview of addiction has been given. The discussion has been unusual in that it has classified drugs according to their social availability rather than their chemical constitution. This was done to emphasize the social and psychological effects of drug taking. Although the addictive properties of the illegal and prescribed drugs are important, the social and medical consequences of tobacco and alcohol abuse far outweigh the effects of all other drugs. The prime examples given in this chapter are of tobacco and alcohol addiction because they are so prevalent in our culture and are almost certain to be encountered by physiotherapists in general clinical practice.

As well as treating addicted patients in general clinical practice physiotherapists are increasingly working in psychiatric settings which may include addiction units. Ricketts and Delpak (1980) describe their work in such a unit, pointing out that as the clients are often in a poor physical condition traditional physiotherapy skills are invaluable as well as skills such as relaxation which, together with the work of other colleagues, help in the psychological treatment of addicted people. Marlatt et al. (1988) have recently argued for a much greater integration of the biological, psychological and sociological aspects of addiction. It is very important that physiotherapists understand this broad perspective and work within it.

REFERENCES


Disease states within the body consist of pathological changes in its structure and function which can be demonstrated by a variety of scientific instruments and measures; thermometers reveal changes in body temperature, and X-rays show alterations of bone structure. These pathologies are the result of various challenges to the body; falls, for example, cause sprains and fractures, and infective organisms cause vertigo, nausea and pyrexia. Psychophysiological disorders, also known as psychosomatic disorders, consist of changes in the physical functioning of the body which are due to psychological, rather than physiological, factors and events. In practice it can be difficult, if not impossible, to decide whether the psychological state or the physical disease arose first, for just as psychological factors appear to cause disease, so disease can cause psychological stress.

Whether it makes sense to detach the mind from the body when considering disease, has given rise to much dispute. It is now generally believed that all diseases have a psychological element and that the mind and body cannot really be separated. Psychophysiological disorders are defined in the American Psychiatric Association’s Diagnostic and Statistical Manual of Mental Disorders (DSM-III) of 1966, as bodily disorders with a psychological determinant. However, in the revised version (DSM-III-R) produced in 1987, psychophysiological disorder no longer appears as it is now considered that all physiological diseases are potentially related to psychological stress. Most diseases appear to have a multifactorial aetiology. Coronary heart disease, for example, is thought to be due to stress, dietary fat, cigarette smoking, alcohol consumption, a sedentary lifestyle and a genetic predisposition.

Closely related to psychophysiological disease are somatoform disorders of which somatization and conversion disorder will be briefly discussed later in the chapter. Somatization disorder is said to exist when the person complains of disturbed bodily function or discomfort yet no physical pathology can be found, thus the illness is presumed to have psychological origins. Conversion disorder, also referred to as hysteria, is said to exist when the person has obvious physical signs but no pathological changes can be found to explain them (Sarason and Sarason, 1980). Someone who is hysterically blind, for example, will have perfectly normal visual organs and yet fail to see, and someone who is hysterically paralysed will be unable to walk or use his hands even though nothing can be found wrong with the muscles. The term
SITRSH
Stress is a word in common usage and yet a satisfactory definition is difficult to find. It has been defined by Wingate (1972) as any influence which disturbs the natural equilibrium of the body, including physical injury, exposure, deprivation, disease and emotional disturbance. Similarly Davison and Neale (1990) define it as '...a stimulus that can produce changes in behaviour, cognition, emotion and physiology'. These definitions are wide ranging and, like all highly inclusive definitions, are problematic because they tend to turn every experience a person has into a stressor. Figure 23.1 shows a model of stress and reflects its everyday meaning.

In this model stress is perceived as being due to environmental circumstances which result in some kind of harm to the individual. The implication is that stress is undesirable. There are difficulties with this conceptualization, however, as people respond very differently to stressful events, with some rapidly becoming anxious and others appearing to thrive on it. One person's stressor appears to be another person's stimulation. Individuals who lead extremely relaxed lives do not seem to be stronger, in fact they tend to succumb to stressful events more readily than those who have had experience of it. This gives rise to the notion of stress 'inoculation' whereby repeated doses of stress serve to 'immunize' the person from its adverse effects (Meichenbaum and Cameron, 1983).

Figure 23.1 Model of stress.
There are three main approaches to the study of stress. The first is to investigate the stress response itself, the second is to investigate the stimuli causing the stress, and the third combines these two approaches by looking at the fit between the person and his environment.

Probably the best known formulation of the first approach is that of Selye (1980) who viewed stress as a physiological reaction to threat manifested in symptoms which he termed the General Adaptation Syndrome (GAS). He argued that there are three responses to a physical stressor. First, there is alarm which results in the body mobilizing its defence mechanisms, this can be seen in the red weal which appears when the skin is injured. This is followed by longer-term resistance where the immune system comes into force to protect the individual. If this is not successful the body's defences may be overwhelmed leading to exhaustion and breakdown. Levi (1974) put this model into psychological terms (Figure 23.2).

People are the product of their genetic make-up and their past experience and it is upon this that the psychosocial stimuli operate. The stress response, if it occurs, is mediated through the sympathetic nervous system and is characterized by a variety of feelings and signs such as anxiety, rapid heartbeat, sweating, nausea and fearfulness. If this response persists for too long the individual may develop a psychophysiological disease. A number of studies have shown the effect of stress on bodily function. One of the best known is that of Wolf and Wolff (1947). A patient called Tom had his stomach brought to the surface of his body, by surgical means, which allowed observations of the mucosa to be made. Tom was interviewed and it was observed that when the interview became stressful there were changes in the stomach mucosa and a greatly increased production of hydrochloric acid.

![Figure 23.2](image)

**Figure 23.2** The development of a stress-induced disorder (Cox, 1978).
the other hand the 'stressor' may serve to enhance performance; many actors and actresses have remarked that without stage fright their acting is impaired.

Experiments which investigate the stress response are difficult to carry out because of ethical problems associated with putting volunteers under stress. They have to be given the opportunity of opting out of the situation which reduces the validity of the experiment, for in real life people do not usually have that choice. Epstein (1983) managed to get round this problem by using sports parachutists as his experimental subjects. It is not unreasonable to assume that flying in an aeroplane to a height of several thousand feet and then jumping out with just a parachute to prevent a crash landing is stressful. In Epstein's experiments he compared the stress levels of experienced and novice parachutists in a cross-sectional study and also measured the stress levels of trainee parachutists at various stages of their training, by means of a longitudinal study.

Before a novice parachutist is allowed to fly he goes through a thorough period of training on the ground. At the end of this period it is difficult to distinguish his skills on the ground from those of an experienced parachutist. Once the novice is in the air, however, his skills deteriorate to the extent that he may even forget to pull the rip cord on his parachute. Consequently he is initially given a parachute which opens automatically. Epstein was able to follow parachutists through procedures such as entering the airport, putting on their parachutes, getting in the plane and so on right up to the point of the jump. He monitored their anxiety in a variety of ways, for example by measuring the degree of sweating (the galvanic skin response) and by using fear rating scales.

These measurements showed that as the time for the jump approached the novices developed increasing levels of anxiety which peaked at the point of the jump. In contrast the experienced parachutists showed increasing anxiety until about mid-flight, whereupon it decreased so that at the point of jumping it was relatively low and did not interfere with their performance. Thus past experience allows the development of coping strategies through stress inoculation (Meichenbaum and Cameron, 1983). Experience alters the perception of potential stressors and the way the overall situation is appraised. If these coping strategies were interfered with, for instance by asking the experienced parachutists, during the flight, to read newspaper articles about parachutists whose parachutes had failed to open, then their fear response increased to the point of jumping, in the same way as that of the novices.

The engineering analogy is often used to describe the way in which stressful environmental events impinge upon people. It is assumed that stress is damaging and that the greater its magnitude the more likely the individual is to be harmed. However, the results of some experiments suggest that lack of stimulation is also very stressful. Hebb (1972) paid student volunteers to undergo stimulus deprivation in which they were kept under conditions of reduced visual, auditory and tactile input. The students rapidly became psychologically disturbed and requested release by pressing the 'panic' button. This result would not be predicted by the engineering analogy.

Holmes and Rahe (1967) developed the Social Readjustment Rating Scale. This scale identifies a number of life events assigning adjustment values to
Physiotherapy: a psychosocial approach

Getting married was arbitrarily assigned a value of fifty and a large number of judges were then asked to rate other life events, according to the length of time needed to accommodate to them, using the marriage value as a reference point. Death of a spouse was given the highest value of a hundred, retirement was given a value of forty-five, pregnancy forty and going on holiday thirteen. Holmes and Rahe considered that if an individual accumulated a score of two to three hundred within a year they were at high risk of developing health problems.

There is much evidence to suggest that life events do affect health. For example, Parkes et al. (1969) found that, in the first 6 months following bereavement, widowers had a 40% higher mortality rate than men of the same age who had not lost their wives. Stress has been found to relate to cancer, accidents, colds and fevers. This is not to argue, however, that stress directly induces psychophysiological disorders. It is possible that behaviour which occurs in response to stress, for example increased smoking, increased drinking of alcohol and neglect of diet, also adversely affect health.

Another approach has been to survey the health status of individuals in stressful occupations. Cobb and Rose (1973) and Cooper (1986) found a higher prevalence of hypertension, mild diabetes and peptic ulcers among air traffic controllers, who are considered to have a stressful occupation, than a control group of second class airmen who are considered to have a less stressful occupation. There are many aspects of work which can cause stress including the environment, working conditions, relationships with fellow workers, the organizational structures and the person's role within the organization (Warr, 1978). It should not be supposed that only people in top positions experience stress, it can be equally if not more stressful to have too little as too much to do, to make no decisions as to make too many.

When stress is viewed as a lack of fit between the individual and his environment it is believed that it arises as a function of how the individual perceives his circumstances. Cox (1978) formulated this idea which is shown in Figure 23.3.

Many students find examinations stressful. They enter the examination with their actual capability, the amount of knowledge and ability they have, and their perceived capability, the amount of knowledge and ability they think they have, which may or may not match their actual capability. They will also have ideas concerning what the examiners expect of them (the perceived demand) which may or may not match what is expected of them (the actual demand). Thus the student is engaged in a complex assessment of 'cognitive appraisal' of his situation.

If the perceived demand matches the perceived capability of the student he should experience no stress, but if the student's perceived capability is less than the perceived demand, then the student will have an emotional experience, such as a feeling of anxiety, and a stress response will occur. The stress response will have a physiological component, which may include sweating, a rapid heartbeat and a rise in blood pressure, and a psychological component. The psychological component may give rise to cognitive denial, where the importance of the examination is under-played (I didn't want to be a physio-
Figure 23.3 A perceptual model of stress (Cox, 1978).

therapist anyway”), or to a behavioural response, where the student tries as hard as he can to pass the examination however slim the chances may seem. These responses in turn influence the student’s ‘cognitive appraisal’ through feedback loops. For example, if he tries his best to pass the examination, he is likely to view himself as more capable, which will influence the way in which he assesses the entire situation. Most physiotherapists will have encountered similar circumstances with their patients where there is a mismatch between what the patient thinks she can do and what it is possible for her to do. Sometimes the physiotherapist gets it wrong and either over-estimates or under-estimates the patient.

An intriguing aspect of this approach to stress is that small imbalances between perceived demand and perceived capability appear to generate more stress than large imbalances. If the discrepancy between perceived capability and perceived demand is small, the student will have difficulty predicting the outcome and the stress response is likely to be large, but if the discrepancy is large, the outcome is highly predictable and the stress response is likely to be small. It has been suggested that anxiety results from uncertainty and depression results from certainty.
Friedman and Rosenman (1974) have suggested that there are two personality types: type A and type B. People with type A personalities are aggressive and impatient, have a marked sense of time urgency, strive for achievement and believe that for anything to be done well they must do it themselves. They are irritated by delay, attempt to do more and more in less and less time, try to do two things at once and even feel guilty when relaxing. Those with type B personalities, in contrast, are much more relaxed and free of these pressures (Sarason and Sarason, 1980; Davison and Neale, 1990). The personality characteristics of an individual can affect his physiological functioning and the way in which he appraises situations. Friedman and Rosenman found that people with type A personalities are more prone than those with type B personalities to stress related disorders such as coronary heart disease. There has, however, been much controversy and conflicting research findings surrounding this claim (Williams et al., 1986; Williams, 1987; Ragland and Brand, 1988; Dimsdale, 1988).

COPING WITH STRESS

Lazarus (1976) suggests there are two ways of coping with stress; direct action and palliation. Continuing with the example of the student, he may protect himself from harm by studying harder, trying to predict the examination questions or opting out of the course. Another way of relieving stress by direct action is to attack what is perceived to be the cause of the stress, either the organization or individual people within it. Palliation, on the other hand, involves reducing stress by attempting to remove the symptoms. Methods used are consuming alcohol, taking tranquillizers, smoking cigarettes and learning to relax. Feelings of stress may also be reduced by cognitive defence mechanisms such as denial, and projection where the individual's problems are attributed to other people ('None of the other students are going to pass anyway'). There are also many therapeutic interventions designed to relieve stress including relaxation, counselling, biofeedback, behavioural skills training and peer group support. (For further details of these interventions the reader is referred to Chapters 11, 26 and 27.)

Social support also appears to protect people from stress and stress related illness and disease. Cohen and Willis (1985) believe that the person's social network is important in terms of its structure, that is whether or not he is married, how many friends he has, etc., and the quality of the relationships. These social networks may have an effect on the individual's physiological functioning or they may influence his habits.

PSYCHOPHYSIOLOGICAL DISORDERS

Davison and Neale (1990) define a psychophysiological disorder as: 'A disorder with physical symptoms that may involve actual tissue damage, usually
in one organ system, and that are produced in part by continued mobilization of the autonomic nervous system under stress'.

Examples of psychophysiological disorders include tension and migraine headache, hypertension, gastric and duodenal ulcers, painful menstruation, asthma, acne and frequency of micturition. This list is by no means exhaustive but does illustrate that psychological factors can influence virtually any system of the body. These conditions can, of course, occur for purely physical reasons and if they are to be regarded as psychophysiological disorders then identifiable stressors must be found which are associated with the occurrence of the disease. The identification of such stressors often depends on a thorough case history being taken. An asthmatic attack, for example, may be brought about by anxiety which can cause a reflex narrowing of the bronchi, impeding the air supply to the lungs. Asthma can, however, be the result of an allergy to various substances, including pollen and animal hair, and in this case would not be regarded as a psychophysiological disorder. In order for a condition to be labelled psychophysiological there must also be identifiable organic pathology. The intervention should be directed at the amelioration of the stressor or stressors as well as the cure of the disease or the relief of physical symptoms.

THEORIES OF PSYCHOPHYSIOLOGICAL DISEASE

A variety of models have been formulated to explain the development of psychophysiological disorders.

The somatic weakness theory

It is assumed that the weakest organs of the body are particularly susceptible to disease at times of stress. Thus if the individual under stress has a weakness of his heart he will be more likely to develop heart disease than a stomach ulcer.

The specific-reaction theory

Here it is hypothesized that individuals respond to stress in their own idiosyncratic way. Thus if a person reacts to stress by producing large quantities of hydrochloric acid he will be more likely to develop a stomach ulcer than someone who responds to stress by sweating profusely.

The personality-type theory

This theory suggests that people with similar personalities respond to stress in similar ways.
Psychoanalytic theory

Those within the psychoanalytic school of psychology conclude that psychophysiological disease represents inner psychic conflicts and that the type of disease is specific to particular psychological problems. For example, Alexander (1950) believed that stomach ulcers were the result of repressed longings for parental love and that repressed anger resulted in hypertension.

Conditioning theory

It is assumed that conditioning may be associated with psychophysiological disorders. For example someone who has asthma because of an allergy to pollen may nonetheless respond to neutral substances, such as artificial flowers, by having an asthmatic attack. A child may learn that having an asthmatic attack brings about rewards such as not having to go to school. The former is an example of classical conditioning and the latter is an example of operant condition.

Ader (1985) was able to condition suppression of the immune system in rats. He did this by administering saccharine with a drug which causes immunosuppression. After a number of paired administrations saccharine alone caused the response. Spector et al. (1985) paired the smell of camphor with a drug which enhances the immune system in mice. After several paired administrations the smell of camphor alone was sufficient to induce enhancement of the immune system.

For further detail of conditioning theory, the reader is referred to Chapter 27.

Evolution theory

Stress reactions, which lead to psychophysiological disorders, may have originally been adaptive. Many stress reactions are those which prepare us and other animals to fight or flee; the well known 'fight or flight' response. This reaction still occurs, but the nature of modern day stressors is such that fight or flight are not usually appropriate, indeed to respond in that way can land the individual in a great deal of trouble. It would not, for example, be sensible for a person stuck in a traffic jam, or a person trying to meet a deadline at work to respond by fighting or running away. In situations such as these it is believed that ill-health results because the tension cannot be dissipated. Voodoo death is thought to occur when following a curse by a witch doctor, the autonomic nervous system is highly aroused but there is no opportunity for the individual to take action.

Whatever the mechanism, it is certain that stress gives rise to physiological changes in the body. Mason (1972) found that stress is associated with an increased production of corticosteroids and adrenaline and a decreased production of testosterone, and that when the stressful agent was removed the
production of noradrenaline and insulin were increased. A recent development has been the demonstration of changes in the immune system as a result of stress. Under stress the hypothalamus releases corticotrophic-releasing factor which in turn releases the adrenocorticotropic hormone from the pituitary gland which leads to the release of corticosteroid hormones from the adrenal cortex. One of the effects of corticosteroid hormones is to suppress the immunological response. Jemmott and Locke (1984) found that the amount of antibody in dental students undergoing stress was reduced. Studies of this type strongly implicate a relationship between stress and immunological competence and suggest a way in which psychological factors can influence disease.

POST-TRAUMATIC STRESS SYNDROME

That psychological stress can cause a disease state is recognized in the post-traumatic stress syndrome. This syndrome occurs after stressful events such as road traffic accidents, industrial accidents or disasters such as the Kings Cross fire. In tragedies such as these a substantial number of people survive with no physical injuries yet suffer enormous psychological stress. In the post-traumatic stress syndrome the person repeatedly experiences the trauma through intrusive thoughts and recurrent dreams of the event. The symptoms include feelings of detachment, an increased startle response, sleep disturbances, impairment of memory, impairment of concentration and avoidance of activities which arouse memories of the event. Some individuals also exhibit bodily manifestations such as increased frequency of headaches.

In a number of cases compensation is sought for the psychological distress incurred. This gave rise to the notion of ‘compensation neurosis’ where it was assumed that the person’s stress resulted from his desire to secure the compensation claim. Miller (1961) suggested that once the case had been settled the person would rapidly recover. However, there is now substantial evidence that resolution of litigation has no effect on the course of post-traumatic stress (Melzack and Wall, 1988; Warren and Capildeo, in press).

SOMATOFORM DISORDERS

Conversion disorder

Conversion disorder, or hysteria, is where psychological distress is thought to be converted into physical manifestations. It is relatively rare. The physiological manifestations are usually neurological and may reveal themselves as blindness, paralysis, seizures, aphonia, coordination disturbances, deafness and anaesthesia among others. Despite these manifestations no underlying pathology can be found. Often the signs and symptoms do not fit neuro-
logical knowledge, for example in glove anaesthesia the part of the hand which is numb may not correspond to the distribution of any nerve. Other factors which tend to distinguish this disorder from others are its rapid onset, the person's indifference to the symptoms (although he may feel very anxious about other aspects of his life), and the fact that the symptoms may only manifest themselves in specific situations, for example in the presence of certain people. The individual's performance may also be better or worse than would be expected of a person with a truly physical impairment. For example people who are hysterically blind may respond to subtle visual clues and perform better than people whose blindness has a physiological explanation.

The disorder frequently follows a stressful event. It is mainly seen among young women although soldiers at war are also affected. Sarason and Sarason (1980) report on various instances where conversion disorders have occurred in 'epidemics'. This tends to happen when people are together in an atmosphere of intense anxiety. Conversion disorders are not under voluntary control, they are difficult to diagnose and it is not uncommon for people with organic diseases to be labelled 'hysterical', or for people with conversion disorders to be labelled 'malingers'. Most physiotherapists can probably remember patients who were misdiagnosed in this way. Watson and Buranen (1979) found that 25% of people diagnosed as having a conversion disorder in fact had an organic disease. Disorders such as impaired vision are notoriously difficult to understand, someone with a lesion in the visual centre of the brain, for example, may be able to 'see' but not to interpret what he is seeing and a partially sighted person may be able to read small print and yet genuinely require a white stick to cross the road. Misdiagnosis can cause great psychological harm to the individuals concerned and should be avoided at all costs.

It is generally believed that the individual with a conversion disorder gains something positive from it. It may be a primary gain, where the disorder prevents an internal conflict or need from reaching conscious awareness. For example following an argument, psychic conflict regarding the expression of rage, may be converted to aphonia. Alternatively the gain may be secondary where the disorder enables the individual to avoid a particular activity, for example incoordination may prevent him returning to work.

Somatization disorder

Somatization disorder or Briquet's syndrome was first described in 1859 by the French physician Briquet. It is said to affect 1% of people (Sarason and Sarason, 1980). It is characterized by recurrent, multiple, somatic complaints such as headaches, back pain, abdominal pain, palpitations, gastrointestinal disturbances, sexual dysfunction and menstruation problems. Conversion symptoms may also be present. It usually begins in adolescence and affects women more than men. People with this disorder tend to describe their symptoms in vague, dramatic and exaggerated ways, they make frequent
THEORIES OF SOMATOFORM DISORDERS

Davison and Neale (1990) present the following theories to explain somatoform disorders.

Psychoanalytic theory

Freud believed that conversion disorders occur when psychic conflicts, many of which arise in early childhood, are repressed. He particularly focused on the repression of libidinal urges. Psychoanalytic theorists also view conversion disorders in terms of secondary gain, that is the avoidance of particular situations or activities.

Socio-cultural theory

This theory attempts to explain the decrease in the incidence of conversion disorders. It is believed that the disorders have decreased because sex is less of a taboo subject and because it is now more acceptable to admit to psychological symptoms such as anxiety and depression.

Behavioural theory

This theory was proposed by Ullmann and Krasner (1975). They believe that people with a conversion disorder behave in the way they think people with that particular condition would behave. They found that individuals with conversion disorders had usually had some experience of the role they adopted. They also believe that the behaviour brings about reward. It has been found, however, that many people with a conversion disorder do not act out the role particularly convincingly. With regard to somatization disorder, behavioural theorists believe that anxiety is manifested physically and that this, of itself, tends to create further symptoms, for example tight muscles will cause pain. The maladaptive pattern of behaviour brings various rewards to the individual and is therefore maintained.
PSYCHOLOGICAL TREATMENT

People with psychophysiological disorders and somatoform disorders present with physical signs and symptoms and are more likely to consult physical doctors and physiotherapists than mental health workers. Those with somatoform disorders, in particular, tend to be very reluctant to define their disorder in psychological terms which makes the use of psychological methods difficult. They have often been treated extensively by drug therapy, physiotherapy and surgery.

Many psychological techniques are used to treat these disorders including psychoanalysis, hypnosis, counselling and various behavioural therapies including relaxation, behaviour modification, systematic desensitization and social skills training. As other people are frequently involved in maintaining the behaviour, albeit unwittingly, family therapy may also be given. Little is known about the relative efficacy of these methods. (For further details of psychological treatments the reader is referred to Chapters 11 and 27.)

CONCLUSION

People with conversion and somatoform disorders present with physical signs and symptoms. The disorders are relatively rare and difficult to diagnose and for these reasons the affected people are very likely to be referred to physiotherapists. Physiotherapists working in psychiatric settings will no doubt become skilled in the management of these disorders, and although those working in general clinical practice cannot be expected to have such in-depth knowledge, they should be sufficiently knowledgeable to recognize the possibility that the disorders may exist and to make appropriate referrals.

It is increasingly accepted that all disorders are to some extent psychophysiological and it is therefore essential that physiotherapists understand the part played by psychological factors in illness and disease. If the psychological aspects are to be taken seriously by physiotherapists, they must be prepared to learn counselling and behavioural therapy skills. At the very least they should know when to refer a patient to someone else for psychological help.

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Psychophysiological and somatoform disorders


The main objective of physiotherapy is the restoration of function in the patient to as near a premorbid level as possible. In this chapter, the focus will be on the effects of brain damage on normal perceptual and cognitive abilities and how deficits in these abilities may affect the standard treatment of people with neurological deficits by the physiotherapist.

The effects of brain damage on human behaviour are often profound and long lasting. Traditionally, assessment of impairment by the physiotherapist has focused on disorders of tone, sensation, balance and movement (Bobath, 1970; Davies, 1985) and relatively little emphasis has been given to more central disorders (for example, perception, planning, memory, language comprehension and production). This may be because assessment of cognitive and perceptual performance is not seen to fall within the remit of the physiotherapist but is thought to be more appropriate for the clinical psychologist, occupational or speech therapist. However, while physical deficits may often be the primary restriction of a patient returning to normal daily living, frequently it is the cognitive and behavioural defects that most impair the capacity to return to work and maintain social activities. Also, it has been shown that cognitive and perceptual problems may significantly affect rehabilitation (Andrews et al., 1982; Denes et al., 1982; Wade et al., 1985), in that patients with impaired perception and cognition fare worst at rehabilitation. Hence it is important that the physiotherapist should have some idea about the varieties of perceptual and cognitive deficit that may occur as a result of brain damage. Such knowledge would, at the very least, enable the therapist to refer the patient to the appropriate specialist. More significantly, some knowledge of perceptual and cognitive problems may help the therapist to devise more appropriate treatments for individual patients.

To give some idea of the effects of a perceptual deficit on normal everyday functioning, let us consider the case of a young soldier wounded by a machine gun bullet during the First World War (Holmes and Horrax, 1919). The sophisticated techniques we have available today to locate precisely areas of brain damage were not available at that time, however, Holmes and Horrax indicate that the bullet entered the brain through the posterior portion of the right angular gyrus and left via the upper part of the left angular gyrus. The
soldier regained consciousness after several days and was observed to be alert and intelligent. He showed no trace of weakness, incoordination or disturbance of muscle tone and could move his limbs easily and naturally. Yet, although he showed no obvious abnormality of gait, he would typically walk with short, slow steps with his hands held out in front of him. Furthermore, despite being able to see, he would collide with obstacles in his path always to his great surprise and discomfort. On questioning, he explained that he had not realized that the objects were so near to him. He was not blind. He did have defective vision in the lower part of his visual field, but this could not account for his behaviour since visual acuity was normal in the upper portions of the visual fields. The young soldier’s difficulties were the result of an impaired perception of depth and the distances between objects.

This case provides a very clear example of how important normal depth perception is to everyday functioning, with the patient’s difficulties resulting from a very circumscribed lesion. It is of course possible to argue that a physiotherapist would never actually encounter a patient such as this in the normal course of clinical work since the soldier was documented as having had no sensory/motor disability. However, many of the brain damaged patients typically encountered by the physiotherapist are likely to have diffuse rather than localized damage as a result of a stroke, head injury, viral infection, etc. Such diffuse damage is quite likely to implicate the motor and/or sensory areas of the brain; it is also conceivable that areas of the brain necessary for normal cognitive and perceptual functioning are implicated additionally. So, for instance, therapy sessions which emphasize the restitution of normal motor performance may fail if allowance is not made for perceptual and cognitive deficits. A patient may have a motor impairment in addition to a depth perception deficit. Concentrating on the physical impairment will not help the patient in his attempts to negotiate his everyday world. Furthermore, if the physiotherapist fails to appreciate and understand perceptual and cognitive problems, the patient may be classified as ‘difficult’ or ‘uncooperative’; such labelling is likely to make his everyday life even more problematic.

A further, and all too frequent problem, is that after brain damage, patients may be unable to explain their impaired perceptions either to themselves or to the therapist. Brain damage can precipitate people into a strange and confusing world, and even if language functions are not directly affected, patients may lack the words to describe their new state. It is therefore imperative that therapists working with brain-damaged people should have some idea of the nature of normal cognitive and perceptual abilities and how they may be affected as a result of damage to the brain. Such knowledge may not only improve approaches to rehabilitation, but may also allow the therapist to help the patient understand, to some degree, failures in the performance of seemingly simple tasks.

We have many complicated perceptual and cognitive abilities. We are able to recognize a friend from a crowd of other people with no apparent effort, we can communicate our feelings to others by either the spoken or written word, we can traverse a town with a maze of apparently similar streets and arrive at a predetermined destination etc. However, this apparent ease of
everyday functioning leaves us at a loss to explain cases where patients fail to recognize the therapist or even members of their own families from one day to the next; why the patient can understand a complex sentence (such as 'what is the name of the instrument we use to tell of the passage of the hours?') but will fail to understand a simple sentence such as 'put the pen on the pencil' (e.g. putting the pencil on the pen instead); or why the patient gets lost on the short route from the ward to the physiotherapy department. How can these abilities be classified and interpreted?

The traditional neuropsychological approach has been to ascribe different functions to the different lobes of the brain (i.e. the occipital lobes are concerned with vision, the parietal lobes are concerned with spatial abilities, the temporal lobes are concerned with memory and some language functions, while the frontal lobes are concerned with executive functions, such as the selection of which task to perform and also some language functions. More recently, a slightly different approach has emerged — often labelled cognitive neuropsychology. Its aim is to identify the component parts and processes of complex perceptual and cognitive behaviour by analysing the performance of both brain-damaged and non-brain-damaged subjects. The accounts of cognitive functions derived by cognitive neuropsychologists may bear little relationship to the underlying brain structures; they are, however, important in helping to understand perceptual and cognitive function. In this chapter, some sort of amalgam of the two approaches will be given.

While it is useful to have some appreciation of the major functions of the brain regions (see Figure 24.1), it is important to appreciate that many complex functions require the integrated working of a number of different brain areas. For instance, in front of you is a book, in order to name the book you need to be able to process the relevant visual input (occipital lobes),

![Figure 24.1 A schematic diagram of the lateral view of the brain demonstrating the positions of the lobes.](image-url)
match the results of that processing to your memories of similar items (temporal lobes) and name the item (temporal and frontal lobes). If you were to pick up the book prior to naming it, you would need to locate its position in space relative to your own position (parietal lobes) and initiate the appropriate action routine for picking up (parietal and frontal lobes). Study of the isolated functions of the individual lobes is not really appropriate when considering some of the complex abilities which we possess. To understand these complex abilities requires an in-depth account of the different processes involved in different tasks, and how these processes interact. This is the emphasis given by cognitive neuropsychologists. Unfortunately, it will not be possible to deal in depth with cognitive neuropsychological accounts of all perceptual and cognitive abilities, and interested readers should pursue some of the references to cognitive neuropsychological texts given at the end of the chapter. Instead, I concentrate on our ability to deal with visual stimuli, covering processes involved in selecting, perceiving, recognizing and acting in relation to the visual environment.

**SELECTING**

Our everyday environment contains many objects, each of which could serve as the target for a particular action. We would have a very confusing existence indeed if we were to respond to all the sensory input to which we are exposed. We need to select those sensory stimuli which are important and/or relevant and which require further processing. As a result of brain damage, the ability to select may be impaired — this type of selection problem is often associated with frontal lobe damage. Consider here the case of L.E., who suffered occlusion of the left proximal anterior cerebral artery at the age of 52 (see Shallice et al., 1989). Following the lesion, he behaved in a very bizarre manner. For instance, he was found one morning wearing someone else's shoes, going around the house, moving furniture, opening cupboards and turning light switches on and off. This form of behaviour is consistent with an inability to be selective to various forms of input. Seeing a pair of shoes, he was instantly 'stimulated' to put them on, seeing a switch, he was 'stimulated' to operate it regardless of the appropriateness of such actions to his current situation.

At the other extreme, selection may be too specific; so, some patients have enormous difficulty dealing with more than one thing at a time. This problem can be confined to dealing with visual stimuli, where it is termed 'simultanagnosia', a problem in processing simultaneously presented stimuli. Its effect on everyday life may be profound. Thus, I.R., who suffered bilateral occipital damage appeared to behave like a blind man despite the fact that his visual acuity was normal (Luria et al., 1963). When ascending a staircase (with his eyes fixed on the stair), he could not perceive a person approaching him and avoid a collision. If he was looking at a picture containing many items, he would always say that he could only see one object. When looking out of the
window of a car, he was able to see one car, then a second, and then a third, but only one at a time.

The cases of L.E. and I.R. illustrate the importance of being able to select objects from our everyday environment to which we can respond in a coherent and planned way. Problems can occur either because patients are quite unselective (as a result of frontal lobe damage) or because selection is restricted to just one item (a condition which may result from occipital lobe damage). Both forms of deficit may profoundly affect normal everyday behaviour.

How may the therapist approach rehabilitation in these instances? For the over-selective patient, one approach may be to de-emphasize vision, implicating a training regimen which emphasizes the learning of verbal instructions. To ensure that a patient does not become diverted in a required task (e.g. entering the gym, selecting the appropriate plinth and getting undressed ready for treatment), the task could be divided into its component stages which the patient would be required to learn:

  e.g. As I enter the gym, I look for the green plinth;
      I sit on the green plinth;
      I take off my shoes, socks and teeshirt;
      I lie down.

If this method is successful with the one task (and it may take some time to achieve success), then other activities may be treated in the same way.

A different treatment strategy may prove more appropriate for the patient who is only able to select one item at a time. Improved scanning may help such patients. Therapy sessions could include exercises on scanning to the left and right of the environment initially in a predictable way ('move your eyes along the wall in front of you to the left corner, now move your eyes along the wall in front of you to the right corner'), followed by a more unpredictable sequence of commands ('move your eyes to the left until they reach the green plinth, move a little further to the left until they reach the wall bars, move your eyes to the right until they reach the sink, move back to the left until they reach the left corner . . . '). Emphasizing quickness and accuracy of the actual eye movements may prevent fixation on individual objects.

PROCESSING

In some patients, the selection process may be intact, but there may be some form of impairment to the processing of the sensory input. Peripheral problems in the processing of sensory input are relatively easy to understand, as when a patient is blind due to damaged retinas or cataracts. Indeed there exists a wealth of sophisticated clinical tools available to assess the peripheral disorders in the various modalities (audiometry, optometry etc.), where examiners may be interested in whether a patient can detect a particular stimulus. Unfortunately, there are few satisfactory tests that examine processing of
sensory signals in the brain. Take, for instance, the case of R.R. who had a ten year history of language disturbance (EEG showed abnormal activity in the left temporal region, a brain scan was normal). Despite having normal spontaneous speech, R.R.’s ability to comprehend spoken language was very impaired. His constant complaint was that he could hear the sound of the voice but could not understand what was being said (Denes and Semenza, 1975). It is important to note here that auditory function was quite normal in this patient. He was somehow unable to attach meaning to the sounds that he was hearing. This disorder is known as word deafness. Detection of sensory input was normal (as assessed by audiometry), but the recognition of speech clearly requires more in the way or processing than simple detection. Further processing which links the perception of sounds to knowledge of what those sounds mean is necessary.

Analogous deficits may also occur in the other modalities. In the visual modality the process of linking sensory input to meaning may be impaired. For instance, H.J.A., as a result of a stroke affecting both occipital lobes, was unable to give the name (or indeed, demonstrate any other form of recognition) of many items in his visual world (Riddoch and Humphreys, 1987a). It was not that he could not see things, he was able to produce very accurate copies of the things he could not recognize; nor was it the case that he had an impaired memory. He was able to produce very good drawings from memory and his descriptions of items included many visual characteristics of that item, in addition to functional and associative knowledge.1

The case of H.J.A. is important in showing that the processing of visual input is complex and involves more than simple detection. His visual acuity was normal when he wore his glasses, and yet he was unable to recognize the items he saw. It was not that he could not remember what the names of the items were; indeed, he had no memory impairment since he had no difficulty describing or drawing items from the past. His deficit lay somewhere along a processing continuum which allows a match between an item registered by the eyes with knowledge about that item or similar items stored in memory. H.J.A.'s case has been very important in informing theoreticians about the nature of our visual processes in immediate perception, but what relevance has his case to the practising clinical therapist? H.J.A. was fortunate in that he had no physical problems as a result of his stroke; however, other stroke victims may not be so lucky and recognition difficulties may co-occur with physical problems. As noted earlier, while it may be easy to understand physical deficits (they are observable and one can account for failures to perform functional tasks in terms of motor impairment), it is not easy to communicate about higher cognitive deficits. How can you account for a recognition failure to your friends? Do you think they would understand if you were to say that

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1 This may be illustrated by his definition of a lettuce. 'A lettuce is a quick growing, annual plant, cultivated for human consumption of its succulent, crisp, green leaves which grow during the young stage of the plant, tightly formed together in a ball-shaped mass. Widely cultivated, lettuces are of many varieties and of absolutely no value as a food. They do however, enable one to eat delicious mayonnaise when using a knife and fork in polite places.'
you could no longer recognize things? H.J.A., although an intelligent, articulate man, was unable to convey the nature of his difficulties to his doctors, who decided that he was suffering from 'postoperative confusion'. It was only after he returned home, after a month of hospitalization, and as a result of strong pressure from his wife, that more detailed investigations were initiated. If the therapist is able to detect a problem, he/she can support the patient and relatives at least with a simple explanation.

Problems, such as that suffered by H.J.A., can also have severe effects on normal everyday functioning. H.J.A. was unable to live by himself, because, for instance, he was unable to recognize the foods in the kitchen so he could not prepare himself a meal. He could not recognize his environment or other people.2

I have described two patients in this section, and we should be aware that, in both cases, the impairment is modality specific. H.J.A., for instance, had no difficulty in understanding what people said to him and was usually able to recognize things if he was able to touch them. Such modality specificity has important implications for therapy. If a patient is severely impaired in one modality, and restitution of function in that modality appears unlikely, therapy should be particularly directed towards the intact modalities to facilitate the development of compensatory strategies.

RECOGNIZING

In some cases, patients may have completely intact sensory processes, but they may still fail to recognize objects. The implication here is that the impairment has the effect of either preventing access to the stored knowledge that each individual builds up through a lifetime of different experiences (as is the case for R.R. and H.J.A., described above), or there may be some impairment within the patient's stored knowledge. Again, the situation with disorders of stored knowledge is likely to be complex. For instance, it is possible for patients to lose stored knowledge of what objects look like, but still to know what objects should be used for, or how they associate with other objects. For instance, D.W. reported that a giraffe looked like a horse and that it was coloured black, but also that it lived in Africa and ate leaves from trees (Riddoch and Humphreys, 1992). Contrastingly, patients can also lose access to functional knowledge about objects while having intact 'stored knowledge'. For instance, they may discriminate between familiar and unfamiliar objects, but not know whether a cup and saucer should be classed together and separately from (say) a knife (Riddoch and Humphreys, 1987b). This shows that we probably have a number of different types of stored knowledge about

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2 He relates an anecdote of an occasion when he was helping his wife with the shopping. Thinking to make himself useful, he started to pack the shopping into a basket, only to have a sharp voice ask what he thought he was doing. He was only able to say 'I thought you were my wife' to the stranger, having failed to recognize that she was not his wife and that he was packing the wrong shopping.
objects (visual, functional, and perhaps many other forms). Also, these different forms of knowledge can be selectively impaired. Disorders of functional knowledge are likely to be particularly disruptive to everyday living, since patients will be impaired at using objects appropriately. Therapy in such cases needs to be addressed to the particular types of knowledge affected. In terms of the physiotherapy, it should be understood that it is possible that a patient fails to dress appropriately because she has lost her functional knowledge of, for example, what a shoe is for. It need not mean that she is simply being difficult!

**LOCATING**

So far I have discussed some of the processes involved in recognizing objects. However, that is only part of the story of how we successfully negotiate visual environments; the other part is concerned with our ability to direct action to (or from) objects.

**Disorders of eye movements**

Accurate location of an object in space is necessary if we are to make any form of action towards or with the object. For instance, we need to make accurate eye movements to a location in space in order to focus on an object and recognize it. We also need to locate accurately the position of an object relative to ourselves in order to make a movement towards it. Patients with parietal lesions may have defective oculomotor exploration. In the acute phase post stroke, the gaze may be permanently deviated towards the side of the lesion, and patients may be unable to displace intentionally their gaze beyond the midline and explore the side of space opposite the lesion (Jeannerod, 1988). When involved in rehabilitation programmes with patients with stroke, it is worth assessing the ability of the patient to scan actively to the left and to the right of space. If difficulties are observed, active eye movement training exercises, described above, may need to be incorporated into the rehabilitation programme.

**Disorders of spatial coding**

Relating the spatial location of an object to our own spatial location is itself a complex feat, involving the interaction of a number of sensory processing modalities (e.g. vision, proprioception, audition), each of which may be separately impaired as a result of brain damage. Typically, following parietal lesions, some form of proprioceptive impairment may be observed during the course of neurological assessment. For instance, patients may make large errors when asked to point to an imaginary spot in space directly in front of them if their eyes are closed but not when their eyes are open, presumably
Disorders of spatial attention or unilateral neglect are commonly encountered by the physiotherapist. Such disorders are usually associated with lesions of the right parietal lobe (although neglect has been observed as a result of lesions to other brain areas including the frontal lobes, the occipital lobes, midbrain structures and the brainstem (see Riddoch and Humphreys, 1987c). The deficit is characterized by a failure to attend to the side of space contralateral to the lesion. The exact nature of the deficit is likely to depend on the locus of lesion. Thus patients with parietal lesions typically fail to complete drawings on the neglected side (a simple clinical test is to ask the patient to draw a clock, usually the outer circumference of the clock is drawn, but either the digits on the neglected side will be omitted, or all the digits will be crammed on to the non-neglected side). Such patients will only eat food because they are not using proprioceptive information (Heilman et al., 1983). Such a deficit may be successfully remedied by the use of a treatment regimen which encourages the patient to attend to the affected side. In a study by Dunning (1990) patients were encouraged to massage the affected limb with talcum powder. This had visual effects (it was easy to see areas which had not received any powder), olfactory effects (the powder had a pleasant smell), and social effects (sessions were conducted with groups of patients and social interactions were encouraged. The measured degree of proprioceptive deficit did not change; however, there was a marked change in the patient’s awareness of the affected limb. When blindfolded, the patients found it much easier to find the affected hand they had prior to the therapy sessions.

We may contrast a proprioceptive deficit with a similar visual deficit. Patients with optic ataxia (which occurs as a result of lesions to the parietal and occipital lobes) will demonstrate mispointing when they are actually looking at the target. If they are cued to a location by a sound, or if they are asked to point to a particular place on their own body, they have no difficulty. Such a deficit will again have profound effects on normal everyday functioning. Damasio and Benton (1979) describe a woman with bilateral parieto-occipital lesions as a result of a drug overdose. She had no visual or motor problems and was able to walk independently. However, she had difficulties in reaching for objects with her hands and behaved like a blind person in her attempts to approach objects. However, movements which did not require vision (such as buttoning and unbuttoning a cardigan, or bringing a cigarette to the mouth) were performed quite normally.

Dunning (1990) was able to demonstrate that a proprioceptive deficit could be compensated for successfully. It is unclear how a similar compensatory strategy could be taught in the visual modality, perhaps one can only teach such patients to compensate by using the intact modalities (i.e. proprioception and audition).
A different picture may be observed in patients with frontal lesions. Here the neglect is not of a particular side of space but of one side of their body. Such patients need not have motor or sensory problems; they may catch a ball thrown to them with either hand but when asked to perform a simple task, such as to get off a bed, great difficulties ensue because the patient 'forgets' one of the lower limbs and instead of swinging it over the bed with the other limb, leaves it resting in its original position (Laplane and Degos, 1983).

There is much debate currently as to the exact nature of the neglect deficit, and in particular, parietal neglect (see Riddoch, 1992, for a review). Frontal neglect has not been so extensively researched. Parietal neglect may be the result of a failure in the ability to direct attention to the contralesional side either because attention cannot be oriented in that direction or because attention cannot be released from stimuli on the ipsilesional side (Humphreys and Riddoch, 1990). Whatever the case, for the practising clinician the implications for therapy are similar. It is important to make the environment on the contralesional side as stimulating as possible so that the patient is encouraged to attend to that side, and conversely, attempts should be made to reduce the stimulation on the ipsilesional side. Everybody involved with the patient, from relatives to medical personnel, should be encouraged to approach the patient from the contralateral side. In general, therapeutic approaches which emphasize stimulation of the affected limb should be employed.

For patients with frontal neglect the rehabilitative technique used by Dunning (1990) described above may prove useful, but this has yet to be investigated.

**ACTING**

Once an object has been located in the environment, it may be necessary to perform some action in relation to it. For instance, when dining, different actions are required for the appropriate use of the varied utensils available. Different functions are performed by a knife and a fork, and these disparate functions require actions which may be quite dissimilar from each other. The cutting action of the knife and the piercing action of the fork may involve similar grips by the hands, but quite different motor movements of the arms. These actions are so familiar to us, and are performed so frequently, that we give no thought to their individual complexities. Brain damage may significantly impair the ability to perform these simple everyday tasks even if there is no sensory or motor impairment. Take the case of C.D. who suffered a stroke at the age of 54 following a period of hypertension (Riddoch et al., 1989). He had minimal weakness of the arm on the right (affected) side, but found that he was frequently unable to use simple household objects. For instance, C.D. went into the bathroom one morning and found that he was unable to perform the familiar shaving action with his razor; he could pick it up, knew it was a razor, but was somehow unable to initiate the usual motor action. These
difficulties could not be accounted for in terms of any motor weakness, since if he was asked to pantomime the use of the item, he had no difficulty. Also, C.D.'s impairment was restricted to the right hand; he had no difficulty in using objects with the left hand.

There is much to learn from C.D.'s problem. First, we should note that the ability to perform simple actions may be impaired even when the patient can recognize what the objects are and strength, sensation and tone are virtually normal. This implies that in order to perform particular motor actions, the motor areas of the cortex must receive some form of stimulation. Thus, by actually seeing the object (e.g. a knife), the appropriate grasp is initiated and the limb is in readiness for the appropriate action. There must be other ways of stimulating the motor cortex. C.D., if asked to pantomime an action, was able to do so. In this circumstance, presumably the verbal request triggers the stored knowledge of a knife in memory which then allows activation of the actions appropriate to it. In C.D.'s case, this route was intact, but he did not seem to be able to use it automatically, that is when he experienced difficulties on actually seeing the object, there was no evidence of a spontaneous use of the intact 'verbal' route. Fortunately for C.D., his condition quickly resolved and there was no need for a formal rehabilitation programme. However, therapists may encounter similar patients and a possible therapeutic strategy may be to facilitate performance in the damaged modality by reinforcement from the intact modality. For instance, on presenting a knife to the patient, verbalization of performance should be encouraged ('That is a knife. It is used for cutting. Cutting is a backwards and forwards motion...').

Other patients may show the reverse deficit; that is, they may not be able to pantomime the use of an object but will have no difficulty in actually using the object (Rothi and Heilman, 1985). This may be the result of impaired comprehension of the command, or a failure to access stored knowledge on how objects may be used via the 'verbal' action route. If patients have difficulties in verbal comprehension, use of the verbal modality by the therapist should be reduced and simplified as much as possible and a greater emphasis should be placed on the use of the visual modality to elicit performance (i.e. demonstration of an action by the therapist).

While C.D. (see above) was able to perform simple gestures well with his left hand, when he was asked to perform actions which required the integrated use of both left and right hand functions (e.g. pouring a cup of tea, tying a tie, etc.), errors were again made. Another interesting point is that while C.D. was frequently unable to demonstrate the use of an object with his right hand, his ability to do so with his left hand was unimpaired. Also, once he had successfully performed an action with the left hand, he was able to perform the same action with his right hand (Riddoch et al., 1989). These two aspects of C.D.'s performance illustrate the strong reciprocal connections between the motor areas of the two hemispheres (see Goldberg, 1985). The use of the intact parts of the brain to facilitate performance of the impaired regions is not a new idea and formed the basis of the influential approach to the treatment of hemiplegia advocated by Brunnstrom in the 1960s (Brunnstrom, 1970).

However, other therapists have disputed this approach and strongly argued
CONCLUSION

The above account shows that brain damage can have profound effects on human perception and cognition, and that perceptual and cognitive deficits may co-occur with physical deficits. In order for rehabilitation to be effective, consideration must be given to the role of perceptual and cognitive processing. Figure 24.1 illustrated some of the functions thought to be associated with the different lobes of the brain. Some of the major functions of the brain (selection, processing, recognizing, locating, acting and memory) were then considered and it was clear that many of these abilities can be impaired as a result of lesions to a number of different brain areas. A most positive way to consider brain anatomy is therefore in terms of connections in addition to

![Figure 24.2](image-url) A schematic diagram of the lateral view of the brain demonstrating possible pathways of information through the brain.
specific brain areas. This approach is illustrated in Figure 24.2. For instance, from this diagram we can see that normal motor action may be impaired as a result of a lesion to the occipital lobes where visual stimuli are properly processed, but the feed-forward pathways are interrupted to the parietal lobes, resulting in a failure to locate the object's spatial position correctly, or to the frontal lobes where the main motor centres are located. Designing appropriate therapy depends on understanding the different ways in which actions to objects can be disrupted.

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REFERENCES


**FURTHER READING**

Spiro (1986) defines the placebo as, 'a substance or a procedure that is administered with suggestions that it will modify a symptom or sensation, but which, unknown to the recipient, has no specific pharmacological impact on the reaction in question'.

Until recent times the success of medicine depended very largely on the placebo. Spiro (1986) believes that since medicine has become more scientific the placebo effect has been undervalued and even something of an embarrassment to clinicians, who he thinks '. . . regard any deviation from the strictly scientific objective approach almost as religious thinkers regard sin'.

Engel (1977) agrees that scientific medicine has gained the status of a dogma and Lown (1985) believes that a pretentious "scientism" mars the physicians' perception of the power of the placebo'. The 'scientific fallacy' has, according to Spiro (1986), led to considerable resistance to the placebo on the part of clinicians. He urges them to consider how much their perceptions have been restricted by science and contends that, 'truth in medicine has moved from what the patient says to what the physician finds' and consequently, 'the more medical science does for disease, the less physicians do for patients'.

Despite this resistance to placebos, Benson and McCallie (1979) remind us that they are safe and effective and, unlike most therapies, have stood the test of time. It is important to note, however, that there is little evidence at the present time that placebos affect the actual disease process. We cannot assume that just because symptoms are relieved that the underlying pathology has altered.

It is important to distinguish the non-therapeutic use of placebos, for example in clinical trials, from their therapeutic use. This chapter will concern the latter, though it is interesting to note how the therapeutic effect of the placebo is generally underrated in clinical trials, despite its magnitude.

Placebos used in therapy can be pure or impure. A pure placebo is one with no known active ingredient whereas an impure placebo is a substance which contains active elements but, nonetheless, is thought to work through its symbolic power; an example is antibiotics when given for viral infections. There is, however, a problem, about regarding any substance as inert, for if the patient feels better after receiving it then clearly something must have happened. Spiro (1986) contends that, 'the physiological effect of gratitude has not been studied but that does not mean that it does not exist'. He thinks that impure placebos are used to deny, even to ourselves, that we are using placebos.
All treatments, given by physiotherapists or others, can be assumed to contain some placebo element. Weinman (1981) claims that even with pain associated with serious disease, more than one-third of patients report relief following treatment with a placebo. Melzack and Wall (1988) point out that the type of pain is important, for example they claim that 52% of headache sufferers are helped by placebos. Physiological changes such as slowing of the pulse rate are frequently observed (Griffiths, 1980). Beecher (1959) found that severe postoperative pain could be relieved in 35% of patients by the administration of a placebo whereas morphine relieved pain in about 75% of cases.

When placebos are used in clinical trials their effects tend to mirror those of the active drugs being tested. This has been found with regard to how long the placebo effect lasts (Seligman et al., 1953), the strength of the placebo effect (Evans, 1974), the time it takes for the placebo to work and its side-effects (Ross and Olson, 1982). This is probably because the descriptions given to the subjects are similar whether they are receiving the placebo or the active drug.

Even the colour and brand names of drugs have been found to affect the placebo response (Shapiro, 1970; Braithwaite and Cooper, 1981). Melzack and Wall (1988) note that two placebo capsules are more effective than one, that large capsules are more effective than small ones and that placebos are more effective when given by injection than when given by mouth. They also point out that placebos become less effective with repeated administration. Spiro (1986) points out that diagnostic procedures, surgery and even the words we speak to patients can all act as powerful placebos; furthermore, the placebo effect cuts across educational and social boundaries and can affect almost any area of the body (Benson and Epstein, 1975).

Dimond et al. (1960) report on an experiment carried out in the 1950s where half of a group of patients suffering from angina pectoris were treated by ligation of the internal mammary artery, which was a common procedure at that time. The remaining patients were given the same incision but, unknown to them, the operation was not carried out. Angina was improved in all the patients and in 86% the improvement was maintained, there was an increase in exercise tolerance and a decrease in the need for drug therapy. No significant difference existed between the two groups.

This type of experiment would now be considered unethical but it shows how difficult it is to assess the effect of treatments even as apparently objective as surgery. It is, however, possible that some improvement was due to factors other than the placebo, such as rest and changes in lifestyle.

The placebo response varies greatly from one individual to the next and in the same individual from time to time and according to circumstances. Most people are susceptible to some degree. As belief in the treatment or the person administering it is central to the placebo response the effectiveness of specific placebos will be culturally and temporally limited. Thus, in our culture at the present time, taking placebos in the guise of drugs is likely to be effective. Rachman and Philips (1978) claim that placebos are more effective in people who are anxious, sociable, conventional and dependable and are least effective in those who are isolated and mistrustful. Melzack and Wall (1988)
however, believe that the only consistent difference is that placebo reactors tend to have higher levels of trait anxiety. Ross and Olson (1982) believe that there is little evidence that individual differences are strongly related to the placebo response.

Brill (1964) demonstrated that the placebo effect is not necessarily short-lived and Park and Covi (1965) found that the patient’s belief in the medicinal value of the treatment is not crucial. Park and Covi (1965) told their patients that they were receiving ‘sugar pills’ but implied strongly that the pills would help; they found that the placebo effect still operated. People are not totally unaware of the nature of the placebo effect yet still seem to find it helpful. They may, for example, take sleeping tablets even though they have little belief in their medicinal value, or they may find contact with a health professional invaluable even though their condition is not improving. Health professionals probably underestimate the degree to which patients understand the placebo effect and may be deceiving them less than they think. Spiro (1986) explains: ‘The physician may not feel that he is doing very much for his patients, but somehow the active keeping in touch seems to keep things under control. Patients must realize this too even if unconsciously for a number of people have told me that they want another appointment ‘anyway’ in three or four months. I assume that kind of medical contact provides a placebic therapy even if it is not intended in that way’.

It is likely that the placebo effect is enhanced or even produced by the degree of understanding, empathy and enthusiasm of the clinician prescribing or dispensing it, as well as his own belief in it. Balint (1964) believes that the clinician can be a more powerful therapeutic agent than the treatment he administers and Morgan (1982) states that it is the social relationship between doctor and patient that engenders this powerful therapeutic effect. Benson and McCallie (1979) report a 70—90% success rate in trials conducted by enthusiasts which reduced to 30—40%, the average placebo response, when conducted by sceptics. Novel treatments tend to be more effective than established ones, probably because of the enhanced enthusiasm of clinicians, thus new treatments have the power to render old ones less effective. Benson and McCallie (1979) quote Trousseau's remark, 'you should treat as many patients as possible with the new drugs while they still have the power to heal'. Despite the therapeutic power that clinicians possess, Shapiro (1960) believes that they prefer to view their success as due to less personal factors. Spiro (1986) states: 'The idea that the physician brings little benefit to his patients and his patient's disease except as he brings him pills and procedures has been growing since modern medicine began to become scientific and focus on disease rather than on the patient'.

If the patient thinks the treatment is more exotic than it really is he is also more likely to derive benefit from it.

The setting in which the treatment is given also has an effect. Uniforms, stethoscopes, the smell of disinfection and impressive-looking equipment may all act as powerful symbols of healing which can foster belief, according to the culture and expectations of the patient. Investigations of treatment carried out in the laboratory can show very different results from those conducted in the
clinical setting. Spiro (1986) believes that, 'The patient who journeys to a world famous clinic or physician is as ready to be helped as a pilgrim who travels to a shrine'. Frank (1975) emphasizes how operating theatres foster belief in the efficacy of surgery. He explains that, 'These rooms contain spectacular machines that bleep and gurgle and flash lights, or emit immensely powerful but invisible rays, thereby impressively evoking the healing powers of science'. Brody (1980) refers to the setting as the 'healing context'.

Many of the machines used by physiotherapists, for example the interventional machine, look impressive and mysterious and one wonders how important this is in producing their therapeutic effects.

Helman (1984) refers to the 'total drug effect' as being dependent on the following four factors:

1. The attributes of the drug itself.
2. The attributes of the person dispensing the drug.
3. The attributes of the person receiving the drug.
4. The setting in which the drug is administered.

These four factors apply equally to the success of many other types of treatment.

HOW PLACEBOS ARE USED

Spiro (1986) contends that placebos can be used in various ways by clinicians, some of which are helpful but others destructive.

Placebo as gift

The placebo can be considered as a gift when it is given to soothe the anxieties of a patient. Spiro (1986) believes that, though paternalistic, this aim can be considered generous.

Placebo as challenge

In this situation the placebo is given to prove that the patient is wrong. Spiro (1986) states that, 'physicians often use placebos as a challenge to prove that the pain can be relieved by a placebo and therefore that it has no important origin'. Such a belief, however, is to underestimate the power of placebos to relieve symptoms.
Placebos may be given to get rid of demanding, difficult patients. Spiro (1986) believes that giving a placebo to such a patient provides him with a negative label which indicates that he is beyond anyone's concern and help. Goodwin et al. (1979) believe that clinicians may also need to prove to themselves that anyone who causes them frustration and anger cannot be genuinely ill.

The intent of the clinician prescribing or administering a placebo is therefore an important ethical issue.

Many symptoms are not serious and are likely to resolve spontaneously. Placebos can be used to satisfy anxious patients while this process takes place. As Voltaire said, 'The art of medicine consists of amusing the patient while Nature cures the disease' (Andrews, 1987). Placebos also have the virtue that while the patient is taking them time is passing which gives the clinician the opportunity to think. Placebos, and any other form of treatment, can sometimes be given false credit as the symptoms remit or the condition spontaneously resolves.

**OBJECTIONS TO THE PLACEBO**

Various objections have been raised regarding the use of placebos in treatment. Most ethical objections hinge on the issue of truth telling. Bok (1978) thinks that deception regarding placebos merely falls into the category of 'white lies' and Spiro (1986) agrees that lying in association with placebos is relatively harmless. He states: 'There are lies and lies. Even the firmest ethicists will agree that some deceptions are trivial... they keep the social machinery oiled and do little harm. . . . In looking at medical practice common sense should help us separate the trivial from the important. Reassuring a patient in acute pain who must undergo an emergency operation that everything will be all right hardly falls into the same category as telling a patient with a gastric cancer that he has a little ulcer'.

The clinician who tells the patient, when administering a placebo, that the treatment will work is not lying, for there is a good chance that it will. However, Bok (1978) believes that the context in which the words are spoken does deceive. Brody (1980) does not consider that the use of placebos is deceptive but Simmons (1978) takes a harder line believing that placebos should only be used if patients understand exactly what is going on. Leslie (1982) is of the opinion that the deception involved in the use of placebos in treatment should be accepted, believing that, 'Deception is as integral to the placebo as copper is to bronze'.

The issue is complicated by the fact that the placebo effect is not confined to the drugs, equipment or techniques which are used in treatment but is integral to the relationship between the clinician and the patient and the setting in which the treatment is given. It is also the case that giving a placebo which the patient believes in increases the likelihood that he will comply with other treatments and that these treatments will be more effective (Melzack
The powerful placebo

and Wall, 1988). Yet we do not feel obliged to disclose or discuss these aspects of the placebo effect with patients. It must also be appreciated that the placebo effect enters into all our treatments however objective and scientific they may seem. We cannot say how much it influences treatment outcome because we do not know enough either about how our treatments work or about the mechanisms of the placebo effect. Disagreements between ethicists and clinicians, regarding the use of placebos, is probably partly due to the fact that ethicists deal in generalities, usually at a distance, whereas clinicians are faced with individuals who want their immediate help. Jones (1989) believes that, 'If caring and truth are in conflict, then our duty becomes problematic and we face a dilemma'.

There are many ethical dilemmas which physiotherapists face in relation to placebos, they may be asked to give chest therapy to a patient who will not benefit from it, decide to continue treating a disabled person even though improvement has ceased, or to use a modality which is thought to have little therapeutic effect. There are further ethical dilemmas when considering the use of placebos in clinical trials. Should the patient be told that she is taking part in an experiment and may be given a placebo rather than an active treatment? If her consent is gained is it really valid given that she is ill, vulnerable and dependent on the people who have requested it? Physiotherapists may be asked to help conduct a clinical trial, or may wish to initiate their own research involving placebos. Thus the ethics of the placebo cannot be avoided. Feinmann (1988) reports on a nurse who helped conduct a clinical trial against her wishes. The nurse said: 'I had to lie to them. I told them the treatment had been individually chosen for them. In fact I knew they were taking part in a randomized controlled trial and that the treatment was not necessarily considered the most beneficial. . . . I did it over and over again because of pressure from consultants'.

Other dangers which have been raised are the physical effects of impure placebos, the possibility that the patient's beliefs in the efficacy of drugs will be increased, increased dependence of the patient on the clinician and the fear that the use of placebos may hide serious disease. Placebos may also be given as a way of managing a large number of patients in a short time. It has been shown that placebos can have harmful side-effects, termed nocicebo effects, though these may be confused with actual symptoms (Ross and Olson, 1982). Griffiths (1980) reports that some people who take placebo tablets suffer sleeplessness, blurred vision and nausea. Some even report having hallucinations and other experiences associated with drug taking. Other dangers are that if the patient does not improve he may conclude that his condition is more serious than it really is and that if he finds out that a placebo has been used his trust in the clinician will be destroyed. Another possibility, pointed out by Sim (1989), is that if the patient realizes that his clinician has not been totally truthful he may be less than truthful in return. Placebos have also been criticized on the grounds of cost, although their timely use may make other more expensive investigations and treatments unnecessary. Placebos should not be regarded as harmless or administered lightly. (For further discussion of ethical issues in physiotherapy practice the reader is referred to Chapter 7.)
UNDERSTANDING THE PLACEBO EFFECT

Our understanding of the placebo effect is still very limited. It seems likely that a combination of factors operate to produce it. The main theories are given below. It is likely that several mechanisms are operating together, thus the theories are not mutually exclusive.

The release of endorphins

Endorphins are morphine-like substances which are produced by the brainstem and pituitary gland in response to pain. They are considered to be the body’s natural opiates (Terenius, 1978; Mathews and Steptoe, 1988). Levine et al. (1978) found that drugs like naloxone block the effects of placebos though Kirsch (1985) failed to demonstrate this effect. Melzack and Wall (1988) regard the endorphin explanation as simplistic. They state, ‘clearly the placebo is produced by suggestion, personality predispositions and other psychological factors. It is not due to any simple mechanism such as an outpouring of the body’s natural opiates’. Kirsch (1985) believes that endorphins should be viewed as the effect of placebos rather than the cause of the effect.

Patients’ expectations and beliefs

The patient’s expectations and beliefs seem to be important in the placebo response, thus the placebo effect is culturally and temporally limited. Even if the clinician tells the patient he is receiving a placebo it may still work well, perhaps because the patient assumes that the clinician would not give him a useless treatment. People have various expectations of treatment from their past experience. For example they know that drugs generally take a while to work and that their effect wears off in time. Thus expectations, beliefs and knowledge from previous treatments may all be important in producing the placebo effect.

Reduction of anxiety and depression

The perception of pain is known to be associated with anxiety and depression (Peck, 1982; Melzack and Wall, 1988). It is likely that some patients who receive placebo treatment will feel less anxious and depressed with a subsequent reduction in their pain and other symptoms (see Chapter 11). In addition, the patient who feels that something is being done may concentrate on small areas of improvement while minimizing static symptoms or those which are worsening. Ambiguous symptoms may also be interpreted positively.
Compliance

Without any coercion on the part of the clinician, patients undergoing treatment are likely to feel some pressure to improve, it can be rather embarrassing not to do so when the clinician is making so much effort. Thus it could be that the patient who receives a placebo as part of her treatment, or the subject who receives a placebo in a clinical trial, reports an improvement, not because of a genuine reduction of symptoms, but in order to comply or to please the clinician or researcher. No doubt this sometimes occurs, but an argument against this explanation is that objective changes can often be demonstrated, for example reduced blood pressure and heart rate.

Conditioning

It is possible that the placebo effect is a conditioned response — that is a response which has been learned. Most people have heard of the famous experiments by Pavlov (1960) where he paired food with the sound of a bell and in a relatively short space of time conditioned dogs to salivate at the sound of the bell alone. Similar conditioning occurs in humans, for example, if a person eats a particular food and is then ill it is sometimes the case that he will feel ill again when eating or even thinking about that food, even though the original illness was not caused by it. Similarly people with asthma who are sensitive to pollen may experience some discomfort when sitting near artificial flowers.

There have been many animal experiments which demonstrate that if they are made to feel ill, for example by the administration of a certain drug, they demonstrate the same signs and symptoms of illness if a placebo is administered in the same way (Reiss, 1958). Thus a noxious experience resulting from a previous treatment can give rise to the nocicebo effect so presumably a positive experience from a previous treatment can give rise to the placebo effect. It is often the case, however, that the placebo effect is produced even though the person has had no previous experience of a similar treatment or procedure.

Cognitive dissonance

Totman (1987) explains the placebo effect in terms of Festinger's theory of cognitive dissonance (Festinger, 1957). According to this theory, if someone has a difficult choice to make he will inevitably be in a state of mental turmoil both before and immediately after the decision has been made, as he wonders which alternative to choose and whether his choice has been a wise one. Festinger (1957) termed this mental state 'cognitive dissonance'. In order to return to a more settled state of mind the person will try to find justifications for his decision and will maximize the positive aspects of what he has chosen and the negative aspects of what he has rejected. Thus if someone has to
choose between two jobs, both of which are appealing, he will actively search for justifications to support his decision and will emphasize the advantages of the chosen job and the disadvantages of the rejected one. If the choice is easy or if the person is forced into a decision, he will not experience cognitive dissonance.

Totman (1987) believes that if a patient has a difficult decision to make regarding her treatment, whether or not to subject himself to surgery for example, he will wonder if it is all worthwhile and be in a state of cognitive dissonance. Similarly cognitive dissonance may be felt if a patient is having to make an awkward journey to the physiotherapy department several times a week, if the treatment is somewhat uncomfortable, or if he is expected to spend considerable time carrying out exercises at home when he would rather be doing something else. In order to resolve his uncomfortable state of mind he will need to find justifications for his actions. This may be achieved, partly at a subconscious level, by experiencing an improvement in his symptoms for this will confirm that his decision to have the treatment was indeed the correct one. Totman (1987) reports that, 'The favourable consequences of a (dummy) treatment were substantially increased if patients had to make a difficult decision concerning whether or not to receive it'. He suggests that the experiment by Park and Covi (1965), mentioned above, where patients still responded to a placebo even though they were told that it was a 'sugar pill', may have been because they had to justify doing such a 'silly' thing as to take it.

Thus it would seem that actively involving the patient in her treatment, giving her the responsibility to decide whether to cooperate and even making life a little bit difficult for her, may be influential in harnessing the placebo effect, for by committing herself to the treatment the patient has made a psychological investment. Zimbardo (1969) found that cognitive dissonance could reduce pain and Janet (1925), talking of Lourdes, believes that the long arduous journey and the tedious waiting improves the prospects of a miracle cure.

There is thus much speculation on how the placebo effect works, though Spiro (1986) questions the importance of knowing the mechanisms behind it. He states: 'Understanding the mechanisms will not help very much in understanding how, for whom, and if the placebo works. Do we not already know the remarkable feature, the triumph of the placebo, that one person can help another simply by trying'.

CONCLUSION

The placebo effect must surely be of interest to all physiotherapists. As noted above its influence is by no means marginal, it is inherent in every procedure physiotherapists use, and can be enhanced or reduced by their relationship with patients, their level of enthusiasm and the settings in which they work.
The powerful placebo

The use of the placebo in treatment and research does raise important ethical issues of which the physiotherapist should be aware. There is little agreement regarding the morality of using placebos in treatment or research and the physiotherapist must ultimately make up his own mind after careful consideration of the arguments. It may also be necessary, regarding research, to have his ideas approved by the Health District’s Ethical Committee.

A questioning attitude towards treatment, which is now encouraged in physiotherapy education, as well as an understanding of the placebo effect itself, may lead to a reduction in its power because the beliefs of the physiotherapist as well as those of the patient are influential in producing the effect. Furthermore, administering a placebo without the patient’s full awareness contains an element of dishonesty which may run counter to present day beliefs that the patient/clinician relationship should be based on partnership and trust. It is, however, unlikely that the new patient/clinician relationship will destroy the placebo effect. As noted above, a good relationship with the patient can act as a powerful placebo in itself. Thus what we may lose by demystifying the treatment, we may gain by an improvement in communication.

Physiotherapists must decide whether to maximize the use of the placebo, avoid it or ignore it. Even if it is ignored the effect will never be eliminated but its neglect may lead to less effective care. Orthodox practitioners are somewhat embarrassed by the placebo effect because it does not fit well with the image of medicine as a scientific enterprise. ‘Alternative’ practitioners are less concerned by this and it is interesting to note how popular their practices have become over the last decade (French, 1988). Katz (1984), who is sceptical of science, asks, ‘Should placebos be left to faith healers and should physicians instead swear allegiance to new gods of science?’.

The profession of physiotherapy requires skills relating to both science and art and the placebo effect illustrates the tension between the two. Spiro (1986) believes that these two aspects of the clinician’s role are not mutually exclusive and that we should not be afraid to turn to the ‘magical’ side of our work if we feel it will help the patients. Whether the placebo effect should be regarded as magical, however, is a matter of opinion, for no doubt its precise mechanisms will one day be explained. Whatever those mechanisms are, the placebo has proved itself to be an extremely powerful tool in the treatment of patients with a very wide range of conditions, leading Kaunitz (1985) to believe that: ‘It is his (the clinician’s) responsibility to influence to the best of his ability the patient’s psychological mechanisms and external environment, so that nature’s forces can bring to the fore the individual’s underlying strength’.

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REFERENCES


‘Counselling aims to help clients, who are mainly seen outside medical settings, to help themselves. The counsellor’s repertoire of psychological skills include both those of forming an understanding relationship with clients and also skills focused on helping them to change specific aspects of their feeling, thinking and behaviour (Nelson-Jones, 1983).

When a physiotherapist treats a patient a relationship between the two is formed. Into this relationship the patient brings his agenda and the physiotherapist brings her skills and personal experience. It might be supposed that this is sufficient for a good result, but the quality of the relationship is variable and the physiotherapist and her patient may wonder why. Mottram and Flin (1988) found that the relationships between newly qualified physiotherapists and their patients often gave rise to considerable stress and that this related to the interpersonal dimension of the encounter.

Saunders and Maxwell (1988) cite several authors who claim that health care professionals who establish and maintain effective personal relationships with clients, increase the clients’ satisfaction with treatment, improve their compliance and enhance their trust (Gerrard et al., 1980; Davis, 1981). Payne (1987) feels there is an increasing recognition of the importance of psychological and social skills within physiotherapy education and Gartland (1984) found an implicit commitment to provide a counselling element in physiotherapy courses. Despite this Maguire (1985) believes there is a lack of interpersonal skills training available for health professionals.

The aim of this chapter is to suggest ways in which the relationship between physiotherapists and their patients may be enriched by a knowledge of counselling theory and skills. It does not attempt to teach physiotherapists to become counsellors, but rather endeavours to introduce a variety of counselling approaches which can be used to create an environment of trust and one in which the potential of the patient can be explored.

COUNSELLING APPROACHES

The psychoanalytic approach

The most influential person associated with the psychoanalytic movement is Sigmund Freud (1856–1939) who developed the importance of the unconscious, infantile sexuality, and various defence mechanisms including denial, repression, resistance, transference and counter-transference. Adler and Jung worked with Freud initially but Adler left to form an independent school whose members became known as the neo-Freudians, and Jung became...
famous for his work on dreams and psychological types. In Britain the psychoanalytical movement has grown under the influence of three groups; one formed by Anna Freud (Sigmund Freud's daughter), another by Melanie Klein, and a third group whose members include Donald Winnicott and John Bowlby.

Although originally Freudian theory centred on the development of sexuality in the child and its basis for neurosis in the adult, Freudian analysts from all schools now believe that the most important determinants of personality and personality disorder are early childhood relationships. Gotleib et al. (1988) believe that lack of warmth and caring, on the one hand, and overprotectiveness on the other, are two dimensions of parenting which lead to depression in adulthood. Parker (1979) found that over-protectiveness is associated with anxiety, phobias and depression, and Birchnell et al. (1988) found that a significant number of the depressed women in his study reported a poor early relationship with their mothers.

A major contribution of Freud was his conceptualization of the defence mechanisms which are explained by him and Anna Freud as devices which people use when their ‘ego’ is threatened (Freud, 1968). The ‘ego’ is the intermediary between the outside world and the inner world of the person represented by the ‘id’ which consists of drives and instincts desiring immediate gratification. The ‘ego’ is that part of the personality which modifies these needs in the light of experience and of what is going on around the individual at the time. The defence mechanism of denial arises when a person is presented with feelings he is unable to cope with in less radical ways. It may, for example, protect the psyche following the onset of sudden disability or the news of terminal illness when the person may be unable to accept such a drastic change in self-concept (Krueger, 1981).

In such a situation the physiotherapist must be careful not to weaken the person’s psychological defence by spelling out future prospects which may seem very bleak. On the other hand, she must not avoid giving difficult information to patients when they want it. Not informing patients is often rationalized by a desire to protect them, but in reality withholding information may be a way of protecting herself from difficult and unpleasant feelings and from having to cope with a painful outburst by the patient. Other defence mechanisms mentioned by Cubbage and Thomas (1989) in the field of disability are compensation, displacement and sublimation. They also cite Cook (1987) who, in relation to disability, lists regression, projection, reaction formation and repression. Three of these mechanisms, displacement, projection and sublimation, deserve further attention.

Displacement occurs when a person feels unable to direct her feelings towards the person or people they concern and instead directs them at another, who could be the physiotherapist. An awareness of this phenomenon will enable the physiotherapist to understand why he is inappropriately attacked by a patient or the parents of a disabled child. If the physiotherapist feels he is perceived inaccurately, the defence mechanism of projection may be occurring whereby the patient attaches unacceptable aspects of herself on to him, for example the prejudiced patient may view the physiotherapist as
prejudiced. Sublimation occurs when a person chooses alternative goals which are acceptable to society. In the case of physical disability it may be that the professional footballer, who because of an injury can no longer play, becomes a football commentator or the manager of a team. (For a critique of the psychological approach to disability and an alternative social approach the reader is referred to Chapter 15.)

Freud had ideas on grieving and depression which may be useful to physiotherapists when treating a variety of patients who have recently experienced loss. He believes that mourning involves, not only the loss of the object, but also loss of interest in the outside world, a cessation of activity and loss of capacity to adopt a new love object. The period of mourning varies, though it is usually quite lengthy and the physiotherapist may, quite naturally, want the process hurried up so she does not have to deal with a sad, uncommunicative patient day after day. Traditionally a physiotherapist is expected to be an active person who exudes cheerfulness and confidence, but it may be more appropriate, when a person is grieving, for her to wait until he is a willing participant in his rehabilitation (Siller, 1969). (For further information on death, dying and bereavement the reader is referred to Chapter 16.)

Physiotherapists will encounter many people each day and will form relationships with them. Some may confess to feelings of disharmony or conversely great warmth towards patients and colleagues, but such emotions may not be based on anything very concrete. We all bring to our relationships memories of people we have encountered in the past and it might be the case that we take an instant liking or disliking to a person because he reminds us of someone else. Storr (1979) states, ‘we do not approach new people as if they were blank sheets but transfer what we have already experienced from the past into the present’.

The process whereby the characteristics of another person are transferred to the counsellor is termed transference, and the process whereby the counsellor transfers negative and positive feelings, based on unresolved areas of his life, on to clients, is termed counter-transference (Nelson-Jones, 1983). If the physiotherapist maintains a position of authority the client may endow him with characteristics of past authority figures and if the physiotherapist has feelings of hostility, anxiety or great warmth towards his patient, it may be that the relationship reminds him of one he has had. Alternatively the physiotherapist may be taking on feelings that belong to the patient such as grief, frustration or boredom.

In a counselling relationship the counsellor helps the client work through elements of his development which were denied him as a child. The counsellor must show that she is able to accept him as he is with his own unique personality, and that he does not have to please her. There are many patients who are very eager to please and sometimes it is difficult to ascertain their true thoughts and feelings about their illnesses and treatment. Physiotherapists can sometimes find it very flattering to have an appreciative patient but it might be helpful to ask if, in the particular circumstances, the sentiments expressed are really appropriate. The physiotherapist should show the patient that she is interested in what he really feels and is willing to accept negative as well as
positive feelings. On the other hand, some patients are very critical and test the physiotherapist sorely. In these circumstances it is important not to take these criticisms personally but respond with patience and understanding. The anger shown may be part of a grieving process or an expression of frustration over events. Anger should not always be viewed as pathological, the patient may have good reason to be angry.

Many of the principles and ideas within psychoanalytic theory are useful to the practising physiotherapist, although the practice of psychoanalysis requires a considerable period of training.

THE CLIENT-CENTRED APPROACH

Client-centred therapy has developed from the work of Carl Rogers; it is often referred to as Rogerian or non-directive therapy. Rogers belonged to the humanistic school of psychology where the approach is based upon belief in the capacity of the client to solve her own emotional problems. The counsellor does not attempt to direct or interpret what the client is saying, instead his function is to listen intently and help the client recognize and clarify the emotions she feels without losing her sense of control and responsibility. The counsellor avoids diagnosing, evaluating, directing, reassuring or humouring the client, neither does he interrogate, interpret or advise and the erection of professional barriers is avoided as they only serve to distort the relationship. It is vital that the counsellor creates an atmosphere which enables the client to talk freely and to explore her own feelings. In the relationship between the physiotherapist and patient this can only happen where there is partnership. The knowledge that the physiotherapist possesses is for the patient to share. The main concern of humanistic psychologists is the client's subjective experiences. The humanistic approach views human beings as loving, trusting, positive and sociable and rejects counter theories such as those of Freud.

Rogers believes there are three main counsellor characteristics which are critical to successful therapeutic movement: genuineness, unconditioned positive regard, and empathic understanding. Unconditioned positive regard includes feelings of warmth, liking, respect, sympathy and acceptance, it can be seen in the infant's need for love and affection. If present these characteristics provide a safe, protective atmosphere in which individuals can examine their experiences and in which they can learn to accept themselves. Rogers (1980) states: 'Individuals have within them vast resources for self-understanding for altering their self-concepts, basic attitudes and self-directed behaviour. These resources can be tapped if a climate of facilitative psychological attitudes can be provided'.

Rogerian psychologists believe that empathic understanding and empathic responding bring about greater self-exploration and self-experiencing on the part of the client leading to more disclosures and greater self-awareness. The warmth and genuine acceptance that the counsellor communicates encourages self-acceptance on the part of the client.
Non-verbal communication is a very important aspect of empathic responding. It has been found by social psychologists that the non-verbal content of communication is more powerful than the verbal content (Argyle, 1973). It is important that the counsellor expresses warmth and acceptance by adequate eye contact, smiling and so on, that her posture is attentive and that she is seated at an agreeable distance and angle to the client – most people prefer to sit with their heads about 1.5 m apart and at right angles to each other though this is subject to cultural norms. The counsellor must, however, avoid subtly influencing the behaviour of the client by her non-verbal communication, for example only responding positively to things she wants to hear.

A key concept in Rogerian theory is the self. Rogerian counsellors place great emphasis on 'positive self-regard' and 'being one's own organism'. Clients usually have a weak and shameful view of themselves rather than a positive, strong self-image. Rogers often found a large discrepancy between how people view themselves as they are (the perceived self), and how they view themselves as they would like to be (the ideal self), and thought that childhood socialization was largely responsible for this. If the parents make positive self-regard unconditional the child will not have to deny any of his own feelings and experiences, but if it is made conditional, for example only loving the child if he is loving in return, feelings, such as hate, will be denied. The child will try to be what others want him to be instead of what he really is. Thus during childhood the self-concept becomes more and more distorted through the evaluations of others.

In order to remove the anxiety which this state of incongruence between the perceived and the ideal self creates, individuals frequently distort and deny their experiences. For example if a student's self-concept is of academic inferiority, she is likely to interpret a high grade in terms of good luck. One of the main aims of Rogerian therapy is to narrow the gap between the perceived self and the ideal self. This is achieved by helping people to accept and value all aspects of themselves and to be themselves when with others. Rogers gave clients the Q-sort test, which measures the discrepancy between the perceived and the ideal self, and found that this discrepancy steadily narrowed during therapy. Through counselling the client is able to accept his current feelings and attitudes as belonging to him and to value them for what they are rather than worrying about what other people may think.

Rogers claimed that clients go through various stages of growth during counselling. Initially their attitudes tend to be rigid and set in the past and there is an inability to experience life in the present. As the counselling progresses communication starts to flow and gradually becomes freer. It takes some time before the client talks about herself but when she does she expresses dissatisfaction with living for others rather than for herself and begins to realize that much of what she thought was real and external in the world is based upon her own system of beliefs which can be challenged. The client gradually begins to talk about the falseness of her present life and many unpleasant feelings emerge of the self having been hurt. At first these feelings are recognized rather than accepted, but gradually the client grows to accept and value them as part of herself. The ultimate stage of growth that
the client can reach is a state of self-actualization which, although never adequately defined by Rogers, roughly means a state of having reached one's full potential.

**THE COGNITIVE APPROACH**

Some counsellors believe that the difficulties in their clients' lives are caused, wholly or partly, by faulty thinking patterns. Thinking cannot, however, be divorced from feeling and acting, for thoughts influence a client to act or feel in a certain way and feelings and actions influence thought. Jeffers (1987) in her book *Feel the Fear and Do It Anyway*, advises us to view feelings of fear as perfectly natural and not to allow them to stand in our way. The cognitive approach takes the theoretical orientation of Ellis's Rational-Emotive Therapy where the approach is to help clients become more rational (Ellis, 1977). Transactional analysis, developed by Berne, also focuses on thinking (Berne, 1961). Both of these approaches are described in detail by Nelson-Jones (1982).

There are many faulty ways of thinking which contribute to a client's difficulties. The aim of the cognitive counsellor is to intervene and help the client change his thinking habits. Timing is obviously crucial as challenging well-established, central patterns of thought can be very threatening especially with vulnerable clients. As well as helping the client to eliminate self-defeating patterns of thinking, the counsellor aims to teach the skills of rational thought and thought control.

Many clients set themselves standards which are difficult, if not impossible, to meet. Because they fail to follow the rules which they have set themselves they experience negative feelings such as anxiety and depression and perceive themselves in negative terms. A patient recovering from major surgery who sets himself unrealistic goals, for example, is likely to become very despondent when they are not achieved and this may even retard his recovery. A common unrealistic standard which people set themselves pertains to perfectionism, 'I must appear competent to all people at all times'. Clients may compare themselves unnecessarily with others or over-generalize failure in one area of their lives to total failure, a process which Nelson-Jones (1983) refers to as 'catastrophizing'. Another faulty thinking habit is selective attention to feedback to make it fit with the self-image. For example, following an appraisal at work, the client may overestimate the negative feedback he received yet disregard the positive feedback in order that his negative self-image is maintained. This may also take place when patients are given a mixture of positive and negative feedback. The reverse may occur in people with high self-esteem.

The counsellor works with the client to discard or reformulate his internal rules in order that negative feelings may be reduced and that his behaviour may be more effective. It is preferable if the client is active in this process so that the counsellor does not impose her own standards on him. A reformulation of the unrealistic statement mentioned above might be, 'I will do my best to be competent but it is unlikely that I will be competent all of the time'.
It is helpful if the client practises these self-verbalizations in his everyday life particularly before and during situations which he finds stressful. The client may be taught relaxation techniques to facilitate indirectly changes in his thoughts by reducing anxiety.

A further problem of thought found in many clients is faulty attribution of the causes and meanings of events in their lives. Incorrect attributions can lead to inappropriate feelings and behaviour. The client may, for example, attribute a single cause to a situation brought about by multiple factors. A statement such as 'It's all my fault', illustrates this mode of thinking. It is likely that the client is ignoring the contribution of other people's behaviour and the part played by incidental events. People differ in the way they attribute cause to events. Some tend to attribute their thoughts, feelings and behaviour to other people and events without taking themselves into consideration. Others, frequently depressed people, attribute everything bad to themselves even though other people and incidental events contributed significantly to their situation.

The area of attribution is totally tied up with the area of responsibility. By making accurate attributions clients take responsibility for what has happened in their lives, for what is happening now and for what is likely to happen in the future. Clients' attributions can be explored by the counsellor who can help them gain insight into this aspect of their thinking and assist them in changing it. Altering self-statements may help, for example instead of thinking, 'She made my life hell', the client may be encouraged to think, 'I allowed her to make my life hell'. In this way the client begins to take responsibility not only for the way he behaves but also for the way he thinks and feels. There are many occasions in which the sensitive physiotherapist can challenge faulty thinking habits in her patients, her colleagues and herself.

It must be stressed that our thought patterns are well established habits often deeply rooted in childhood experiences and therefore a great deal of motivation and practice is required to alter them. Many cognitive counsellors give very specific home assignments to their clients including techniques for self-assessment.

THE BEHAVIOURAL APPROACH

Behaviour therapy, which is underpinned by behaviourism, differs radically from psychoanalysis and client-centred approaches. At the core of behaviourism is the work of theorists such as Pavlov, Watson, Skinner, and later Wolpe, Eysenck and Bandura, who are of the opinion that faulty behaviour is learned and can, with appropriate therapy, be extinguished. The focus is on changing problem behaviour by a variety of methods including assertiveness training, modelling, relaxation and systematic desensitization. The therapy is designed to teach the client to act or react differently, to strengthen appropriate behaviours and to weaken or lose inappropriate ones. The theory underlying these approaches is discussed by Nelson-Jones (1982) and for a full account of
the theory and practice of behaviour modification programmes the reader is referred to Chapter 27.

All counselling has the ultimate goal of enabling clients to use their maximum potential in the pursuit of a sense of meaning in their lives, the behavioural approach attempts to achieve this by directly changing the client’s behaviour. Physiotherapists are familiar with relaxation techniques and breathing exercises aimed at changing the behaviour of women during labour. Behavioural techniques are not usually used in isolation, for as mentioned above, faulty behaviour is often the result of faulty thinking patterns or inappropriate feelings. In attempting to change a person's behaviour it is very important to set goals in collaboration with her. For example if, because of chronic pain, a patient has become very isolated, it is important that various realistic goals are formulated for her to achieve. She may start by telephoning one or two friends, and later progress to meeting them socially. It helps if the goals are concrete and can be measured. At the same time the client may be instructed to give herself helpful coping statements. For example, rather than giving herself the defeating message that the friends will not be interested in hearing from her, she can tell herself that they are likely to be pleased and that even if they are not it is not a catastrophe as she has other friends to ring or can make new ones. A system of self-rewards, or rewards given by the counsellor may also be included in the programme.

It should always be remembered that a person’s behaviour is as much affected by the environment she is in as by her personality. Therefore on occasions it can be more appropriate and fruitful to change the environment rather than attempt to change the person.

**Assertiveness training**

Assertiveness training can be carried out with individual clients or in groups. Clients identify areas in their lives where they lack assertiveness skills and where they tend to be either aggressive or passive. In a highly supportive atmosphere the client is encouraged to express his feelings and difficulties. Role play exercises are then set up where he rehearses the difficult scenes after which he is given feedback from the counsellor and other group members. For example, a disabled person may resent being patronized by a colleague at work and yet lack the skill to challenge him in a constructive way. A role play scene will thus be set up by the counsellor and other members of the group where the client acts out the role of dealing with his colleague assertively. He may then be given the task of really challenging his colleague before the next meeting. Assertiveness training frequently includes elements of psychoanalysis and cognitive therapy.

People frequently have difficulty being assertive when trying to make a decision. Making a decision requires many skills relating to thought and behaviour. Nelson-Jones (1983) states: 'The steps in decision making include: defining the area for the decision; generating alternative solutions; collecting information about the alternatives; examining the consequences of the alter-
natives; making the decision; and evaluating the adequacy of the decision in the light of feedback. These steps can be taught to clients especially with reference to an important decision they are currently making.

Physiotherapists treat many people who have been denied the right to make decisions and take control over their own lives and consequently lack the skills to do so. Physiotherapists have an important role in helping them to assert their rights and gain control over their lives. Assertiveness training is described in more detail by Davison and Neale (1990).

Systematic desensitization

Systematic desensitization is a behavioural technique which has been successfully used with clients who have irrational fears, termed phobias. If, for example, a client is afraid of cats he will first be taught to relax and may then be presented with a picture of a small kitten at the bottom of a garden. Once he has achieved relaxation while looking at that picture he may be given another of a larger cat in the foreground of the picture. This is continued until eventually the client is able to be in the same room as a cat or even able to stroke it without feeling anxious. The scenes may be real or they may take place in the client’s imagination. Progress is achieved with the support of the counsellor.

Physiotherapists often treat patients who are afraid of various activities which would benefit them. In this situation physiotherapists may practise systematic desensitization. Some probably do so already, albeit informally, without really giving it a name. For example if the physiotherapist is keen that a disabled child, who is afraid of water, should learn to swim, he may first teach her to relax while watching others in the pool, then to relax while dangling her feet over the edge and so on until the ultimate goal of swimming is achieved. Systematic desensitization is described in greater depth by Davison and Neale (1990).

Modelling

In both assertiveness training and systematic desensitization the technique of modelling may be used. Modelling is where the client observes someone performing the behaviour he finds difficult. The modelling may be done in real life or on a video. Although active learning is usually more powerful, it is possible to reduce a client’s anxiety and to teach him social skills by allowing him to watch others. For example, a person who has recently acquired a disability may become more optimistic, less fearful and learn new skills by watching others who have lived with similar disabilities for some time. This is where self-help groups can be so useful. Physiotherapists should have full knowledge of available groups and be prepared to learn from them.

COUNSELLING SKILLS

In order for counselling to be successful the client must feel safe to express himself. Practical aspects need attention, physiotherapists must aim at consistency in their treatment sessions. Seeing their clients at the agreed time, in the agreed place and for the agreed amount of time all contribute to a trusting relationship and the client is given the responsibility of keeping his side of the bargain which can be an important aspect of the therapy. Many counsellors draw up a more or less formal contract with the client.

Listening

One of the most important counselling skills is active listening. To be listened to and heard is, for most people, a very unusual and rewarding experience. Physiotherapists, because of their heavy workloads, find it difficult to spend as much time with their patients as they would wish, yet many patients say they feel doctors and nurses are too occupied to stay with them and that the physiotherapist is the person most available. Hailstone (1969) felt that this resulted in patients revealing their innermost feelings and emotions to the physiotherapist. Pratt (1978) feels that the physiotherapist is frequently the only member of the caring professions with time available for the patient to express feelings related to his disability, work or other areas of anxiety.

Active listening is not easy. Physiotherapists who are overloaded with work may lack the time to listen or feel too tired. Patients may say things or behave in ways which irritate them so that, rather than listening, physiotherapists may find themselves preoccupied with their own feelings. Dickson et al. (1989) note that patients sometimes say things which predispose the listener to perceive them stereotypically. When physiotherapists see themselves primarily as problem-solvers there is a danger that they will avoid listening to emotional problems which they are unable to solve and may not realize that it is sometimes enough just to listen and 'be' with the patient. Some physiotherapists have a desire to jump to conclusions or give suggestions too quickly when listening to patients because this gives them a feeling of greater competence with which they feel more comfortable. Casement (1985) believes that: 'Counsellors sometimes have to tolerate extended periods during which they feel ignorant and helpless - though many will succumb to pressures that prompt them to strive to appear certain as if this were a mark of competence'.

Coleman (1988) feels that it is only by active listening that we can fully understand and explore the nature of the person, his needs and how we might be helping or hindering him.

Reflecting

Reflecting is a counselling skill in which the physiotherapist can confirm to the patient that she has heard him and in which she encourages him to continue
with his 'story'. Other terms used for reflecting are 'mirroring' and 'echoing'. The counsellor repeats the last few words of the patient's sentence, or just a word or two from the sentence if she wants the patient to enlarge on a specific point. The patient may minimize issues which are important to him because he believes they are not of interest or importance to others, though in reality they may be of great significance. By repeating what the patient says and by showing interest and concern the physiotherapist may facilitate the release of feelings which at one extreme could be crippling the patient emotionally.

Saunders and Maxwell (1988) feel that reflecting skills can be useful to physiotherapists when interviewing patients. They believe that by using a more open, less intrusive style the therapist is able to explore areas which the patient considers important for him to ventilate. Although it sounds easy, the skill of reflecting needs practice, for constantly and inappropriately repeating the last few words the patient says can sound mechanical and cause the patient to become irritated. (For further information on interviewing the reader is referred to Chapter 10.)

Paraphrasing

Paraphrasing or summarizing is a technique which allows counsellors to confirm that they have understood the client, and can also serve to remind the client of something which appeared important when it was said. Sometimes clients 'flood' the counsellor with information, enjoying the sense of release at unburdening themselves. When this information is summarized clearly by the counsellor it not only allows for a breathing space but provides the opportunity to clarify any possible areas of confusion. Saunders and Maxwell (1988) emphasize that the essential skill of paraphrasing consists of listening to the client without interrupting and then feeding the core content of the communication back to her as accurately as possible. It is vital that the counsellor's non-verbal communication, including his tone of voice, is appropriate. Burnard (1989) believes that the attending and listening aspects of counselling are essential skills in every health professional's work.

SELF-AWARENESS AND SELF-ACCEPTANCE

There are many ways of describing the self. The psychoanalytic school of psychology promotes the view that childhood experiences provide a blueprint for the development of the self, and research, especially into depression, appears to bear this out (Thomson, 1989). Storr (1979) in his descriptions of people with hysterical, obsessional and schizoid personality types, clearly shows the influence of early relationships on the development of self. Jung believed that the opposite of every dominant aspect of personality is under-
developed, for example if a person is basically sad then his ability to be happy
will be stunted. One of the goals of Jungian psychology is to bring into
consciousness and aid the development of the underdeveloped aspects of self
in order for the person to approach a state of balance or psychic wholeness.

Rogers, on the other hand, often found a large discrepancy between how
people view themselves as they are and how they view themselves as they
would like to be. As noted above one of the aims of Rogerian therapy is to
narrow the gap between the perceived self and the ideal self, by helping
people to accept and value all aspects of themselves. Some physiotherapists
may have unrealistically high expectations of themselves which are often
fuelled by the tendency of patients to place them on a pedestal. If these high
expectations are not reached this can lead to tension and depression in the
physiotherapist. The higher the goals the greater the gap between what is
desired and what is possible with consequent feelings of guilt and failure when
the gap is not bridged.

For treatment to be successful it is important that the physiotherapist
knows and values herself, for the more she does the greater her understanding
of the client will be and the less inclined she will be to project her own diffi-
culties onto him. Physiotherapists may well find patients they view as difficult
easier if they accept their own negative feelings rather than feeling guilty
when they arise. In order to achieve self-growth it may help the physio-
therapist to bring into the open problems which she experiences in her
relationships, especially if these are hindering the progress of her patients,
affecting her interactions with fellow professionals or reducing her job
satisfaction. Physiotherapists, like others who spend their working days
helping people, need to be cared for themselves and supported in their work.
If physiotherapists do not feel supported they may seek that care in other
ways, for example they may look to their patients for admiration or approval.

ENDINGS

Endings refer to all the losses that occur in a lifetime. If for any reason these
are not resolved then each new loss will tend to resurrect the unfinished
business carried within the person. The physiotherapist should appreciate the
importance of saying good-bye to his patients. Some will have been coming
to physiotherapy for a long time and will have formed an important relation-
ship with the physiotherapist. They will welcome a chance to express their
gratitude for the help they have received and their sadness about the parting.
The physiotherapist may also like to express his sadness at the ending of the
relationship and his thanks for having known the patient. They can then both
look forward to their lives without each other: for the patient perhaps a life
without pain or immobility, and for the physiotherapist a chance to work with
other patients using the experience gained from the relationship which has ended.
CONCLUSION

It is clear from this chapter that there are a diverse range of counselling techniques existing which are rooted in different schools of psychology. In reality many counsellors take an eclectic approach according to the needs of the client. Glass and Smith (1977) believe that results are very similar whichever approach is used and Coleman (1988) states: 'In the end it seems the aim of therapy is similar regardless if the therapist is a Rogerian or a Freudian in so far as the client is being encouraged to get in touch with aspects of himself which during the fullness of time have been lost, repressed or alienated'.

Although the technical skills which the physiotherapist possesses should not be undervalued, it must be remembered that her personality, attitudes and interpersonal skills greatly affect the patient and the outcome of the treatment. It is often stated that for effective counselling to take place the counsellor must be free of prejudices as these will adversely affect her relationship with the client. Grieve (1987) believes that the psychology of clinicians needs the same industrious scrutiny as that of their clients.

Over the last few years counselling skills have gradually entered undergraduate physiotherapy education and there are a wide variety of counselling courses available for qualified physiotherapists, ranging from those lasting a few days to those at Masters Degree level. The need to recognize patients as psychological and social as well as physical beings is now well accepted and physiotherapists, even those working in the most technical of specialities, are likely to benefit from training in the theory and practice of counselling.

REFERENCES

Counselling


**FURTHER READING**


Physiotherapy: a psychosocial approach


Many psychological interventions have been developed to treat people with a variety of psychological, behavioural and emotional problems. Probably the best known is psychoanalysis which was developed at the turn of the century by Freud in Vienna. Others include counselling techniques, such as the so-called 'humanistic' approach of Rogers, and behaviour modification techniques developed from the work of such notables as Pavlov, Hull, Skinner and Thorndike who established the principles of conditioning by extensive experimentation on animals. Further developments include cognitive interventions arising from the work of Ellis and Beck (Blackburn and Davidson, 1990). Most psychologists take an eclectic approach, using whichever methods seem appropriate to the particular client and his problems.

It should be appreciated that these techniques are not generally applied to a particular diagnostic group, such as the neuroses or schizophrenias, but rather to particular individuals or groups of individuals according to their specific problems. This is important, it can be a great mistake to assign a label to a person and assume that only one treatment is appropriate – it is the person who is being treated and the person who matters.

It is most important that an appropriate case history is taken before a psychological intervention is planned. The client must be aware of the form the intervention will take and his consent will usually be required, but if he is not capable of deciding upon the type of treatment or whether he wants to receive it, consent may be gained from his next of kin. It is vital that the effectiveness of the intervention is continually and carefully monitored which, at the very least, means keeping appropriate records. One of the very real contributions psychology has made to practice in this area is the development of methods and techniques which allow good record keeping.

This chapter focuses on three forms of intervention used by psychotherapists: behaviour modification, biofeedback, and relaxation. They have been singled out for discussion because they are also used by physiotherapists in a variety of clinical settings.
CLASSICAL CONDITIONING

Classical conditioning was developed from the work of Pavlov who did most of his work in Russia during the revolution. Pavlov conditioned experimental dogs to salivate to a sound source in anticipation of being fed. He inserted a small tube into the animal's cheek so that the saliva could be collected in a measuring cylinder on the external surface of the face. This enabled him to measure its quantity.

The dog was kept in a restraining harness and after a bell was sounded food was presented to it. Initially the dog did not salivate to the sound of the bell but only when food was placed in its mouth. This is, of course, a natural, physiological reaction. After several pairings of the sound and the food, however, the dog salivated to the sound of the bell alone. Taking this experiment as an example, the food is the unconditioned stimulus (UCS) and the saliva produced in the presence of food is the unconditioned response (UCR), an automatic, involuntary response inherent in the dog's make-up. The bell becomes the conditioned stimulus (CS) when the dog salivates to the sound of it, and the saliva produced at the sound of the bell is the conditioned response (CR). It is the association between the conditioned stimulus and the conditioned response which is learned.

Figure 27.1 shows the development of a conditioned response. The baseline measures the amount of saliva produced at the sound of the bell before the experimental intervention. The acquisition curve illustrates the amount of saliva produced at the sound of the bell as it is repeatedly paired with the food. This curve illustrates the gradual establishment of a learned association between the bell and the food. The acquisition curve continues until the dog is producing as much saliva as is physiologically possible in response to the bell. A plateau will then have been reached. Once the conditioning is established training trials will have no further effect on the amount of saliva produced, but will make the behaviour stronger and more deeply established. The extinction
curve illustrates a gradual disappearance of the conditioned response when the bell is rung but no food is provided. Eventually the amount of saliva produced returns to the baseline measure.

If the dog is given a rest, and the bell is then rung but no food is given, there is a degree of spontaneous recovery of the salivary response. However, if this procedure is repeated several times, spontaneous recovery no longer occurs. How often it does occur will be a function of the degree of over-learning which took place during the training period. If extinction was simply a forgetting process, that is if the response was simply dropping out the dog's repertoire of behaviours, then spontaneous recovery would not be seen. As it does occur, it is clear that the dog has learned two behaviours. First, during the acquisition phase, it has learned to respond to the bell, and second, during the extinction phase, it has learned not to respond to the bell. Which of these two behaviours it will show at any point in time will depend on their relative strengths, but the dog will now be capable of both behaviours.

It can be seen that learning can occur without apparent conscious intervention. There is no sense in which the dog knows what is happening to it. The entire paradigm is based on the animal's behaviour. Each species has an evolutionary predisposition to learn specific associations. A rat will readily learn to associate aversive taste with poison but will not learn the association between poisonous substances and bright lights. Many argue that phobias in humans develop from a conditioning process and that they can be counteracted by deconditioning measures.

Conditioning, in the Pavlovian sense, uses involuntary responses such as salivation and the eye blink response. At one time it was considered that the conditioning of these responses could not be brought under voluntary control. However, Miller (1969) demonstrated that this was not so, and it is now known that involuntary responses, such as heart rate, blood pressure, sweat rate and even our brain waves, can be brought under at least partial, voluntary control through conditioning procedures. This has given rise to the concept of biofeedback, but before this is considered in more detail it is necessary to review the other major form of conditioning, operant conditioning, which derives from the work of Skinner.

**OPERANT CONDITIONING**

Skinner, like Pavlov, did his experimental work with animals, but with pigeons and rats rather than dogs. He developed an experimental cage called a Skinner box which is shown in Figure 27.2. The hungry rat is placed in the box and is required to learn the connection between pressing the lever and the delivery of a pellet of rat food. This is taught to the animal by a procedure known as 'shaping' which is dependent on providing reinforcement. Initially when the rat moves towards the food tray a pellet of food is dropped into it so that the rat learns the association between approaching the food tray and food. Next the food will only be delivered when the rat learns the association between moving towards the lever and the delivery of food. The rat's behaviour is
shaped in this way until the food is only delivered if the rat presses the lever. Thus a naive rat can have its behaviour shaped by a series of successive approximations to the final goal of self-feeding, each approximation being acquired before moving on to the next. The behaviour is thus achieved through appropriate reinforcement.

A reinforcer is any stimulus which increases the possibility of a behaviour occurring. In the above example food was the reinforcer, as it increased the probability of the rat pressing the lever. Reinforcers may be positive or negative. An electric shock is a negative reinforcer as the animal will work to avoid it. Thus if the floor of the Skinner box is wired so that the animal receives an electric shock and the lever is connected so that the current will be turned off when it is pressed, the rat could be trained to turn it off.

It should be appreciated that negative reinforcement is not the same as punishment. Punishment stops ongoing behaviour, at least for a period of time. If the rat is pressing the lever to obtain food and is given an electric shock when it next does so, this will decrease the likelihood of it pressing the lever for some period of time, depending on how hungry it is and how severe the electric shock was. This is an example of punishment. It is generally accepted that reinforcement is a more effective means of controlling behaviour than punishment because punishment only tells the animal what not to do, whereas reinforcement tells it what to do. Positive reinforcement is generally used in preference to negative reinforcement.

The reinforcers discussed so far are termed 'primary reinforcers' which Evans (1978) defines as 'any reward which is intrinsically satisfying to an animal and whose significance as a reward does not have to be learned'. Some people regard primary reinforcers as being exclusively those which satisfy the

Figure 27.2 The Skinner box.
organism's physiological needs, but in this chapter the rather broader definition provided by Evans will be taken. Thus primary reinforcers are of direct value to the animal or individual in providing needs such as food, warmth and entertainment. Objects or events associated with the primary reinforcers are termed 'secondary reinforcers', they have no direct value but can be exchanged for primary reinforcers. An example of a secondary reinforcer is money.

It is very important for physiotherapists to understand both the terminology and the theoretical underpinnings of conditioning if they are involved in biofeedback and behavioural treatment programmes. Such an understanding will allow for a flexible approach which nonetheless adheres to the underlying psychological principles.

APPLICATIONS

One of the major applications of conditioning theory is that of behaviour modification (Rimm and Masters, 1975). Behaviour modification has been used to help people with phobias (irrational fears), sexual dysfunction and impulse disorders (poorly controlled and injurious behaviour, such as alcohol abuse and stealing). Behaviour modification is sometimes referred to as 'behaviour therapy', but this implies that the person is ill, and in practice behavioural techniques can be applied to a wide range of problems which do not necessarily involve illness. These techniques arose out of learning theory, most notably from work on conditioning.

A behavioural technique, derived from operant conditioning, is that of the token economy (Ayllon and Azrin, 1968). For example, if it is considered desirable to improve the daily living skills of the inhabitants of a long-stay psychiatric ward, they may be given tokens for undertaking such activities as bed making, which can be exchanged later in the day for privileges such as sweets or a pint of beer. The tokens serve as secondary reinforcers in a similar way to money. Token economies can be used to modify the behaviour of either individuals or groups.

Making the bed may initially be defined as merely placing the bedclothes on the top of the mattress. Once this behaviour is established, the next criterion of a made bed could be that the pillow is correctly positioned and once this is established that the sheets are smoothed out. The client's behaviour is therefore 'shaped' through successive approximations until the goal of making a bed is achieved. When the client achieves each stage of the procedure he is given a token (a secondary reinforcer) which, at a future time, can be exchanged for a privilege (a primary reinforcer). This might be food, a cigarette or watching 'Coronation Street' on the television.

One problem with giving a reinforcer is that only the behaviour which immediately precedes it is reinforced. Because bed making occurs in the morning and 'Coronation Street' comes on in the evening, an intervening reinforcer is required, namely the token. The token should be given with social reinforcement, for example praise and smiles by the ward staff, as this will add to the reinforcing power of the token as well as providing an oppor-
Physiotherapy: a psychosocial approach

...tunity for social interaction which may have been lacking in the past. Token economies can be used to modify any behaviour which can be defined. The value of the tokens must, of course, be specified before the commencement of the programme both in terms of how many will be given for each type of behaviour and the exchange rate.

It is vital for the success of these programmes that the ward staff are consistent in the way they reinforce the clients and that the clients have no other source of tokens, it does not help if they receive them from each other or if the staff break the rules because they feel sorry for a particular client. Visitors also need to cooperate, if the primary reinforcers are bars of chocolate then the programme would obviously be disrupted if visitors supplied them. Once the behaviour has been established the giving of tokens can be phased out, social reinforcement by this time should be sufficient to maintain the behaviour and the client can, of course, still watch 'Coronation Street' if he wishes.

It is essential that the primary reinforcer is appropriate to the client. The literature is rife with examples of inappropriate reinforcers such as giving cigarettes to people who do not smoke. It is also important that behaviours which are being adequately performed are not brought under the control of the programme.

Reinforcers can also be used in what is known as 'time out' procedures. The principle behind these procedures is that the client is removed from positive reinforcers until a short time after the disruptive or unwanted behaviour has ceased. It is important that access to positive reinforcers is not granted immediately the behaviour has ceased or the therapist may inadvertently reward it.

Redd (1982) cites the case of a patient with cancer on a hospital ward where failure of radiotherapy and chemotherapy had led to the abandonment of medical intervention. This patient was in a side ward where he would cry and yell out, distressing both the ward staff and the other patients. Before the commencement of behaviour modification, a member of staff usually went in and attended to him if he cried out, but once the programme was instigated the staff would simply check that he was not in discomfort and then leave. If, on the other hand, he was quiet for a few minutes the staff would return and chat with him. Basically his quiet behaviour rather than his crying behaviour was now being rewarded by social attention. It could be argued that the patient became quieter because the cancer had progressed, but this appeared not to be the case as he also interacted more effectively with his visitors. Hospital staff, and others involved in patient care, must be careful not to force patients into maladaptive behaviour patterns by their own maladaptive behaviour, for example by avoiding social interaction with people who are terminally ill.

A common consequence of brain injury is disinhibited and aggressive behaviour (Wood, 1987). Such behaviour can make it difficult to implement behaviour modification programmes using token economies, but 'time out' procedures may be useful. Goodman-Smith and Turnbull (1983) describe the use of this technique by physiotherapists when treating head-injured patients. When the client has an aggressive outburst the therapist may simply turn...
his head away and discontinue any interaction with her for a short period of time. In some cases the client may be removed to a non-stimulating room, specifically set aside for the purpose, where she remains for a predetermined period or until a short while after the aggressive behaviour has ceased. The client should not be let out immediately the aggressive behaviour subsides or she will be receiving reinforcement for that behaviour rather than the calm, non-disruptive behaviour which follows. In some cases disruptive behaviour may simply be ignored and the interaction continued as if nothing had happened. The important thing is not to respond to disruptive behaviour or it will tend to be reinforced and maintained.

It may seem as though these programmes are rather contrived and that they disregard the individual. It is probably true that they are mechanistic but cannot be said to disregard the person as they are all tailor-made to meet individual needs and are extremely flexible. When a client and his family have suffered from a problem for years and have received intensive psychotherapy, electroconvulsive therapy and a range of psychotrophic medications with no effect, there is little to lose by using a mechanistic approach. Behaviour modification can be very effective in its own right and should not be regarded as a treatment of last resort. As with all treatment procedures, however, it is important to explore the medical and ethical contraindications before the programme is implemented. (For a discussion of ethical decision making in physiotherapy the reader is referred to Chapter 7.)

It has been argued that by treating the symptoms and not the underlying cause the emergence of other symptoms may occur. This is to miss the point of behaviour therapy which is based on the assumption that symptoms are the result of a learning process and that the therapy is a counter learning process. The symptoms are viewed as the problem rather than manifestations of the problem. Lincoln (1978) describes the use of behaviour modification by physiotherapists working with brain-injured patients and Williams (1989) with patients who show abnormal illness behaviour.

**BIOFEEDBACK**

Biofeedback has been described by Olton and Noonberg (1980) and Cauldrey and Seeger (1981). It is a technique which gives people information about their internal bodily processes, for example the person may be shown a visual representation of his cardiac activity. Like behaviour modification the principles of biofeedback derive from animal research and utilize the principles of conditioning.

We are consciously unaware of the continual control of many of our bodily functions, including heart rate, blood pressure and hormone output. This is just as well for if we needed to give these functions our constant attention there would be little time for anything else. Fortunately these functions are under automatic, homeostatic control, that is they operate within set limits and any deviation from the norm brings into play the operation of corrective mechanisms. If the body temperature rises or falls, for example, corrective
mechanisms are initiated which bring it back to acceptable levels (Figure 27.3).

These control mechanisms are sometimes ineffective due to physiological or behavioural disturbances, for example high blood pressure may result from excessive stress. By becoming consciously aware of his high level of blood pressure, however, the individual may learn to recognize and control it. Even if a physiological disturbance is causing the faulty mechanism it may be possible to activate the control mechanism by behavioural means. In order to achieve this the person will need to receive information about the bodily function concerned.

The use of biofeedback for patients with high blood pressure has been described by Blanchard et al. (1975). A pressure cuff is attached to the patient’s arm with a recording device to measure the blood pressure. The measurements are displayed visually on a graph and a tone is sounded every time it rises. The client is asked to reduce the volume of the tone by actively reducing his blood pressure. The person usually needs to be in a quiet room and in a very relaxed state to achieve this. The sequence of events is shown in Figure 27.4.

![Figure 27.3 Body control mechanisms.](image)

![Figure 27.4 Sequence of events to lower blood pressure by biofeedback.](image)
The principles of biofeedback have been used with a variety of conditions including tension and migraine headaches, respiratory disease, epilepsy, neuromuscular disorders, gastrointestinal and circulatory disorders. The only limitation is whether the bodily function can be recorded and displayed.

Torticollis is a disabling condition in which the head is turned and may result in a painful contraction and enlargement of the sternocleidomastoid muscle and atrophy of the muscle on the other side. In a study by Brudny et al. (1974) electromyographic recording (EMG) was made from both the atrophied and hypertrophied muscle, this was fed back to the client using visual and auditory feedback in the form of a polygraph and a buzzer. As training progressed the client was able to reduce the activity of the hypertrophied muscle and increase the activity of the atrophied muscle. Bollard and Woodroffe (1977) describe the use of biofeedback in the treatment of enuresis in children. An electric circuit is placed within the child’s bed which is connected to a bell. When the child starts to wet the bed the electric circuit is completed causing the bell to ring and the child to wake. The sound from the bell, as well as waking the child, enhances the feedback from the pressure receptors in the bladder and conditions the child to wake when they are stimulated. Once this is achieved the intervention can be withdrawn.

Biofeedback has been used in many areas of physiotherapy practice. Cauldry and Seeger (1981) describe its use as a means of relaxing tense muscles, controlling posture, re-educating gait (by giving the patient feedback concerning the amount of weight he is putting through his leg and how far his knee is extended) and toilet training. Skelly and Kenedi (1982) discuss its use in relation to the re-education of the shoulder muscles in people who have suffered a stroke and Hurrell (1980) describes the use of biofeedback by physiotherapists in the re-education of peripheral nerve injuries and in increasing the strength of paretic muscles and increasing inhibitory control of spastic muscles following hemiplegia.

RELAXATION

Many people suffer from anxiety. Anxiety is, of course, a normal reaction to a situation which is perceived as threatening or stressful. Thus athletes may feel anxious before a sporting event, actors may suffer from 'first night nerves' and drivers may feel anxious as they manoeuvre their way out of near accidents. These are common experiences. However, some people become anxious at inappropriate times or disabilingly anxious when only moderate anxiety would seem to be appropriate. They may experience anxiety when they least expect to, for example when they are doing nothing more demanding than watching a pleasant programme on the television. Some people feel very anxious when ill, in fact fear about the illness may become more incapacitating than the illness itself. Others may feel anxious when confronted with a specific situation or stimulus, anxieties such as these are termed phobias. They are many and varied including agoraphobia (fear of open places) and claustrophobia (fear of closed spaces). Others include fear of birds, spiders, and flying.
The signs and symptoms of anxiety include palpitations, breathlessness, sweating (particularly of the palms of the hands), giddiness, shaking and fear of fainting. Anxious people often feel tense and scared and may even believe they are going mad.

Behaviour modification and biofeedback techniques can be used in the treatment of anxiety. There are, however, a variety of other methods and substances which can be used including tranquillizers, alcohol, hypnosis and relaxation techniques (Gray, 1982). Lehrer (1982) notes the large number of relaxation techniques available to suit the needs of individual clients. The one to be described here is termed ‘progressive muscular relaxation’. With this technique the client is asked to sit or lie in a comfortable position in a warm, restful room.

The client is asked to close his eyes, to discourage visual distraction, and to breathe slowly, regularly and shallowly. Following this he is instructed to tense a group of muscles as tightly as possible for a few seconds and then to relax them. This technique is repeated with all the voluntary muscle groups enabling the client to learn the difference between muscular tension and relaxation. This is a procedure which can be used with individual clients or with groups. The instructions can be recorded so that clients can practise in the comfort of their own homes. Once learned the response can be used to counter anxiety. For example the client may be taught to relax when encountering a phobic stimulus. This process, where the strengthening of one response (in this case relaxation) reduces the converse response (in this case anxiety) is sometimes referred to as ‘reciprocal inhibition’.

CONCLUSION

It is clear from this account that the work of physiotherapists and clinical psychologists overlaps considerably. This is likely to continue as physiotherapists broaden their role and work with people who are mentally ill or have learning difficulties, and as their work increasingly moves from hospital to community settings. The techniques of biofeedback, behaviour modification and relaxation (as well as others such as counselling) are used in a wide variety of clinical fields in which physiotherapists work, including neurology, outpatients and care of elderly people. To ensure optimal success when employing these techniques physiotherapists must acquire a thorough understanding of both the theory and practice and be prepared to view the patient or client as a psychological and social, as well as a physiological being.

REFERENCES


Psychological treatment in physiotherapy practice


In this chapter the following issues relating to disability will be discussed:

1. The point in life when the disability arose.
2. How visible the disability is.
3. How comprehensible the disability is to others.
4. Whether the disability is associated with illness.

It is hoped that this will provide the reader with insights into the psychological and sociological situation of disabled people, although it is important to realize that generalizations regarding disability merely provide us with ideas and guidelines, never 'the truth' about any particular disabled person.

AT WHAT POINT IN LIFE DID THE DISABILITY ARISE?

Disability can arise at any time of life, it may be present at birth or be acquired later in childhood, in early adulthood or in old age. The psychological and sociological effects of disability are likely to differ according to the time of life at which it arises.

If disability is present at birth or arises in early childhood, many areas of development are at risk of disruption or delay, even those not directly related to the disability. Take, for example, a child with cerebral palsy who is restricted in his ability to move about freely, Shakespeare (1975) believes that this situation has the potential to affect the child's cognitive development as he is less able to learn through exploration. Even more disruptive to cognitive development, according to Lewis (1987), is an impoverished environment, such as that found in some institutions, to which many disabled people have been subjected.

Normal perceptual development, such as an appreciation and understanding of spatial relationships, may be adversely affected by physical impairment, as it is partly determined by movement and actively manipulating the environment. The child's emotional development may also show delay or disturbance because less is demanded of him and he may be dependent on adults for a much longer period than other children, or even permanently. Language development may lag behind that of his peers as well, as he will
tend to have less to talk about and may be sheltered to the extent that his needs are readily anticipated. Social development may also be adversely affected as he has less opportunity to mix with other people or play with other children. Lewis (1987) states: 'Because they are often relatively immobile compared to their peers, the physically handicapped are particularly likely to be socially isolated'.

Thus a deficit of the motor system threatens to disrupt many other areas of development.

A somewhat similar pattern holds whatever the impairment may be. In the case of visual impairment the child's lack of vision will mean that a very important channel for learning about the world is lost, and learning will be further retarded by her lack of motivation to move in the absence of visual stimuli and the difficulty of moving about safely. Lewis (1987) notes that blind children are delayed in many aspects of their motor development including reaching forward, rolling and pushing up to sitting, as well as standing and walking independently. This lack of movement, as well as fear on the part of others that the child will come to harm, may in turn disrupt her social development as she is likely to mix less with other people, particularly children. Blindness imposes greater dependency on others which may retard emotional development unless skilfully handled.

The blind child's language development may also be delayed. Burlington (1979) found that the vocabulary of blind children develops more slowly than that of sighted children. The blind child will have less experience than other people of the world around her and thus less to talk about. Lewis (1987) notes that blind children have a qualitatively different experience of the environment than other people, including their parents and immediate carers. This may inhibit the acquisition of language as language is often heavily based on what we see, particularly when we interact with young children.

The notion that blind people have superior touch and hearing appears to be a misconception. Lewis (1987) states that: '... there is no evidence to support the claim that the sensory apparatus of the blind child is actually more acute; she just uses the senses she has more effectively'.

She goes on to explain that blind children are inferior to sighted children on a wide range of tactile and auditory tasks, although this inferiority lessens as the children get older. Sighted children, when blind-folded, tend to do better than blind children on many tasks. Lewis suggests that this is because sight helps us to integrate information from all our senses and make sense of our other experiences. Thus lack of sight clearly has the potential to retard the cognitive development of blind children. Murphy and O'Driscoll (1989) make a strong case for the involvement of physiotherapists in the lives of young visually impaired children and their carers.

One advantage that some congenitally disabled people have over those who acquire a disability is that the brain of a young child is physiologically and anatomically malleable and will tend to develop in such a way as to maximize function. Thus a young child who injures the area of his brain responsible for language has the potential to regain this skill. This process is less successful when the brain is more mature. Similarly, the visual centre of
the brain of a baby born with defective eyes, is likely to develop in such a way as to maximize vision. This is not possible if a similar eye condition is acquired later in life. This explains why it is so important that children, with disabilities such as these, be encouraged to function within their area of impairment as much as possible provided this does not become a burden to the child. It also explains why a temporary period of loss, for example of sight or hearing, can be so detrimental, for it may occur at a particularly critical stage in the development of the brain.

Walker and Crawley (1983) state that the development of disabled children can be normal, absent, delayed, abnormal or compensatory. In the last case the child may find an unusual way of achieving her goals, for example using her feet to manipulate objects rather than her hands, or using audible signals, which most people ignore, to compensate for lack of sight. Examples of abnormal development are rocking backwards and forward, which is sometimes seen in blind children, and self-injurious behaviour, sometimes witnessed in children with learning difficulties. Abnormal development can often be explained in terms of an interaction between the impairment and the environment; the blind child may rock because she is under-stimulated and the self-injurious behaviour of the child with learning difficulties, may be a symptom of frustration or boredom. Until recent times many disabled children were subjected to impoverished environments which in themselves can give rise to many adverse secondary effects (Oswin, 1978; Shearer, 1980).

The situation of the child with cerebral palsy and the blind child are summarized in Figure 28.1.

![Diagram](image_url)

**Figure 28.1** Diagram to show the areas of development which may be disrupted or delayed in a child with cerebral palsy and a blind child.
This sequence of events is not inevitable but rather depends upon the limitations imposed by the impairment, parental and societal attitudes and behaviour, the individual characteristics of the child, available resources and the social and physical environment in which the child and his family are placed. The situation will, of course, be complicated if the child has multiple disabilities (see Brudenell, 1986).

As well as the threat of disruption to all areas of development which a disability imposes, the disabled child will be treated as a disabled person and socialized into a particular role during his formative years. This may have an adverse effect on his confidence and self-esteem, as with Sarah (Campling, 1981) who always felt that her brothers and sisters were more intelligent than she was. (For further information on the disabled role the reader is referred to Chapter 15.)

An important aspect of the physiotherapist's role is to minimize or prevent developmental delay by informing parents of the potential problems and working with them to devise developmental programmes specific to each child. For example the parents or carers of a blind child may be helped to enter into his experience of touch and sound and relate to him in terms of these senses. They can be helped to provide the opportunities for him to mix with other children and encourage early language development so that the world around him can be explained more effectively. The parents or carers of a child with a physical disability may be shown ways of positioning her so that she can gain as much stimulation as possible from the environment by looking and listening, and can be encouraged and helped to give her as much social experience as possible, as well as stimulating whatever motor abilities she may have.

The effective clinician will need to have a sound understanding of the disability in all its aspects, as well as a good relationship with the child and his family. She will need to be imaginative, innovative and prepared to listen and learn from the parents or carers of the child, who have far more contact with him than she does. As the child grows older he will have much to teach the physiotherapist too. She will need to consult members of the family when suggesting interventions and devising developmental programmes to ensure that they fit into family routines and will not become unduly stressful or too much of a burden for any family member.

Lewis (1987) provides detailed information of the development of children with a wide range of disabilities as well as interventions which may be used to enhance development and minimize detrimental effects.

The person who acquires a disability in later childhood or adult life has the advantage that his development has been 'normal' up until that point. For example, if someone becomes deaf in adulthood, he will already have acquired language and the ability to read and write fluently. Similarly the person who loses his sight in later life will have full knowledge of the visual world on which to draw. His mobility and orientation will, in fact, frequently surpass that of congenitally blind people although skills such as braille reading tend to be more difficult to acquire. Lewis (1987) notes that his experience of sight may help him to use his other senses more effectively.
People who become disabled in old age, by far the majority, may find their situation particularly difficult owing to the fact that they frequently have multiple disabilities. Thus the elderly person who starts to go deaf may also have a virtual impairment, and the person who becomes paralysed following a stroke may already have arthritis or a heart complaint. The older person who becomes paraplegic may simply not have sufficient physical strength to manage as a younger person might. It is important, however, not to be 'ageist', many elderly people cope with disability as effectively as younger people. (For further information on ageism and cognitive changes in older people the reader is referred to Chapters 5 and 19.)

Although childhood is the period in life of most rapid development, it should not be forgotten that people continue to develop throughout life and therefore those who acquire a disability in adulthood may find their social, emotional and cognitive opportunities and development under threat. The person who acquires a disability may also become disadvantaged in areas not directly related to it. For example, a person who is ataxic following a head injury, may fail to find suitable employment, even though he knows he is quite capable of working, or he may fail to integrate fully in society because of the attitudes and behaviour of others, leading him to become isolated and lonely.

The person who acquires a disability moves from the role of non-disabled person to that of disabled person, often very abruptly. It has been suggested that this can give rise to psychological reactions similar to those of the mourning process. Kübler-Ross (1969) presented a five stage model of psychological adjustment to death and dying. The stages she described were denial, anger, bargaining, depression and acceptance. Burnfield (1985) and many others believe this process to be similar to the psychological reactions required to adjust successfully to acquired disability. As noted in Chapter 15, however, this reaction is by no means inevitable, and the assumption that it is has been challenged by Oliver (1983). The person may, in fact, report that her life has changed for the better, or her difficulties may relate more to social and physical barriers than to the impairment itself. Lonsdale (1990) points out that the assumption that disabled women are asexual has advantages and disadvantages; on the one hand it may affect adversely their self-image but on the other it frees them from sexist expectations. Often the change in life which the disability brings is regarded as equally as satisfying as life before the disability arose. Sarah, featured in Morris’ book (1982) explains that: ‘As a result of becoming paralysed, life was changed completely. Before my accident it seemed as if I was set to spend the rest of my life as a religious sister but I was not solemnly professed so was not accepted back into the order. Instead I am now very happily married with a home of our own’.

Disabled health professionals, including physiotherapists, also report advantages as well as disadvantages to being disabled (French, 1988a, 1990; O’Hare, 1990). The person’s reactions to disability will depend on many factors including social support, the attitudes and behaviour of others, his own coping strategies and how much the disability interferes with the kind of life he wants to lead.
Many people who acquire a disability suddenly, however, do report that the experience was profoundly disruptive and disturbing. Maggie in Campling's book (1981) recalls: 'I felt I had little to offer anyone and rather than face rejection, I avoided people. Grieving over the lively gregarious woman I had once been'.

Similarly Barbara writes: 'The sense of numbed shock, of powerlessness, anxiety and loss of direction, was my first reasoned response when the realization that I was partially paralysed penetrated my brain. . . . Anger — a feeling that my body was now flawed, no longer as God meant it to be — and frustration succeeded'.

Maggie, who had similar feelings about going deaf believes that the intensity of her reaction was probably the result of negative attitudes she had acquired about disability as a non-disabled person. She states: 'Whichever way I turned to think, the negative answer that I was deaf seemed to destroy any shred of hope. I can only think that I learned to expect so little from my future because I somehow soaked up these prevailing attitudes towards women with disabilities as a hearing woman . . .'.

It is clear from other accounts of disabled women in Campling's book, that those with congenital disabilities can also suffer a similar psychological upheaval when they realize the implications of their disability. Micheline recalls the day when she realized she would always be disabled: 'That momentous day I suddenly realized that my life was not going to be like that at all. I was going to be the same as I had always been — very small, funnily shaped, unable to walk. It seemed at that moment that the sky cracked. . . . The next two years seemed like a dark roller-coaster ride, sometimes happy, often plunging into despair. My main preoccupation seemed to be desperately trying to deny the awareness of my difference which had started on that day'.

Accounts such as these show that the notion of people with congenital disabilities 'not knowing what they are missing', is untrue and probably serves the purpose of making non-disabled people feel more comfortable and less responsible and helpless, as well as denying that anything substantial needs to be done to improve the situation of disabled people. Of course the blind person knows what she is missing as she waits for a bus on a cold, dark night while everyone else jumps into their cars, and of course the physically disabled person knows what he is missing when denied access to the theatre, the library or the public toilet. In a similar way, disabled people are often assumed to have qualities and attributes to compensate for their loss, such as the supposed cheerfulness of people with learning difficulties or the bravery of those in wheelchairs. Such notions, on closer examination, prove to be false. The range of attributes possessed by disabled people is the same as those possessed by non-disabled people.

People who acquire disabilities frequently experience serious problems with their relationships, Burnfield (1985) mentions that marriages often break down under the stress of multiple sclerosis especially if they were under strain beforehand. The disabled person may need to build a new self-image, cope with being more dependent on others for her everyday needs and change direction in occupation and leisure activities. Shakespeare (1975) states:
'A handicap acquired later in life involves a somewhat different type of realization, in general much more rapid than the realization of congenital handicap. In this case the self-concept has to be altered and with severe disability a totally new one has to be acquired. Alongside this process, others who knew him before he became handicapped need to get to know him again. People in the position of becoming handicapped in later life generally report that interaction is easier with new acquaintances than with those who were known previous to the handicap.'

To suggest such a profound change in the individual following the onset of disability is probably somewhat exaggerated. Morris (1989) found that for many of the women with spinal cord injuries she spoke to, life went on much the same as it had before their accident or illness. However, those who acquire a disability, particularly if its onset is rapid, are probably more likely than those with congenital disabilities or those who develop disabilities more slowly, to feel an acute sense of loss and a need to change many aspects of their lives. People with acquired disabilities may also see the disadvantages of their position in society more clearly than those who have always been disabled, because of their past experience as non-disabled people.

When attempting to assess and respond effectively to the psychological reactions manifested by a disabled person it is important to attempt to distinguish psychological reactions to the disability from psychological reactions resulting from the physiological and pathological changes of the disease or injury. People following a stroke or traumatic head injury, for example, may become aggressive, forgetful or depressed. Psychological changes can also occur in diseases such as multiple sclerosis and Huntington's chorea. Sometimes it is the medications people are taking which produce these effects and frequently the interaction of several different factors are responsible for the person's state of mind. As noted above the physical and social environment can also have a profound effect on the individual's psychological state.

HOW VISIBLE IS THE DISABILITY?

Various researchers have shown that people with a less obvious or hidden disability have more social difficulties than those with a more visible disability. This is so even though the less obvious disability is often less severe in terms of function. Gulliford (1971) found that children with severe disabilities were better adjusted than those with less severe disabilities and Cowen and Bobrove (1966) found that both deaf and blind people were better adjusted than partially hearing or partially sighted people. The deaf and blind people saw themselves as being less rejected and more accepted than the partially hearing and partially sighted people and saw less discrepancy in terms of themselves as they would like to be and themselves as they really were. Davis (1964) found that the more clearly defined and visible the disability, the greater the facility with which the disabled individual and non-disabled people adjust to each other and Albrecht et al. (1982) believe that the major factor in producing social distance between disabled and non-disabled people, is the degree of
disruption to social interaction. Söder (1991) develops the argument that poor interaction between disabled and non-disabled people is due, not to prejudice on the part of non-disabled people, but to ambivalence.

The person with a hidden disability is in the position of being able to decide whether or not to reveal it. In every situation she has to determine how her disability will be received, whether or not it is relevant to mention it, how likely it is to be discovered and what the consequences of that discovery will be. The person with a more obvious disability is only free to make such decisions if her communications are not face-to-face, for example when filling in a form or speaking on the telephone – assuming that her disability does not involve speech and language.

Revealing a disability or hiding it, has the potential for both positive and negative outcomes (Figure 28.2).

<table>
<thead>
<tr>
<th>Positive outcomes</th>
<th>Negative outcomes</th>
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<tbody>
<tr>
<td><strong>Reveal disability</strong></td>
<td><strong>Disable person</strong></td>
</tr>
<tr>
<td></td>
<td><strong>is accepted</strong></td>
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<tr>
<td><strong>Hide disability</strong></td>
<td><strong>Disability is</strong></td>
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<tr>
<td></td>
<td><strong>never discovered</strong></td>
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<tr>
<td></td>
<td><strong>Disability is discovered</strong></td>
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**Figure 28.2** Outcomes of revealing or hiding a disability.

In reality hiding a disability is rarely a positive experience, even if it is never discovered, because the process of hiding it is usually very stressful, the individual cannot ask for what she needs and must constantly try to avoid situations where the disability may become obvious, or be ready with excuses and explanations if it does. The partially hearing person, for example, may pretend to be absent-minded, the person with slight ataxia, clumsy and the person with a learning disability, who finds it difficult to cope socially, introverted. The more social stigma the person feels the more likely he is to try and conceal his disability. The alternative labels (absent-minded etc.) also tend to be derogatory but, for the people concerned, less so than their real disabilities.

It is interesting to note that on occasions the person may portray herself as having another, less discrediting, disability. In the novel *Judgement in Stone* by Ruth Rendell (1978), for example, Eunice Parchman, who cannot read, pretends to have very poor sight and is in a constant state of anxiety in case her excellent vision and her real disability are discovered. Similarly those found guilty of crimes may plead ‘diminished responsibility’ or amnesia as an alternative label to ‘criminal’. This has been a feature of some famous murder trials.
Physiotherapy: a psychosocial approach

Sometimes the hiding of a disability may become so habitual that the person really does take on the characteristics of the alternative label. For example the visually impaired person who avoids parties and outings in case her disability is discovered may, over the years, become rather isolated and lacking in social skills. She may gradually start to view herself as a person who prefers to be alone.

Scambler (1984), writing in relation to people with epilepsy, has questioned the degree to which stigma is ‘real’ rather than ‘felt’. He found that only rarely do people’s perceptions of their stigmatized situation arise from instances of negative discrimination. He states that: ‘. . . felt stigma, and especially the fear of enacted stigma, was typically the source of more personal anguish and unhappiness than was enacted stigma’. And, ‘. . . felt stigma was in its own right a profound and lasting, if intermittent, source of unease, self-doubt and disruption in people’s lives’.

Other problems which arise for those with a hidden disability, are that help is not always offered when needed, or is inappropriate when given. Those with visible disabilities are not entirely without such problems either, as people are generally poorly informed about disability whatever its degree (McConkey and McCormack, 1983). However, there must be more potential for people to respond appropriately to a person’s disability if they can see what it is. This can make disguising impairments, for example by using elaborate prostheses, a problem and a psychological burden for some disabled people (Sutherland, 1981).

Given that concealing a disability is a stressful and difficult process, and yet is still regarded as the best option by many of those whose disabilities make it possible, it follows that the problems of having an obvious disability must be equally as bad, or perhaps worse. The problems which people with obvious disabilities face concern the tendency of others immediately to label them as ‘disabled’ with all the misconceptions that the label implies.

The disability is considered to be the person’s most important attribute, obscuring all others, and the fact that it interacts with other attributes and characteristics is generally ignored. This can have serious consequences when trying to find employment, gain acceptance on a college course or make friends. Most of all the reactions of others can be both humiliating and demoralizing. Sue, featured in Campling’s book (1981) explains: ‘My weak grasp on my identity was no real match for the massed forces of society who firmly believed themselves as “normal” and myself just as firmly as “abnormal”. I found myself inhabiting a stereotype. I became my illness. I was of interest only because of it. And as a person in a wheelchair I elicited embarrassment, avoidance, condescension, personal questions. . . . Going out became a nightmare. I was public property. People either staring intently into my face or looking away’. And Barbara states: ‘Quite often I find that there is the added problem of the wheelchair or crutches becoming a psychological barrier between the outside world and the disabled person. They are obvious and the user is quickly recognized as “a disabled person”. This barrier is difficult to break down and it usually takes time and patience before you are accepted as a normal human being and the disability disregarded’.
The person with a hidden disability has the opportunity to make contact before it is revealed. As it is extremely difficult totally to conceal a disability, however, the situation must be managed carefully or she may find herself with another, perhaps more stigmatizing, label, such as unfriendly or unintelligent.

It should also be appreciated that many people with obvious disabilities also have hidden ones. Take the person with paraplegia, for example, although the fact of his paraplegia is obvious, in as much as he is seen to be using a wheelchair, the associated problems of impotence and incontinence, which may be present, are not obvious. Julie, featured in Campling’s book (1981) explains: ‘In intimate relationships there is always that first moment when the mechanics of your bladder management are revealed. This is the major test. How will he react to a mature woman who wears plastic knickers, pads and requires help going to the loo’.

Burnfield (1985) speaks of the hidden disabilities associated with multiple sclerosis, such as fatigue, blurred vision and sensory disturbances. These problems are frequently misunderstood and made more incomprehensible because of their fluctuating nature.

The situation for people with sporadic disabilities, for example those with epilepsy, is rather different; they are ‘normal’ most of the time but when their impairment manifests itself it may be either obvious to others or relatively hidden. Despite the fact that 80% of people with epilepsy have the condition totally or well controlled by drugs (British Epilepsy Association), it remains a disability with a great deal of stigma attached to it which can lead to an urgent need to conceal it.

HOW COMPREHENSIBLE IS THE DISABILITY TO OTHERS?

The functional ability of disabled people is often markedly affected by the situations in which they find themselves. Thus the partially hearing person may only be able to understand speech when in a situation free from background noise and when the person with whom she is attempting to communicate has a voice of a particular pitch. She may communicate well on the telephone but not in social situations, be able to hear the voices of men but not women and may complain that noises or voices are too loud even though she cannot understand what is being said. Her situation is perhaps less easy to understand than that of a profoundly deaf person who cannot hear speech in any circumstance. A partially sighted person may function entirely differently according to the lighting; rushing around confidently in overcast conditions but needing to be guided on bright, sunny days (French, 1988b). Similarly a person with a heart complaint may use a wheelchair on some occasions but not others.

Because the functional ability of disabled people varies so much according to environmental conditions, their situation is difficult to comprehend. This is a particular problem for those with relatively hidden disabilities but there is much confusion surrounding more obvious disabilities too. The blind person, or the person with an unsteady gait, for example, are likely to function more
Physiotherapy: a psychosocial approach

A person will be more competent in a familiar than an unfamiliar environment, and a person in a wheelchair will be less disabled in an environment suited to his needs. The social environment must also be considered: the deaf person may well cope with communication better if the atmosphere is friendly and supportive and the person with a tremor may find that it becomes worse if he is hurried or feels that people are unsympathetic. This has major implications when assessing disabled people.

Because of this confusion the behaviour of the disabled person is often interpreted in terms of intellectual or personality deficits. For example the child with slight ataxia may be reprimanded for being careless or teased for being clumsy, or the partially hearing person, who fails to reply, may be considered hostile and unfriendly. Shearer (1981) quotes a man with multiple sclerosis who found people kind and generous when he was eventually compelled to use a wheelchair but before he reached that stage they usually thought he was drunk. The person seen to read a magazine on the ward who insists that she needs help to find her way to an adjoining hospital block, the old person who can hear what the doctor says but not the nurse, or the man who manages to walk in the ward but insists that he cannot walk outside, are probably not being 'awkward' at all; at least that is only one of several possible interpretations.

To complicate the situation still further, impairments placed within the same category or arising from the same condition or disease, rarely produce identical manifestations. These manifestations can, in fact, be extremely diverse. Thus one partially sighted person may be able to see colour and rely on it a great deal, while another may be colour blind; the first person may function best in bright light but the second when the light is dim (French, 1988b). People classed as 'epileptic' have different types of fits and the manifestations of those with head injury, or those diagnosed as having multiple sclerosis, can be very different. Further ambiguities and confusion can arise because conditions and diseases, which are not particularly similar, are often confused, for example mental handicap and mental illness, rheumatoid arthritis and osteoarthritis, 'nervous' diseases and 'psychiatric' illness.

These manifestations of disability are poorly understood and tend to be individualized. This is epitomized in the notion that disabled people with less severe disabilities have an inner identity crisis, not knowing whether to associate with disabled or non-disabled people. As Shakespeare (1975) states:

'A basic dilemma of the handicapped person is that of which group he belongs to, whether he should identify himself with "the handicapped" or to what extent he should consider himself part of normal society. He finds he is a member of society but different from most other members. Hence he is often unsure where he belongs . . . it has been suggested that the severely handicapped experience less stress here, as they are clearly handicapped and have fewer opportunities of choice. The psychological position of the less severely handicapped has been referred to as "marginality", as they are between total disability and normality.'

Although some disabled people may believe this to be the case, the roots of the problem almost certainly lie in the response of others, who cannot
understand or cope with the complexities of a partial disability. The notion that the population can be neatly divided into those with and those without disabilities, or that a choice has to be made regarding which group to belong to, can also be challenged.

It is very important that the physiotherapist understands the differing psychological and social situations of people with hidden and obvious, severe and less severe disabilities. Without such knowledge practice will be less effective and misunderstandings and misinterpretations will lead to poor communication and ineffective rehabilitation.

**IS THE DISABILITY ASSOCIATED WITH ILLNESS?**

Many disabled people are extremely fit and healthy but for others their disability is associated with illness. Illness can be defined as the subjective feeling of being unwell and may include symptoms of pain, breathlessness, tiredness and vertigo. Some conditions which may give rise to disability, for example, rheumatoid arthritis, and glaucoma, are associated with considerable pain. Pain, particularly when prolonged, has the potential to cause anxiety and depression. This can give rise to a vicious circle as both states of mind tend to heighten the perception of pain. Bond (1984) states: 'Pain, especially if chronic, brings feelings of depression and those that become depressed easily may not only sink emotionally but simultaneously experience more pain... at the same time they show reduced ability to cope with it'.

Prolonged pain, even if not particularly severe, tends to take the joy out of life. Peck (1982) states that, '... the whole range of activities which previously seemed exciting begins to seem dull and uninteresting'. This lack of activity means that time hangs heavily and depression is intensified. Peck (1982) believes that feelings of having little control over the situation also contribute to depression. Davison and Neale (1990) point out that anxiety and depression frequently coexist.

Pain is intrusive and the person experiencing it will find it very difficult to concentrate on anything properly or cope with physical or social demands. He will probably mix with other people less and have little to talk about, or talk only about his pain. In time his company will become less rewarding to others who may withdraw or cope with the situation by denying the reality of his pain. Peck (1982) believes that this can lead to a cycle of resentment and guilt as well as feelings of anger and irritability on the part of both the person in pain and his family. The situation is often exacerbated by lack of sleep.

Morris (1989), in her book about the experiences of women with spinal cord injuries, devotes an entire chapter to the subject of pain. She states: 'One in four of us experience pain which is so serious that it curtails our activities or confines us to bed for all or part of the time. Pain does not seem to follow any set pattern for any particular level of lesion, whether cervical, thoracic or lumbar, or whether complete or incomplete'.

Anita, who is featured in this book complains that: 'The common reaction from professionals and lay people is: 'If you can't feel, how can you have
CONCLUSION

In the last analysis, every disabled person is an individual who will respond to her situation in a unique way. However, by considering aspects of disability, such as when it was acquired, how visible it is, how clear it is to others and whether or not it is associated with illness, it is possible to gain a greater understanding of the difficulties disabled people face. Other factors, such as whether or not the condition is progressive, how certain the prognosis is and how socially acceptable the disability is to others, can also provide valuable insights. Without this knowledge there will inevitably be a lack of understanding between physiotherapists and disabled people which will interfere with the success of treatment and rehabilitation; this chapter provides a few leads but the best way to learn about the experience of disability is to talk to disabled people themselves.
REFERENCES


Index

Acceptance of disability, 223
Accident proneness, 306
Achievement,
motivation and, 295
Acquired immunodeficiency disease (AIDS),
198, 253
death from, 229
in drug users, 313
epidemic of, 230
Addiction, 313–23
adaptive hypothesis, 318
behavioural patterns in, 319
control of, 320, 321
deviancy amplification and, 320
health risks, 313
illegal substances, 316
medically prescribed drugs, 317
psychological, 313, 318
secondary effects of, 313
social and political considerations, 318
socially available drugs, 314
withdrawal symptoms, 314
Age,
affecting mental ability, 275
disability and, 216
effect on hearing and sight, 277
effect on intelligence, 274
effect on memory, 279, 280, 281
emphasis on, 66
learning affected by, 279
Ageing, 67, 273–85
primary, 273
secondary, 273
Ageism, 59–70
attitudes of professionals, 65
in carers, 68
combating, 68
definition, 59
language of, 60
manifestation of, 59
relevance to physiotherapists, 66
self-fulfilling prophecy in, 65
Aggressive behaviour, 384, 385
Alcohol,
adiction, 313, 314, 319, 383
environmental factors, 321
genetics of, 317
withdrawal symptoms, 315
amnesic disorder, 315
control of drinking, 320
intoxication, 314
Alzheimer's disease, 277
Anger,
in dying, 231
Antibiotics,
overuse of, 11
Anxiety, 369, 387, 388
about hospitals, 180
burnout and, 190
communication and, 182
effect of placebos, 358
illness and, 181
information and, 182
information helping, 182
in intensive care units, 184
learning and, 292
pain and, 149, 150, 164, 182, 358
postoperative, 182
preoperative, 181, 182
in terminal illness, 234
Arthritis, 6, 253
Assertiveness training, 371
Asthma, 331
Asylums, 7
numbers in, 7
Athletes,
injured, 304
See also Sport, injuries
personality, attention and, 308
stages of acceptance, 308
overtraining, 310
psychology of, 303
relationship with physiotherapists, 307
stress among, 307
Autistic children, 268
Back care education, 195
Behaviour, 295
changing, 299, 371
control of, 123
culture and, 50
definitions, 50
effect of brain damage on, 338
environment and, 371
locus of control, 121, 124
in old age, 63
theory of reasoned action, 123
Behavioural approach to counselling, 370
Behavioural theory of somatoform disorder, 335
Behaviourism,
health models and, 199
Behaviour modification, 379, 383
in anxiety, 388
in brain injury, 384
ethics of, 154
form pain relief, 154

405
Bereavement, 236-43
coping phase, 237
cultural factors, 239
denial in, 238
effects of, 4
funeral rituals, 238
guilt feelings in, 237
health during, 239
immune system and, 240
medical check-up during, 241
mental health during, 239
mourning period, 238
physiotherapy and, 241
shock in, 237
use of relaxation, 241

Biofeedback, 385
in anxiety, 388
in physiotherapy, 387

Birthweight, 47

Blindness, 72, 218, 220, 395
in children, 391, 392
hysterical, 324, 334

Blood pressure, 386

Body, control mechanisms, 386
Body language, 102

Brachial plexus injury, 146

Brain, connections, 349
frontal lobe damage, 341, 342
function of lobes, 340
injury to, See Brain damage
locating function, 345
processing function, 342
recognizing function, 344
regions of, 340
selective function, 341
sensory input to, 342
spatial attention by, 346
spatial decoding by, 345

Brain action function, 347

Brain damage, 384
affecting language, 343
cognitive and perceptual defects following, 338-51
effect on behaviour, 338
rehabilitation after, 338, 342

Breast cancer, 21, 251, 252, 254
Breathlessness, 401, 402
Briquet's syndrome, 334
Brontosclerosis, 23
Burnout, 189-91
prevention of, 190

Caesarean section, 11, 32, 37
Caffeine, 316
Cancer, 230
incidence of, 5, 6
seeking medical help, 252
See also Breast cancer etc.
Cannabis, 316, 320

Cancer, 230
incidence of, 5, 6
seeking medical help, 252
See also Breast cancer etc.

Caring professions, stress in, 185

Cerebral cortex, motor areas, 348
Cerebral palsy, 268, 390, 392
Cervical screening, 24
Child abuse, 265
Childbirth, 36, 47, 145

Children, abilities at birth, 258
assessment by physiotherapists, 257, 264
attention and concentration in, 260
blindness in, 391, 392
cognitive development of, 260, 262
death of, 238
development of, 256
cognitive, 260, 262
delay in, 264, 265, 268
disablement and, 392
disability in, 38, 266, 390
schooling and, 76, 78
emotional development, 263
in hospital, 266
illness in, 266-9
interdisciplinary team for, 269
parent/professional partnership, 269
impairments, 218
improvement of facilities for, 28
language development, 262
normal development, 258, 390
pain in, 147, 150
physiotherapy for, 267
psychological assessment, 265
psychological development, 256
screening, 263
sensorimotor milestones, 257
delay in, 265
social development of, 263
visual impairment, 391
with epilepsy, 254

Cholera, 10

Clinical interview, 128-43
arrangement of furniture in, 133
coding patient's response, 129
communication in, 100
defining problems, 135
definition of, 128
Clinical interview (cont.)
- effectiveness of, 141
- environment of, 134
- facial expression in, 132
- factors involved, 128
- hostile behaviour of patient, 139
- impression management, 133
- jargon in, 138
- listening in, 131, 132
- non-verbal communication in, 131
- probing and prompting, 138
- questions, 135
- relevant information, 130
- responding to patient, 139
- semi-structured approach, 131
- social class affecting, 135
- social desirability effect, 133
- social psychology of, 131
- social skills training for, 140
- structured, 129
  - dangers of, 130
  - patient’s reaction to, 130
  - questions in, 136
- types of, 128, 129
- unstructured, 130
- questions in, 136
- verbal communication in, 132

Clinical tutors,
- aims of, 287, 289, 291
- attitudes to teaching, 298
- definition of, 286
- knowledge of students, 293
- relationship with students, 292
- students’ views of, 298
- styles of learning, 290

Clinics,
- attendance rates, 118

Cocaine, 316

Code of ethics, 92

Code of morality, 93

Cognitive development of child, 260

Cognitive dissonance, 359

Cognitive neuropsychology, 340

Cognitive processes, 273

Colour, 43

Commonwealth,
- migration from, 43

Communication, 98–112, 113–27, 167
- about death, 233
- adherence and non-adherence to advice, 117, 118, 119
- anxiety and, 182
- appearance and, 105
- as relationship, 100
- benefits of, 110
- body language, 102
- breakdown of, 200
- in clinical interview, 100
- definitions, 98
- during counselling, 368
- effect of anxiety on, 181
- eye contact in, 102, 103, 368
- facial expression in, 102

Communication (cont.)
- failure of, 99
- for health professionals, 98
- gender differences in, 101
- gestures and posture in, 104
- health belief model, 120, 124
- increasing understanding, 116
- layout of treatment rooms and, 103
- listening in, 100, 140, 372
- locus of control, 121, 124
- memory and, 113
- methods of, 201
- misunderstandings, 107
- non-verbal, 100, 102, 140
  - in clinical interview, 131
  - in counselling, 368
- non-verbal vocalizations in, 104
- paralanguage in, 104
- patient satisfaction and, 105, 106, 116
- process of, 99
- recall in, 106, 113, 115
- recovery rate and, 107
- role of patient, 108
- role of silence, 105, 134
- sexism in, 101
- skills, 148
- spacial behaviour in, 103
- in sport, 307
- teaching, 109
- therapeutic relationships, 100
- touch in, 104, 133
- training in, 98, 99, 140
- understanding and, 113
- uniforms in, 133
- use of interpreters, 101
- verbal, 100, 132
- vocabulary and, 115
- with ethnic minorities, 101
- written material in, 116

Community, 73
- concept of, 73
- disabled people in, 78

Community care, 71
- concept of, 73

See also Community living

Community living, 71–85
- compared with institutional living, 74
- definition of, 74

Compensation neurosis, 333

Competition,
- mental aspects of, 302

Conditioned responses, 380

Conditioning, 379
- applications, 383
- classical, 380
- operant, 381, 383
- reinforcement, 382, 383, 384
- time out procedure, 384
- token economy in, 383

Confidentiality, 89, 134

Consequentialism, 83, 94, 95

Consumerism,
**Index**

<table>
<thead>
<tr>
<th>Page</th>
<th>Term</th>
<th>Definition or Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>408</td>
<td>Consumerism (cont.)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>in health care, 101</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Contraception, 33</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Conversion disorder, 324, 333</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Coronary heart disease, 23, 254, 324</td>
<td></td>
</tr>
<tr>
<td></td>
<td>campaign against, 200, 203</td>
<td></td>
</tr>
<tr>
<td></td>
<td>incidence of, 21, 22</td>
<td></td>
</tr>
<tr>
<td></td>
<td>social class and, 18</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Counselling, 364–78</td>
<td></td>
</tr>
<tr>
<td></td>
<td>approaches to, 364</td>
<td></td>
</tr>
<tr>
<td></td>
<td>assertiveness training in, 371</td>
<td></td>
</tr>
<tr>
<td></td>
<td>behavioural approach to, 370</td>
<td></td>
</tr>
<tr>
<td></td>
<td>characteristics of, 367</td>
<td></td>
</tr>
<tr>
<td></td>
<td>client-centred approach, 367</td>
<td></td>
</tr>
<tr>
<td></td>
<td>cognitive approach, 369</td>
<td></td>
</tr>
<tr>
<td></td>
<td>endings, 375</td>
<td></td>
</tr>
<tr>
<td></td>
<td>eye contact in, 368</td>
<td></td>
</tr>
<tr>
<td></td>
<td>for pain, 153</td>
<td></td>
</tr>
<tr>
<td></td>
<td>genetic, 263</td>
<td></td>
</tr>
<tr>
<td></td>
<td>growth during, 368</td>
<td></td>
</tr>
<tr>
<td></td>
<td>listening in, 373, 374</td>
<td></td>
</tr>
<tr>
<td></td>
<td>modelling in, 372</td>
<td></td>
</tr>
<tr>
<td></td>
<td>non-verbal communication in, 368</td>
<td></td>
</tr>
<tr>
<td></td>
<td>psychoanalytic approach, 364</td>
<td></td>
</tr>
<tr>
<td></td>
<td>reflecting in, 373, 374</td>
<td></td>
</tr>
<tr>
<td></td>
<td>relationship, 366</td>
<td></td>
</tr>
<tr>
<td></td>
<td>skills of, 373</td>
<td></td>
</tr>
<tr>
<td></td>
<td>systemic desensitization, 372</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Counter-transference, 366</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cross roads Care Attendant Scheme, 82</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Culture,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>behaviour and, 50</td>
<td></td>
</tr>
<tr>
<td></td>
<td>definition of, 42</td>
<td></td>
</tr>
<tr>
<td></td>
<td>pain perception and, 146</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Culture of poverty, 24</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Culture shock of minorities, 52</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Day centres, 77, 82</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Deafness, 223, 394, 396</td>
<td></td>
</tr>
<tr>
<td></td>
<td>oralism and, 218</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Death, 229–36</td>
<td></td>
</tr>
<tr>
<td></td>
<td>as taboo subject, 229</td>
<td></td>
</tr>
<tr>
<td></td>
<td>attitudes to, 232</td>
<td></td>
</tr>
<tr>
<td></td>
<td>physiotherapists and, 230</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Decision-making, 371</td>
<td></td>
</tr>
<tr>
<td></td>
<td>in counselling, 372</td>
<td></td>
</tr>
<tr>
<td></td>
<td>by disabled, 225, 226</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ethical, 86–97</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dementia, 61</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dental health,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>improvements in, 22</td>
<td></td>
</tr>
<tr>
<td></td>
<td>social class and, 18</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Deontology, 89, 90, 94, 95</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dependency, 37</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Depersonalization, 89</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Depression, 366, 369</td>
<td></td>
</tr>
<tr>
<td></td>
<td>effect of placebos on, 358</td>
<td></td>
</tr>
<tr>
<td></td>
<td>in intensive care units, 184</td>
<td></td>
</tr>
<tr>
<td></td>
<td>in old age, 63</td>
<td></td>
</tr>
<tr>
<td></td>
<td>pain and, 150, 164, 358</td>
<td></td>
</tr>
<tr>
<td></td>
<td>in terminal illness, 232</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Depth perception, 339</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Desensitization, 372</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Diabetes, 47, 54, 329</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Diarrhoea, 1, 10</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Diet, 248, 249</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Disability and disabled, 6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>acceptance and adjustment, 223</td>
<td></td>
</tr>
<tr>
<td></td>
<td>age and, 216</td>
<td></td>
</tr>
<tr>
<td></td>
<td>associated with illness, 401</td>
<td></td>
</tr>
<tr>
<td></td>
<td>behaviour and, 400</td>
<td></td>
</tr>
<tr>
<td></td>
<td>changing attitudes, 217</td>
<td></td>
</tr>
<tr>
<td></td>
<td>child development and, 392</td>
<td></td>
</tr>
<tr>
<td></td>
<td>children with, 38, 218, 266</td>
<td></td>
</tr>
<tr>
<td></td>
<td>schooling and, 76, 78</td>
<td></td>
</tr>
<tr>
<td></td>
<td>decision-making and, 225, 226</td>
<td></td>
</tr>
<tr>
<td></td>
<td>definition of, 37, 214–28</td>
<td></td>
</tr>
<tr>
<td></td>
<td>administrative, 214</td>
<td></td>
</tr>
<tr>
<td></td>
<td>by charitable organizations, 215</td>
<td></td>
</tr>
<tr>
<td></td>
<td>lay, 216</td>
<td></td>
</tr>
<tr>
<td></td>
<td>medical, 214, 217–19</td>
<td></td>
</tr>
<tr>
<td></td>
<td>medical and social in conflict, 220</td>
<td></td>
</tr>
<tr>
<td></td>
<td>self, 219</td>
<td></td>
</tr>
<tr>
<td></td>
<td>financial cost of, 80</td>
<td></td>
</tr>
<tr>
<td></td>
<td>freedom of choice and, 222</td>
<td></td>
</tr>
<tr>
<td></td>
<td>hidden, 397, 398, 399</td>
<td></td>
</tr>
<tr>
<td></td>
<td>independence and, 220</td>
<td></td>
</tr>
<tr>
<td></td>
<td>individualizing, 217, 219, 223</td>
<td></td>
</tr>
<tr>
<td></td>
<td>inequality of help for, 80</td>
<td></td>
</tr>
<tr>
<td></td>
<td>institutional life for, 79</td>
<td></td>
</tr>
<tr>
<td></td>
<td>language, 61</td>
<td></td>
</tr>
<tr>
<td></td>
<td>in late childhood, 393</td>
<td></td>
</tr>
<tr>
<td></td>
<td>living in community, 78</td>
<td></td>
</tr>
<tr>
<td></td>
<td>locus of control and, 122</td>
<td></td>
</tr>
<tr>
<td></td>
<td>manifestations of, 400</td>
<td></td>
</tr>
<tr>
<td></td>
<td>negative attitudes towards, 223</td>
<td></td>
</tr>
<tr>
<td></td>
<td>normality and, 222</td>
<td></td>
</tr>
<tr>
<td></td>
<td>normalization for, 79</td>
<td></td>
</tr>
<tr>
<td></td>
<td>old age and, 62, 394</td>
<td></td>
</tr>
<tr>
<td></td>
<td>others comprehension of, 399</td>
<td></td>
</tr>
<tr>
<td></td>
<td>planning services for, 83</td>
<td></td>
</tr>
<tr>
<td></td>
<td>pressure groups for, 82</td>
<td></td>
</tr>
<tr>
<td></td>
<td>psychology of, 218, 390</td>
<td></td>
</tr>
<tr>
<td></td>
<td>relationships and, 394</td>
<td></td>
</tr>
<tr>
<td></td>
<td>patient with health worker, 224</td>
<td></td>
</tr>
<tr>
<td></td>
<td>role of, 221</td>
<td></td>
</tr>
<tr>
<td></td>
<td>role of health professionals, 223</td>
<td></td>
</tr>
<tr>
<td></td>
<td>segregation and, 225</td>
<td></td>
</tr>
<tr>
<td></td>
<td>self-help groups for, 82</td>
<td></td>
</tr>
<tr>
<td></td>
<td>situation in 'normal' society, 78</td>
<td></td>
</tr>
<tr>
<td></td>
<td>sociological issues, 390</td>
<td></td>
</tr>
<tr>
<td></td>
<td>time of occurrence, 390</td>
<td></td>
</tr>
<tr>
<td></td>
<td>understanding of, 216</td>
<td></td>
</tr>
<tr>
<td></td>
<td>visibility of, 396</td>
<td></td>
</tr>
<tr>
<td></td>
<td>women and, 37</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Disability movement, 220, 224, 226</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Discrimination, 59</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Disease,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>causation, 28, 247</td>
<td></td>
</tr>
<tr>
<td></td>
<td>lay theory, 253</td>
<td></td>
</tr>
<tr>
<td></td>
<td>changing nature of, 1–15</td>
<td></td>
</tr>
<tr>
<td></td>
<td>personality, stress and, 330</td>
<td></td>
</tr>
<tr>
<td></td>
<td>psychological element, 324</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Displacement, 365</td>
<td></td>
</tr>
</tbody>
</table>
Doctors,
creating illness, 203
visits to, 251
women as, 34
Doctor/patient relationship, 164
placebo effect and, 354, 356
social class and, 135, 164
types of, 171
Down's syndrome, 268
Drug addicts,
life style of, 313
Drugs,
See also Addiction etc.
illegal, 316
medically prescribed, 317
socially available, 314
Dying, 229–36
See also Death
denial in, 231
emotions in, 231
hopes, needs and fears, 233
pain relief in, 234
physiotherapy in, 236
stages in, 230
Dysarthria, 262
Dysentry, 10
Dyspraxia, 262

Education, 28
concept of, 208
health and, 4
Elderly
See also Old age, Ageism etc.
behaviour of, 63
care of, 61
differences in, 274
in ethnic minorities, 61
increase in numbers of, 62
in institutions, 67
living productive lives, 63
locus of control in behaviour, 122
overloading mental resources, 282
self-concept, 283
working with, 282
Emotional development, 390
Emotional problems,
learning and, 212
Emotions, 147
child development of, 263
of patients, 139
Endorphins,
release of, 358
Environment,
behaviour and, 371
for learning, 296
placebo response and, 354
stress and, 325, 329
Epilepsy, 166, 398, 400
children with, 254
Ethical decision making, 86–97
Ethical principles, 86, 88–90, 91
in physiotherapy, 87
Ethics,
approaches to, 88
to situations, 94
beneficence and non-maleficence, 88
case study, 93
code of, 92
help from, 92, 93
consequentialism, 89, 94, 95
deontological approach to, 89, 90, 94, 95
of health care, 86
hierarchical levels of, 90
making decisions, 86–97
of nursing, 86, 87
objectivity and, 90
of placebos, 356, 361
in physiotherapy, 357
principle of autonomy, 91, 94
Ethnic minorities,
childbirth among, 47
current situation of, 44
culture shock in, 52
fertility of, 45
communication with, 101
GPs consultation time with, 55
health of, 46
health beliefs and illness behaviour, 52
hospitals and, 55
hypertension in, 49
illness among, 47, 54
immunization in, 55
infant mortality among, 48
living conditions, 46
mental health among, 50
minor psychiatric morbidity in, 52
mortality rates, 46, 47
old people in, 61
rickets in, 49
somatization in, 53
stress among, 52
tuberculosis among, 49, 50
understanding language, 101
use of health services, 54
working conditions, 46
Ethnic stereotyping, 43
Ethnicity,
definition of, 42
health and, 42–58
illness and, 48
poverty and, 45
social disadvantage and, 45
Eudaimonia, 205
Exercise, 249, 310
Eye contact,
in communication, 102, 103
in counselling, 368
Eye movements, 345
Facial expression,
in clinical interview, 132
in communication, 102
Fatigue,
in multiple sclerosis, 402

409
Index

Health (cont.)
education and, 4
effect of housing on, 25
ethnicity and, 42–58
ethnographic perspective, 247
government activity and, 26
illness model of, 204
in Britain, 5
inequalities of, 16–30
artefact explanation, 22
behaviour and culture and, 23
implications for physiotherapists, 28
materialistic explanation, 24
natural selection and, 23
reasons for, 22–8
international comparisons, 21
maintenance of, 249
material and behavioural factors, 27
measurement of, 17
mechanistic model of, 196
medical contribution to, 9
medicine and, 13
mental ability and, 277
methods of improvement, 13
negative view of, 201, 202, 204
of ethnic minorities, 46
paternalistic approach to, 297
philosophy of, 206
physiotherapy practice and, 194–213
psychological effects and, 4
recent improvements in, 21
regional inequalities in, 20
role of medicine in, 21
sex differences in, 19, 31, 32
social class and, 16, 17, 22
social mobility and, 23
stressful occupations and, 329
in Third World, 8
WHO definition, 204
Health belief model, 120, 124, 244
concepts of, 246
problems of, 245
Health care,
consumerism in, 101
ethics of, 86
ethnicity and, 42–58
gender and, 31–41
inequality and, 101
use of, 54, 168
woman's experience of, 33, 36
Health education,
concept of, 206, 208
current practice, 205
physiotherapy and, 194–213
sociological models of, 202
status of, 202
target groups for, 195
Health locus of control, 245
concept of, 246
of physiotherapists, 246
problems of, 245
Health professionals,
ageist attitudes, 65
Index

Health professionals (cont.)
as communicators, 99
attitude towards pain, 147, 148
change in attitudes, 38
communication skills, 98
death and, 242
definition of disability, 215
pay of, 35
placebo effect and, 354
relationship with disabled, 224
relationship with patients, 209, 364
role of, 201
sex distribution of, 34
terminal illness and, 230
training in communication, 99
view of patients, 33
use of,
by ethnic minorities, 54
sex differences, 161
social class and, 162
Health workers,
duties of, 207
Hearing,
age affecting, 277
See also Deafness
Heart attacks, 253
Heart disease, 5, 6, 23
among ethnic minorities, 47
incidence of, 21, 22
social class and, 18
Hepatitis,
from drug abuse, 313
Heroin, 316
Holism, 206
Hospice care, 234, 235, 236
Hospitals,
children in, 266
distressing aspects of, 180
ethnic minorities and, 55
stress and, 179
Housing,
effect on health, 25
of ethnic groups, 46
warden assisted, 82
Hypertension, 329, 331
biofeedback in, 386
in ethnic minorities, 49
Hypnosis for pain, 153
Hypnotic drugs, 317
Hysterectomy, 32, 107
Hysteria, 324, 333
Iatrogenic disease, 12
Illness (cont.)
behaviour models, 168
in Britain, 5
broad view of, 162
causation of, 177
changing nature of, 115
characteristics of symptoms, 161
in children, 266
parent/professional partnership, 269
psychological effects, 267
chronic, 176
coping with, 179
creation of, 203
definitions of, 161, 250
demands imposed by, 175
ethnicity and, 48
financial cost of, 80
iatrogenic, 12
inactivity, 250
lay concept of, 250–4
legitimizing, 167
old age and, 62
past experience of, 178
patient's perception of, 175, 177, 178
professional definitions of, 167
response to, 160
social and cultural factors, 11, 161, 177
somatization in, 53
stress and, 174
terminal See Terminal illness
in Third World, 8
vulnerability, 246
Illness behaviour, 33
Illness iceberg, 160
Illness model of health, 204
Immigration to Britain, 43
Immune system, 240
Immunization, 55, 121
Impairment,
definition of, 37
rehabilitation, 72
Independence,
disability and, 220
physiotherapist's concept of, 221
Industrial accidents, 5
Infant mortality, 16
in West Indians, 48
social class and, 18
Infectious diseases, 1, 2, 3, 9, 10
decline in, 10
Information,
given to patient, 106
helping anxiety, 182
holding back on, 109
Injury,
battle, 145
road traffic, 145
Institutionalization, 76, 77, 81
Institutional neurosis, 76, 77
Institution,
as community home, 72
attitudes of staff, 75, 76, 77
care in, 71–85
Index

Institution (cont.)
definition of, 71, 74
dislike of, 79
functions of, 72
improved environment in, 76
improvements in, 67, 79
inflexibility in, 76
isolation of, 75
isolation of residents in, 75, 76
living in,
  compared with community living, 74
dependence and, 75
respite care in, 77
staff of, 75, 77
treatment in, 72
Integrated living team, 225
Intelligence,
definition of, 274
effect of ageing on, 64, 274
learning and, 289
rate of change, 276
Intensive care units,
anxiety, fear and depression in, 184
physiotherapists in, 108
stress caused by, 183
Intensive care unit syndrome, 184
Interpreters, 101
Interview See Clinical interview
Intoxication, 314
Inverse care law, 163
Jargon in interview, 138
Korsakoff's syndrome, 315
LSD, 314
Labour migration, 44
Language,
  brain damage affecting, 339, 343
development of, 262
  blindness and, 391
  of ageism, 60
Lay referral system, 163
Learning,
age affecting, 279
anxiety and, 292
behaviourist theory, 287
in clinical setting, 286–301
cognitive theories of, 287, 290
competition and co-operation in, 294
difficulties, 217, 221, 268
emotional problems and, 292
environment and, 296
extroversion and, 289
Gestalt theory, 288
holists and serialists, 291
individual differences in, 289
intelligence and, 289
interest enjoyment and, 294
motivation and, 293
Learning (cont.)
  needs of students and patients, 288
  by observation and participation, 288
  prior academic performance and, 289
  prior knowledge and, 287
  reinforcement and, 293
  styles of, 290
  success and, 294
  theories of, 286
  transfer of, 289
  in ward situation, 297
Life events,
stress of, 328
Life expectancy, 16
  sex differences, 19, 32
  social class and, 17
Listening,
in clinical interview, 131, 132, 140
in communication, 100
in counselling, 372, 373
Locus of control, 121, 124, 245
  concept of, 246
  problems of, 245
Loneliness, 64
Lung cancer, 5, 23
  incidence of, 21
  smoking and, 319
Malnutrition, 1, 2
  in Third World, 9
Manchester Coalition of Disabled People, 82
Marijuana, 316, 320
Maternity, 36
Maternity services, 36
Medical education,
  social perspective, 12, 13
Medical procedures causing stress, 180
Medicine,
  changes in, 11
  effectiveness of, 12
  public health and, 12
  role in health, 10, 13, 21
  women in, 34
Memory,
  communication and, 113
  in old age, 279, 282
  process of, 279
  recall, 281
  recency effect, 115
  short and long-term, 114, 280
  storage, 114
  two process model, 114
Mental ability,
  age affecting, 275, 277, 278
  health status and, 277
Mental handicap, 71, 217
Mental hospitals, 7, 51
Mental illness, 71, 219
  incidence of, 6
  in ethnic minorities, 50, 52
  sex differences, 19
  social class and, 18
<table>
<thead>
<tr>
<th>Index</th>
<th>413</th>
</tr>
</thead>
<tbody>
<tr>
<td>Migraine, 331, 387</td>
<td></td>
</tr>
<tr>
<td>Migration from Commonwealth, 43</td>
<td></td>
</tr>
<tr>
<td>Minority status, 43</td>
<td></td>
</tr>
<tr>
<td>Misunderstanding by patient, 115</td>
<td></td>
</tr>
<tr>
<td>Mobility allowances, 214</td>
<td></td>
</tr>
<tr>
<td>Moral choices, 86, 88</td>
<td></td>
</tr>
<tr>
<td>Moral panics, 320</td>
<td></td>
</tr>
<tr>
<td>Moral principles, 91</td>
<td></td>
</tr>
<tr>
<td>Morality, code of, 93</td>
<td></td>
</tr>
<tr>
<td>Morbidity, definition of, 17</td>
<td></td>
</tr>
<tr>
<td>in ethnic minorities, 46</td>
<td></td>
</tr>
<tr>
<td>international comparisons, 21</td>
<td></td>
</tr>
<tr>
<td>measurements, 5</td>
<td></td>
</tr>
<tr>
<td>regional differences, 20</td>
<td></td>
</tr>
<tr>
<td>sex differences, 19, 31, 32</td>
<td></td>
</tr>
<tr>
<td>social class and, 26</td>
<td></td>
</tr>
<tr>
<td>Morphine, 316</td>
<td></td>
</tr>
<tr>
<td>Mortality rates, 3</td>
<td></td>
</tr>
<tr>
<td>as measurement of health, 17</td>
<td></td>
</tr>
<tr>
<td>decline in, 2, 4, 9</td>
<td></td>
</tr>
<tr>
<td>ethnic minorities, 46, 47</td>
<td></td>
</tr>
<tr>
<td>international comparisons, 21</td>
<td></td>
</tr>
<tr>
<td>regional differences, 20</td>
<td></td>
</tr>
<tr>
<td>sex differences, 19, 31, 32</td>
<td></td>
</tr>
<tr>
<td>social class and, 17, 18, 20, 22</td>
<td></td>
</tr>
<tr>
<td>Motivation, achievement and, 295</td>
<td></td>
</tr>
<tr>
<td>learning and, 293</td>
<td></td>
</tr>
<tr>
<td>positive and negative reinforcement, 293</td>
<td></td>
</tr>
<tr>
<td>Motor cycle accidents, 5</td>
<td></td>
</tr>
<tr>
<td>Motor impairment, 339</td>
<td></td>
</tr>
<tr>
<td>Mourning, 238</td>
<td></td>
</tr>
<tr>
<td>funeral rituals and, 238</td>
<td></td>
</tr>
<tr>
<td>Multiple sclerosis, 395, 400, 402</td>
<td></td>
</tr>
<tr>
<td>Music, effect on pain, 155</td>
<td></td>
</tr>
<tr>
<td>Myocardial infarction, 122</td>
<td></td>
</tr>
<tr>
<td>National Health Service, 3</td>
<td></td>
</tr>
<tr>
<td>distribution of resources, 20</td>
<td></td>
</tr>
<tr>
<td>pay in, 35</td>
<td></td>
</tr>
<tr>
<td>Neural tube defects, 20</td>
<td></td>
</tr>
<tr>
<td>Neurological disease, 6</td>
<td></td>
</tr>
<tr>
<td>Nocicebo effects, 257, 259</td>
<td></td>
</tr>
<tr>
<td>Normality, disability and, 222</td>
<td></td>
</tr>
<tr>
<td>Normalization, concept of, 79</td>
<td></td>
</tr>
<tr>
<td>Nurses, learning on ward, 297</td>
<td></td>
</tr>
<tr>
<td>stress among, 185</td>
<td></td>
</tr>
<tr>
<td>Nursing, ethics of, 86, 87</td>
<td></td>
</tr>
<tr>
<td>Objectivity, ethics and, 90</td>
<td></td>
</tr>
<tr>
<td>Obstetrics, 47</td>
<td></td>
</tr>
<tr>
<td>Occipital lobe damage, 346</td>
<td></td>
</tr>
<tr>
<td>Occupational accidents and disease, 25</td>
<td></td>
</tr>
<tr>
<td>Old age, 6, 273</td>
<td></td>
</tr>
<tr>
<td>See also Ageing, Elderly etc.</td>
<td></td>
</tr>
<tr>
<td>depression in, 63</td>
<td></td>
</tr>
<tr>
<td>disability and, 62, 216, 394</td>
<td></td>
</tr>
<tr>
<td>illness and, 62</td>
<td></td>
</tr>
<tr>
<td>intelligence in, 64</td>
<td></td>
</tr>
<tr>
<td>isolation in, 66, 75, 76</td>
<td></td>
</tr>
<tr>
<td>loneliness in, 64</td>
<td></td>
</tr>
<tr>
<td>medical priorities in, 68</td>
<td></td>
</tr>
<tr>
<td>memory in, 279, 281, 282</td>
<td></td>
</tr>
<tr>
<td>misconceptions of, 62</td>
<td></td>
</tr>
<tr>
<td>negative perceptions of, 60, 61, 67</td>
<td></td>
</tr>
<tr>
<td>personality and, 64</td>
<td></td>
</tr>
<tr>
<td>poverty and, 60</td>
<td></td>
</tr>
<tr>
<td>problems of, 62, 67</td>
<td></td>
</tr>
<tr>
<td>rejection and isolation in, 63</td>
<td></td>
</tr>
<tr>
<td>sexuality in, 65</td>
<td></td>
</tr>
<tr>
<td>One parent families, 25</td>
<td></td>
</tr>
<tr>
<td>Operant conditioning, 381, 383</td>
<td></td>
</tr>
<tr>
<td>Optic ataxia, 346</td>
<td></td>
</tr>
<tr>
<td>Oralism, 218</td>
<td></td>
</tr>
<tr>
<td>Osteomalacia, 49</td>
<td></td>
</tr>
<tr>
<td>Overtraining, 310</td>
<td></td>
</tr>
<tr>
<td>Pain, 144-59, 401</td>
<td></td>
</tr>
<tr>
<td>anticipation of, 149</td>
<td></td>
</tr>
<tr>
<td>anxiety and, 149, 150, 164, 182, 358</td>
<td></td>
</tr>
<tr>
<td>avoidance behaviour and, 151</td>
<td></td>
</tr>
<tr>
<td>behavioural responses to, 145, 151, 154</td>
<td></td>
</tr>
<tr>
<td>biofeedback for, 152</td>
<td></td>
</tr>
<tr>
<td>bodily and spiritual, 144</td>
<td></td>
</tr>
<tr>
<td>in children, 147, 150</td>
<td></td>
</tr>
<tr>
<td>cognitive processes and, 151</td>
<td></td>
</tr>
<tr>
<td>communication and, 148</td>
<td></td>
</tr>
<tr>
<td>compensation claims and, 155</td>
<td></td>
</tr>
<tr>
<td>confidence and morale in, 155</td>
<td></td>
</tr>
<tr>
<td>counselling for, 153</td>
<td></td>
</tr>
<tr>
<td>depression in, 358</td>
<td></td>
</tr>
<tr>
<td>effect of music on, 155</td>
<td></td>
</tr>
<tr>
<td>fear of, 155</td>
<td></td>
</tr>
<tr>
<td>gate theory, 144</td>
<td></td>
</tr>
<tr>
<td>group therapy for, 154</td>
<td></td>
</tr>
<tr>
<td>health professionals' attitude towards, 147, 148</td>
<td></td>
</tr>
<tr>
<td>hypnosis for, 153</td>
<td></td>
</tr>
<tr>
<td>intensity of, 144</td>
<td></td>
</tr>
<tr>
<td>monitoring, 147</td>
<td></td>
</tr>
<tr>
<td>'normal', 149</td>
<td></td>
</tr>
<tr>
<td>patient's control of, 149</td>
<td></td>
</tr>
<tr>
<td>perception of, 132</td>
<td></td>
</tr>
<tr>
<td>anxiety and, 149, 150</td>
<td></td>
</tr>
<tr>
<td>culture and, 146</td>
<td></td>
</tr>
<tr>
<td>depression and, 150, 164</td>
<td></td>
</tr>
<tr>
<td>factors involved, 145</td>
<td></td>
</tr>
<tr>
<td>past experience and, 148</td>
<td></td>
</tr>
<tr>
<td>personality and, 145</td>
<td></td>
</tr>
<tr>
<td>social context and, 145</td>
<td></td>
</tr>
<tr>
<td>state of mind and, 149</td>
<td></td>
</tr>
<tr>
<td>phantom limb, 402</td>
<td></td>
</tr>
<tr>
<td>postoperative, 147</td>
<td></td>
</tr>
<tr>
<td>private and public, 144</td>
<td></td>
</tr>
</tbody>
</table>
Index

Pain (cont.)
- psychology of, 144, 152
- relief of, 152–6
  - in terminal illness, 234
- sociology of, 144

Paralanguage, 104

Paraplegia, 394, 399

Pareital neglect, 347

Pareital lesions, 345, 346

Parkinson's disease, 277

Patients,
- adherence and non-adherence, 113, 117, 118, 119
- amount of information given to, 106
- attitude to physiotherapists, 123
- belief about health, 246
- changing behaviour of, 199
- compliance, 113
- control of pain by, 149
- costs and benefits of being, 163
- 'difficult', 107
- emotions, 139
- expectation of placebos, 358
- good and bad, 107
- holding back information, 109
- hostility, 139
- increasing understanding of, 116
- lay referral system, 163
- misunderstanding, 98, 107, 115
- past experiences of, 166
- perception of, 194
- perception of illness, 120, 175, 177, 178
- physiotherapists and, 123, 172, 288, 364
- Psychological stress and, 164
- reaction to structured interview, 130
- reasons for being one, 160–73
- relationship with health workers, 209
- responding to, 139
- role of, 165, 166
  - in communication, 108
- satisfaction, 105, 116
- self-treatment, 122
- well informed, 117

Peptic ulcer, 329, 331

Perfectionism, 369

Person,
- concept of, 207

Personality,
- old age and, 64
- pain and, 145
- somatoform disorder and, 335
- stress and, 330, 332

Phobias, 374, 383, 387

Physiotherapists,
- as educators, 286
- burnout in, 189, 190
- career development causing stress, 188
- code of ethics, 92
- men as, 35, 39
- power of, 123
- relationship with disabled, 227
- relationship with patients, 123, 172, 288, 364

Placebos, 352–63
- as challenge, 355
- as gift, 355
- as ransom, 356
- definition of, 352
- ethics of, 356, 361
- impure, 352, 357
- objections to, 356
- patient's expectations and, 358
- physiotherapists and, 357
- pure, 352
- reduction of anxiety by, 356
- releasing endorphins, 358
- side-effects, 357
- use of, 355, 361

Placebo effect, 318
- cognitive dissonance and, 359
- colour of drug affecting, 353
- conditioning and, 359
- doctor/patient relationship and, 356
- environment and, 354
- physiotherapy and, 361
- role of health professional in, 354
- time span, 354
- understanding, 358
- variation in, 353

Pneumonia, 5

Pollution, 26

Population,
- growth of, 8
- Post-traumatic stress syndrome, 333
- Posture in communication, 104

Poverty, 1
- culture of, 24
- ethnicity and, 45
- extent of, 25
- old age and, 60
- population growth and, 8
- pregnancy and, 25
- tuberculosis and, 50

Pregnancy, 33, 36
- poverty, 25

Preventive medicine, 12, 13, 24, 121, 194
- ethnic minorities and, 55
- locus of control and, 122

Privacy, 108

Professional conduct, 92

Professional ethics, 86,
- See also Ethics

Professional socialization, 295

Psychological treatment, 365, 379–89

Psychophysiological disorders, 324–37
- definition of, 331
- evolution theory of, 332
- psychoanalytic theory, 332
- somatic weakness theory, 331
- specific-reaction theory, 331
- treatment, 336

Psychothes, 51
Psychotherapy, 379
Public health, 2, 3
   clinical medicine and, 12

Race,
   See also Ethnicity etc.
   definition of, 42
   stereotypes, 43
Racial discrimination, 45
Racial problems, 44
Racism, 45, 55
Reasoned action,
   theory of, 123
Recovery rate,
   communication and, 107
Rehabilitation, 235
   after brain damage, 338, 342
   after sports injuries, 306
   after stroke, 345
Rehabilitation centres, 72
Rehabilitation programmes,
   sex differences in, 38
Relationships,
   causing stress, 186
   communication and, 100
Relatives as carers, 80
Relaxation therapy, 387
   in bereavement, 241
   in relief of pain, 152
Resentment in dying, 231
Respiratory disease, 5, 6
Respite care, 77, 82
Retirement, 60, 64
Rheumatoid arthritis, 176, 401
Rickets, 49
Road traffic accidents, 5, 26
   alcohol and, 315
   injuries from, 145
   sex differences in, 32
Rogerian therapy, 367
Role stress, 187

Schizophrenia, 51, 166
Screening for disease, 11, 48, 263
Self,
   description of, 372
   perceived and ideal, 368, 374, 375
Self-acceptance, 374
Self-awareness, 374
Self-concept in old age, 283
Self-help groups, 167
Senile,
   definition, 61
Senile dementia, 62
Sensory input to brain, 342
Sensory perception in old age, 278
Sexism in communication, 101
Sexual dysfunction, 383
Sheltered accommodation, 82
Shock in bereavement, 237
Sickle cell anaemia, 48, 55

Sick role, 169
   in acute illness, 170
   as manipulative tool, 166
   criticism of, 170
   specific functions of, 168, 169
   value of, 171
Silence,
   in clinical interview, 134
   in communication, 105
Simultanagnosia, 341
Sleep disorders,
   in bereavement, 240, 241
Smoking,
   See Tobacco smoking
Social class, 16
   classification, 17
   clinical interview and, 135
   dental health and, 18
   doctor/patient relationship and, 26, 135,
      164
   food and health beliefs and, 249
   health and, 16, 22
   health differences in, 17
   heart disease and, 18
   infant mortality and, 18
   life expectancy and, 17
   mental illness and, 18
   morbidity and, 26
   mortality rates and, 17, 18, 20, 22
   stress and, 26
   suicide and, 18, 19
   use of health service and, 162
Social development in children, 263
Social desirability effect, 133
Social health, 202
Socialization,
   professional, 296
Social mobility, 23
Social psychology of sport, 303
Social security, 45
Social skills, 140
Social support, 177
   for stress, 187, 330
   from physiotherapy, 177
Sociology, 13
Somatization, 334–6
   in ethnic minorities, 52
Somatoform disorders, 324–37
   psychological treatment, 336
Spatial attention, 340
Spatial coding, 345
Speech development, 262
Spina bifida, 268
Spinal injuries, 38
Sport,
   accident proneness in, 306
   communication in, 307
   injuries, 302, 304
   attention and, 308
   experience of, 308
   internal and external factors, 306
   personality and, 308
   prediction of, 309
Index

Sport (cont.)
psychological component, 306
rehabilitation, 306
stress and, 309
overtraining, 305, 310
psychologist, 302–5
staleness, 310

Starvation, 1, 2

Stereotypes, 100
cultural, 146
definition, 59
physiotherapists and, 81

Stereotyping, 148
role of, 43

Stress, 3, 4, 164, 165, 174–93, 325–31
in athletes, 307
coping with, 27, 330
definition of, 325
development of, 326
effect on bodily functions, 326
environment and, 325, 329
in ethnic minorities, 52
factors causing, 174
from medical procedures, 180
from surgery, 180
health screening and, 11
hospitalization and, 179
illness and, 174
independence and, 221
in intensive care units, 183
measurement of, 327
in nurses, 185
perceptual model of, 328
personality and, 330, 332
in physiotherapists, 185, 186, 187, 188, 329
relationships causing, 186
role of, 187
social class and, 26
social support for, 187, 330
sports injuries and, 309
in students, 292
work and, 185, 186

Strokes, 396
activity following, 347
incidence of, 6
rehabilitation after, 345

Students,
learning, 286
relationship with tutors, 292
state of mind, 291
stress in, 292
views on teaching, 297
suicide, 18, 19, 21

Support groups, 177

Symptoms,
characteristics of, 161
making sense of, 253
perception of, 169

Teaching,
in clinical setting, 286–301

Teaching (cont.)
students’ views on, 297

Tension, 331

Terminal illness, 230–3
See also Dying
anxiety in, 234
care in, 235
coping with, 179
depression in, 232
emotions in, 231
health professionals and, 230
palliative care, 235
physiotherapists and, 108, 235
stages of, 230
standards of care in, 234

Tests,
validity of, 130

Third World,
health and illness in, 8
medical care in, 11

Tobacco smoking, 13, 23, 27, 313, 319
addiction, 315
behaviour and, 28
control of, 322
culture and, 24
lung cancer and, 319
physiotherapists and, 28

Torticollis, 387

Touch in communication, 104, 133

Tranquillizers, 317

Transference, 366

Treatment,
adherence and non-adherence to, 113, 117, 118, 119

Treatment room, 103

Tuberculosis, 47 49, 50

Understanding,
increasing, 116

Unemployment, 45

Uniforms as communication, 133

Verbal comprehension, 348

Victim blaming, 24, 27
in geriatrics, 60
institutional staff and, 75

Vision,
impaired, 334
See also Blindness
rehabilitation, 72

Vitamin D deficiency, 49

Ward,
teaching and learning in, 297
Warden-assisted flats, 82

Wealth,
distribution of, 28

Wechsler Adult Intelligence Scale, 274

Wheelchairs, 216, 220, 283, 395, 398
Index

Women,
as carers, 33, 36, 73, 74, 79
as users of health care, 33, 36, 161
consulting doctors, 31, 32
disability and, 37
in medicine, 34
isolation in home, 56

Word deafness, 343
Work,
  stress and, 185, 186

Xerophthalmus, 1