PSYCHOLOGY APPLIED TO NURSING

The Psychology of Nursing Care

NEIL NIVEN WITH JILL ROBINSON

SERIES EDITOR: DAVE MÜLLER

The psychology of nursing care

Psychology Applied to Nursing series
Series editor: Dave Müller, Suffolk College

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The psychology of nursing care

Neil Niven

Head of Behavioural Science,
Faculty of Medicine and Dentistry
University of Newcastle upon Tyne, UK

with

Jill Robinson

Senior Research Associate,
Suffolk and Great Yarmouth College of Nursing and Midwifery, and Suffolk College, Ipswich, UK

Series Editor: Professor Dave Müller, Suffolk College, UK

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In memory of my father, Alexander Farquharson Niven, who helped during the preparation of this book, but unfortunately was unable to see the finished product

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Series Editor's Foreword

This book series is designed for the nursing profession and those responsible for teaching nurses on both pre- and post-registration programmes of study. The linking of the nursing curriculum with higher education and the implementation of Project 2000 has led to a radical revision of nurse education. Many nurses on pre-registration courses will be studying at degree level and will be gaining an academic qualification as well as entry to the nursing Register. These forward looking and exciting changes have led to the need to develop new reading material for nurses to progress both academically and professionally.

This is equally true for those nurses post-registration who are committed to enhancing their qualifications base. The expansion in higher education has led to a wide range of part-time degree courses for nurses as well as the linking of post-registration courses such as health visiting and district nursing with higher level academic qualifications. The introduction by the English National Board for Nursing, Midwifery and Health Visiting of the Higher Award for experienced professionals is an important step to facilitate continuing professional development for the nursing profession. This, in turn, has led to the need to bring together nursing and those disciplines akin to professional practice.

It has long been recognized that the study of psychology in applied contexts is of major importance both in learning to become a nurse and in moving towards becoming a reflective practitioner. Psychology as the scientific study of human behaviour provides a methodology through which individuals can evaluate the effectiveness of the provision of care within hospitals and the community. Psychology and nursing are both characterized by adopting a scientific and hence an empirical approach to the collection of information and using it to make informed decisions. The importance of research within the fields of psychology and nursing has led to psychologists and nurses working together both in terms of curriculum design and in carrying out research to help provide high standards of patient care.

All the books in the series are characterized by the emphasis placed on the critical examination of research evidence. Each volume aims to review current practice from a psychological perspective in the light of current research being undertaken by nurses as well as other

professionals. The authors, in bringing together this information, all seek to offer recommendations to inform nursing practice not in a prescriptive way but in a way in which nurses themselves can evaluate their practice. All the texts are ideal for students studying psychology and nursing for the first time and are written at the appropriate level for inclusion on reading lists for students studying at diploma and degree level. At the same time, the applied research nature of the texts makes them invaluable as a source to support nurses gaining further qualifications as part of their professional development.

The texts are contemporary, derived from a strong research base and written by authors with considerable experience of teaching nurses and working with them professionally. I hope that you enjoy this volume in the series and are attracted to the related texts which, taken together, provide nurses with a resource base from which to study psychology as applied to nursing.

Professor Dave Müller
Suffolk College, Ipswich

Foreword

Most nurses will agree that an understanding of psychology is an important outcome of current nurse education and that psychological theory contributes to effective nursing practice. Nursing is essentially an interactive occupation and considerable importance is given to the interpersonal aspects of therapeutic nurse–patient relationships. Psychology has a central role to play in understanding those relationships. It can assist in developing strategies to enhance patient care and help nurses understand patients' behaviour.

Fewer nurses, however, agree about what elements of mainstream psychology are most relevant to practice and whether or not they can simply be superimposed, unchanged, on nursing curricula. This is no less true for the many subject areas which contribute to an overall theory of nursing. However, the starting point of these others has been to ask what can a particular discipline offer to nursing practice, rather than the more appropriate question of what is it that nurses do and what do they need to know in order to do it better and improve patient care.

The whole issue of the role of disciplines like psychology was the topic of a memorable conversation I had on a long train journey with a sociologist who taught nurses from time to time. Nursing, he claimed, was not a discipline in its own right. What was taught under the broad umbrella of nursing theory was just a hotchpotch of theories, borrowed from the biological and behavioural sciences to articulate what was essentially a set of practical skills applied in a particular way to a range of different circumstances. If the journey hadn't been so long I might have let it pass as the uninformed comments of an outsider. I was, however, in no hurry, the train already being caught, and I chose instead to consider his perspective. In some respects he was right, but his analysis had captured only half the picture.

Nursing is, and must be, first and foremost a practice. It is about the behaviour of nurses towards patients and that behaviour is about both the actions of nurses and the thinking processes which generate and support those actions. The extent to which nursing is an academic discipline in its own right with its own empirically derived theory is quite rightly open to challenge. There is still insufficient nursing research which has generated evidence through direct observation of

what nurses actually do to adequately theorise nursing practice in the context of everyday workplace constraints.

The essence of my challenge was not to dispute that there is a central role for academic disciplines in nursing curricula, but that the mix and application of these subjects was *not arbitrary* but organised around nursing events and nurse–patient relationships to create something uniquely nursing in orientation.

By the time our journey had ended, we had reached some agreement that nursing theory was not merely an aggregate of free-standing elements of academic subjects which could be taught as such. We concluded that nursing practice could not easily be extricated from the subjects which underpinned it. What made the theory of nursing more than just a collection of borrowed theories was the unique mix of subjects, and the relationships which bound each subject to the *practice* of nursing and to each other in order to create a way of thinking quite different from a mere aggregate of its parts. It is no wonder then that separating out the parts to try and offer readers pure psychology with nursing tacked on has left many nurses and nursing students feeling alienated from the theoretical parts of their courses.

What nursing courses and the texts that support them need to provide is an explication of those aspects of psychology which nurses are required to understand and utilise in any given nursing context in order to practise most effectively. *That* is the starting point in this text. We have used examples of nursing care, not merely to illustrate the psychological concepts covered in this text as others have done, but rather as a guide for selecting what is most relevant to an applied psychology of nursing. This book has attempted to refine the application of psychology to nursing care by taking *nursing* as the guiding framework. In this context readers have been provided with a repertoire of psychological theories and skills which will be useful tools in solving uniquely nursing problems.

Jill Robinson
Department of Nursing Studies
Suffolk and Great Yarmouth College of Nursing and Midwifery
and
Suffolk College
Ipswich

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Introduction

If you happen to mention to someone who has never studied psychology that you are taking the subject as part of your nursing studies, you are likely to be met with two responses. The first is 'Psychology, eh? Bet you're analysing me then', and then, after you've explained a bit about the subject, the second response is 'Well, that sounds like common sense to me. Surely you don't have to be taught that?' The first response reflects the all too common view of psychology as a form of therapy used to make people better. Whilst some therapies are based on psychological principles, psychology has a much broader remit and can be defined as the 'science of human behaviour'. Psychology is similar to other sciences such as physics, chemistry and biology in that it also is based on a general set of methods, focusing on systematic observation and direct experimentation. We tend to be most familiar with the image of the scientist bending over his microscope and taking notes, yet the scientific method has been used to study other topics such as geography and archaeology as well. Just as the geographer would use a scientific approach to investigate the relationship of climate and natural resources with human culture, the same basic methods of science can be used by the psychologist to study many aspects of human behaviour. Different sciences employ different measuring devices and equipment but the methods they use are similar.

The comment that psychology is just common sense is another misconception. Consider the following wellknown sayings.

Opposites attract
Haste makes waste
Many hands make light work
Time and tide wait for no man
Out of sight, out of mind

In common-sense terms they all seem reasonable comments about the human condition. However, consider these other wellknown sayings.

Birds of a feather flock together
He who hesitates is lost
Too many cooks spoil the broth
Don't cross your bridges before you come to them
Absence makes the heart grow fonder

The second set of sayings seems to contradict the first, so which is correct? They all are. Sometimes opposites attract, and sometimes birds of a feather flock together – it depends on the circumstances. What psychology tries to do is to identify under what conditions opposites attract and under what conditions 'birds of a feather flock together'. By using the scientific method we can set up a study to investigate these sayings (see Chapter 2).

Exercise

You might like to ask a friend who hasn't studied psychology whether he or she thinks the following statements are true or false.

- Newborn babies do not really feel any pain.
- Women are more conforming and open to influence than men.
- The amount of time nurses spend talking to patients is directly related to the patients' sense of wellbeing.
- If you toss a coin and it comes up heads five times in a row, chances are that the next time you toss it it will be tails.
- It is always better to tell patients exactly what is going to happen to them.
- Intellectual ability declines in old age.
- Only some people dream every night.
- It usually takes many years to remedy strong irrational fears (for example, fear of needles, or of snakes).
- People who have emotional problems will always benefit from nurses who are willing to talk about their own experiences.

In fact, studies have found all of these above statements to be false, and all of these statements will be addressed in the text.

In order to investigate what constitutes a scientific approach to human behaviour, let us examine the suggestion that it is a good idea for nurses to reassure anxious patients by gently touching them on the arm whilst speaking to them. It might seem obvious that using touch to reassure patients is a good idea, but how do we go about finding out for sure?

The first step is to obtain a reasonably large sample of patients for our study, for if there are too few, they will not be representative of the general population.

We could just observe nurses touching patients and note their responses, but it would be much better to have two conditions: one where nurses touched patients, and one where they did not. We could then see if there were any differences between the two groups. Thus the next step is to randomly allocate our patients to the two conditions – touch and non-touch.

Having obtained our two conditions, it is necessary to examine how and under what circumstances the touching is going to take place. Let's decide that patients are understandably anxious whilst being given details of a forthcoming operation. Therefore the patients in the touch condition will be touched lightly on the arm while the nurse is giving them information about the operation, and the patients in the non-touch condition will be given the information by the nurse with no contact at all.

How do we measure whether touching is a good idea? We could just look at the patients' faces and see whether they look happy or not, but this would not be a particularly precise measure of 'reassurance'. There are several alternatives:

1. we might decide that blood pressure is a good indicator of anxiety and choose to measure it just after the information has been given;
2. alternatively, we could measure the time it takes each patient to recover from surgery and see if there are any differences between the two groups;
3. we may decide to ask the patients about their feelings towards the hospital after the operation;
4. all three.

It doesn't matter which one we choose, but it will determine the exact outcome of the investigation, for example 'The effects of touch on patients' blood pressure before surgery' or 'The effects of touch on time taken by patients to recover from surgery.'

Finally, it is very important to keep all the variables that we do not want to measure and which could affect the results of the study constant. Thus we would want to have exactly the same instructions given to each patient by the same person the same amount of time before the operation. We would like the patients to be having surgery for exactly the same medical conditions, and to be operated on by the same surgeon. In this way we would hope to control for any extraneous variable that might interfere with our experimental design.

Having constructed a basic design we might like to examine one or two additional variables, such as gender of nurse and patient. This would now produce the following four conditions.

1. Male nurse touches male patients.
2. Male nurse touches female patients.
3. Female nurse touches male patients.
4. Female nurse touches female patients.

By extending our conditions in this way we can investigate the effects of gender as well as touch on patients' responses to information about forthcoming surgery. (An experiment examining this topic is described in Chapter 1, and findings show that gender does make a difference.) difference.)

It is important to note that this is just one example of the scientific method; there are many different research techniques to suit a wide variety of psychological issues. See Polgard and Thomas (1991), and Hicks (1990), for a further discussion of experimental methods and techniques.

Psychology and nursing

There are distinct similarities between the scientific method as embodied in psychological research and as embodied in the nursing process. The nursing process is made up of four elements: *assessment, planning, implementation* and *evaluation.* These elements are similar to the processes involved in psychology: assessing the problem and locating it within a background of research; planning a course of action and experimentation; putting the plan into action; and finally evaluating the results in relation to the goals of the research and background literature.

Also, just as there are different models of nursing there are different models of psychology. In each case none of the models are either right or wrong; they merely represent different perspectives. Thus Peplau's (1988) model emphasises the importance of the interpersonal process between nurse and patient with both working together to solve problems, whereas Altschul (1978) prefers to use a systems approach (that is, analysing human behaviour as an individual system, a social system and a community/environmental system) towards nursing. Similarly, Orem's (1980) self-care model is concerned with human needs whereas Roy's (1980) model chooses to see patients as adapting to an ever-changing environment. Each perspective is valuable in its own right.

Likewise, psychology has a number of different perspectives. Social psychologists may investigate the effect on human behaviour of being a member of a group, whereas personality theorists prefer to explore the individual differences between people; developmental psychologists not surprisingly think it important to examine human behaviour as it changes throughout the life-span whilst behavioural psychologists tend to see behaviour purely in terms of what can be overtly observed. One might suggest that it would be particularly narrow to view both the discipline of psychology and the discipline of nursing from just one perspective.

The psychology of nursing care

Given that there are a number of different models in nursing and that the position is the same in psychology, it may seem an impossible task to 'marry the two together'. Attempts to decide 'what goes with what' often end up as a mish-mash of unrelated items with no coherent structure. Therefore, efforts to integrate the two disciplines have tended to concentrate on one to give a lead in providing a structural framework for integration. Early texts used psychology as the framework to examine the relationship between psychology and nursing. Thus books and articles followed the standard psychological format with sections on learning; memory; perception; motivation; personality; physiological psychology; cognition; language; social behaviour and so on. The basic principles of each area would be introduced, followed by some suggestions of how they might be used in a nursing context. The problems with this approach were that often much of the psychological content was not particularly relevant to nursing and because the relevant items were couched in a psychological framework it was difficult for nurses to relate the content to nursing practice.

This book attempts to use nursing as an organising framework, hence the title. There are a number of themes in the book which attempt to use both the nursing process and models of nursing care as their base, and these include the following.

The process of the delivery of care. The initial stage in this process is assessment and planning. In Chapter 6, the psychological factors that influence assessment and planning are discussed with reference to making decisions and solving problems. Chapter 2 discusses some of the mistakes that can occur and the biases which can be present when assessing patients. In Chapters 1, 7 and 8 the use of interpersonal skills, learning, memory and changing behaviour are examined as important features of the implementation process. Finally, evaluation appears as a central feature of all the chapters with specific sections evaluating the relevance of the studies for nursing care.

The systems approach. This theme involves analysing human behaviour as an individual system, a social system and a community/environmental system. Thus Chapter 4 deals with an individual perspective by investigating psychophysiological studies and differences in personality. Chapter 5 looks at the influence of groups and the family on behaviour and finally Chapter 12 concentrates on the role of the environment, community and culture. Just as nursing can be seen to concentrate on the individual as nested in a social and environmental context, so too can psychology.

A developmental approach. Here behaviour is viewed in the context of

the changes that occur throughout the life-span. Thus Chapter 3 deals specifically with children whilst Chapter 9 is concerned with the stages of adolescence, adulthood and old age.

Adaptation and competence. The final theme addresses the nurse's role as an agent of health promotion and education as well as treatment. It investigates the process of helping people adapt to their situation and develop the competence to deal with other situations. Chapters 10 and 11 deal with pain, stress, and life crises from a transactional perspective.

One of the problems of psychology, and perhaps of nursing too, is that there is a tendency to concentrate on people as isolated entities rather than viewing them in a wider social context. I hope the themes addressed in this book illustrate the psychology of nursing care in a much broader perspective. In order to interact well with people we have to know about ourselves as well as others, we have to see people not only as individuals but as members of groups, families and communities. Finally, we need to view care in the context of the development of competencies as well as just treatment.

Further reading

The following books give excellent introductions to the experimental methods and psychological skills involved in nursing care.

Hicks, C. (1990). *Research and statistics: A practical guide for nurses.* London: Prentice Hall.

Polgard, S. and Thomas, S. (1991). *Introduction to research in the health sciences.* 2nd edn. Melbourne: Churchill Livingstone.

1 *Interpersonal skills*

What makes a good nurse? If a representative sample of the population were asked to answer this question, one of the most common responses would be something like 'Well, a nurse has to be able to care for his or her patients'. Caring is a term often used to describe a general attitude towards people involving concern, empathy and expertise. Generally, most people agree that caring is important, but, when asked to determine how it can be developed, usually resort to the response that you are either born with the ability to care or you are not. Caring is not seen as something that can be taught.

This chapter will demonstrate that caring *can* be taught and, perhaps more importantly, will look at the ways in which a knowledge of interpersonal skills can improve the quality of patient care. Ryden *et al.* (1991) found that the helping skills of nursing students who had taken a course of interpersonal relations resembled those of experienced psychotherapists and crisis interveners.

A fundamental feature of communicating with other people is an understanding of ourselves as well as an understanding of those with whom we wish to communicate.

Self-esteem: the affective component of self

Self-esteem may be defined as the feelings, or evaluations, that people have regarding their self-worth. It is important to try to develop one's own self-esteem as well as that of others, for low self-esteem can lead to a number of problems, including the following.

- People with low self-esteem sometimes set themselves unrealistically high or low goals. They feel that if they set goals which are too high then they can't be blamed if they do not reach them. Similarly, setting goals which are too low enables them always to succeed. Both sets of behaviour lead to an overall fear of failure.
- Low self-esteem can lead to a tendency to be overcritical of a person's own behaviour and may result in a desire for perfectionism.

- Inevitably, low self-esteem produces a sense of undervaluation which is particularly apparent in social situations where comparisons with others are made.

- A need for approval or to be liked stems in part from having low self-esteem.

- People with low self-esteem run the risk of becoming over-conformist. They may feel that their opinions must be wrong if they are not the same as everybody else's.

On the other hand, people who have high self-esteem tend to believe that they have the resources to confront demanding situations. They feel that they have the strengths to meet the pressures of everyday life, and thus stressful events are perceived more as a challenge than as a threat. Positive regard for the self is an important ingredient in developing one's 'quality of life'.

Moretti and Higgins (1990) say that an important constituent of self-esteem is the degree to which a person's perceived characteristics match his or her concept of an ideal self. In effect, self-esteem asks the question *'Do you like yourself?'*. However, the most destructive feature of low self-esteem is the tendency to overgeneralise on the basis of one's failures. Kernis *et al.* (1989) studied a group of undergraduate students who had done either relatively well or relatively badly in their first exam. Those students who had been rated low in self-esteem and who had done badly in their exam experienced more negative emotions than those who had done badly but had been rated high in self-esteem. Individuals with low self-esteem overgeneralised the meaning of the poor result in the exam and tended to feel stupid, inadequate, hopeless and discouraged. This led to self-doubt about their ability which manifested itself in low motivation in subsequent exams. Individuals with high self-esteem accurately assessed the meaning of the poor result and were ashamed, scared, angry and disappointed. They attributed the result to lack of effort rather than lack of ability, and maintained high motivation to do better in subsequent exams.

Self-esteem can be increased by giving people rewards for the things that they have done well. Giving verbal 'pats on the back' and small presents for tasks that have been completed correctly serve to boost a person's self-concept. To increase your own self-esteem, it is a good idea to try to worry less about what other people think about you, or your ability, and try to make the same allowances for yourself as you do for other people. Determine to learn from mistakes rather than awarding self-blame and punishment.

Self-actualisation

Rogers (1971) believed that each person has an innate drive towards psychological growth. This drive leads ultimately to self-actualisation which Rogers defined as 'the fulfilment of all of an individual's capabilities and the achievement of all of a person's potential'. But how does one determine whether a person is self-actualised or not?

Maslow (1962) studied 49 people whom he admired and whom he thought might be representative of 'the self-actualised person'. Included in the group were two of his professors and such historical figures as Eleanor Roosevelt, Albert Einstein and Baruch Spinoza. He gathered his data by obtaining biographical information, and wherever possible interviewing friends, relations and, in some cases, the individuals themselves. On the basis of his data he proposed that self-actualised people share 16 characteristics:

- the ability to perceive reality accurately;
- the ability to accept reality readily;
- are natural and spontaneous;
- can focus on problems rather than on self;
- have a need for privacy;
- are self-sufficient and independent;
- are capable of fresh, spontaneous, non-stereotyped appreciation of objects, events, and people encountered in life;
- have peak experiences (spiritual or ecstatic experiences);
- identify with humankind, and experience shared social bonds with other people;
- have few or many friends, but will have deep relationships with at least some of these friends;
- have a democratic, egalitarian attitude;
- have strongly held values and do not confuse means with ends;
- have a broad, tolerant sense of humour;
- are inventive and creative, and able to see things in new ways;
- resist the pressures of conformity to society;
- are able to transcend dichotomies, bringing together opposites.

Maslow (1972) suggested that some of the behaviours likely to lead to self-actualisation include:

- taking responsibility for events;
- experimenting with new ideas instead of doing the same old things;
- trying to experience life as a child does, using concentration and absorption;
- avoiding being pretentious and trying to be honest;

- trying to identify one's 'defences' and attempting to come to terms with them;
- listening to one's own feelings;
- being prepared to be unpopular if the situation requires.

Exercise 1.1: Characteristics of a self-actualised individual
To find out how self-actualised you are, work through the 16 characteristics and see how many of them you possess. It should be noted that most of us do not possess all of these characteristics, and indeed Maslow proposed that very few people are totally self-actualised.

From studying self-actualisation Maslow developed a theory of the self based on a *hierarchy of needs*. On the first level of the hierarchy, Maslow

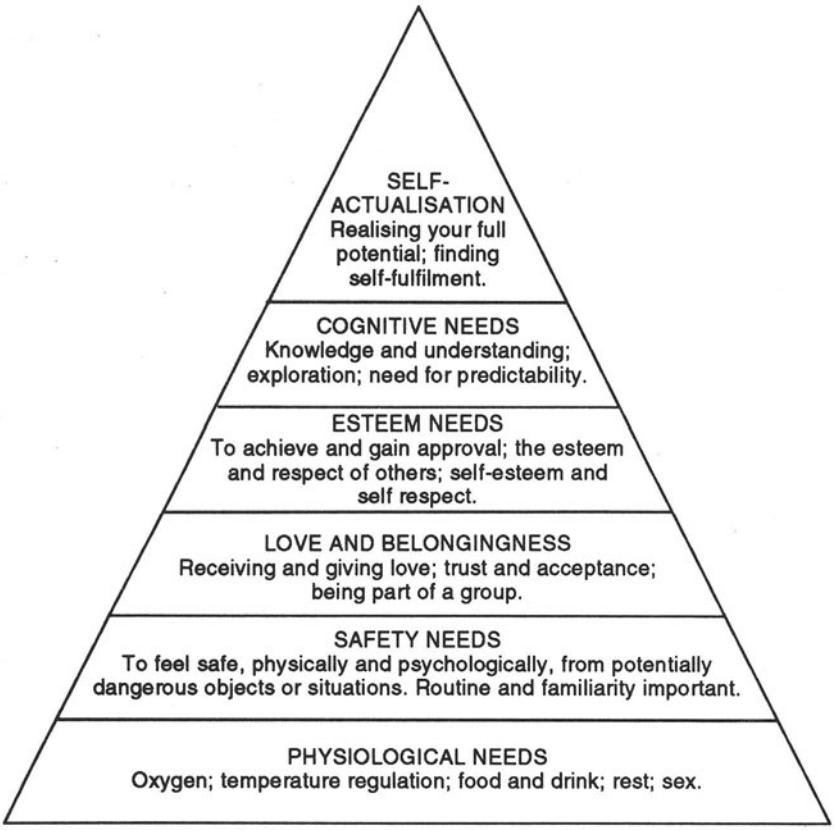


Figure 1.1 *Maslow's hierarchy of needs (after Maslow, 1954).*

placed physiological needs such as food and water. On the next level he placed safety from such dangers as crime, fire, heat, cold, wild animals and financial disasters. The third level is concerned with love, affection and belonging. Next come self-esteem and a stable, correct evaluation of self-concept, including the need for achievement and self respect. Finally, when all the other needs have been attained, a person reaches a stage of self-fulfilment or self-actualisation.

There are two main criticisms of Maslow's model of self.

1. Satisfaction of a particular need does not necessarily reduce the need's importance as Maslow suggests. Indeed, the greater the level of satisfaction a person has obtained for a particular need, the more important the need seems to become.

2. The hierarchy should be much more flexible than the model supposes; people have starved to death for political reasons. Thus the hierarchy cannot be inflexible, and has to take into account deliberate non-fulfilment of certain needs.

In assessing the model's application to nursing practice, Myles (1993) suggests that it is useful as a framework for planning nursing care. He asks us to consider the case of women admitted for a hysterectomy who, following surgery, may need to have their airways maintained and to receive hydration via an intravenous infusion. The nurse is responsible for the patient's physiological needs. Patients will also have to be positioned to prevent injury from hospital equipment and to reduce the likelihood of pressure sores from bedrest, thus meeting their safety needs.

Self-examination

In order to be able to relate to other people, it is necessary to identify important facets of ourselves. Fontana (1990) says:

> Other people's behaviour doesn't happen in a vacuum. When they relate to us, they are relating to *us*, to the people we are. Their behaviour towards us is a response, in no small measure, to our behaviour towards them. If I want to know why people are intimidated or confused or irritated by me, I need to accept that this says something about me as well as something about them.

He also provides the following exercise to help you examine your social self.

Exercise 1.2: Self-examination (from Fontana, 1990)

Imagine that two people are discussing you. In the course of their conversation they use a number of words which they feel describe you accurately. Study the following list of words and choose those words you think they may have used. Remember, be honest.

friendly	likeable	witty
helpful	sensitive	sarcastic
hasty	erratic	warm
communicative	happy	spiteful
cold	talkative	calm
open	devious	anxious
honest	unpredictable	well-balanced
reliable	cavalier	quick-tempered
secretive	selfish	forceful
humorous	punctual	unforgiving
depressed	well-mannered	kind
creative	thoughtful	remote
slow	able	understanding
formal	mean	empathic

Now select all the words that you think they would *not* have used to describe you. You should now have an outline of the characteristics that you think represent yourself. It remains for you to decide whether you are happy with these qualities. Select the qualities that you dislike in yourself and try to identify the situations that bring them out.

Then select the characteristics that you think you do not possess but would like to. Try to think of situations where you might profitably use them. What is it that stops you from being like this all the time?

Self-disclosure

To what extent should we disclose aspects of our 'self' to other people? On one hand there is the belief that it is important for nurses to maintain a certain professional distance from their patients; they should take care to protect their sense of 'self' and not get too involved. On the other hand, some people think that disclosing aspects of oneself or one's experiences can help a sense of empathy between nurse and patient to develop. The answer is that self-disclosure is correct in some circumstances but not in others. Before exploring when self-disclosure may be appropriate, it is necessary to explore how the 'self' may be displayed to other people.

Luft and Ingham (1955) proposed that there are four aspects of self:

1. **the open or public self** – what we know about ourselves and what others know about us as well;

2. **the blind self** – aspects of the self that are unknown to us but known to others;
3. **the hidden or private self** – what is known to me but hidden from others;
4. **the unknown self** – what is unknown to us and unknown to others.

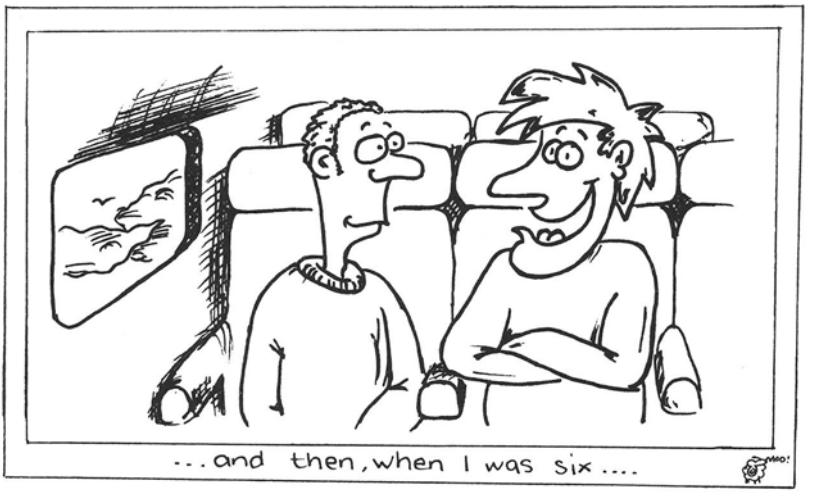
These four 'selves' are represented as 'windows' and have come to be known as *Johari Windows*, derived from the Christian names of Joe Luft and Harry Ingham. In any given situation one of the windows will take precedence over the other three. In the case of self-disclosure, the open window increases in size and the other three are diminished. Thus self-disclosure gives information about ourselves to others and also, since we are party to information in this window, gives us valuable insights into our own thoughts and feelings.

Functions of self-disclosure

There are several functions of self-disclosure. One is to develop a sense of empathy between nurse and patient. Used correctly, self-disclosure can make a nurse appear more 'human'. It may also be used to direct the focus of attention. Consider the following statement from a patient: 'I just found it impossible to cope with the pain, and you know, nobody seemed to care at all, they just thought I was play-acting'. How would you respond to that statement? One response might be, 'Oh, I'm sure they weren't'. But by using self-disclosure you can empathise and direct the focus of the conversation. This type of response first conveys concern and then directs attention toward the individual, encouraging him or her to disclose more fully: 'I can see that being taken for a play-actor must have made the pain very difficult to cope with'. The next response takes the focus away from the patient and back to the nurse: 'That happened to me too, and it was awful'. Both responses are equally correct but have different functions with respect to the direction and focus of the conversation.

Levels of self-disclosure

As well as fulfilling different functions, self-disclosures can be made on a number of different levels. Usually if two people do not know each other particularly well they rarely divulge details of their innermost feelings. Therefore, talking to someone about one's deep emotions early on in a relationship can be very embarrassing. As people get to know each other better they become more relaxed about disclosing intimate information. Even if a patient has an overwhelming desire to divulge sensitive information to a nurse, he or she may not do so



because it is too risky and may place him or her in what he or she thinks is a vulnerable position. There are exceptions to the rule, such as what is known as *the stranger on the plane phenomenon*. Sometimes if two people realise that there is little chance of ever seeing each other again (for example, people sitting next to each other on a plane) they are often tempted to disclose extremely personal thoughts and feelings. Also, people who have recently been bereaved often find it easier to talk to a stranger rather than to a member of the family. This notwithstanding, it is normal to employ initial self-disclosure carefully in order to avoid embarrassment and patient discomfort.

There are three levels of self-disclosure.

1. *Sharing opinions.* This is the best level to start with as it has the least affective value: 'I think you were quite right to object; what a nerve the man's got'.
2. *Sharing experiences.* Slightly deeper than sharing opinions, sharing experiences can help to provide patients with a new perspective on their situation. But it is important that patients have the power to accept or reject the relevance of the experiences.
3. *Sharing feelings.* Sometimes it is correct to share feelings with patients, both verbally and physically. Wright (1993) says that although many nurses are worried about the fact that they may cry, on the occasions that he has seen this happen it has increased feelings of caring and understanding.

Nelson-Jones (1988) summarises the positive and negative features of self-disclosure by saying that as some patients may have had little opportunity to practise self-disclosure, due to lack of knowledge or

apprehension about its use, nurses should be able to signal to patients when and where it is appropriate to use this behaviour and how it can be expressed. Also, the correct use of self-disclosure indicates genuineness and the desire to share experiences. An advantage of sharing experiences with patients is that it can provide them with a different perspective on their situation, which may bring about a new approach to dealing with the problem.

Difficulties which may arise from self-disclosure

There are, however, unfavourable consequences to inappropriate self-disclosures, which we must be aware of.

Overloading the patient. Too much self-disclosure can result in burdening the patient. Patients have problems of their own and do not want to be overloaded with other people's difficulties.

Appearing weak. Too much self-disclosure can make nurses appear 'weak' in the eyes of the patient. Patients like to have health professionals who present themselves as strong and competent. If there is any doubt about the use of self-disclosure, the best approach is to start with 'sharing opinion' disclosures. Then, if communication is proceeding effectively, patients will often pick up the concern and empathy and you can proceed to deeper levels of self-disclosure if necessary.

Appearing dominating. It might seem a contradiction that self-disclosure can make one seem weak *and* dominating, but statements of the nature 'You think you've got problems, well I can tell you . . .' can be perceived as overpowering by patients.

Self-serving self-disclosure. Psychoanalysts call this *countertransference.* It refers to the use of self-disclosure purely for the good of the nurse and not the patient. Sometimes nurses may wish to use self-disclosure to satisfy their own needs for approval and affection. Danger signs include going well out of one's way for a particular patient and becoming emotionally involved rather than professionally concerned.

Despite these dangers, self-disclosure can be an essential part of nursing care. Pennebaker (1990) concludes his report on confiding traumatic experiences by saying:

> The disclosure of traumas is cognitively beneficial because it promotes the assimilation of the events, it translates the images of the events into language and provides a sense of detachment from the experiences. Socially, the actual or symbolic disclosure of personal experiences to others usually strengthens human relationships and assimilates people's self-definitions with those individuals or institutions in whom they confide.

Nonverbal communication

Many people think that nonverbal communication is incidental to conversation, but in fact it is there to supplement speech. Birdwhistell (1970) estimated that about 65–70% of the social meaning of conversation is related in a nonverbal manner. At this point it is necessary to distinguish between verbal and vocal constituents of communication.

- Everyday speech has a verbal (language) component and is vocal (can be heard). It is therefore VERBAL/VOCAL.
- Morse code or sign language has a verbal component (language) but is nonvocal. It is VERBAL/NONVOCAL.
- The volume, tone and pitch of a person's voice has a vocal component (it can be heard) but no verbal or language factor. It is NONVERBAL/VOCAL.
- Gestures, eye contact, proximity and posture are all examples of NONVERBAL/NONVOCAL communication.

Exercise 1.3: A group exercise in communication

This exercise should be carried out in a group. On some cards write down the following emotions/expressions: HAPPY, SAD, SURPRISE, ANGER, DISGUST/CONTEMPT, FEAR, INTEREST, SHAME, AMUSEMENT, BOREDOM, IMPATIENCE, FATIGUE, PAIN, EMBARRASSMENT, LOVE, DOMINANCE. Distribute the cards randomly amongst the members of the group. Give the following instructions:

'Written on the card in front of you is an emotion/expression. You have to stand up in front of the group and communicate this emotion nonverbally; that is, you must not use any words. You may communicate vocally by counting from 1 to 5 and altering the pitch and volume of your voice. Other members of the group should write down the emotion they think is being demonstrated'.

This exercise has a number of uses. Firstly, it is very good as an initial exercise to break down barriers. Secondly, it illustrates the dual nature of nonverbal communication. Ask the group members how many they got right. Then ask the members of the group if they can give any explanations as to why they did not recognise all the emotions/expressions. You will probably find that there are two main reasons.

1. The emotions expressed are out of context; thus the lack of background contextual clues and cues makes it difficult to identify them.
2. The people expressing the emotions are not actually experiencing them at the time. As we do not normally think about how we appear to others when expressing our emotions, it is difficult to portray them out of context. We don't think about what we are doing/experiencing, we just do it.

Given these difficulties, it may be useful to think about how confidence and competence can be communicated to patients when a nurse really feels nervous and unsure, or how interest and concern can be conveyed when you really don't like the person you are nursing. To what extent do our true feelings 'leak' through our disguises? Can patients detect true emotions through a facade? These important questions will be answered later on in the chapter, but for the moment it is necessary to examine nonverbal communication in more detail.

Facial expressions

The face probably carries the most nonverbal information. Rosenthal and DePaulo (1979) presented subjects with 220 two-second segments of videotape of different combinations of face, body and sound. There were 11 samples of 20 emotions produced by a young woman. The most accurate channels for decoding information were found to be: facial expression (1st), body (2nd), and tone of voice (3rd). Additionally, certain facial expressions are easier to decode than others. Ekman (1982) produced the following hierarchy of accuracy scores:

EASIEST
happy
surprise
fear
anger
sad
disgust/contempt
HARDEST

Ekman and Friesen (1975) found that there was a great deal of agreement throughout the world with respect to which facial expressions represented happiness and sadness. Moreover, there was a universality of meaning; that is, smiles were recognised as a sign of happiness and frowns a sign of sadness. Some emotions are shown primarily in certain parts of the face – for instance fear and sadness are decoded predominantly from the eyes and eyelids, whereas surprise involves the brows and forehead plus the eyes and eyelids and the cheeks and mouth.

An interesting experiment by Zuckerman *et al.* (1981) investigated the question 'Can smiling make people happy?'. The experimenters divided their participants into three groups. The first group was shown a film of a pleasant episode. The second group was shown a film of a neutral scene and the third group was shown a film of a nasty event. Within each of the three groups, a third of the group members were asked to suppress their facial reactions while watching the film, a third were told to exaggerate them, and a third were not told to do anything

at all. The participants' physiological arousal was measured during each of the films and participants were required to rate their emotional reactions to the films after they had finished viewing. The participants who were asked to exaggerate their facial expressions showed higher levels of arousal to both the pleasant and nasty scenes than the subjects in the suppressant groups, and reported stronger positive and negative emotional reactions than the subjects asked to suppress their facial expressions.

The experimenters concluded that exaggerating facial expressions increased feelings, both positive and negative, and that suppressing facial expressions decreases emotions. It may be that making patients smile more increases their pleasant feelings, and learning to suppress emotions in times of stress and tension may reduce affective experience. This has been referred to as the *facial feedback hypothesis* (McCanne and Anderson, 1987).

Gaze

People have always been fascinated with the messages that are conveyed via the eyes, and eyes have been referred to as the windows of the soul. There are a number of terms used to describe the nonverbal use of the eyes in interpersonal communication:
gaze is used to describe the process of fixating one's eyes on another person;
mutual gaze/eye contact are terms used when two people are engaged in focusing their eyes on each other;
staring is a gaze or a look which persists regardless of the behaviour of others.

As a rule, mutual gaze and eye contact signify friendliness and affection. Research has shown that young couples who are most in love have a high proportion of mutual gaze (Rubin, 1970), whereas married couples with marital discord have low levels of mutual gaze (Beier and Sternberg, 1977). It seems that we prefer those people who look at us, and therefore engaging in eye contact usually signifies that a person wishes to appear friendly. Staring has the opposite effect. Most people become anxious when stared at, partly due to an uneasiness about the intentions of the person who is staring. This may also be due to an innate belief that staring is as a prelude to attack, since animals are known to stare before they pounce.

A consequence of the connection between eye contact and friendliness is that it is difficult to look someone in the eye whilst lying to them, unless you are a practised liar. Often if someone has something particularly difficult to say, they will disengage from eye contact while they marshall their thoughts. Therefore, lack of gaze or eye contact often signifies that something is wrong. It is no good saying one thing

to a patient and contradicting it with your eyes. In the course of interviewing patients, their eye contact, or lack of it, can signify which issues should be examined in further detail.

However, there are individual and cultural differences in the use of gaze. Direct focus on the eyes is common amongst Arabs, Latin Americans and Southern Europeans while Asians and Northern Europeans tend to adopt less, or sometimes, no gaze at all (Mayo and Le France, 1973). Thus our own and others' gaze should be seen in the context of the culture that has socialised our individual behaviour. Since nursing takes place in a multicultural setting, this last point is particularly relevant.

Touch

The use of touch in the healing process has been chronicled since the Bible. In the context of nursing care, touch has a more common function. Touching a patient whilst communicating emotional information usually indicates a degree of warmth and concern (McCann and McKerna, 1993). However, the use of touch may differ between cultures. An experiment often mentioned is one by Jourard (1966). He observed couples talking to each other in coffee shops in different parts of the world and counted the number of times the couples touched each other during a one-hour period. In San Juan (Puerto Rico) they touched each other a total of 180 times during the hour. In Paris the number was 110. In London the number of touches was 0. This study was one of the first to indicate that there are considerable cultural differences in the amount of touching that is socially acceptable, and that we in the UK do not seem to engage in a great deal of contact with each other. Since 1966 there have been changes in the amount of touching deemed socially acceptable; this may be due to a greater exposure to other cultures leading in turn to a decrease in inhibition in the UK.

In the USA, Greenbaum and Rosenfield (1980) observed 103 greetings between people at airports. The different types of touch used and the number of times they were used are shown in Table 1.1. Men tended to shake hands; females were more likely to kiss and embrace, finishing with a hand touching the upper body.

Davitz and Davitz (1985) cite an American patient's perception of British nurses: 'They're efficient, but they're not sympathetic'. This comment may in part be due to a tendency within British culture to be sparing with body contact. However, what one culture sees as adequate contact between nurse and patient may not be acceptable for another. American patients may perceive British nurses as cold and unsympathetic, but British patients may see American nurses as overfamiliar. It is perfectly reasonable for British nurses to tailor their

Table 1.1 *Types and number of touches used in a survey of airport greetings (Greenbaum and Rosenfield, 1980)*

No touch at all	41
Kiss on the mouth	41
Touch on the head, arm or back	38
Kiss on cheek	30
Light hug	23
Solid hug	19
Arm round waist or back	15
Holding hands	12
Handshake	10
Extended embrace	10
Extended kiss	3

interactive style to the needs of British patients, but they should realise that their patients came from many ethnic groups who may have different interpersonal norms.

There are also status differences implicit in touching behaviour. Whitcher and Fisher (1979) investigated female nurses' use of touch while providing patients with information about their imminent operation. There were two conditions.

1. Nurses touched the patient lightly on the hand while giving them information about the operation.
2. Nurses gave information about the operation without touching the patient in any way.

Patients were asked what they thought about the operation and the hospital, and their blood pressure was measured after surgery. Female patients touched on the hand by the nurses described the hospital in positive terms, had lower levels of anxiety and lower blood pressure than those patients who were not touched on the hand. However, the results for male patients were different. Male patients who were touched reported greater anxiety, more negative feelings toward the hospital and were found to have higher blood pressure after surgery than males who were not touched. The experimenters suggest that the differences in response may be due to status differences. Men may dislike being touched as they perceive it to be a threatening gesture, accentuating the nurse's superior status in the hospital setting, whereas women recognise touch as an indication of warmth and caring. Mulaik (1991) collected baseline data about 71 female and 27 male patients' perceptions of touch. Although 93% of the patients believed that touch meant caring and affection, only 74% agreed that the nurse's touch felt good, and 77% believed touch conveyed control.

Spatial behaviour

Interpersonal proximity simply means the space between two people. Edward Hall (1969) was an anthropologist interested in the individual and cultural differences of interpersonal distance. He called this *proxemics* and identified four main proximity zones.

- *Intimate* (0–0.45 m). People only allow intimate friends this close to their bodies.
- *Personal* (0.45–1.2 m). This is what people usually mean by 'personal space'. Invasion of this area causes anxiety, especially if the person who has had their space violated cannot escape.
- *Social* (1.2–3.65 m). This distance is used for day-to-day interaction with strangers and formal business purposes.
- *Public* (3.65–7.6+ m). This is the distance kept from important public figures.

These distances are, of course, averages and there are distinct individual differences in the amount of space people like to place between themselves and others while interacting. Most of us have experienced someone who has come a bit too close, making us take a step backwards to feel more comfortable. Again, there are cultural as well as individual differences in personal space. In some cultures people stand close to their correspondents, while in others people prefer to maintain a considerable distance from each other. This can cause conflict if a person from one culture feels that the interpersonal distance is too small and takes a step back while a person from another culture feels that the distance is too impersonal and takes a step forward to close the gap. Speaking too close to a person may appear intrusive; too far away, cold and impersonal.

Exercise 1.4: Investigating interpersonal space

It is reasonably simple to investigate interpersonal space. One way to determine your own personal 'space bubble' is to stand in the middle of a room and ask a friend to approach you until they get to a distance that feels uncomfortable. Adjust this distance to the point where you are able to accept their proximity and you have one point on the circumference of your 'bubble'. Get your friend to repeat the procedure from different angles and you will end up with your own personal 'space bubble'.

Another good exercise is to sit on a chair in the middle of a room with nothing else in it except for another chair close to the door. As people come in, ask them to pull up a chair and see how close they place it to you. You can vary the gender of the seated person and their familiarity with you. Measure the different distances and see if there are any interesting findings.

Also watch what goes on in lifts and crowded trains. When people's personal space is invaded by strangers there is a huge reduction in eye contact. Eye contact in combination with intrusion into one's intimate space produces too much familiarity.

Although nurses are 'allowed' to invade their patients' personal space by the nature of their job, they should be aware that people do not normally permit this behaviour and therefore may appear nervous for no other reason than that their interpersonal space has been invaded. Winkel *et al.* (1988) found that police officers often tended to stand too close to people whilst interviewing them, thus producing a situation in which the person felt threatened and uncomfortable. These responses were then misinterpreted as suspicious. In a similar vein, if nurses invade personal space they may get reactions which could be interpreted as a general state of anxiety rather than a specific response to proximity.

Spatial behaviour also encompasses *orientation*; this refers to the angle at which people sit or stand in relation to each other. Pietroni (1976) found that when general practitioners sat at a 90° angle to their patients the interaction increased six times as much as when they faced them square on across the table. Co-operation, competition and conversation increase or decrease according to orientation. Cook (1970) found that people who like each other generally sit side by side. People who dislike each other sit opposite. The exception to this rule is that people prefer to eat facing each other.

Body movements

Postures

The way a person stands, sits or even walks conveys nonverbal information about them. Standing erect with the head held high and the hands placed on the hips is a dominant posture. A nurse who adopts this posture whilst asking a patient if he or she wants a bedbath may be seen as aggressive and dominant, giving the patient no room to decline the request. A patient who adopts a hunched posture with eyes lowered and who says that everything is fine and that he or she is not worried in the slightest may be hiding the truth. Depression is often indicated by a slouching, listless posture; anxiety by a tense, stiff, rigid posture. Status may also be conveyed nonverbally through posture. High rank or prestige is denoted by a relatively relaxed sitting posture; low status people tend to sit more upright and rigid in their seats. Interest is indicated by sitting forward in one's seat, whilst leaning backwards in the chair signifies the opposite.

There is evidence that the way nurses walk on the hospital ward

influences patients' perception of their personality. Montepare and Zebrowitz-McArthur (1988) showed participants videotapes of people of different ages walking back and forth at what was for them a comfortable pace. The experimenters found that gait affected the participants' ratings of the walkers. Those with a youthful gait were rated as more powerful and happier than those with an older gait. Thus a nurse's style of walking may be an important determinant of the impression she makes on patients.

Gestures

Gestures are used to replace and augment speech and it is very difficult to speak to someone without gesticulating in some way. The majority of people who see themselves on a videotape are surprised by the type, and amount, of gestures they use. Since nurses are generally unaware of the gestures they employ, it is necessary to provide some form of feedback as they may be unaware of the messages they are transmitting unwittingly. One specific example of a gesture used in a therapeutic context is the head nod. Not only does it communicate to the speaker that the listener is attending to the conversation, but it also encourages them to keep talking.

Exercise 1.5: Gestures and emotions

Try to think of a situation or an incident that made you very, very angry. Keep thinking about the event for a minute or so. Now try to remember an event or incident that made you feel very, very sad and think about that for a minute. Think about your behaviour, your expression, gesture and posture. Did you move your hands, arms, legs as your thoughts moved from the first event to the second? The next time you observe someone making a phone call look at their gestures. Chances are that they will use a whole series of gestures to accompany their conversation even though the person they are talking to cannot possibly see them.

The voice

The quality of vocal expression produces a wide range of messages. Changes in volume can represent the following meanings:

- soft = sadness/affection
- moderate = pleasantness/happiness
- loud = dominance/confidence

Changes in resonance or tone can represent the following meanings:

- sharp voice = complaining/helpless
- flat voice = sickly/depressed

- breathy voice = anxious
- thin voice = submissiveness

The pitch of a person's voice often varies with the volume of their voice thus:

- high pitch/low volume = submissiveness/grief
- high pitch/high volume = activity/anger
- low pitch/low volume = boredom/sadness
- low pitch/high volume = dominance

Clarity of speech is often associated with class differences. Hence, clipped speech is frequently associated with 'upper class' people and can convey anger and impatience. Less clearly enunciated speech is often associated with 'lower class' people and can denote sadness and boredom.

The pace at which people speak varies. Speaking too fast is sometimes linked with anger, surprise, nervousness and occasionally expertise, while speaking too slowly may mean sadness, boredom or sometimes disgust.

Finally, pause fillers such as 'ums' and 'ahs', stutterings, repetitions and omissions all have meanings. They can indicate nervousness, boredom, anger or other emotions.

One good reason for working on one's interpersonal skills is that Faulkner (1984) found that as nurses' communication skills improved so did their empathic and warm responses to patients. She also suggests that if communication with patients is to be effective, the interpretation of conflicting messages should not be left to chance.

Exercise 1.6: Changing nonverbal behaviour

This is a popular exercise obtained from Carolyn Kagan. Divide a group of students into threes. Designate one person as A, another as B and the third as the observer. Tell A and B to think about their own nonverbal behaviour in the context of the issues discussed in this chapter. For instance A might like to concentrate on eye contact whereas B might concentrate on posture. Remind them of the components of nonverbal behaviour if necessary. Having thought about their behaviour, ask both A and B to change any TWO aspects of it without telling anybody what these two changes are.

A and B should then have a conversation about what they like and dislike about where they live, concentrating all the time on changing the two aspects of their behaviour they have selected. The observer takes notes on the interaction of A and B, recording all items of interest. Throughout the conversation between A and B, the observer should keep reminding them to concentrate on changing their nonverbal behaviour. After about five minutes, stop the conversation and get A and B to reveal their behavioural

changes. The observer should then relate his or her observations to A and B.

Ask the groups of three to consider whether it is easy or difficult to change behaviour and whether the changes are easily discernible. Discuss the changes in the context of relating to patients and highlight the problems associated with changing well-learned habits.

Questioning and listening

The most important feature of questioning is listening. Liehr (1992) found that nurses who listened to their patients produced lower levels of blood pressure and heart rate in the patients than when they talked to them. Bearing this in mind, consider the following conversation.

'Hello, it's good to see you, how have you been?'
'Absolutely awful, it's my mother, she just won't leave me alone. She rings up at all hours during the night.'
'Mums. They're awful, aren't they? Just like children sometimes. I know mine is, she always wants attention.'
'I mean I just can't get any sleep and it is ruining all our lives. Not just mine but the whole family's.'
'Yes, I know, they need just as much attention as children. No, I actually think they need more.'

There is not much listening going on in this dialogue. The other person's conversation is being treated as an interruption to one's own dialogue. Therefore a fundamental requirement of asking questions is wanting to hear answers. However, there are different types of questions which serve specific functions in different contexts.

Closed questions

Closed questions, such as 'Do you take sugar in your tea?' or 'Are you a diabetic?', do not allow the respondent any leeway for elaboration. They usually require a fixed or limited number of responses. Closed questions are used to gain factual information about a person or an event, and often form the basis of questionnaires. Closed questions have limited value in allowing patients to explore important concerns since they return the conversation to the questioner. Try asking a friend a series of closed questions for as long as you can and you will find that you soon dry up. Once your friend has answered your question, you have to think of a new question without much time to do so. As a nurse, if you use a lot of closed questions you will find yourself having to ask more and more to fill the silence. In the end you

will be concentrating more on thinking about what you are going to say next and less on what the patient is saying. So give yourself some space and use a few open questions.

Open questions

Using open questions gives patients the opportunity to reply in any way they like. It enables them to answer in their own terms and in their own way. There is usually no correct answer and people have the freedom to explore their concerns. The use of this type of question enables the nurse to take stock of the situation and concentrate on how the patient's response may guide the next sequence of questions. A disadvantage of this mode of questioning is that there is no control over the length and relevance of the patient's response. However, closed questions can always be used to bring a wandering conversation back to the relevant issues at hand.

It is important to use both open and closed questions when interviewing patients. A study by Jesudason (1976) illustrated what can happen if only one form of questioning is used. A sample of 1151 Indian women were asked the open question, 'What foods are prohibited during lactation?'. Approximately 53% replied that no foods were. Those who said no foods were prohibited were then given a closed question in the form of a list of 12 foods. They were asked if any of the foods on the list were forbidden. About 32% selected five foods or more. Thus, if an open question were used on its own, one would reach a totally incorrect conclusion that 53% of Indian women think that no foods are prohibited during lactation. A better way to elicit correct information would have been to provide the women with a list of foods and ask an open question at the end concerning any foods that were not on the list. When interviewing and constructing questionnaires it is vital to bear these points in mind.

Whilst it is a good idea to use both forms of question in conjunction with each other, it is necessary to give some direction to the dialogue and not swap backwards and forwards from one type of question to another. Usually it is a good idea to start off with broad, open questions and then gradually become more focused. Neglecting to provide some sort of sequence can disorientate and confuse patients.

Probing questions

The use of probes or prompts is a verbal strategy designed to help patients talk about themselves and define their condition and concerns more clearly. Probes need not be questions – they can be statements. Furthermore, they can involve just a few words or even a nonverbal response. Here are some examples:

Patient: 'Look, this is ridiculous, why do I have to see her?'
A statement prompt: *'I can see that you get angry when your wife comes to see you, but I'm not quite sure why.'*

Patient: 'Since I was admitted to this hospital I have been treated fairly well; even so I'm not entirely satisfied'
An echo prompt: *'Not entirely satisfied . . .?*

Patient: 'Look, after I get home from work, cook the tea and put the kids to bed I'm absolutely exhausted.'
Minimal echo prompt: *'Exhausted?*

Patient: 'Do you know, there are a lot of people who need sorting out?'
Nonverbal prompt: *'Uh-huh?'*

The use of prompts helps patients to use their own initiative in exploring their situation, but they should not be overused as dialogue can then turn into an interrogation. Once a probe has been used, let the patient talk for a while before responding. Take the opportunity to listen carefully to what the patient has to say, as it will probably indicate the next feature which should be explored.

Leading questions

In most circumstances it is better to avoid leading questions; however, in some circumstances they can be useful. There are three different types of leading question.

Conversational leads

These are not really leading questions at all, since they merely reflect common opinions. An example might be, 'She's looking a lot better, isn't she?'. Conversational leads can be used to convey interest and friendliness, but only if they accurately reflect other people's thoughts and feelings. The danger lies in misinterpreting what other people are thinking; for example, 'Well, Mrs Appleby, I'm sure you will be really glad to get back home'. Mrs Appleby may not want to go home at all but is unable to say so because the question leads her to respond in the affirmative. In this instance the nurse may not be conscious of leading the patient.

Pressurised agreement

This type of leading question puts pressure on the patient to respond in a prescribed way. An example is, 'You do, of course, take your tablets

every day?' or 'Hello, John, I bet you could do with a bath, eh?'. There is no attempt to ask a question or give the patient any choice. The first example is designed to make the patient feel guilty for not taking his or her tablets, the second is in effect communicating that the patient is going to have a bath and that is it! In very few circumstances, leading questions can serve a useful function. Blatantly incorrect leading questions can stimulate a response in an otherwise uncommunicative person. A question phrased thus, 'Of course, nurses get paid far too much for the job they do, don't they?' will usually precipitate a reply.

Subtle leads

Disturbingly, many people use leading questions without knowing that they are doing so. Subtle leading questions can be found in conversation and in questionnaires. Loftus (1975) interviewed 40 people about their headaches and the products they used to alleviate the pain. They were asked either 'Do you get headaches frequently, and if so, how often?' or 'Do you get headaches occasionally, and if so, how often?'

Both questions were identical except for the terms 'frequently' and 'occasionally'. The participants in the 'frequently' condition reported an average of 2.2 headaches a week; the subjects in the 'occasionally' condition reported an average of 0.7 headaches a week. Next the participants were asked how many products they had tried for their headaches. Half of the participants were given a choice of 1, 2, or 3; the other half were given 1, 5, or 10. Those that were given the choice of 1, 2, or 3 reported an average of 3.3. Those that were given the choice of 1, 5, or 10 reported an average of 5.2. These results indicate that one has to be extremely careful when selecting questions for use in questionnaires. Not only can changing just one word lead to different results, but the degree of choice affects the results as well.

Affective questions

This type of question attempts to address the feelings or emotions of patients. An example of an affective question would be 'How do you feel about your operation?' As well as indicating concern for the patient's emotions, affective questions also offer patients the opportunity to consider how they feel. In many cases, being able to label and define emotions reduces their affective content. It is as if providing some sort of term for feelings objectifies the situation and protects the patient from becoming overwhelmed by emotion. Not all emotions expressed by patients indicate their true feelings. A patient who seems to be angry may in fact be hiding fear. Similarly, a patient who laughs and jokes a lot may be concealing guilt. It is important to allocate time to listen to patients if affective questions are to be used. There is nothing worse than someone asking how you feel and then rushing off. In some contexts, as in the case of a greeting, a matter-of-fact reply to an affective question is appropriate. When a person says 'How are you?' a normal response is 'Fine, and you?'. If someone started to say 'Do you know, I feel absolutely terrible, I haven't slept for days. Not only that but I've got this terrible pain in my back . . .' it would cause quite a degree of discomfort to the person who was just trying to be polite. The nurse should make it clear whether her affective question is a mere greeting or a genuine enquiry about the patient's feelings.

There are other types of question such as multiple questions.

Multiple questions should not be used as they can be confusing – patients don't know which one to answer first and often forget what was being asked in the first place. Finally, questions should be used sparingly since listening to what the patient is saying is more important than concentrating on what to ask next. You should also consider that if you have to ask too many questions, perhaps you are not asking the correct ones to begin with.

Listening

Listening should not be seen as a passive process. It is not time to sit back and have a break from speaking, nor is it an interlude between talking. Active listening involves communicating to the patient that you are interested in what they have to say. There are many ways of indicating concern and consideration, such as:

nonverbal signals: these have been discussed earlier in the chapter and comprise adopting an interested posture, using nods of the head, 'uh-huhs' and so on, and maintaining suitable eye contact.

reflecting back: this technique selects the last few words of a person's conversation and repeats, or reflects, them back to the patient. This illustrates that you have been listening to what was being said, and signals to the speaker to continue. For example, a patient's statement such as 'I just couldn't stand the pain. Nobody told me what to expect and when I told him I needed something for the pain I suspect he didn't believe me' could be reflected by saying 'You needed something for the pain and you thought he didn't believe you'. This technique should be used sparingly or one runs the risk of sounding like a parrot.

paraphrasing: this is more difficult to do but has the advantage over reflecting back that it does not make you sound like a parrot and actually conveys understanding as well as listening. An example of a paraphrase response would be:

Patient: 'I know I keep asking you for help and I don't want to appear difficult but I feel everybody is looking at me all the time.'

Nurse: 'I see, so you think people are looking at you and you don't like asking for help because you think it makes you seem difficult?'

Exercise 1.7: Paraphrasing

Have a go at paraphrasing some of these statements:

1. 'I don't think I can cope any more. It's not just the children, it's my mother as well. My husband is at work all day and I'm at my wits' end.'

   .....

   .....

2. 'It's the not knowing. I've never had an operation before. I know you've told me everything, but it's just that I think I'm a bit scared.'

   .....

   .....

3. 'It was difficult at first, I just didn't know how I was going to get through the day. But now it's OK, I think.'

   .....

   .....

4. 'I hate hospitals, the smell, the noise, the people everything. Look, I want out as quickly as possible. I'm not staying here one minute longer than I have to.'

   .....

   .....

5. 'Every time I say something, you parrot it back to me as if I was an idiot. What do you think you're playing at? I'm not stupid, you know.'

   .....

   .....

The important thing to remember about using active listening techniques is to use them sparingly. If you have any doubts about using paraphrasing, it is probably better not to use it. But sometimes if you don't know what to say and feel that you have to say something, paraphrasing can prove a useful strategy.

Assertiveness

Self-assertion can be a problem for nurses in both their professional and their personal lives. However, assertiveness should not be confused with aggression or arrogance. It is not about getting one's own way but about the freedom to express one's own needs, to stand up for one's own rights whilst respecting the rights and needs of other people. Kagan *et al.* (1986) propose that there are three components to the skill of assertion.

- *Being specific.* The skill in this is in deciding what the point is and stating it succinctly without the unnecessary verbiage that often accompanies statements made when one is uncomfortable and anxious. It is important to know what you actually want to say and then to state it clearly and directly.
  Example:
  'I know it is difficult, and I am sorry to get you over here again, but do you think that I might have some more water please, that is if you're not too busy, thanks.'
  Specific question: 'Could I have some more water please? Thanks.'

- *Sticking to it.* Not being distracted and being persistent in your requests or instructions produces results, whereas being sidetracked by irrelevant and manipulative comments can divert you from the point you are trying to make.
  Example:
  Nurse: 'You have to try and stop smoking if you want your breathing to improve.'
  Patient: 'Listen, I'm 78 years old and smoking is one of the few pleasures I have left, surely I deserve some enjoyment?'
  Nurse: 'But if you stopped smoking you would feel a lot better and that would be very enjoyable.'
  Patient: 'You don't understand, do you?'
  Nurse: 'I know it's hard and difficult to give up but if you did manage it for a while you would appreciate the benefits.'

- *Fielding responses.* This refers to 'the ability to indicate we have heard what another person has said without getting 'hooked' by what he/she has said' (Kagan *et al.*, 1986).
  Example:
  One of your colleagues has asked you to cover for her tonight, but you have made arrangements to go out for a meal with a friend. You do not do this often and know that you deserve a break. You say to your colleague that you had intended to go out for a meal tonight. She says could you please cover for her, as after all she has covered for you in the past. The *easiest* response is to say 'Oh alright, I'll do it'. An *assertive* response is to say 'No, I'm sorry, I can't work tonight. I appreciate the fact that you have covered for me in the past, and I will help you out as soon as I can but I'm afraid I just can't work late tonight.' Your colleague might not like this response but you have communicated your willingness to help and at the same time concentrated on your own needs as well as those of others.

It is important to decide on those tasks which you can do, those you might do if possible and those you cannot possibly do. To the first, the response is 'yes'; to the second, 'yes' or 'no' depending on the circumstances, and to the last 'no'. If a 'no' response is selected, it is a good idea to start the reply by saying 'no' as in the reply above. Use a categorical tone of voice and never, never back down. If you do, people will work on you until you agree to help them or do what they ask of you. Most of all, do not feel guilty about saying 'no' if the request falls into the 'cannot possibly do' category. Problems can arise when requests are neither easy nor impossible to comply with. Under these circumstances it is useful to consider your needs in comparison to that of the other person's, and if your needs are greater you should decline the request for help (Slater, 1990).

Handling criticism and compliments can be difficult in professional

situations. Criticism is never pleasurable but it is made worse if it is perceived as unjust. The assertive nurse will acknowledge justified criticism and confront unreasonable criticism. The way in which unjustified criticism is challenged is important. Often, it is helpful to challenge the basis of the criticism by asking for clarification so that the critics have to examine their own judgements.
Example:
Critic: 'Late again and scruffy with it.'
Response: 'I'm sorry that I'm late, but in what ways am I scruffy?'

Some people find dealing with compliments more difficult than dealing with criticism. Genuine compliments should be accepted and rewarded. There is a tendency to concentrate on finding faults in people rather than commenting on how well a person has handled a situation. Therefore, one should always respond to praise by thanking the person who has paid the compliment.
Example:
Doctor: 'You handled that patient really well, Nurse.'
Nurse: 'Thank you. I tried to do what I had been taught.'

Sarcastic compliments are not compliments at all, but insults, and should be dealt with as such. If in doubt about whether a compliment is genuine or not, ask for clarification. If there was a suspicion that the statement above was meant sarcastically, a warranted response might be:
Nurse: (with a lot of eye contact): 'Oh, do you think so? In what ways did I handle her well?'

Fontana (1990) says

> Self-assertion is essentially having the courage to accept and be the person we are, with all our strengths and weaknesses and individualities. It's the courage to believe in ourselves, and the confidence to convey this belief to others. It has nothing to do with exploiting others, or with always putting our own interests first.

Handling strong emotions

At times, nurses will encounter the expression of strong emotions in patients, relatives and colleagues. The appropriate use of interpersonal skills at the correct juncture enables nurses to deal with strong emotions in a way that minimises the psychological consequences for all concerned. The following are the most difficult emotions to manage.

Anger and aggression

Although it is not difficult to identify anger and aggression, dealing with it is a different matter. The first stage is to find out the cause of the

emotion and whether it is justified or inappropriate. Then the aim is to defuse the hostility and make the situation more manageable. It is no good pointing out to angry people that life is unfair and they have been dealt a 'poor hand'. Usually logic has a limited influence in these circumstances and is unlikely to have an immediate affect. Nurses cannot take away the injustice of life, nor can they restore previous conditions. Therefore, the aim should be to legitimise anger and attempt to disarm it. In similar terms, aggression needs to be managed in a careful way. Coid (1991) says that colleagues who have got into difficulties with aggressive patients recount the following warning signs:

frozen fearfulness: this represents an increasing anxiety in the nurse towards the situation, combined with an awareness that things might be getting out of control. It is necessary to be versatile and intuitive when talking to aggressive patients, and therefore help should be summoned before clarity of thought is lost.

dehumanisation: look for indications that the patient is trying to dehumanise the nurse in some way. It is much easier to attack someone who can be made out to be unnatural, uncaring and unlikeable, lacking human qualities. Therefore the nurse should pay attention to outbursts such as: 'Nurses are all toe-rags, they are trash and deserve everything they get.' Sometimes it can help to try to personalise the situation by giving details of oneself to lessen the appearance of being a characterless professional. However, if conditions have got to this stage, it is probably better to get help.

failure to follow a patient's train of thought: this indicates that a patient may be rapidly losing control. Often it becomes increasingly apparent that the patient has lost touch with reality and may be deliberately withholding information to 'play' with the nurse.

point of no return: a point may be reached where there is no possibility of returning to the rules of a normal nurse–patient relationship. Suggestive speech, sexual innuendoes, invasion of personal space and touching herald a breakdown. Get help.

Guilt

If the focus of aggression or anger changes and shifts from the nurse to the patient him or herself or to a relative, then a feeling of guilt can occur. It is usually very difficult to shift people's guilt feelings away from themselves, but by allowing them to talk about their feelings it is possible to place their guilt in a more appropriate perspective. If feelings of guilt are not examined, they may persist and become a source of psychological problems. The role of the nurse is to appreciate the emotional problems of patients and to accept the reality of their guilt. Although nurses cannot take away people's guilt, they *can* get

them to look at it from a different perspective which does not entail individual blame.

Denial

The problem with patients experiencing denial is that it becomes impossible to talk about their true situation. However, there are times when patients may accept some level of reality and provide a 'window' of opportunity for talking about their position. Therefore the nurse should look for an opening, and if one exists, exploit it. In some cases a patient's denial is complete and they refuse to accept any reality. If this is the case then the nurse must accept the predicament but should not cater to it. For example, a patient who says 'This time next year I'll be on holiday in the Bahamas' but very probably will not be alive to do so is clearly using denial. The nurse who responds by saying 'Yes, it will be wonderful. All that lovely sun.' is catering to and feeding the denial. A better way is to accommodate the situation, but not give it substance by saying 'Well, I hope things will turn out just as you hope they might.' Thus if the patient does recover, or accepts reality, they will not feel misled by the nurse's responses and trust can be maintained.

Patients with terminal illnesses may never accept reality and die still believing that they are going to get better. Whilst this is unfortunate, and it might have been better if they had accepted their imminent death (see *Chapter 11*), the situation is ended. This is not necessarily the case for the relatives of patients. Relatives who continue to deny what is happening may suffer a number of psychological problems, and it is necessary to provide much more intervention in these circumstances (see *Chapter 11* for a discussion of how this may be achieved).

In the majority of cases where strong emotions are apparent, it is a good idea to allow patients and their relatives to vent their feelings before looking for ways forward. People should not be denied the opportunity to express emotion, and moving in too fast with solutions and suggestions may lead to emotional repression and may also lead to issues which have not as yet been expressed being overlooked.

Summary

This chapter has identified a range of interpersonal skills which can be learnt and developed to improve caring responses to patients. In order to develop these skills it is important to understand and utilise a range of concepts relating to 'self'. These include self-esteem, self-actualisation, self-examination and self-disclosure.

Effective communication skills are an essential element of empathic and sensitive nursing practice. The way in which

nonverbal communication complements speech has been examined, and components such as facial expression, gaze, touch, posture and gestures have been explored in relation to cultural, individual and status differences. Verbal communication has been discussed in terms of a range of questioning and listening skills which nurses might use to make their communication with patients, relatives and colleagues more effective.

This chapter concludes with an account of the skills associated with self-assertion and some practical guidance on handling the expression of strong emotions such as anger, guilt and denial.

Questions for further consideration

1 In what ways is self-actualisation a necessary feature of individual development?
2 Is it possible to hide strong emotions from patients?
3 What is meant by 'active listening'? Describe its use in the nursing context.
4 Define the qualities of the assertive nurse.
5 What are the strengths and weaknesses of open and closed questions?

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Further reading

Argyle, M. (1988). *Bodily communication,* 2nd edition. Methuen, London.
This book contains a comprehensive analysis of nonverbal communication. The concepts are backed up by extensive research providing a solid base for understanding the area of bodily communication. It is well-structured and written in a style that is easily understood.

Barnard, P. (1989). *Counselling skills for health professionals.* Chapman and Hall, London.
This is just one of many books by Phillip Barnard in this area. I think it is one of the best ones but readers might like to make up their own minds by consulting some of the others.

Communication and Counselling in Health Care Series. BPS Books (The British Psychological Society).
This series is extremely useful because it gives an indication how to communicate with people who have specific problems such as:
heart disease; children with chronic disability or illness; obstetric and gynaecological problems; diabetes and cancer.

Faulkner, A. (1992). *Effective interaction with patients.* Churchill Livingstone, Edinburgh.
Ann Faulkner has been involved in research and teaching in this field for many years. This book is specifically directed at nurses and presents a practical approach to nurse–patient interaction based on her multidisciplinary workshops.

Kagan, C. (1986). *A manual of interpersonal skills for nurses.* Harper and Row, London.
An excellent introduction to designing exercises in interpersonal skills for nurses. Each section deals clearly with the relevance of practical interpersonal skills for nurses and contains many useful exercises. It should prove useful to nurses at all levels of their careers.

2 *Making judgements about others*

Imagine that it is the first day of term of a new course. The course tutor comes into the room and spends a few minutes making some introductory remarks and then leaves. Later that day over a cup of coffee, a friend asks what you thought of your new tutor. You immediately launch into a description of your reactions, maybe even making predictions about whether you are going to like the course or not. In just a few minutes you have formed a clear first impression of your new tutor. But is your impression correct?

A patient discharges herself after major surgery against medical advice, only to be readmitted with serious complications at the site of the operation. The nurse on duty may have judged the patient as uncooperative and ungrateful for the treatment she received and a source of potential trouble during her future stay in hospital. In reality the patient may have been responding to a concern for her children, whom she feels have inadequate care and support in her absence.

Attribution: understanding the causes of behaviour

If you have known a person a long time you are often able to understand the causes of his or her behaviour. Of course some events may cause unpredictable reactions, but usually you can make reasonable judgements as to why he or she behaved in a particular way. As in the examples given, nurses make, or are asked to make, judgements about people's behaviour with little or no prior knowledge of them. The question arises as to how accurate these judgements can be.

Accurate knowledge of a patient's current mood or feelings is important for the nurse's assessment of the patient's needs and planning of a programme of care. However, a patient's feelings do not always remain the same and the nurse should be aware that behaviour may change across time and across different situations. The process through which we seek to acquire information about the causes of others' behaviour is called *attribution*.

We draw information from several sources in our attempts to form impressions of the people around us:

- the way they dress, their age and their attractiveness;
- by talking to them;
- by observing their behaviour.

The first two sources of information give clues to the behaviour of others, but they can be misleading. For example, people can dress in a certain way in order to disguise their true personality and may talk in such a way as to camouflage feelings or mood. Many people think that the observation of behaviour provides a much more useful guide, but this too can be fraught with errors. Consider the following example.

A man is standing on a bridge staring down at the water below. Several people observe the man's behaviour. *The artist* sees the scene as a series of colours and shades. *The insurance salesman* thinks the situation represents a bad risk. *The physicist* weighs the force of the man in conjunction with the matter of the bridge.

Each individual's different observation has been influenced by his or her background. The scene is constant, but the observations are different.

There are several questions that need to be asked when considering why people behave as they do:

1. How do nurses decide whether a patient's behaviour represents 'true' personality characteristics or whether it is a specific reaction to a specific situation?
2. Is a person's behaviour a result of personality and therefore within their control, or is it due to external circumstances beyond their control?
3. Do we judge ourselves differently from the way we judge others?
4. Do we attribute the cause of our successes and failures correctly to our own behaviour?

Attribution theories

Jones and Davis (1965) proposed a theory called *correspondent inference*. They suggested that attempts to understand the causes of behaviour should focus on a number of different factors.

- Attention is given to acts that are freely chosen by, as opposed to those that are forced on, the individual. If a person is forced to do something, it is difficult to conclude that this behaviour forms a stable dimension of their personality.

- Attention is given to behaviour that gives rise to unique or noncommon results. An example would be a friend who says that he wants to get married because his girlfriend is attractive, has a great personality and has just inherited a lot of money. All these three facts seem equally good reasons for wanting to get married. But let us say that the person he proposes to marry is unattractive, complains and moans a lot and has just inherited a large amount of money. You might think the last factor would be more indicative of the real reason for the proposed marriage.
- Greater attention is paid to actions that are not approved or encouraged by society than to those that are. Consider the nurse in his interaction with patients; he might smile at patients when he talks to them, express concern for their anxieties or discomfort and often be seen talking to and reassuring relatives. This behaviour would seem perfectly normal. But the nurse who scowls at patients when they talk to him, laughs when they say they are frightened and locks himself in the office when relatives are on the ward would seem rather odd. It is much more likely that firm inferences about behaviour will be assigned to the latter nurse, because his actions are both unusual and socially undesirable.
- Finally, we tend to pay more attention to actions that have a direct impact on us than to those that do not. If it is our child that is kissed, or our hand that is shaken by a politician, we will pay more attention than if it is someone else's child or hand.

The main feature of this theory is that not all behaviour is observed; individuals are selective about what they pay attention to. It is important to note just how selective people are in order to gain a better idea of stable personality characteristics.

Another attribution theory, the *co-variation model*, was proposed by Harold Kelley (1972). He was concerned with determining why in some instances a person's behaviour is said to be a result of their personality while in others it is said to be a result of the situation they are in. He gives the following example:

It is lunch time and the patients on the ward are eating when suddenly Mrs H shouts 'Take this horrible food away, it is disgusting! I wouldn't give it to my dog.'

Is her behaviour due to the quality of the food, or is she just a fussy eater? Kelley says that the answer can be obtained from three kinds of causal information:

1. *Consensus* – do other patients in the ward react in the same way?
2. *Consistency* – has this person reacted to this situation in a similar manner on other occasions?

3. *Distinctiveness* – does this person react to other, different situations in the same way?

If other patients do not react in the same way (low consensus), if Mrs H has done this often before (high consistency) and has also reacted in a similar fashion to other situations (low distinctiveness), then one can assume that her behaviour stems from internal causes such as her personality.

If other patients react similarly (high consensus), if Mrs H has reacted to this situation in a similar manner before (high consistency) and she has not reacted to different situations in this way (high distinctiveness), then the food is at fault.

There is empirical support for this theory (Harvey and Weary, 1989), but there are some problems with the extent to which people are willing to spend the time and effort to go through the whole process. Indeed, Fiske and Taylor (1984) say we are cognitive misers – unwilling to expend the energy necessary to attribute the cause correctly. Furthermore, people are most 'miserly' when circumstances are against them, for example when events occur unexpectedly and when events are extremely unpleasant.

Kelley has put forward a theory that describes an ideal attribution process, but as individuals do not always have the time or are able to make the effort, mistakes are made. Suppose you were in charge of the busy ward where Mrs H is having lunch. Can you imagine having time to work through consensus, consistency and distinctiveness questions before making a judgement about her behaviour?

First impressions

One view of impression formation is that a limited amount of information about a new person influences our overall impression of them. This view was illustrated by a famous study conducted with two groups of people by Asch (1946).

The first group was given a list of adjectives describing a fictitious person – intelligent, skilful, warm, determined, practical, and cautious. The second group was given the same list but the word 'cold' was substituted for the word 'warm'. Both groups were then presented with another list of 18 words and asked to underline those they thought described this fictitious person.

Whilst some words, such as reliable, good looking, restrained, and honest were chosen by both groups, the 'warm' group viewed the person as generous, humorous, sociable and popular, whereas the 'cold' group viewed the person as having opposite personality characteristics. Merely changing the word 'warm' to 'cold' caused the participants in the experiment to view the fictitious person in a different way.

Would all pairs of opposites have the same effect as 'warm' and 'cold'? Asch said they would not. When he used the words 'polite' and 'blunt' instead of 'warm' and 'cold', he found that participants in both groups underlined almost identical words. He concluded that there were certain words like 'warm' and 'cold' that represented a central or dominant trait and which were influential in determining first impressions, whilst there were others that did not have the same effect, and which represented a peripheral trait or dimension largely unimportant in impression formation. There is still debate about what words represent a central trait, but more importantly perhaps to consider is whether people respond to a real person in the same way as they do to a fictitious one.

Nisbet and Wilson (1977) conducted a similar experiment to Asch's, but using a real person. They showed one group of students a film in which an instructor behaved in a warm, considerate and friendly way. A second group of students saw a film in which the same person behaved in the opposite manner: cold, aloof and distant. In both films the instructor spoke with a French accent. After viewing the films the students were asked how much they liked the instructor and what they thought of his appearance and French accent. The students assigned to the 'warm' group liked the appearance of the instructor and thought that his French accent had contributed in a positive way to the delivery of his lecture. Those students assigned to the 'cold' group did not like him and thought that his accent hindered the delivery of the lecture.

Although the students in the 'warm' group said that they had developed a liking for the instructor, they felt that this had not influenced their judgement in any way. When a first impression influences the perception of other personality characteristics it is called the *halo effect*. This effect can also lead to making judgements beyond the information given. A person who presents herself as smart and welldressed might also be thought of as punctual, intelligent and hard-working, even when there is absolutely no evidence to support these attributions.

Price (1987), in a study of nurses' initial assessment of patients, concluded that current nurse education conceives assessment as relating to the physical status of patients and their abilities to care for themselves. He says:

> This research would suggest that we must quickly review the reality of nursing assessment criteria, skills and protocols. It would indicate that we should take much more account of the psychosocial areas of assessment and the nurses' own feelings of insecurity, control or reward in such interviews.

Consider this example: a nurse admits to the ward a patient who cannot speak clearly and is hard to understand. Much of his speech is slurred. He has difficulty in controlling the movements of his mouth and has a tendency to dribble. The nurse might assume that he is unintelligent, highly dependent and unable to understand anything she says to him. Alternatively she might assume that he is drunk, irresponsible, potentially aggressive and likely to be a nuisance. In reality he may well be none of these things, but consider what the impact of being treated in such a fashion would be.

In a study of what factors lead to a patient being seen as unpopular, Stockwell (1993) proposed that the reasons were mostly related to personality, physical defects such as deafness, nationality and length of stay in hospital being longer than three months. However, Kelly and May (1982) criticised this and other studies on methodological grounds. They suggest that inconsistencies in the research findings stem from the use of a variety of research instruments and that there was a failure to define concepts adequately. Furthermore, patients come to be defined as good or bad not because of anything inherent in them, but as a consequence of their interaction with nurses.

The primacy effect

Exercise 2.1 Forming impressions

Divide a group of students into two. Split both groups into pairs – one person the experimenter, the other the participant. The participants are then asked to leave the room. The experimenters should take six cards and write the following words on them: *intelligent*; *industrious*; *impulsive*; *critical*; *stubborn*; *envious*. Half the experimenters will present the words to the participants in the above order and half will present them in reverse, so that half of the participants will see the words in the order intelligent to envious and half will see envious to intelligent. Cards should be presented to participants at 1 second intervals. Participants are asked to form an impression of an imaginary person based on the words shown and then write a brief sketch of the imaginary person's personality. Try and get the participants to use each of the words presented to them as a basis for their sketch.

Are there any differences between the impressions of the imaginary people formed by the two groups?

Asch (1946) conducted a similar experiment giving participants identical lists of personality characteristics but presented in a different order. The first list moved from positive to negative and the second from negative to positive. Asch contended that impressions made of others are more strongly affected by information received first

(*primacy*). Thus subjects given the first list would rate the fictitious person more positively than those given the second list. He found that those participants given the list with 'intelligence' first rated the imaginary person as more sociable, happy and humorous than those given the list beginning with 'envious'.

The explanation given by Asch for this primacy effect was that the adjectives read first changed the meaning of the ones read later. Learning that someone was intelligent caused the participants in the experiment to interpret being stubborn as an intelligent person merely sticking to their intelligent point of view.

Fiske and Taylor (1984) provide another explanation based on their idea that we are cognitive misers (see p. 42); once we have initial information about people, we simply do not bother to pay attention to any additional details.

It is important for nurses to make a good first impression in order to establish the right conditions for the development of mutual trust. However, nurses should be aware that positive first impressions can sometimes inhibit the willingness of the patient to be assertive and necessarily critical when their needs are not being met. Not only may a patient attribute to the nurse positive personality/ability characteristics that are not there, but they may even discount or reinterpret any negative ones that appear subsequently.

Errors and bias

One might predict that psychologists would be less likely to make attribution and first impression errors because of their greater knowledge of human behaviour. Certainly an understanding of the processes involved makes one less susceptible to bias, but a greater knowledge can sometimes lead to a concentration on the finer details at the expense of the obvious. There are, however, some attribution errors that we all tend to make.

The fundamental attribution error

The second example at the beginning of the chapter (p. 39) illustrates that in many circumstances where information is unavailable as to whether a person's behaviour stems from their personality or the situation, it is usually internally attributed to the person's disposition. This is called the *fundamental attribution error* or 'blaming the patient'. Maslach and Jackson (1982) say that this occurs frequently amongst nurses. Placing the blame on the patient becomes more probable when medical records highlight personal problems at the expense of

important background detail. The individual has to be seen within the context of his or her social and economic situation if accurate and useful assessments are to be made.

Case study

Mrs D is 71 and lives in a single room hostel. Since her husband died, she has been found to be consuming increasing amounts of alcohol, and it was thought that the bereavement had led to a dependence on drink. Initially, it was decided to try to change her behaviour by concentrating on improving her attitude and resistance to the temptation to drink. These attempts failed. It was then noticed that the death of Mrs D's husband had resulted in a change in her social arrangements; she had started to socialise with a group of people who drank a lot. Attention was switched from changing Mrs D's attitude to finding her company that did not drink so much alcohol. Subsequently she was observed to cut down her consumption of drink substantially.

Thus attribution errors can be reduced by attention to circumstantial or background details. The likelihood of error is increased if the behaviour is serious and personal; for example, a person spilling coffee over an expensive table increases the likelihood of you making an attribution error that he is clumsy, and the likelihood will be heightened even more if it is your coffee table.

The actor–observer bias

Exercise 2.2 Personality characteristics and the actor–observer bias

You can try this exercise on your own or in a group. Think of someone you know very well. Rate this person on the following personality characteristics using the following scale:

SCALE
+2 Definitely describes
+1 Usually describes
0 Sometimes describes, sometimes does not
−1 Usually does not describe
−2 Definitely does not describe

Once you have done this, rating someone you know, cover up your responses and rate *yourself* on these personality characteristics.

Personality characteristics	Other person	You
Aggressive	.....	.....
Introverted	.....	.....
Thoughtful	.....	.....
Warm	.....	.....
Outgoing	.....	.....
Hardworking	.....	.....
Ambitious	.....	.....
Friendly	.....	.....

Add up the score for your friend and then add up your own score. Ignore the plus and minus signs. If the score for your friend is greater than your own score, then you have fallen prey to the actor–observer bias. If both the scores are the same, or you scored higher than your friend – well done!

One day while you are walking along the road you notice a person opposite stumble and fall. You think to yourself 'How clumsy!' or 'They've had too much to drink'. This internal attribution of causality corresponds to the fundamental attribution error. However, while watching the person opposite, you yourself trip up and stumble. You do not think for a moment that you are clumsy, but that the pavements in your town are in need of immediate repair. In short, if you are the observer, you make internal attributions. If you are the actor, you make external attributions and this is known as the *actor–observer bias* (Jones and Nisbet, 1971).

Janis and Rodin (1979) contend that the actor–observer effect can present particular problems for nurses. If a patient does not take his or her medicine he or she may be perceived by the nurse (the observer) as stubborn and unco-operative. The patient (the actor) will attribute his or her reaction to environmental factors; that is, he or she has stopped taking the medicine because it makes him or her feel sick and thinks that it is not doing him or her any good. The nurse and the patient see the same event from two different perspectives and are reacting to two different cues. Effective care becomes hampered by a conflicting set of perspectives which can lead to severe communication difficulties.

The self-serving bias

Imagine that you are faced with a two-part physiology exam. The first part is much more difficult than the second, but you feel quietly confident because you spent a considerable amount of time revising and feel you know most of the areas reasonably well. After taking the first part of the exam your results confirm your optimism, and your performance ranks with the best in the group. Not surprisingly, you feel quite proud and feel that all your revising was worthwhile. The

second part of the exam approaches and you feel more confident than you did before. After taking the exam you relax in expectation of similar results. It comes as quite a shock when you find that you have not done very well at all and have barely achieved average results. This time you start to blame the irrelevant questions, not having had enough time or even the heat in the exam room for your poor performance.

When individuals do well, they attribute the cause of success to internal factors, and when they do badly attribute it to external factors. This is called the *self-serving bias* (Miller and Ross, 1975) and is an important mechanism for protecting self-esteem in adverse circumstances.

Unfortunately this type of bias can have disastrous consequences for relationships between team-workers. If you are working well with a partner and everything is going to plan, attributing the cause of the success to your ability, although this may be incorrect, will not necessarily affect the relationship with your partner. When things start to go badly you may blame external factors including your partner, and he or she will do the same to protect his or her self-esteem. The ensuing conflict can lead to a great deal of interpersonal friction (Greenberg *et al.*, 1982). This error can be particularly detrimental in the context of primary nursing where nurses work in close relationship with individual patients to plan and implement programmes of care. If a programme of care is not working as planned, the relationship may be impaired by the nurse attributing its failure to characteristics of the patient, such as low motivation. Think back to the last time things went wrong at home or at work; who did you blame first?

Research on attribution and impression formation suggests that we are all susceptible to errors which can distort our perceptions of social reality (Gilbert and Jones, 1986). However a knowledge of the psychological processes of attribution can lead to fewer errors and hopefully limit the negative consequences.

Prejudice

A father and his son were driving along a road when the father suddenly lost control of the car and crashed into a telephone pole. The father was killed instantly and the son was badly injured. The boy was rushed to the local hospital where it was found that he was suffering from serious internal injuries. A prominent surgeon was immediately summoned. When the surgeon arrived and went into the operating theatre to examine the boy, there was a gasp from the surgeon. 'I can't operate on this boy,' the surgeon said, 'he's my son.' How could the boy be the surgeon's son?

Some of you will know the answer to the riddle, but how many were unable to work it out when they first heard it? A clue is to substitute the word mother for father and read the story again.

The importance of this riddle is to emphasise that prejudice is not just about conscious discrimination against race or class; there are many biases of which we are unaware. If you did not know the answer to the riddle then you are prejudiced. You might have thought up all sorts of weird and wonderful solutions but the simple fact that the surgeon was a woman eluded you. Indeed, McDonald and Bridge (1991) found that the female nurses who were given a vignette that differed in terms of patient gender planned significantly more ambulation, analgesic administration and emotional support time for male patients as opposed to female patients.

Prejudice may be defined as a negative attitude towards someone who is a member of a specific group, based upon the fact that they are a member of that group. Prejudice occurs in all sorts of groups and takes many forms. There are three main components of prejudice:

- thoughts (*cognitive*)
- feelings (*affective*)
- actions (*behavioural*)

Thoughts

Stereotypes

One form of prejudicial thought is a *stereotype*. This is a cognitive framework that describes a person's thoughts and beliefs about specific social groups.

If you asked someone to describe the typical Italian male, French farmer or British banker, they would not have too much trouble doing so even if they had never met a person from any of these groups. Not all stereotypes involve negative characteristics, and sometimes there can be a grain of truth in them (Allport, 1954). However, the main problem arises when people hold negative, incorrect stereotypes. Davidio *et al.* (1986) suggest that the stereotype only accepts information that is consistent with its cognitive framework and rejects information that is contradictory. If one searches hard enough or waits long enough, one can usually find examples of a person's behaviour that will support the stereotype; this is usually accomplished at the expense of ignoring all behaviour which disconfirms it.

Davitz and Davitz (1985) assert that we do not like to believe that we operate on the basis of stereotypes, and that we like to think we can see through them. To investigate stereotypes held by American nurses Davitz and Davitz gave nurses the following brief description of an adult patient:

Name: Gino Giselli
Age: 34
Background: Italian

Mr Giselli was hit by a car when going home from work. He was admitted to hospital and found to have a fractured femur and extensive facial injuries. At the moment he is in traction, and will have to remain in hospital for an indefinite period.

Davitz and Davitz (1985) varied the cultural background of the patient each time they read the story. The patient's physical condition, gender, and age remained consistent, but different cultural backgrounds were assigned to them. The six cultures were: Oriental, Mediterranean, Black, Spanish, Anglo-Saxon/Germanic and Jewish. The other factor varied was the severity of the individual's condition: mild, moderate and severe. They measured the nurses' average ratings of physical pain and psychological distress for each cultural group and for each level of illness severity.

It was found that most physical pain and psychological distress was perceived to be suffered by the Jewish and Spanish patients and the least pain and distress was experienced by the Oriental and Anglo-Saxon/Germanic patients.

The experimenters summarised their results by saying that the results of their research clearly indicated that one aspect of the American nurse's belief systems about suffering involves the ethnic or religious background of their patients.

Do nurses from other countries have similar stereotypes? Davitz and Davitz also looked at attitudes to pain held by 1400 nurses from 13 countries using the same technique and found wide variations. The British nurses, for instance, rated the Italian patient in the story as suffering the least pain and were generally inclined to say that patients from other cultures overreacted. This latter point led to the British nurses working in the USA acquiring the stereotype of being efficient but unsympathetic.

In hospitals and communities where there are a wide range of cultures and ethnic groups, it is important to recognise the existence of stereotypes. It is easy to fall into the trap of selectively abstracting behaviour in order to support the stereotype, whilst ignoring important disconfirming details.

Labelling

Another form of stereotyping is *labelling*. Because personality is difficult to define, people often resort to labels to simplify categorisation. If individuals are aware of their label, this can lead to a self-fulfilling prophecy; a person with red hair may acquire the label 'quick to anger'

and eventually end up behaving that way because he or she is expected to do so.

Rosenhan (1973) illustrated the powerful effect of labelling in a famous experiment called *On being sane in insane places*. He arranged for 'normal' people, such as a psychologist, a housewife, a paediatrician, and a painter-decorator to present themselves at the admissions offices of eight different psychiatric hospitals in the USA, complaining that they were hearing voices saying 'empty', 'hollow' and 'thud'. All were admitted and diagnosed as schizophrenic or manic depressive. The amount of time spent by the 'patients' in each institution ranged from 3–52 days, even though they acted completely normally once they were admitted. The only people to become suspicious of these 'patients' were the other inmates. When the 'patients' were discharged they were labelled 'schizophrenic in remission', which implied that they were still schizophrenic but there was no evidence of this on discharge.

In a follow-up experiment, the staff at the teaching hospital were told about the results from the first study and were told to expect a number of 'pseudo-patients' presenting themselves for admission over the following three weeks. The staff were required to rate 193 patients who had been admitted over this three week period on a ten-point scale according to whether they thought the patient was a plant. Forty-one patients were confidentally alleged to be impostors by at least one member of staff and twenty-three were highly suspected by at least one psychiatrist. In fact, no pseudo-patients had been sent to the hospital. Although the study has been criticised on methodological grounds (Spitzer, 1976), this clearly demonstrates the power of giving people labels.

Further evidence for the labelling effect has been provided by Rosenthal and Jacobson (1968). Pupils in a primary school were tested on a range of verbal and reasoning ability tests. The teachers were told that the purpose of the tests was to detect those pupils who were about to go through an intellectual growth spurt. The teachers were told in confidence the names of these 'intellectual bloomers'. The performance of the children was monitored and after just eight months the tests were repeated. The intellectual bloomers produced significantly higher scores on the tests than the other pupils. These results may not seem too surprising apart from the fact that the bloomers had been selected and given the label 'likely to succeed' entirely at random. In just 18 months the label had produced significant differences in performance. If this can happen in a positive direction, it can also happen to those labelled 'not likely to succeed'. If this then becomes a self-fulfilling prophecy, the challenge of reacting to such a system becomes practically impossible.

Health professionals have a tendency to categorise patients in terms

of illness. This is not surprising as medical practice tends to do the same; however, Wattley and Müller (1984) have illustrated how illness can affect nurses' perceptions of patients. Two groups of nurses were given a written description of a patient and asked to make an assessment. The descriptions of the patient were similar, except that in one the patient was being treated for cirrhosis of the liver and in the other for a hernia. The experimenters predicted that as cirrhosis is associated with drinking, the nurses would be more inclined to blame the patient for his condition. The nurses were asked to rate the patient on a list of personality traits and it was found that the man with cirrhosis was rated as less cheerful, more unhelpful, more ungrateful, slightly more unco-operative, more difficult to talk to, more willing to accept treatment, and less likely to exaggerate the extent of the illness than the same patient would be if suffering from a hernia.

Implications

- Descriptions/diagnoses/assessments should be made with great caution and awareness of potentially stigmatising effects.
- Labels are powerful and very resistant to change. They affect the way people are treated for a long time.
- It is important to reflect on your reactions to patients and on assumptions you might have made as a result of a label.
- Treat all labels as potentially erroneous, even if they appear as facts or rules.

Feelings

Another component of prejudice is the presence of negative feelings towards individuals on the basis of their membership of a specific group. Many of these feelings are deep-seated and thus difficult to change (Stephan and Stephan, 1988). The first step on the way to dealing with negative feelings is to recognise them.

Exercise 2.3 Identifying negative feelings

1. Read the following descriptions of people.
2. Imagine that they are patients in your care.
3. Write down your immediate feelings about them.
4. Try to identify how these feelings might interfere with nursing these patients.
5. Try to think of the characteristics that would describe the person you would find it most difficult to deal with and state why.
6. Examine the stereotypes implicit in the five descriptions.

- Arthur is a 44-year-old man who obviously doesn't care about his physical wellbeing. He swears a lot and makes sexist jokes. He has not had a job for years and does not intend to get one.
- Cathy is 18, currently experiencing a lot of problems at home and feels that her boyfriend does not understand her. She does not seem to get on with anyone but sees you as a potential ally. In talking to her you notice she seems to blame everyone but herself.
- Joan is 36 and could be classed as 'upper/middle class'. She has a very 'correct' attitude and very traditional views. For instance, she believes that a woman's place is in the home and men should be in charge because they are better than women. She is continually asking you to do things for her.
- Ken is only 27-years-old and has been trying to commit suicide for the last two years. He says that although he has failed this time, he will succeed eventually. He does not want to listen to you, or indeed have anything to do with you, and continually rejects your attempts to interact with him.
- Mary is a young lesbian who has recently been rejected by her partner and feels very depressed. She sees you as a new friend and potential confidant.

Actions

Discrimination

The behavioural component of prejudice involves some sort of action. In many instances prejudicial views do not result in active discrimination; laws, social pressure and fear of retaliation can deter people. However, not all discrimination is obvious. Bigoted people usually prefer if possible to harm the targets of their prejudice without raising suspicion by using subtle forms of discrimination such as *tokenism*.

Tokenism involves the use of small, positive acts towards the target individual or group in order to deflect criticism of more overt discriminatory treatment (Rosenfield *et al.*, 1982). 'What do you mean I don't like gay people? I bought Jeff a drink last week'. Or perhaps more subtly, 'Listen, I have nothing against disabled people living here, my goodness, didn't I say so at the meeting? It's just that I think their interests would be better represented . . .'

The majority of people are not bigoted, but the majority of people are prejudiced in some way or another. It is easy to spot the bigots by their overt actions, but it is not so easy to measure prejudices that are less transparent. One method of assessing discriminatory tendencies is by using a *Social Distance Scale*.

Exercise 2.4 Measuring prejudice

This measure provides an indication of how distant or close you like to be to members of specific groups.

First, you would select a group – ethnic, homosexual, mentally ill/disabled AIDS sufferers, or a group within the nursing profession.

Next, you would produce a scale (see the example) by starting with a statement that involves a large degree of distance between you and a member of that group, such as 'I would find it tolerable for this person to come to my country as a visitor.' End with a statement that represents a close relationship, such as 'I would find it tolerable for this person to marry into my family.'

This person is from . . . . . group.

I would find it tolerable for this person to:

Tick/Cross

1. come to my country as a visitor
2. live in my country
3. work in the same job as myself
4. live in the same city
5. live in the same street
6. have a meal with me
7. be neighbours
8. be close friends
9. marry or become involved with my family

If you cannot tick all the statements for individuals representing all groups then you are prejudiced. You might like to discuss whether not wanting someone to marry into your family is prejudice or whether it represents a logical concern for the wellbeing of your kin.

Of course the Social Distance Scale does not measure actual discriminatory acts, nor does it work for discrimination between men and women. However, if people are truthful whilst completing it, they can gain a useful insight into their behavioural intentions to different social groups.

Origins of prejudice

Several theories have been put forward to try to explain the development of prejudice. Three of the main theories are:

- intergroup competition
- social identity
- authoritarian personality

Intergroup competition

One theory of prejudice suggests that it is caused by competition and that the greatest prejudices occur during times of economic hardship (Hepworth and West, 1988). However, the roots of intergroup conflict have a much broader foundation. Sherif and his colleagues (Sherif, 1981) conducted an interesting experiment into the nature of the relationship between conflict and prejudice. This is known as the *Robbers' Cave Experiment.*

The participants in the experiment were a group of eleven-year-old boys at a summer camp in the USA. On arrival they were divided into two groups and assigned to different cabins. For about a week the boys played, worked and slept together in their respective groups, building up strong attachments to each other. They chose names for their groups – the Rattlers and the Eagles – and each group constructed a flag with their symbol on it.

In the second part of the experiment, the boys competed for a trophy and prizes in a games tournament involving baseball, touch-football, a tug-of-war and a treasure hunt. This situation produced intense competition between the two groups. The games started off in good spirit but quickly turned nasty. The boys started to call each other names and in one instance, burnt one of the flags. The researchers had to intervene as the experiment was getting out of hand. Clearly, in just a few weeks strong prejudices had build up between the two groups.

To try to reduce the conflict, the groups were brought together for social events such as going to the movies, eating in the same dining room and so on. But far from reducing the conflict it seemed to have the opposite effect, actually increasing the acrimony between the two groups. Eventually Sherif and his colleagues found a solution. They constructed conditions where both groups had to work together to reach mutually desirable goals. For instance, they had to restore the camp's water supply, pool their funds to rent a film, and together mend a truck that had broken down. After a few days of co-operative activities the intergroup rivalry had been eliminated and many cross-group friendships had been made.

There are limitations to the conclusions that can be drawn from this experiment, since it took place over a limited period of time, the summer camp does not necessarily represent everyday life and the boys were all from one social group (Tyerman and Spencer, 1983). Despite these restrictions, the results suggest that competition is a powerful factor in the development of conflict and prejudice.

Social identity

Tajfel (1982) contends that there are two main stages in the development of prejudice:

- social categorisation
- social competition

Social categorisation

People feel a need to categorise themselves into groups to satisfy a need to belong and receive attention and affection. Also, it is often difficult to achieve certain goals as individuals whereas groups may be more successful. Group membership creates and maintains a sense of social identity, an important constituent of self-esteem. However, this act of categorisation causes people to distort their perception of the social groups. An experiment by Tajfel and Wilkes (1963) illustrates this point very well.

Participants were presented with a series of straight lines and asked to estimate their lengths. There were three conditions.

1. Participants were presented with lines of different lengths at random.
2. Participants were presented with the same lines but this time they were labelled A or B. The presentation was random and the label was unrelated to the length of line.
3. Participants were presented with four short lines accompanied by the letter A and four long lines accompanied by the letter B.

There were a number of differences in the ways the subjects estimated the lengths of the lines. In condition 3 where there was categorisation, the participants exaggerated the differences in length between the four short lines and the four long ones. The longer lines were seen as more alike than they really were.

We could substitute people for lines and see that we tend to categorise people into groups; exaggerate the differences between groups; and see members of groups as more alike than they really are. Further, membership of a group will enhance an individual's self-esteem only as long as the group status is maintained. Thus groups will not only compare themselves with others, but actively seek to reinforce all their own positive characteristics, such as individuality, intelligence, and so on, at the expense of other groups' negative characteristics. This theory has been called the *'us' vs 'them' theory*. For example, I may think that psychologists are all reasonably intelligent, know a lot about human behaviour and are generally open to new ideas, whereas psychiatrists have little idea of human behaviour (as

they have done a medical degree), tend to prescribe drugs for all conditions and are very narrow in their thinking!

Exercise 2.5 'Us' vs 'them'

Think about the following groups in relation to the 'us' vs 'them' theory. Can you identify any ways in which one group might reinforce its status at the expense of the other? (Some sample answers are given at the end of the chapter.)

Nurses	v.	Doctors
Students	v.	Teachers
General nurses	v.	Mental health nurses
Patients	v.	Nurses
Student nurses	v.	Qualified nurses

Group membership creates and maintains a sense of social identity.

Social competition

Skevington (1981) has examined the applicability of Tajfel's theory to nursing students. She presented 64 nursing students with a questionnaire designed to measure status and desired social mobility. The students were prospective registered or enrolled nurses and selected from among first and second years. Some of the findings supported Tajfel's theory; the registered nurses were deemed to have a higher status, had more positive subjective characteristics, and a positive social identity. The enrolled nurses had more attributed disadvantages and a less positive social identity.

It was found that the two groups of nurses actually *decreased* the

perceived differences between themselves. Skevington notes that since the nurses worked closely with each other on the hospital wards, stereotypes were reduced. Also, the enrolled nursing students were trying to become more similar to the registered nursing students' group by adopting similar interests and seeing themselves as equally competent, as a means of achieving equivalent social identity.

Placing groups together can reduce prejudice but this is insufficient on its own; one needs to take into consideration Sherif's findings that the groups must share mutual goals and have to work together to achieve them.

The authoritarian personality

After the atrocities of World War II a number of psychologists, such as Adorno, Frenkel-Brunswick, Levinson and Sandford, decided to investigate what personality characteristics could be said to constitute fascist behaviour. Their aims were to discover how to raise children in such a way that they would never become fascists, and to devise ways to alter the leanings of those already possessing such tendencies. Their measure of the authoritarian personality was called the *F scale* (F for Fascism; Adorno *et al.*, 1950). Individuals who scored highly on the *F scale* were hostile to people of 'inferior' status, servile to those of 'higher' status, and rigidly intolerant of others' views. They were filled with as much fear as hate, thus their frequent association with right-wing, militaristic groups.

Table 2.1 *Characteristics of the Authoritarian Personality*

Submission – obedience and respect for authority are paramount virtues;
Aggression – gays and blacks should be locked up and the key thrown away;
Cynicism – the old traditions of this country have gone and something must be done about it;
Conventionalism – a person who hasn't got breeding can hardly expect to associate with decent people;
Power – there are two sorts of people: the weak and the strong;
Projectivity – people just do not realise how much our lives are controlled by secret plans.

Bigoted people have often experienced harsh, punitive parenting leading to low self-esteem (Buri *et al.*, 1988). Typically the child cannot respond to the parents' aggression and thus displaces his frustration on to another individual over whom he has power. This aggression has to be justified along such lines as 'Well he deserved it, they all do, don't they? Shouldn't be here . . .' There is evidence that prejudiced reactions are associated with authoritarian personality characteristics (Cherry and Byrne, 1976).

Thus some, but not all, prejudice is perpetrated by people who score high on the *F scale*. Little can be done to change their personality, but they are responsive to authoritarian demands.

Reducing prejudice

None of the theories discussed represent a solution to the problem of prejudice, but taken together they do suggest a blueprint for action.

Awareness

Many people do not want to be prejudiced and certainly do not want to transmit prejudiced views and attitudes to their children; however, they are simply not aware of the extent to which their attitudes and behaviour *are* prejudiced. Scales like the *Social Distance Scale* represent a starting place for discussing prejudiced beliefs.

Intergroup contact

We have seen from the Skevington study that contact can reduce stereotypes. Contact between groups can dispel negative stereotypes through lack of supportive evidence and both groups may realise that they have more similarities than differences.

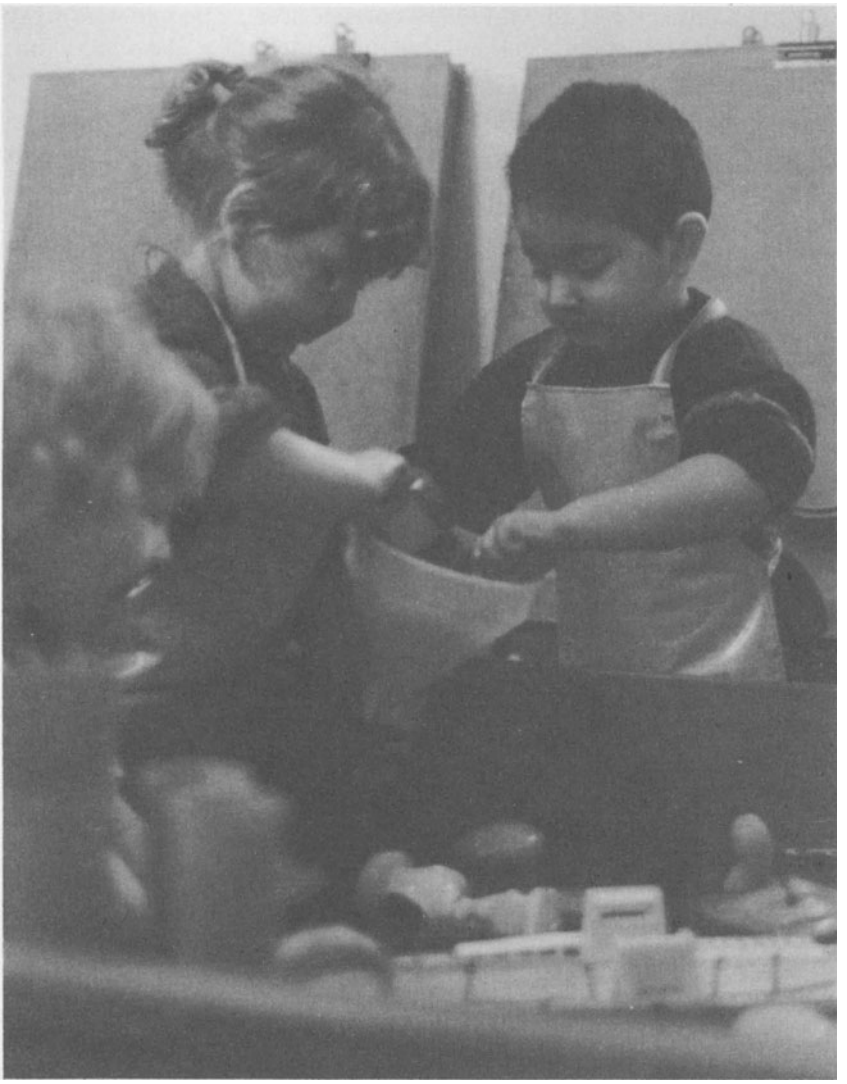
Co-operation

Mixing groups together is not good enough on its own (See *The Robbers' Cave Experiment* p. 55). Stephan (1978) reviewed the research on desegregation of schools in the USA and found that prejudice had increased in as many cases as it had decreased. Contact has to be paired with the pursuit of common goals. As the school environment is quite competitive, conflict can be exaggerated by intergroup contact.

Equal status

Argyle (1991) points out that whilst equal status contact is always difficult to achieve, it has long been regarded as essential if prejudiced and hostile attitudes are not to be reinforced. Without equal status, stereotypes may simply be reinforced.

Aronson *et al.* (1978) put these points into action by constructing a co-operative classroom structure called *the jigsaw classroom*. Pupils from different cultural backgrounds were placed into groups of six and each member of the group was given one piece of the lesson to learn and to relate to the other members of the group. At the end of the lesson each child was tested on the whole lesson and given an individual score. Each child had to learn the whole lesson, but could only do so by



Prejudice can be decreased by contact paired with the pursuit of common goals.

depending on the others. The status of the members of each jigsaw group was equivalent, and communication between the group members improved.

Aronson and his colleagues found that just three 45-minute jigsaw sessions per week produced significant changes in the children's abilities and behaviour. There was an increase in self-esteem, liking for other group members, and an improvement in academic performance.

However, although the children from different racial groups who actually worked together came to like each other better, the reduction prejudice did not extend to those ethnic groups as a whole.

Summary

This chapter has focused on the way in which we make judgements about other people and how this might effect both the way patients are assessed and treated and the way in which health professionals work together. The process by which causative judgements are made about the behaviour of others is called* attribution.** ***I have explored various theories of attribution, including those which attempt to account for occasions when behaviour is inaccurately attributed. This can occur either as a result of inattention to all the available information or as a result of errors of attribution and biases which distort perceptions of social reality.

Prejudice is one source of bias and this chapter concludes with a discussion of the origins, components and measurement of prejudice. The main components of prejudice as thoughts, feelings and actions. I have looked at the three main theories which attempt to explain the origins of prejudice; these include the theory of inter-group competition, social identity theory and the authoritarian personality.

Understanding how errors of judgement can occur and recognising the conditions under which prejudiced thoughts, feelings and actions are likely to increase can help to improve the accuracy of nursing assessment and clinical judgement and the way in which health care professionals work together.

Questions for further consideration

1. In an interactive activity such as nursing, can we ever be free from all our prejudices and biases?
2. To what extent are we 'cognitive misers' when forming first impressions?
3. What is meant by the *primacy effect* in impression formation?
4. How can a knowledge of attribution errors inform the process of nursing care?
5. What theories have been put forward to explain the development of prejudice?

Some sample answers to *Exercise 2.5.*

Nurses v. Doctors

As a nurse I might think that nurses are closer and more caring towards patients than doctors, who are distant and aloof.

Students v. Teachers

As a teacher I might think that teachers are totally committed to learning and education and work hard to deliver a high quality course, whereas students are only in it for the social life and are generally less committed toward work.

General nurses v. Mental health nurses

If I were trained in general nursing, I might think that general nurses work very hard and are always kept very busy, whereas mental health nurses sit in their office and drink coffee all day.

Patients v. Nurses

As a nurse I present myself as capable, confident and self-reliant in contrast to patients, whom I perceive as dependent and demanding.

Student nurses v. Qualified nurses

As a student I might think that I have the most up-to-date knowledge about practices and patient care, whereas I believe qualified staff are resistant to anything new and trained before anyone really knew anything useful.

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Further Reading

Abraham, C. and Shanley, E. (1992). *Social Psychology for Nurses.* Edward Arnold, London.
A comprehensive analysis of social psychology as applied to nursing authored by a psychologist and a psychologist/nurse both of whom have had considerable experience teaching nurses.

Aronson, E. (1990). *The Social Animal.* 5th ed. Freeman, New York.
There is not much to say about this book except for the fact that it is brilliantly written. It contains a discussion of just about all the main social psychological issues in an interesting and understandable fashion.

Baron, R. A., Byrne, D. (1991). *Social Psychology: Understanding Human Interaction,* 6th edn. Allyn & Bacon, Newton Mass.
There are a number of basic social psychology texts, most of which contain all the standard experiments. However, I think this one is good because it is easy to understand and intellectually rigorous at the same time. It is one of the most popular texts and should be easy to get.

Duck, S. (1992). *Human Relationships: An Introduction to Social Psychology,* 2nd edn. Sage, London.
Duck is concerned with presenting social psychology in a context that is relevant to the reader as opposed to a more formal academic structure. I think he succeeds because he maintains academic rigour whilst discussing issues in a very readable fashion. In this sense the book is similar to Baron and Byrne, but I think he goes outside standard social psychological structures.

3 *Child health development*

Case studies

Jenny is 5 years old and is going to visit the family doctor. Her mother thinks that she looks a bit nervous and attempts to cheer her up. On arriving in reception, Jenny is clearly upset and will not tell her mother why. A passing nurse notes that the little girl is crying and goes over to her. She asks what the matter is and Jenny says she doesn't want to go in to see the doctor because of the stethoscope. 'Don't be silly,' her mum says, 'the doctor will warm it up'. 'No, it isn't that,' she says, 'it's to tell if I have a heart and if I haven't, I'm dead.'

Does the nurse hold Jenny's hand, laugh and say 'Of course you have a heart. All children have hearts, don't worry'? Or does she accept what Jenny says, go and get a stethoscope and say to Jenny 'Put these in your ears and this on my chest. See if you can hear how fast or slow my heart goes. Would you like to hear how fast or slow your heart goes?'?

Six-year-old Andrew has a fractured femur and is in traction. A nurse who is new to the ward becomes concerned when Andrew adamantly refuses her suggestion that he have his hair washed and becomes increasingly distressed by her attempts to persuade him. Andrew's primary nurse spends time talking to him. In Andrew's experience, hair is always washed in the bathroom. He tells her he cannot understand how anyone can wash his hair while he is confined to bed, without taking his head off. The nurse shows him how easy it is to wash his hair while he remain in bed.

In the previous chapters it has been assumed that the patients in our investigations have been adults; however, much of nursing is concerned with the care of children. The question arises as to whether there are differences in children's health behaviour according to age. Studies of human development have found many changes in behaviour throughout the lifespan, and these can be divided into two categories:

1. *Quantitative changes* (differences in amount). Children might not know how you catch a cold because they have never been told about colds.

2. *Qualitative changes* (differences in essence/nature). Children find it impossible to understand about catching a cold no matter how hard you try to explain.

This chapter investigates both quantitative and qualitative changes in child development and examines some of the important issues facing nurses when caring for children. One of the main factors that helps children understand the world around them is the development of a framework. If children have a basic plan or pattern of events, not only can they slot present information into the scheme, but they can go on to investigate variations on basic themes. The purpose of this chapter is the same; to provide a basic framework for the nurse to understand child development and then investigate further.

The neonate

Many people believe that babies are born into the world with no ability to understand what is happening around them. This supposition is not new and was in fact proposed by John Locke, a British empiricist philosopher in the 17th century. He saw the neonate's mind as a blank slate ready to receive information from the outside world, but with no preset ability to comprehend it. Research over the last 30 years has indicated that Locke was wrong. Infants are born with a number of abilities or acuities that enable them to make a limited but nevertheless functional sense of their environment.

Sensory acuities

Vision

Visual acuity – this refers to how well the neonate can see. At birth the visual acuity of the newborn is 30 times worse than that of an adult (Slater, 1989). Adult acuity is about 20/20 or 6/6, depending on the system used, whereas the acuity of the neonate is about 20/150. This means that a newborn infant can see an object at 20 feet (6 metres) as well as an adult can see the object at 150 feet (45 metres).

Focusing – the neonate has difficulty focusing properly. The ciliary muscles are unable to operate and manipulate the lens correctly at this stage, so the infant has an optimum focal point of about eight–ten inches. Any object presented to the infant outside this range will appear blurred. Thus toys placed too far away from the baby will not stimulate the child as much as those placed about nine inches away.

Physiology – the eye of the neonate is about half the size of an adult's eye but is anatomically complete. It is slightly 'squashed' in appearance because some parts of the eye mature at faster rates than others. The optic tract that transmits messages from the eye to the brain is partially

The face as it might appear to a newborn, and to an adult.

myelinated, indicating that information is getting to the brain but not as quickly or as efficiently as it will do when a full myelin sheath has been formed (Kessen *et al.*, 1970).

Thus the infant's visual system is active from birth. There are operational difficulties as mentioned, but the baby is equipped to engage in an active exploration of his or her environment.

Haith (1980), using research from a number of studies, has tried to look at the world through the eyes of the neonate and has described a typical pattern of visual search.

- If I'm awake and alert and the light is not too bright, open eyes.
- If I'm in darkness, maintain a controlled, detailed search.
- If there is light but no form to the figure, search for the edges.
- If an edge is found, terminate the broad scan and stay in the vicinity of the edge.

Some researchers have argued over the precise makeup of these 'rules', but they do indicate the active nature of the neonate's visual system. Slater (1989) summarises the research in this area by saying

> Nevertheless, there is general agreement that the newborn is biologically prepared to explore the environment and is able to actively seek out and to attend to some forms of stimulation in preference to others.'

Implications

There are two main implications from the research:

- Babies need appropriate levels of stimulation.
- It may be useful to parents if the nurse explains to them how a baby sees the world.

As Slater points out, infants tend to prefer some forms of perceptual stimulation to others. Fantz (1961) showed babies a series of pictures (*Figure 3.1*) and measured the amount of time they spent looking at each one. He found that the babies spent much more time looking at patterned pictures than they did looking at plain ones and nearly twice as much time looking at a picture of a mother's face. The preference for pattern can be explained by the fact that the black and white contrast contained in the patterns stimulates more cells in the retina and is thus more 'exciting' The preference for a mother's face is not so easily explained. Some researchers have suggested that the neonate is programmed to respond to a face pattern (Dannemiller and Stephens, 1988) while others have suggested that in the absence of experience of faces, neonates do not show a preference for the face pattern (Small, 1990). Slater provides a tentative solution to the controversy by suggesting that immediately after birth black and white contrast 'will easily swamp any specific response to facedness'. However, the human face does seem to have special significance for babies from birth onwards.

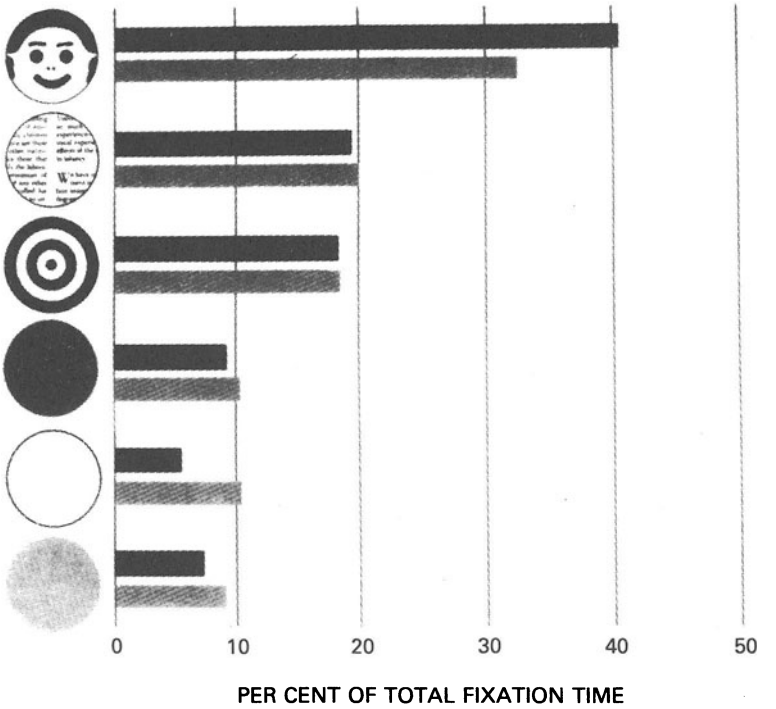


Figure 3.1 *Series of pictures shown to babies to determine perceptual stimulation preferences (adapted from Fantz, 1961).*

Colour vision also forms part of the infant's early visual environment. Aslin (1987) found that whilst very young infants could see red, green and yellow, blue was not part of their visual repertoire until they were four months old.

Hearing

The ear, like the eye, is fairly well developed at birth. Keith (1975) found that the middle ear is free from mucus a few hours after birth and therefore able to operate, but there are certain limitations to the neonate's perception of pitch. Babies respond more to high pitched sounds in the region of 4000 hertz (the highest note on a piano is about 4180 hertz), and many adults speak to babies in high pitched voices because babies are more responsive to sounds at the top end of the spectrum.

Eimas (1985) found that newborns could distinguish between the sounds 'pa' and 'ba', but probably the most startling findings in relation to audition come from studies by Anthony De Casper and his colleagues. De Casper and Spence (1986) asked 12 pregnant women to read a passage from a children's story, *The Cat and the Rat,* to their unborn babies twice a day for the last six weeks of their pregnancies. A few days after birth the neonates were played tape recordings of two stories, the one they had heard *in utero* and a new story. The researchers found that the babies were able to modify their sucking rate whilst listening to *The Cat and the Rat* story but not to the new one, suggesting that:

1. the babies could discriminate between the two stories;
2. the babies could hear in the womb;
3. the babies could learn and memorise before birth.

Smell

The ability of newborn children to discriminate between smells is quite weak at birth, but after a few weeks they can tell the difference between their mother's and a stranger's odour. MacFarlane (1977) presented 10-day-old babies with pads which had been placed inside their own mother's bra and pads which had been placed inside that of a stranger. He found that the babies turned significantly more often to their own mother's pad. Interestingly, Cernoch and Porter (1985) found that this discriminatory skill was only true for breast-fed babies; bottle-fed babies showed no evidence of recognition. However, bottle-fed babies can tell the difference between the odours of lactating and non-lactating females (Makin and Porter, 1989), but, maybe due to lack of contact, are not able to differentiate subtle differences between mothers' smells.

Taste

Neonates can tell the difference between water and sugar solutions, even discriminating between sucrose and glucose (Engen *et al.*, 1974). Evidence exists for an innate ability to distinguish between certain flavours. Ganchrow *et al.* (1983) placed flavoured water in the mouths of babies who had never been fed before. The facial responses of the babies to the different tastes were observed and recorded on video machines. The sweet water produced a relaxed expression; the sour liquid was met with pursed lips; and the bitter solution produced an arched mouth with the sides turned down and an expression of disgust. The researchers concluded that the different expressions in reaction to the water solution indicated that the neonates could taste the difference.

Touch

The fact that neonates can experience touch is evidenced by reflexive responses. Placing a finger in the palm of a baby's hand will elicit the *grasp reflex* and stroking the cheek will cause the baby to turn in the direction of the touch (the *rooting reflex*). Many of the reflexes described may have their origins in species survival; the clinging and grasping may have been important in times of danger. The majority of reflexes disappear after a few months when the brain starts to exert more cortical control (Kalat, 1981).

Intersensory co-ordination

A number of studies have found that neonates have a better integrated intersensory system than older children. Bower (1989) showed that blind babies could 'see with their ears,' and young children were much better than older children at this task. Using ultrasonic devices, waves are bounced off objects and picked up by a device which transfers them to the baby's ear, so that pitch indicates object distance, loudness the size of the object, clarity the texture of the object and right/left, the location of the object.

Bower found that infants between the ages of five and 16 months were able to reach accurately for objects using this apparatus and the younger ones adapted much quicker than the older ones. Bower suggests that the babies do not treat the information they receive as sound but are in fact seeing with their ears; that is, responding to sound in much the same way as sighted infants do to light. It seems that the sensory world of the neonate is much less differentiated than that of older infants or adults.

There does not seem to be much doubt that the neonate comes into the world with sensory acuities which are operational. Whilst the

efficiency of the sensory system is still limited, babies can make a certain sense of their environment. A knowledge of what babies can and can't do will enable nurses and parents to provide an appropriate level of stimulation and an awareness of the importance of the environment.

Parent–child interaction

During the course of infancy an emotional bond develops between children and parents. Bowlby (1951) went so far as to suggest that the lack of opportunity for the development of such a bond could result in 'affectionless psychopathy' – the inability to have deep feelings for another person. Many have taken issue with Bowlby over these statements (see Rutter, 1981) since his findings were based on studies that possessed a number of methodological flaws (Pinneau, 1955). However, the feeling still remains among many people that disruption of the parent–child relationship can lead to problem behaviour later on in the child's development. In order to examine the accuracy of such feelings it is necessary to investigate the processes involved in parent–child interaction.

Early influences

Some factors that have been put forward as potential hazards to successful parent–child interaction include:

- infant temperament
- preterm birth
- postnatal depression

Infant temperament

One obstacle to the development of an appropriate relationship between parents and their babies might be the temperament of the baby. Thomas *et al.* (1970) conducted a large scale study into the nature of infant temperament. They wanted to find out if infants had different temperaments and whether these temperamental qualities remained stable throughout childhood.

Thomas and his colleagues interviewed 141 parents about the behaviour of their babies from the age of two months to ten years old. They found nine temperamental characteristics to be consistent throughout this period of time (see Table 3.1).

Table 3.1 *Consistent temperament characteristics*

Activity level	ranging from very fidgety and active to relatively still and passive.
Quality of mood	this can range from predominantly positive, happy, and contented to mainly negative, fretful and miserable.
Approach versus withdrawal tendencies	the child, when exposed to new features of the environment, reacts either positively or negatively to particular types of stimulation or sensory stimulation, such as taste or touch, or to new people.
Rhythmicity	habits of, for example, eating, sleeping, bowel movements, relatively predictable rather than erratic or unpredictable.
Adaptability	child settles down relatively easily rather than resisting change when exposed to new routines or situations.
Threshold of responsiveness	child is hypersensitive to sounds, touch, versus relatively insensitive.
Intensivity of reaction	some babies may cry loudly and intensely, while others react more moderately to stimuli.
Distractability	some children attend to things for considerable periods of time, while others flit from one thing to another.
Persistence	some babies are very 'single-minded' and stick to 'goals' with great persistence.

Patterns of interrelationship between the characteristics were also found, so that an active baby was often rated as less cuddly and more irritable and restless than a placid baby. Three basic clusters of traits were identified:

Easy babies (40% of sample)
Regular in natural functions
Positive approach to new objects and events
Mild in intensity or reaction
Adjusted easily to change

Difficult babies (10% of sample)
Irregular sleeping/eating patterns
Difficulty negotiating new events
Intense reactions
'Fussy' mood

'Slow to warm up' babies (15% of sample)
Low activity level
Passive resistance to new objects and people
Low threshold of responsiveness
Once new situations adapted to – positive response

Thomas and his colleagues said that these clusters might prove useful in counselling new parents about the nature of their babies' temperamental qualities; knowing that some babies are born with a 'difficult' temperament could perhaps reduce feelings of inadequacy in parents. Further, Gennaro *et al.* (1992) investigated three studies of pre-term, low birth weight infants and found that they were significantly more difficult than comparison groups of full-term infants.

However, there are a number of problems with Thomas' research: a large proportion of the sample (35%) did not seem to fall into any of the clusters; and the study did not consider the effects of the parents' temperament on the behaviour of the children. Rutter (1978) found that infants' temperamental qualities affect the way adults respond to them, so that difficult babies may be punished more frequently, leading to frustration in the children, which in turn makes them even more difficult. Sameroff (1991) sums up the transactional nature of parent–child interaction by saying:

> The mother's anxiety during the first months of the child's life may have caused her to be uncertain and inappropriate in her interactions with the child. In response to such inconsistency the infant may have developed some irregularities in feeding and sleeping patterns that give the appearance of a difficult temperament. This difficult temperament decreases the pleasure that the mother obtains from the child and so she spends less time with the child.

There is little doubt that babies possess different temperamental qualities; whether these are due to genetic factors, or are the result of the child's response to the parent, they *can* be changed. The 'difficult' child does not have to remain so. Nurses should stress to parents that they have a significant role to play in their child's development. Rather than labelling the child 'difficult', nurses should be a good role model and indicate to parents how to interact appropriately with their children. As such, an analysis of parent–child interaction is of more use than a categorisation of temperament.

Prematurity

Generally, premature infants can be categorised into two groups:

1. *small-for-date babies.* Infants born below the weight expected for their gestational age. Some are born at their normal term; others earlier.
2. *Preterm infants.* Birthweights are appropriate for gestational age but they are born early.

Both groups of infants produce problems for parent–child interaction since the babies spend long periods of time in isolation from their parents. Brazelton *et al.* (1987) have suggested that premature babies are less responsive and more irritable then full-term infants. These characteristics, and the accompanying isolation, disrupt the normal parent–child interaction sequences.

One answer to the problem has been to provide the infants with extra stimulation whilst they are in hospital (Oehler, 1993). An early study by Solkoff *et al.* (1969) found that premature babies given extra tactile stimulation in the hospital by nurses experienced increased weight gains as compared to a similar group of babies who did not receive stimulation. In addition to extra handling, Korner (1987) found that extra stimulation in the form of objects to look at and music to listen to leads to improvements in many areas of development. Other forms of stimulation apart from touching are extremely important for very small babies (those weighing less than 1500 grams) as their skin is very sensitive.

However, extra stimulation in the hospital is not the only answer to the problem. Parents need to be given information about the amount and quality of stimulation that their babies will need once they return home. Not only can too much stimulation be as bad as too little, but parents also have problems with the quality of interaction with premature infants. Crnic *et al.* (1983) found that mothers and their babies have difficulty maintaining eye contact with one another. The mothers also had difficulty in finding the correct level of stimulation, resulting in the babies becoming either over-excited or bored.

Slater (1991) has suggested that extreme care should be taken in providing correct levels of stimulation for premature babies. For instance, in many neonatal units there are high levels of lighting which may cause damage to the babies' visual system since the pupillary reflex can be inoperative at this stage. Slater recommends that if high levels of lighting are needed, then infants should have their eyes protected by lubricated goggles in order to guard against any possible damage to vision.

The Brazelton Scales

One method of teaching parents how to interact with their babies is to have them watch or take part as the *Brazelton Neonatal Assessment Scale* (see Table 3.2) is administered to their child (Myers, 1982). This scale is particularly good for teaching parents as it is designed to elicit from the child pleasing characteristics such as smiling, cooing and gazing. As the test proceeds, parents see how their child can respond positively to other people, and they will learn how to elicit these behaviours themselves. Hopefully the success of these exchanges between parents

and child will promote greater understanding and lead to feelings of increased competence. Widmayer and Field (1980) found that Brazelton training for the premature babies of teenage mothers led to increased responsiveness in comparison to a control group who did not receive the training. Parents who had received the training were more knowledgeable about infant behaviour, more confident in their caretaking abilities, and more satisfied with their infants than the control parents were.

Table 3.2 *The 26 Categories on the Brazelton Neonatal Behavioral Assessment Scale (NBAS)*

1. Response decrement to repeated visual stimuli
2. Response decrement to rattle
3. Response decrement to bell
4. Response decrement to pinprick
5. Orienting response to inanimate visual stimuli
6. Orienting response to inanimate auditory stimuli
7. Orienting response to animate visual stimuli – examiner's face
8. Orienting response to animate auditory stimuli – examiner's voice
9. Orienting responses to animate visual and auditory stimuli
10. Quality and duration of alert periods
11. General muscle tone – in resting and in response to being handled, passive, and active
12. Motor activity
13. Traction responses as he or she is pulled to sit
14. Cuddliness – responses to being cuddled by examiner
15. Defensive movements – reactions to a cloth over his or her face
16. Consolability with intervention by examiner
17. Peak of excitement and capacity to control self
18. Rapidity of buildup to crying state
19. Irritability during the examination
20. General assessment of kind and degree of activity
21. Tremulousness
22. Amount of startling
23. Lability of skin color – measuring autonomic lability
24. Lability of states during entire examination
25. Self-quieting activity – attempts to console self and control state
26. Hand-to-mouth activity

Parents do have fears and worries about interacting with their premature infants, and the role of the nurse must be to allow parents to come to terms with these feelings in such a manner that they do not feel failures.

Postnatal depression

Difficulties in establishing desirable parent–child interaction patterns may be due to unresponsive parents. Williams and Carmichael (1985)

looked at a sample of Australian women who had just had their first baby. Those mothers who were depressed reported significantly more problems than the non-depressed mothers. The types of disturbances identified were:

- a failure to establish a relationship with the infant on the postnatal ward;
- difficulties in developing a routine pattern of management of the baby;
- at home the infant was said to cry a lot, feed poorly, sleep irregularly and was difficult to soothe;
- the behaviour of the infant caused the mother to become frustrated and angry;
- some mothers experienced depression weeks after delivery, with similar interaction problems.

These were the mothers' perceptions, and may have been distorted by their depressive state. However, further evidence of disrupted parent–child interaction caused by postnatal depression comes from Murray and Trevarthen (1985). They found that 'unnatural disruptions' produced distressed patterns of infant response. When maternal behaviour was interrupted quite naturally by, for example, a conversation with someone else, the baby responded with no distress. If, however, an unnatural disruption was arranged by the mother, such as adopting a blank face, or mistiming interaction sequences, the baby very quickly appeared disturbed. Investigations of the behaviour of 'depressed' mothers have indicated that unnatural disruptions can cause significant distress in young infants, leading to subsequent behavioural problems.

Guidelines for detecting postnatal depression

Murray and Stein (1991) have suggested some guidelines for the detection of postnatal depression;

- It may be possible to identify those mothers at risk of postnatal depression antenatally. Nurses should pay attention to such factors as: social and economic stress, lack of close relationships, and a previous psychiatric history. All these factors have been associated with postnatal depression.

- Predictions based on antenatal risk will never be entirely accurate, so attention has to be directed towards behaviour on the postnatal ward:
  (i) strong adverse maternal reactions to the infant after delivery may affect the mother's future relationship with the baby.
  (ii) feeding difficulties are frequently experienced by those who become depressed;

(iii) severe feelings of low mood ('4-day-blues'), have been associated with a full depressive episode postpartum;
(iv) absence of social support may be another risk factor. Lack of visitors on the postnatal ward or difficult relationships with those who do visit may indicate imminent problems.

It should be stressed that none of these factors on their own need indicate any concern, but taken together they may indicate a risk of postnatal depression.

Since the majority of marital and personal stress often occurs weeks and months after the birth of the child (Miller and Sollie, 1986), attention has to be given to the identification of postnatal depression in the community. Cox *et al.* (1987) have developed a self-report questionnaire to detect postnatal depression which can be administered to mothers at a six-week postnatal check. There is evidence that it works and also seems to be acceptable to mothers (Murray and Stein, 1991).

The nurse also has a significant role to play in the management of postnatal depression. Holden *et al.* (1989) trained health visitors to give nondirective counselling to depressed mothers. This approach emphasises viewing the situation through the eyes of the mother. A supportive, counselling approach alongside practical advice can reduce maternal depressive symptoms and may also be perfectly appropriate for parents who are not depressed, but are experiencing problems at home.

Attachment behaviour

During the course of the first year after birth the infant develops a relationship with his or her parents. Through the process of parent–child interaction, a bond develops between the child and parents. This is called the *attachment bond.* The main interactive processes contributing to the development of this bond are the *social signalling processes*, two of the most important being crying and smiling.

Crying

The main psychological function of crying is to bring someone, usually the caregiver, into close proximity with the child so that interaction can take place. Wolff (1969) identified three different types of cry:

(a) The *basic/hungry cry* follows the rhythmical pattern of cry, silence, breath in, silence, cry.

(b) The *mad/angry cry* follows the same pattern but the length of the elements differs. (The mad/angry cry was labelled as the 'fussy cry' by Fuller (1991) and found to be less tense than the hungry or pain-induced cry.)
(c) The *pain cry* – a loud, long cry, a long silence, followed by a series of short, sharp inhalations.

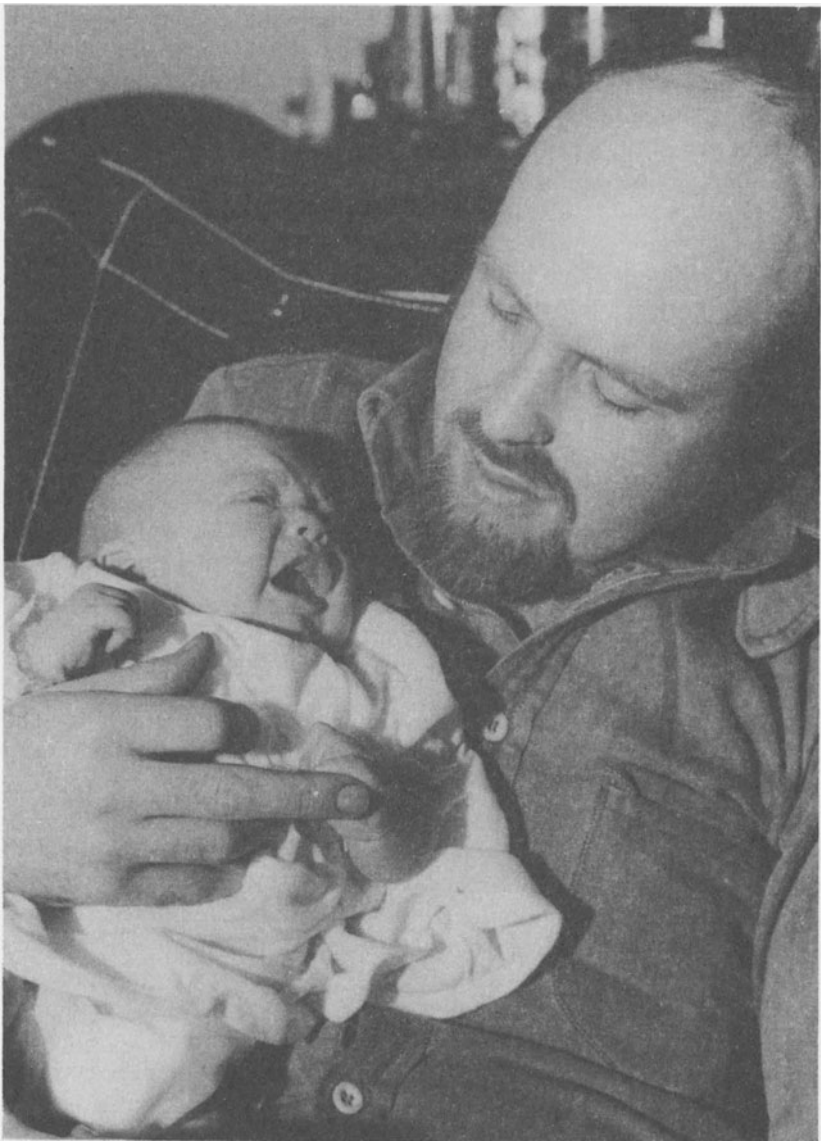
Both parents and non-parents are able to distinguish between these cries (Gustafson and Harris, 1990) although they tend to react differently. After a few months the infant learns that pleasant consequences often accompany crying behaviour and the 'attention please' cry develops. The question of whether continually responding to a baby's crying rewards the behaviour, thus producing more was examined by Ainsworth and her colleagues (Ainsworth *et al.*, 1991). She found that mothers who were quick to respond to their babies' cries had infants who cried very little. Why should this occur? Sensitive caregivers who respond to an infant's cries are usually also responsive to other social signals such as the smiling and babbling that infants are likely to emit when they calm down. Gradually alternative modes of attention-seeking are reinforced to replace crying.

Sometimes babies cry for no readily identifiable cause. If they have just been fed and still cry mothers often assume it is because their nappies are wet or that they are cold. Wolff (1969) had nurses change the nappies of crying babies just after they had been fed, when a wet nappy was more than likely. Half the babies actually had their nappies changed, while the other half did not – the nurses went through all the motions but put the wet nappies back on. Most of the babies in both groups stopped crying. This suggests that it was the handling and stimulation the babies received rather than the change of nappy that made the difference.

Many studies have investigated how to sooth fussy crying in babies. These include:

- picking them up and holding them to the shoulder or breast in an embrace (Korner and Thoman, 1972);
- rocking, patting, cuddling and swaddling (Campos *et al*, 1989);
- sucking on a pacifier (Field and Goldson, 1984);
- listening to tapes of low-pitched rhythms like heartbeats (Brackbill, 1975);
- rhythmic (up and down) movement of 3 inches, 60 per minute (Ambrose, 1969).

In general it seems that fussy behaviour in babies may be reduced through a combination of touch and rhythmic stimulation.



Babies often cry for no readily identifiable cause.

Smiling

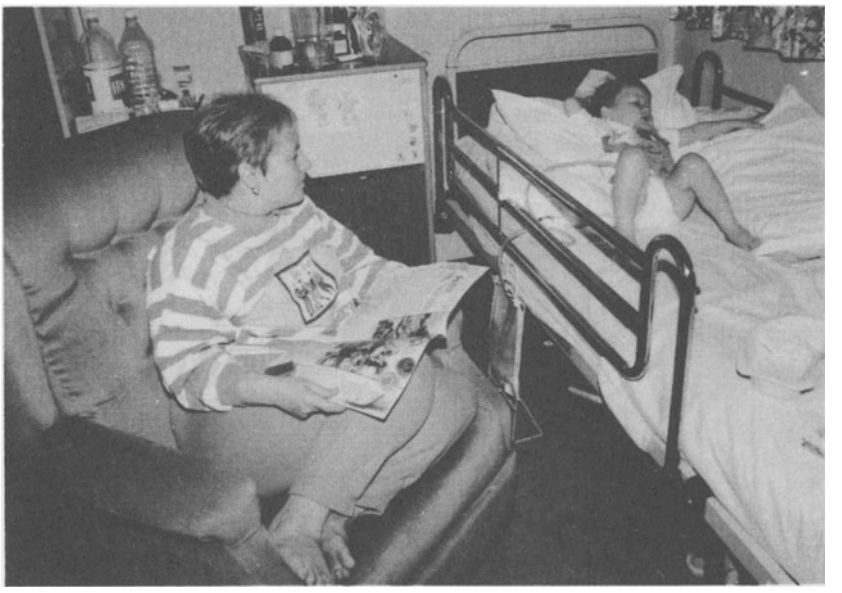
If the purpose of crying is to bring the adult into contact with the infant, then the function of smiling is to maintain that contact. Initially, young infants will smile indiscriminately at things they see and hear, and will even smile in their sleep (Emde and Robinson,

1979). However, after a few months, social smiling develops and the infant will initiate a sequence of interaction with the parent by using the *greeting response* (Bell, 1974). The greeting response is characterised by the child seeing the parent and responding by opening his or her eyes and mouth in a distinctive shape, making a sort of cooing sound and smiling. The parent typically reacts by smiling, touching, and talking to the child. The infant finds this behaviour rewarding and responds by smiling even more, and so on. A mutual reward system has been created whereby the parent is rewarded by the infant's smiling response and is thus encouraged to engage in more touching, cuddling and talking which in turn the baby finds rewarding. It is this type of interaction process that leads to the development of an attachment between child and parents.

The attachment bond

The process of mutual conditioning and interaction results in the development of a bond between the child and his or her parents. To determine the nature of this bond it is necessary to look at situations where the child is separated from his or her parents. Schaffer and Callender (1959) investigated separation responses by studying the effects of short-term hospitalisation on infants aged between one month and one-years-old. Separation upset was measured by the amount of crying, responsiveness to the mother during her visits, and attitude towards nurses. The researchers found the behaviour of the children changed when they reached the age of about seven months old. Those infants above seven months reacted to the separation with protest, a negative attitude towards the nurses, by becoming withdrawn, and on returning home, a period of insecurity with the mother. Infants under seven months of age showed no protest and the nurses were accepted as mother substitutes. A brief upset was observed when the infants returned home but this was put down to a change in environment rather than to the mother's renewed presence. Schaffer and Callender suggested that a bond had developed between the children and their mothers at about the age of seven months old and the intensity of this bond remained consistent until the end of the child's first year.

Many hospitals provide rooming-in facilities for parents so that they can be with their children during hospitalisation. Alexander *et al.* (1988) have commented not only on the positive effects of rooming-in for the hospitalised child, but also on the positive effects for the parents. However, attention should be directed at non-rooming-in fathers who may be left with children to look after at home, in addition to experiencing high stress levels engendered by separation from the hospitalised child.



Many hospitals provide rooming-in facilities for parents.

A study investigating the development of the attachment bond in home environments was conducted by Schaffer and Emerson (1964). They asked mothers to observe their infants' separation responses in a variety of everyday separations such as the child being left alone in a room or left with a stranger. There were 60 infants in the study and they were examined from birth every month for a year and then again at the age of 18 months. Again, the experimenters found age differences in separation responses above and below about seven months. They also found that babies above seven months were upset by strangers approaching them, whereas the younger children had no such apprehension. These and previous findings led Schaffer and his colleagues to conclude the following points about the attachment bond:

- the average age for its development in a child is at about seven months;
- it is characterised by separation anxiety and fear of strangers;
- the child can develop a bond with more than one person.

Most of the children initially formed an attachment to one person, but after 18 months most had developed other bonds with fathers, grandparents, aunts, siblings, and other caregivers. Furthermore, one-fifth of the infants had formed strong attachments to people such as the fathers who did not take part in feeding the child and were absent for the majority of the day. In these cases, the fathers were noted to

engage in intensive, stimulating interaction with the child on returning home, indicating that the quality of interaction is more important than feeding the child or spending long periods of time with him or her. Indeed, Jones and Thomas (1989) found that fathers appeared to be highly sensitive to the stimuli involved in interacting with their children.

Mary Ainsworth made extensive studies of children and their mothers, and then, together with her colleagues, developed a method of studying attachments called 'The Strange Situation'. This consists of a sequence of 8 episodes, each lasting 3 minutes, in which the mother/father and a stranger enter and leave the room (see Table 3.3). Trained observers record the child's behaviour during these episodes, and on the basis of this, the children are categorized into 3 groups: Securely Attached; Insecurely Attached – Avoidant; and Insecurely Attached – Ambivalent (Ainsworth *et al.* 1978).

Table 3.3 *Ainsworth's strange situation (adapted from Ainsworth* et al., *(1978)*

Episode 1 Duration 30 secs	— Observer introduces mother and baby to experimental room, then leaves.
Episode 2 Duration 3 min	— Mother is nonparticipant while baby explores. If necessary, play is stimulated after 2 minutes.
Episode 3 Duration 3 min	— Stranger enters room. Stranger silent. Stranger converses with mother. Stranger approaches baby. After 3 minutes mother leaves unobtrusively.
Episode 4 Duration 3 min; less if baby is distressed	— First separation episode. Stranger's behaviour is geared to that of the baby.
Episode 5 Duration 3 min or more	— First reunion episode. Mother greets and comforts baby, then tries to settle her again in play. Mother then leaves saying 'bye-bye'.
Episode 6 Duration 3 min or less	— Second separation episode.
Episode 7 Duration 3 min or less	— Continuation of second separation. Stranger enters and gears her behaviour to that of the baby.
Episode 8 Duration 3 min	— Second reunion episode. Mother enters, greets her baby, then picks him up. Meanwhile stranger leaves unobtrusively.

Maternal deprivation

> Separation *per se*, whether it lasts a month, a year, or is permanent, has not been found to have any direct long-term effects on development.
> Tizard (1991)

Many people have taken exception to Bowlby's theory of the 'affectionless psychopath' (see p. 71). His views were based on his psychoanalytic background and evidence from some studies of poorly run children's institutions in the 1940s. Not surprisingly, the concept of maternal deprivation has, according to Rutter (1981), outlived its usefulness; there is no indication of whether maternal deprivation refers to no mother or to lack of her presence at certain times. And what about separation from the father? A more useful exercise is to examine Tizard's statement and look at the effects of short-term and long-term separations on the development of children.

Short-term separations: hospitalisation and 'working mothers'

One of the main studies investigating the long-term effects of hospitalisation was carried out by Douglas (1975). He carried out a national survey of children born in 1946, noting the number and length of stays in hospital they had. When the children reached adolescence, he found significant correlations between number and length of hospital admissions and troublesomeness, poor reading, delinquency, and unstable job history. From this he concluded that there was a direct link between hospital admission in the pre-school years and later behavioural problems.

Quinton and Rutter (1976) questioned some of the methodology used in the Douglas study, and in attempting to replicate it found no long-term psychological consequences following single hospital admissions of less than a week. They did, however, find that multiple or recurrent admissions were linked to later disorders.

Problems of data interpretation

It might seem, on the basis of the research presented, that frequent separations due to hospitalisation can cause problems in later life. Not so. One must beware of every study where the terms 'relationship' or 'correlation' are used. For instance, it might conceivably be true that there is a significant correlation between drowning and ice cream consumption since both tend to occur at the seaside. But to say that eating ice cream causes drowning would be erroneous.

Let us re-examine the separation data. There is a link between multiple and recurrent admissions to hospital and psychological problems later on in a child's development, but what caused these multiple admissions? Could it be the case that the factors responsible for the child being admitted to hospital were the same ones that caused the child to have psychological problems in adolescence? Could conditions in hospital, such as the quality of nursing care, be a factor? The answer is 'maybe'; we really cannot tell but we should always refrain from making causal inferences from correlational studies.

'Working mothers'

Of course all mothers work, but here the term refers to those women who work away from the home as well as in it. When Bowlby's report was published in 1951, many seized upon the implications of his findings for the employment of women. A World Health Organisation report in the same year stated that mothers who went out to work and placed their young children in day nurseries would cause 'permanent damage to an entire generation'. With the advent of childcare books in the 1950s and 1960s, such as Dr Spock's, it became 'common knowledge' that it was essential for children to be reared by a loving mother at home. Even amongst nurses the accepted wisdom was that women who had children under three and who went out to work put the children at serious risk. Tizard (1991) states:

> Few people now realise that British nursery schools until the 1950s took children from the age of two, and that full-day school was seen as important to allow for the valuable social experiences of communal meals, rest and a balanced day.

During the last three decades there has been a wealth of research indicating that short-term separations *per se* have no adverse psychological consequences. A number of the primary attachment figures in the Schaffer and Emerson (1964) study were, in fact, fathers who went out to work and only saw their children when they returned home. Children may form attachments to caregivers, but they normally show an overwhelming preference for their parents. There is some evidence that children from 'unstimulating' environments can actually benefit from attendance at day nurseries (Andrews *et al.*, 1982). A review of this topic by Clarke-Stewart (1991) has concluded that the issue of the psychological consequences of short-term separations is complicated by extraneous variables such as the quality of parental care. However, quality of care outside the home can make a critical difference to the child's development. It seems that it is the quality of care at home and in the nursery which is important for the child's emotional and

intellectual development, not the fact that the mother goes out to work.

Long-term separations: divorce and death

Both divorce and death involve a similar element of separation. Thus, according to Bowlby's hypothesis, there should be no differences in the psychological consequences as both involve disruption of affectional bonds. Rutter (1981) summarised the research and concluded that there is no correlation between the death of a parent and deviant behaviour. There was a correlation between divorce and personality problems, but only if the divorce was accompanied by marital discord. In his studies of delinquency and deviance he found that marital discord or disharmony was the main factor involved in the development of 'problem children', rather than parent–child separation. Divorces which occurred under more amicable circumstances were found to prove less damaging than those relationships that remained intact and unhappy. There was an association between separation from parents and antisocial behaviour in boys, but this occurred only in those homes where the marital relationship was difficult and strained. Hetherington (1989) conducted a long-term study of the effects of divorce on children's behaviour in the United States and found no simple pattern. Whether children of divorced parents develop psychological problems depends on their personal characteristics, events followed the break-down of the relationship, and the child's ability to turn to other social relationships.

The child's life is inevitably disrupted by divorce and death, economic problems, the emotional state of the parent, and long illnesses which can precede death. All of these can produce difficulties for the children, leaving Rutter (1976) to conclude that 'The present findings suggest that separation as such is of negligible importance in the causation of delinquency.'

Institutionalisation

Long-term separations due to institutionalisation have been investigated by Barbara Tizard and her colleagues (Tizard, 1977; Hodges and Tizard, 1989). Again, the main problems are related to the nature of care rather than to the degree of separation from the parent. Whilst the 25 institutions studied provided good physical care for the children, their psychological provision appeared deficient. Close relationships in all the nurseries were discouraged, so the children were unable to form attachments. This resulted in attention-seeking behaviour which seemed to persist even for those children who were subsequently adopted.

> The nurseries thus provided an environment for the children which was very different from that found in any private family. While considerable attention was given to the children's health and education, their care passed through the hands of rather young girls, who attempted to remain emotionally detached from them.

The absence of stable close relationships results in an inability to consummate attachment behaviour, which is represented by attention seeking in later development.

Implications

Many parents are worried if they have to be away from their children for even short periods of time. Often it is assumed that the separation will result in some form of psychological deficit. Nurses should be able to identify the real causes of children's difficulties and act accordingly. This highlights the importance of nurses having a knowledge of children's development and underlines the need for greater continuity in the management of childcare. It is also appropriate to dispel some of the myths that surround the quality of care provided by the 'working mother'.

Children's understanding of health and illness

Bibace and Walsh (1979) in their study of children's conceptions of illness asked four and five-year-olds about the purpose of the stethoscope. Among the children's responses were that it was to discover 'if I have a heart', which 'is what makes me live'. Niven (1994) asked a similar question of five-year-old children and their response was that the stethoscope was for listening to your heart to see if it has stopped. Then, on enquiring as to whether this was important, he obtained the reply 'Uh-huh, very important to your whole body . . . do you not know about this?'

Clearly, children can have different ideas from adults about health and illness, but we need to know the extent to which these differences are due to a lack of knowledge or to an inability to understand health concepts. If nurses are to communicate effectively with children they need to be able to phrase their words at a level which is meaningful to the child. Therefore, it may be useful at this point to:

- examine the differences between adult and children's concepts of health and illness;
- determine whether any differences are due to an inability to understand;

- investigate ways in which nurses might use research findings to facilitate communication and health promotion.

Differences between children's and adults' perceptions of illness

In the context of pain, Eland (1985) says that adults are able to realise that the pain associated with an injection is only transitory and will result in practical benefits. She says that children do not make a similar association and may sincerely believe the injection to be unnecessary.

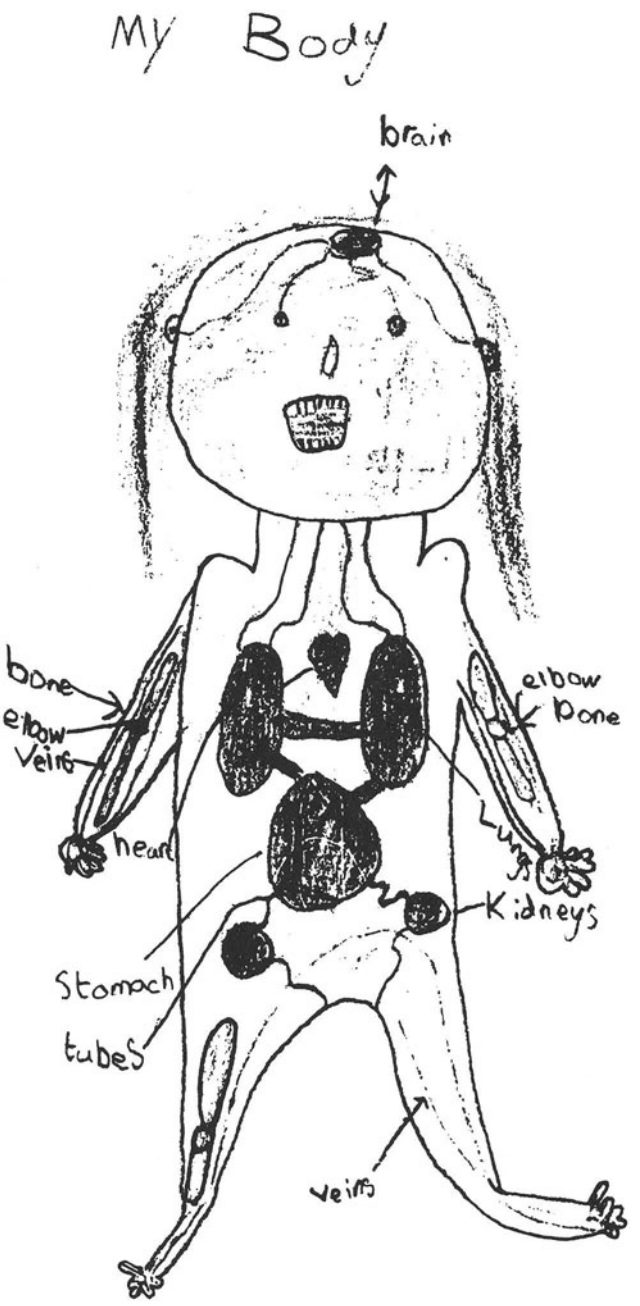
> If a nurse's response to an adult's admission of pain were striking the patient with a baseball bat, the patient would deny all pain from that moment. To a young child, the shot [injection] is the baseball bat.

Children have more difficulties than adults with ambiguous words. Sick can mean feeling ill or it can mean vomiting. A colleague related a conversation with his four-year-old son which started with his son asking him one morning whether God used their bathroom often. This question took him quite by surprise, until, after some thought, he realised why his son had asked such a question. The day before he had shouted upstairs to the occupier 'Oh God, when are you going to come out of that bathroom?' His son had taken the request literally.

In Bibace and Walsh's study of age differences in the conceptions of illness they asked children aged between three and 13-years-old twelve questions on health and illness (see Table 3.4).

Table 3.4 *Taken from Bibace and Walsh (1979)*

1.	What does it mean to be healthy?
2.	Do you remember anyone who was sick? What was wrong? How did he or she get sick? How did he or she get better?
3.	Were you ever sick? Why did you get sick? How did you get sick? How did you get better?
6.	What is a cold? How do people get colds? Where do colds come from? What makes colds go away?
8.	What is a heart attack? Why do people get heart attacks?
9.	What is cancer? How do people get cancer?
11.	Have you ever had pain? Where? What is pain? Why does it come? Where does it come from?
12.	What are germs? What do they look like? Can you draw germs? Where do they come from?



Amanda (7 years)

A child's perception of her body.

The children's answers were analysed and allocated to categories according to the sophistication of their response.

STAGE ONE (Children aged approximately under seven-years-old)
Incomprehension: the child gives irrelevant answers or evades the question.
'What is a heart attack?'
'A heart attack is on vacation.'
'Why?'
'Can I have a pencil?'
Phenomenism: illness is usually a sight or sound that the child has, at some time, associated with the illness.
'What is a heart attack?'
'A heart attack is falling on your back.'
'Why do people get heart attacks?'
'A heart attack is from the sun.'
Contagion: illness is usually a person or an object that is close to, but not necessarily touching, the ill person. It can also be an activity that occurs before the illness.
'Where does a cold come from?'
'From other people.'
'How do you get a cold from other people?'
'You're just playing with them.'

STAGE TWO (Children aged approximately seven to 11-years-old)
Contamination – the child cannot distinguish between mind and body, thus bad or immoral behaviour can cause illness as well as contact with germs.
'What is cancer?'
'Cancer is when you are very sick and you have to go to hospital and you throw up a lot, and stuff.'
'How do people get cancer?'
'From smoking without their mother's permission. You shouldn't do it, it's bad.'
Internalisation: illness is within the body and the cause comes from outside.
'How do people get colds?'
'From germs in the air, you breathe them in.'
'How does this give you a cold?'
'The germs, they get in your blood.'

STAGE THREE (Children aged approximately 11-years plus)
Physiological: the child can now describe the functioning of internal organs, and illness is often perceived as some malfunctioning part of the body.

'What is a heart attack?'
'A heart attack is when the heart stops pumping blood to the rest of the body. A person faints, stops breathing, and collapses.'
Psychophysiological: an additional cause of illness is perceived, namely a psychological cause. Feelings can now affect the functioning of the body.
'What is a heart attack?'
'It's when your heart stops or doesn't work right.'
'How do people get heart attacks?'
'A heart attack is being all nerve-racked and weary.'
There is support for classifying conceptions of illness in this way from the studies of Perrin and Gerrity (1981) and also Fielding (1985), but there are advantages and disadvantages to such an approach.

Advantages: this approach gives an indication of the sort of mistakes children make about health and illness. Furthermore, the stages give information about the ages at which children can understand specific concepts.

Disadvantages: this approach gives little indication of why children think in this way. It implies that children in one stage will not be able to understand concepts in another. The relevance and meaningfulness of the questions given to the children must be challenged.

Understanding

Donaldson (1978) has shown that children can understand concepts above their stage if they are phrased in a way that is meaningful. According to her research, it would be wrong for nurses to assume that because the child was a specific age he or she would be unable to comprehend certain concepts of health and illness.

An alternative way of representing the development of children's understanding of health and illness is provided by the work of Katherine Nelson (1986). She suggests that as a result of participation in routine day-to-day events, children construct a kind of plan. This plan she calls a *script*, and this specifies the people involved, the roles they play, the objects used, and the sequence of actions that make up the event. Children grow up inside other people's scripts and thus experience an environment that has been prepared by their parents and culture.

Nelson proposes that scripts have three functions:

1. They are guides to action that tell children what is likely to happen next in familiar circumstances. If they lack scripted knowledge, close attention to detail has to be paid. This mental effort can lead to mistakes.

2. They allow people within a given group to co-ordinate and communicate more effectively.
3. They provide a framework within which abstract concepts can be acquired.

Maniulenko (1975) asked a group of Russian four-year-olds to stand still with their hands by their sides for as long as they could. They understood what was required of them but found it virtually impossible to stand still for more than a few seconds. Maniulenko then asked the children to pretend they were part of the honour guard at the entrance to the tomb of Lenin. Every Soviet child knew how still these soldiers stood. When this request was part of a pretend game, the children's ability to stand still increased dramatically. Here the utilisation of a common script through play enabled children to put into practice a relatively abstract concept.

Children's concepts of health and illness will thus be determined by the scripts they have experienced and constructed during their everyday lives. The nature of these scripts will be influenced by parents and by the child's culture. Although some scripts from different cultures may have the same label, they may have different contexts, and therefore care should be taken in generalising across cultures.

Nursing interventions: socio-dramatic play

Whilst children between the ages of four to ten years will experience an average of four to six illnesses a year (Parmalee, 1986), one does not have to wait for actual events to happen before giving children an idea of their contents. Socio-dramatic play has an extremely important role to play in the acquisition of new scripts, as the use of play can significantly influence children's concepts about health, illness, and the hospital (Gillis, 1989).

Goodman and Adams (1989) say that the more healthy children understand about hospital the less anxiety they will have on future contact. Even so, they propose that there is little research on how the children themselves feel about hospital. Accordingly they asked about 100 children to list the first ten words which came to mind when the word 'hospital' was mentioned. The result was an overwhelmingly negative response. (The words they produced are the ones used in Exercise 3.1 and the frequencies are given at the end of the chapter.) If parents, teachers and nurses do not give similar responses, then obviously the children's common hospital scripts are different to adults'. It is therefore important to try to look at the hospital through the child's eyes. In this particular study, the common script was produced by the children's actual contact with hospital, as only three children had had no contact at all.

Exercise 3.1

About 100 children aged between 11 and 12 from two Newcastle schools were asked to write down up to ten words describing a hospital. Only three of the children had had no contact with a hospital. The most frequently occurring words chosen were:

Pain	Smell
Anxiety	Food
Needles	Operations
Boredom	Loneliness
Fear	Noise
Blood	Bedclothes
	Sad

Try to put yourself in their shoes and rate the words according to how you think the children responded. If you think that the word 'Operations' was the most commonly given rate it first and so on. One word was nearly twice as important as the others – can you guess which it was? The answers are given at the end of this chapter.

Some care should be taken in interpreting the results, as although anxiety and fear are treated separately, when put together they represent the most frequent comment (see answers at the end of this chapter). Also, the word most frequently mentioned is not necessarily the one the children 'hate the most', it is merely the one that is mentioned more often.

One way of reducing children's anxiety about illness and hospital is to develop 'health scripts' through play. Eiser and Hanson (1989) conducted a school-based intervention preparing children for hospital. The children came from a rural primary school and had little or no experience of hospital. There were 42 children aged five and 24 children aged eight. The children played in groups of three with a 'play hospital' comprising a reception area, ward, X-ray room, and surgery. The play sessions were facilitated by a school nurse and teacher. The children were filmed at the start of the experiment and then again one month later. During the sessions a wide range of 'hospital equipment' was used and there were visits to a hospital and from hospital staff.

Eiser and Hanson observed differences in the children's play behaviour in the second filming session. The children seemed to have empathy with the patient's role and were careful to warn patients of impending pain. They were also more aware of equipment and techniques used in hospital. Interestingly, and perhaps unfortunately, the authors report that during the first play session the 'nurses' cared for patients, whereas by the time of the second session the 'nurses' were involved much more in administrative tasks.

The study was not able to investigate whether these play sessions

subsequently helped children who were admitted to hospital, but it does suggest that a greater knowledge of hospitals would reduce anxiety.

The children in this type of play session, whether it takes place in school or in hospital, develop a sequence of hospital scripts. They are able to develop a framework which accommodates the scenarios presented to them in hospital. Understanding what is going on around them produces less anxiety; there might be fear, but not fear of the unknown.

Play can be used for many other purposes in the hospital as well as in the school. It can be used just as successfully for health education, using different scripts. Nurses should try to enter the world of the child and construct scenarios that will provide a basic framework for the child to go out and develop a better understanding of his or her health environment.

Summary

The focus of this chapter has been on children and the nursing implications of both the qualitative and quantitative changes associated with child development. Neonatal development has been described in terms of the range of basic sensory abilities which enable the infant to explore and gradually make sense of the environment. Attachment and bonding have been explored in terms of early parent–child interaction, as well as the effects of parental separation on the process of bonding and mental health in adult life. In particular, this chapter has examined the arguments which currently exist in relation to the effects of maternal deprivation and the conditions under which such deprivation can be detrimental to the child. Studies exploring the effects of institutionalisation on children suggest that problems for the child are more likely to arise as a result of the nature of the care given, rather than as a direct effect of separation from the parents.

I have explored the child's understanding of health and illness in relation to both the amount of knowledge the child acquires at different developmental stages and the ability of the child to understand concepts relating to health and illness. It is important to see the world from the child's perspective, and to understand the mistakes they may make, if effective communication about health and illness is to occur. The use of familiar scripts to help children understand abstract concepts will develop the range of scripts available to the child and influence the child's concepts of health and illness. Effective

communication has been found to reduce the child's anxiety about illness and hospitalisation.

Questions for further consideration

1. 'The infant is born into a world of buzzing, blooming confusion' (William James). Discuss.
2. To what extent can a knowledge of infant sensory acuities be helpful to parents?
3. In what ways can a nurse influence the psychological development of a premature baby?
4. Describe the processes involved in parent–child interaction.
5. Mothers who go out to work cannot care for their children as well as those mothers who stay at home. Discuss.
6. To what extent does delinquency have its roots in lack of mothering?
7. A six-year-old child cannot understand concepts of health and illness. Discuss.
8. How can a nurse facilitate young children's understanding of hospital?

Answers to Exercise 3.1 (p. 92)

	No. of times word used by children
Pain	19
Anxiety	29
Needles	19
Boredom	15
Fear	36
Blood	15
Smell	67
Food	15
Operations	22
Loneliness	13
Noise	11
Bedclothes	7
Sad	20

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Further reading

Cole, M. and Cole, S. (1989). *The Development of Children.* New York: Scientific American Books.
Not only is this an excellent text on child development but it also contains many cross-cultural studies reflecting Michael Cole's dual interests. He is helped in the writing by his wife Sheila who is a professional writer, and the book is interesting and easy to read.

Douglas, J. (1993). *Psychology and Nursing Children.* Leicester: BPS books (The British Psychological Society) and Macmillan.
This book has three sections: care of children in the community, caring for sick children and caring for the carers. It investigates the particular health requirements of children in hospital and in the community, using a psychological framework.

Fogel, A. (1991). *Infancy: Infant, family and society.* 2nd ed. St. Paul: West.
As can be seen from the title this book concentrates specifically on infancy and thus is able to go into greater depth discussing issues that relate to younger children. However, it is eminently readable and avoids unnecessary use of jargon.

Müller, D., Smith, P. Watteley, L. A. (1992). *Nursing children: Psychology, research and practice.* 2nd ed. London. Chapman and Hall.
A major feature of this book is its ability to integrate research and practice in nursing children. Thus psychological factors are discussed in the context of their research base and their implementation in nursing practice.

Child development in social context Vols 1–3:
Becoming a person
Learning to think

Growing up in a changing society
Milton Keynes: Open University/Routledge.
These are three readers that contain many recent papers that have been published on child development. Each book contains a selection of journal articles based around the topics mentioned. I include them because I think that nurses should look at some journal articles and these volumes provide easy access to some of the most important research papers on child development.

4 *What lies behind our behaviour?*

I: Psychophysiology

In 1966 Charles Whitman got up, shot his wife and his mother, and then went out and shot a further 14 people. There have been many instances of such bizarre, violent acts, but what lies behind this sort of behaviour? In the case of Charles Whitman it was found that he had a huge tumour in the limbic region of his brain. Could the presence of this tumour have been in any way responsible for his behaviour? Physiological psychologists are concerned with answering these sorts of questions by examining the relationship between an individual's physiology and his behaviour.

A patient is being admitted to hospital for major surgery. He tells the nurse that he is feeling particularly unwell today and says he has clammy hands, palpitations and is short of breath. The nurse's early observations show he has raised cystolic blood pressure and raised pulse rate. The patient describes these sensations as symptoms of his illness, but perhaps this is because he is in a hospital setting which he associates with being unwell. Alternatively, he might have described them as signs of anxiety and fear related to his hospital admission and anticipated surgery.

The nervous system

The majority of psychophysiological research has centred around the human nervous system. This system is made up of a complex pattern of neural activity but has a distinct structure. The first distinction to make is between the *central nervous system* (CNS) and the *autonomic nervous system* (ANS).

The central nervous system

The central nervous system may be described as the 'executive' branch of the body; it regulates feeding and temperature, controls the

movement of hands and feet, and produces imagery and thought. The CNS has two main components: the spinal cord and the brain.

The spinal cord

The spinal cord is a mass of nervous tissue occupying the vertebral canal running through the centre of the body. It is about the thickness of the little finger and is protected by bony structures organised into segments. The spinal cord has two major functions:

- it carries information from receptor sites throughout the body to the brain, and conducts information from the brain to muscles and glands;
- it plays an important role in reflexes such as the knee-jerk reaction. Reflex behaviour serves a major function in providing the body with an extremely quick response to stimulation.

The brain

The brain is divided into three parts: the *hindbrain*, the *midbrain*, and the *forebrain*.

The *hindbrain*: the lowest part of the brain, located just above the spinal cord, is the **medulla** (marrow). The medulla is responsible for basic functions such as vomiting, coughing and cardiac function, and a lesion in this area causes immediate death. Just above the medulla lies the **pons** (bridge) which holds the 'programmes' necessary for fighting, feeding and fleeing. Damage to the pons will result in disruption of these behaviours. Behind the medulla and the pons is the **cerebellum** (little brain) which is similar in appearance to the cortex. The cerebellum is primarily concerned with the regulation of motor activities such as reaching for objects or hitting a tennis ball. Like the pons, it contains the programmes for these often 'unconscious' motor skills, and injury to this area will result in jerky, poorly co-ordinated movements.

The *midbrain*: this is a relatively small area which forms a bridge between the hindbrain and the forebrain. Along with the pons it contains the **reticular formation** (network). Sometimes known as the *reticular activating system* (RAS), this part of the brain is concerned with maintaining levels of alertness. If an electric current is passed through a wire that has been placed in the reticular formation, an organism will immediately become alert and attentive. Thus the RAS has a significant role to play in the sleep–waking cycle. The midbrain together with the pons and medulla make up the **brainstem**. The importance of the brainstem is signified by neurologists use of the term *brainstem death* as an index of brain death. Indeed, the brainstem is, within limits, able to regulate the body's functions in the absence of

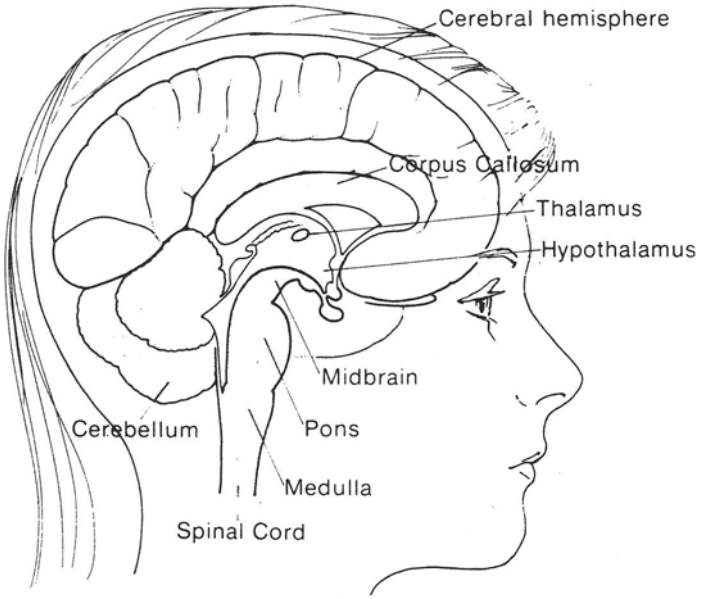


Figure 4.1 *Some of the basic structures of the human brain.*

the forebrain. In some cases of spina bifida much of the forebrain fails to develop (*anencephaly*), but as long as the brainstem is intact the body can live.

The *forebrain*: just above and behind the pituitary gland lies the **hypothalamus** which literally means 'under the deep chamber'. This plays an important role in the control of the body's internal functioning, maintaining a balance in the areas of eating and drinking, body temperature, motivation and sexual behaviour. The **thalamus** (deep chamber) may be described as a large relay centre with connections between the lower portions of the brain and the cerebral cortex. Lying near the thalamus is the **limbic** system (edge or perimeter) which comprises the **amygdala**, **hippocampus**, **cingulate gyrus** and **septal area**. The limbic system structures are involved in modulating a wide range of behaviours: learning, memory, anxiety, stress and aggression. The hippocampus has been associated particularly with memory, anxiety and behavioural inhibition. However, it should not be assumed that complex processes, such as memory, are restricted to just one part of the brain; several structures are involved. The **basal ganglia** (nerve knots) are usually associated with motor structures and disorders such as Parkinson's Disease and Huntington's Chorea.

Recently there has been a great deal of interest in the cognitive aspects of a particular part of the basal ganglia called the *caudate nucleus*, which is part of the basal ganglia (see *Exercise 4.1*).

Exercise 4.1 The Necker cube

Look at the cube in Figure 4.2. The cube can be viewed in two ways and if you look at it for a while the second image should become visible. Once you can see them both, the two images will swop around quite regularly. After a while, try to hold one of the images. You will probably find that you can't; the images will continue to swop around. Flowers (1993) found that people suffering from Parkinson's Disease take more time than non-sufferers to see the other dimension of the figure and once the two images have begun to interchange find it difficult to hold one for any length of time. It has been suggested that damage caused to the caudate nucleus may be responsible for this particular dysfunction. People suffering from Parkinson's Disease often have difficulty in changing from one train of thought to another, but seem to have normal cognitive functioning in other areas of thought processes.

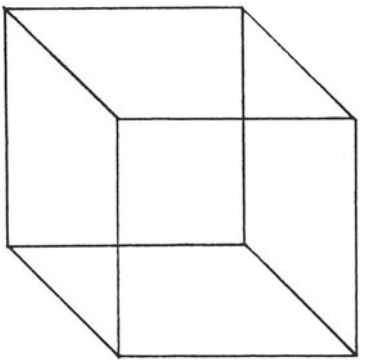


Figure 4.2 *The Necker Cube.*

Lying over the parts of the forebrain mentioned so far are the **cerebral hemispheres**. The top layer of the hemispheres is called the **cerebral cortex** and is made up of a large series of grooves or convolutions, necessary to pack the 30 centimetres of surface area into such a small space. The cortex is divided by a number of fissures into four regions or lobes: **frontal**, **parietal**, **occipital** and **temporal** (see Figure 4.3).

The frontal lobe contains the **motor cortex** which is concerned with the control of movement in various parts of the body. More cortex is taken up with those parts of the body which require sensitivity or large amounts of precise motor control, such as the

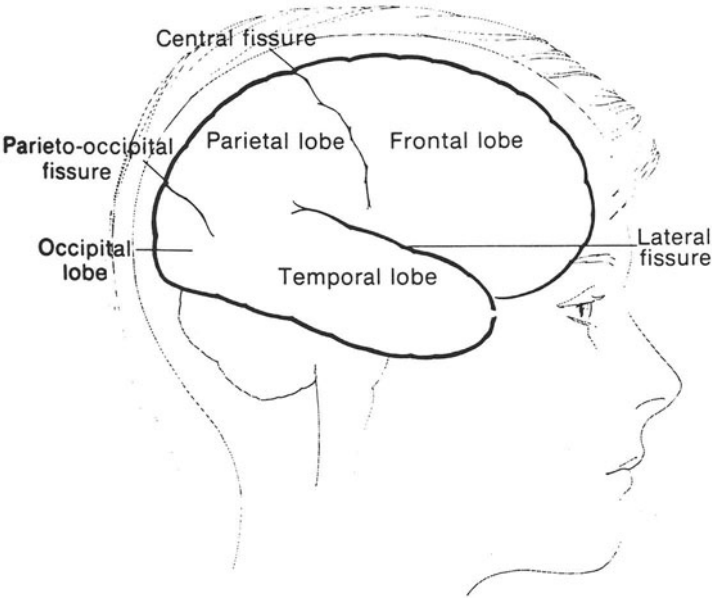


Figure 4.3 *The lobes of the human brain.*

fingers, whereas less cortex is taken up with the trunk. Damage to the motor cortex does not necessarily result in total paralysis; sometimes it can lead to lack of fine control over movements, as other regions of the brain can often provide a 'back-up service'. The parietal lobe contains the **somatosensory cortex** which receives information from skin senses such as touch, temperature and pressure. Again, more area is assigned to the more sensitive parts of the body such as the lips. The occipital and temporal lobes are concerned with vision and hearing. About two-thirds of the cortex do not have a specific function and are known as the **association cortex**. Higher order mental functions such as thinking and learning are thought to be the responsibility of the association cortex but have so far largely defied attempts at localisation. The cortex is of special interest to physiological psychologists because it is the last part of the brain to stop growing and undergoes more change after birth than any other area of the brain.

The autonomic nervous system

The *autonomic nervous system* (ANS) is concerned with regulating functions of the body such as heart rate and blood pressure in response

to physical demands, or to ensure the smooth running of the digestive system and body temperature control. The system has two parts: the *sympathetic* and the *parasympathetic.* If an organism is faced with an emergency the sympathetic branch of the ANS will increase the heart rate and blood flow to the skeletal muscles, open the respiratory passages and stimulate the adrenal gland. The parasympathetic branch of the ANS tends to have the opposite effect, slowing, calming and generally conserving energy. A balance is normally maintained between the two systems with one or the other being called into action to respond to specific circumstances.

The autonomic nervous system uses the hypothalamus to orchestrate its effects in two ways: by direct neural excitation and by stimulating the endocrine glands to release hormones. Basically, the hypothalamus influences the endocrine system via the **pituitary gland** which in turn secretes hormones to influence other endocrine glands.

Emotion

The physiological structures most often associated with emotion are the hypothalamus and the limbic system. It seems that electrical stimulation of the hypothalamus produces emotional reactions such as fighting and running away (MacPhail and Miller, 1968). Some parts of the limbic system excite or arouse the organism, whilst others inhibit the organism; damage to such areas can result in the loss of all emotion or loss of all inhibition. Hence certain structures of the brain regulate emotional responses, and strong feelings are accompanied by physiological reactions. When a person is angry they are often aware of their heart beating faster and their face becoming flushed.

There has been considerable interest in the relationship between specific feelings and their associated physiology for a long time. One of the earliest theories of emotion was proposed by William James (1890) who said that we do not hit out because we are angry but vice versa:

> We feel sorry because we cry, angry because we strike, afraid because we tremble, and not that we cry, strike, or tremble because we are sorry, angry, or fearful, as the case may be.

A Danish physiologist called Lange, working independently of James, produced a similar theory. The two were combined to form the James-Lange theory of emotion which states that it is the perception of bodily states that results in emotion – 'I'm trembling so I must be afraid'. This theory was later contested by Walter Cannon (1927) who pointed out that many non-emotional stressors, such as high fever, produce a peripheral arousal state similar to that of rage. Injections of adrenaline produce arousal but do not result in the experience of specific

emotions. This conflict of opinion was resolved by Schachter and Singer's (1962) famous experiment. They postulated that the experience of emotion could not be explained solely in terms of physiological processes; people experiencing arousal of some kind will look for an explanation in their immediate surroundings.

Schachter and Singer injected male participants with either adrenaline or a placebo. The participants were told that they were being given a vitamin supplement 'Suproxin', in order to examine its effects on vision. There were four groups of participants:

1. one group was informed of expected physiological consequences, such as increased heart-rate and palpitations;
2. one group was misinformed of the physiological consequences to expect;
3. one group was left ignorant of the physiological consequences to expect;
4. one group was given saline injections.

Whilst the participants (one at a time) were waiting for what they thought was the real experiment, their environment was varied in two ways:

euphoria – a confederate of the experimenter entered the room and behaved in a 'happy' way, making paper planes, laughing out loud, and so on.
anger – the participant and the experimenter's confederate were asked to fill in a questionnaire while the stooge became increasingly angry and violent and eventually ripped up the questionnaire.

The experimenters predicted that those participants who were left in ignorance of the source of their arousal would use their immediate environment as a source of information. Thus those participants in condition 3 would interpret the effects of the drug differently according to whether they were in the 'euphoric' or the 'angry' condition. The experimenters found that those participants who had been given no explanation for their arousal did indeed feel and act more emotionally than those given an explanation or a placebo. Thus the adrenaline caused anger in one situation and euphoria in another. This led the experimenters to propose that emotional state is determined by an interaction between physiological state and the cognitive environment.

Implications for nurses

A woman is admitted to an accident and emergency department having been knocked off her bicycle. Early clinical observations show markedly raised cystolic blood pressure, pulse rate and respiration. The

patient says she is short of breath and experiencing palpitations which she is convinced are due to the anger she feels toward the motorist who caused the accident and to fear and panic about the accident itself. She thinks everyone is making too much fuss and wants to go home.

There are a number of ways in which these clinical observations could be interpreted. It is not only important to understand how the patient may explain them within the context of his or her cognitive environment, taking into account the possibility of erroneous attribution, but also to be aware that nurses may be making clinical assessments and looking for explanations using similar potentially incorrect strategies.

Most of us have had physiological sensations as a result of emotional arousal. Think about the last time you were really anxious, perhaps waiting to take an exam. You may well have had sweaty hands, a rapid thumping heartbeat and needed to go to the toilet frequently. When the exam was over the physical symptoms disappeared.

Physical symptoms can occur because a patient is anxious about being in hospital – this is a healthy response to a stressful situation. However, they can also occur as a more serious mental health problem. Imagine having these sensations without knowing the cause and consequently not knowing when they will end. Imagine these sensations lasting day after day. You would probably have difficulty in coping with everyday activities and need some form of help. This experience is often described as an *acute anxiety state.*

Sleep

About one third of our lives is spent sleeping. Sleep is so important to us that as early as 1970 Dunlop estimated that in Britain one night's sleep in ten is induced by hypnotic drugs. Or put another way, on any night in Britain 3.5 million people will take a sleeping pill. More recently Horne (1992) estimated that about 14 million prescriptions were written for sleeping pills in the United Kingdom in 1989.

Perceptions of our sleeping habits are not always correct. Rackman and Phillips (1975) investigated a group of 'good sleepers' and a group of 'poor sleepers'. The good sleepers estimated that it took them about seven minutes to fall asleep, whereas the poor sleepers thought that it took them at least an hour. When both groups were studied, the poor sleepers only took eight minutes longer than the good sleepers to fall asleep. Misperceptions of sleep patterns are important because hypnotic drugs are often prescribed in response to complaints based on the patients' own perceptions. A more recent study by Stepanski *et al.* (1989) found that insomniacs slept an average of 364 minutes per night and the control group 419 minutes per night. Daytime sleepiness

did not differ between groups; in fact, there was a trend for daytime alertness in the insomniacs. The subjective element of sleep has been highlighted by Rogers and Aldrich (1993) with respect to the opposite of insomniacs – people who suffer from narcolepsy (sleep attacks). They found that 'nap therapy' improved alertness and reduced the frequency of sleep attacks.

The main reason for the comparative delay in sleep research this century is that sleep behaviour is not open to direct observation (Jensen and Herr, 1993). It was not until the early 1940s that the electroencephalograph (EEG) started to be used extensively in sleep research. The EEG measures changes in the electrical activity of the brain. During the course of each night's sleep the brain produces different types of electrical activity and these can be measured by the EEG.

In order to understand these patterns of electrical activity, it is necessary to map the changes occurring during a typical night's sleep. Sleep is thought by many to be a time when the body can rest and recuperate. While the body may be relaxed, the brain is far from inactive. When a person is relaxed but awake, the EEG measures alpha waves. These are fast, low-voltage waves which have an unsynchronised pattern of firing. As the individual falls asleep, *hypnagogic imagery* – very vivid, distinct images – precedes the true onset of sleep. *State 1 sleep* is represented by a slowing down of the heart rate, and the presence of theta wave forms on the EEG. The sleeper can still be woken easily in this stage. *Stage 2 sleep* shows clear signs of 'sleep spindles' (periods when a large number of neurons become synchronised, firing in unison) but it is still easy to wake someone. *Stage 3 sleep* is marked by the presence of 'delta' wave activity for at least 20% of the time. Delta waves are slow, high voltage waves which indicate deep sleep. *Stage 4 sleep* is the deepest stage and delta wave activity accounts for 50% of the time. It is extremely difficult to wake a person in this stage and often the most fearful nightmares occur during this stage.

It takes about 60 minutes to achieve Stage 4 sleep and people normally spend up to 25 minutes in this stage. The process is then reversed, moving back to stage 3 and then to stage 2. After about 90 minutes a different form of sleep occurs. This is called *Rapid Eye Movement* (REM) sleep. This form of sleep is characterised by the return of fast, low-voltage activity and rapid movement of the eyes. Sometimes this type of sleep is referred to as 'paradoxical', since the EEG readings indicate wakefulness, but the individual is clearly fast asleep. If woken during this stage, people usually report dreaming and most dreams do occur during REM sleep. The stages are repeated with the periods of REM sleep increasing and the depth of sleep decreasing. The individual differences in patterns of sleep have implications for nursing care. In hospitals it is often inappropriate to have standardised

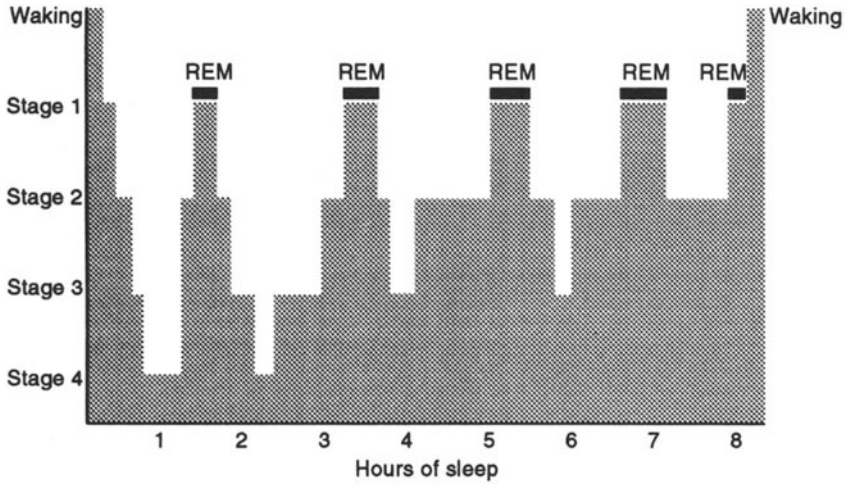


Figure 4.4 *The stages of sleep.*

times for sleeping and giving medication; information about individual sleep patterns needs to be included in any nursing assessment.

There are individual differences in the amount of sleep needed. It seems as if some people are able to function perfectly well on very little sleep, whereas others need their eight hours. Webb and Cartwright (1978) said that 6% of men and 14% of women suffer from insomnia. Insomnia was found to be attributable to several causes, the most common of these being anxiety and depression.

Sleep deprivation

There are therefore two types of sleep: *Slow Wave Sleep* (SWS) and *Rapid Eye Movement Sleep* (REM). There have been a number of investigations into the extent to which people need both types of sleep, conducted either by depriving subjects of all sleep or depriving them only of REM sleep by waking them up as soon as it occurs. Wilkinson (1968) suggested that the main consequences of total sleep deprivation are progressive deterioration in the performance of various tasks and an associated change in mood. However, the extent of the deterioration depends on the nature of the task and on the motivation of the person. Broadbent (1963) said:

> a sleep deprived man is not like a child's mechanical toy which goes slower as it runs down, nor is he like a car engine which continues until its fuel is exhausted and stops dead. He is like a motor which after much use misfires, runs normally for a while, then falters again and so on.

The world record for sleep deprivation is held by Randy Gardner who stayed awake for 264 hours. On his first night asleep he slept for 15 hours, but by the second night had returned to his normal eight-hour cycle and showed no psychological or physical deterioration. Williams *et al.* (1964) found that in the first recovery sleep following total deprivation, the amount of Stage 4 sleep increases much more than other stages, including REM. This indicates the body's particular need for this stage of sleep.

Studies of partial sleep deprivation have concentrated on depriving subjects of REM sleep. Cartwright *et al.* (1967) have concluded that:

- there is a progressive increase in the number of awakenings required to maintain REM sleep deprivation;
- there is an REM sleep 'rebound' effect. Recovery sleep after REM deprivation contains many more incidents of REM sleep.

They did not find evidence of even minor psychological changes following REM sleep deprivation.

The evidence suggests that the body can function without substantial periods of sleep but may 'misfire' occasionally. The two most important types of sleep are Stage 4 SWS and REM sleep, and it is also interesting to note that the majority of dreaming occurs in these two types of sleep. Hodgson (1991) has related the need for sleep to nursing practice. It is suggested that importance should be given to individualised patient care and that the nurse is in a unique position to facilitate patient needs.

The need to dream?

There have been numerous theories which have attempted to explain the need to sleep and dream. *Freudian theory* views dreams as an expression of repressed, sexual desires, whereas *evolutionary theory* examines the role of sleep in the survival of the species, noting that sleeping animals are often less conspicuous to would-be predators. However, the *psychophysiological perspective* attempts to explain sleeping and dreaming in terms of the functions and processes of the body.

Hobson (1990) put forward two main explanations for the need to sleep and dream.

The neuronal rest hypothesis

The small neurons with large synaptic gaps are more likely to lose transmitter cells than large neurons with little distance between the gap. It is the small neurons (aminergic neurons) that work frequently and continuously during the waking state. This may lead to a greater amount of transmitter cells becoming depleted. Hobson suggests that it

is the small aminergic neurons which show the most dramatic decreases in firing rate during SWS sleep, falling to their lowest levels during REM sleep. Thus the periods of SWS and REM sleep enable these neurons to 'stock up on' their neurotransmitter supplies. An analogy might be to view the brain as a supermarket where certain sections produce greater turnover than others, having to be replenished during the night for the following day.

The reconstructive hypothesis

Although the aminergic neurons are resting, the rest of the system is a hive of activity. Another function of REM sleep is to maintain the basic circuits of the brain. Much of our daytime behaviour is insufficient to activate a large proportion of neural activity, therefore many areas of the brain need to be exercised to ensure that they do not suffer from disuse. It is rather like a car that is kept in a garage all the time – it needs to be started up once a day to keep it in functional order. The high level of 'redundant' firing during REM sleep thus serves a maintenance or reconstructive role. Hobson also suggests that as REM sleep is overrepresented during early intra-uterine life, peaking at about 30 weeks of gestational age, there is further evidence of its reconstructional role.

If these propositions are correct, then we need SWS and REM sleep to service and replenish the systems of the brain.

Transmitting messages

Messages are carried to and from different parts of the brain by neurons or nerve cells. There are four main parts to a cell:

- the *cell body* – the body of the nerve cell and the control centre;
- the *dendrites* – tree-like growths attached to the cell body whose main function is to receive messages from other neurons;
- the *axon* – carries messages to other nerve cells;
- the *terminal buttons* – found at the end of the axons.

The messages carried by the axon involve electrical current, but this current is unlike electricity travelling down a wire. Electricity travels at about 200 million metres per second; the axon transmits information at less than 200 metres per second. When an axon is triggered at one end it sends an action potential down to the other end rather like a 'Mexican wave' travels around a sports ground. When the action potential reaches the terminal buttons, a chemical called a *transmitter substance* is secreted. This chemical substance is then picked up by the receptor sites of the next neuron. The transmitter substance is then

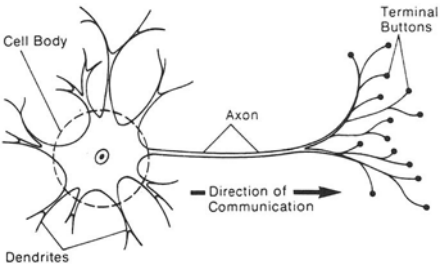
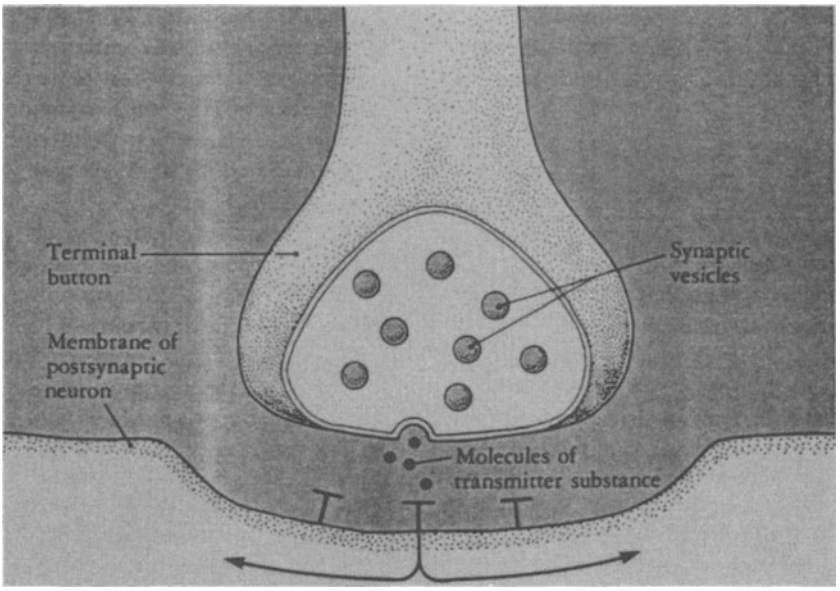


Figure 4.5 *The main parts of a cell.*

'put out of commission' by the terminal buttons, taking them back (re-uptake) or deactivating them with enzymes. The conjunction between one neuron's terminal buttons and another's dendrites is called the *synapse*, of which there are basically two types – *excitatory* and *inhibitory*. Excitatory synapses increase the probability that the axon of the next neuron will fire, whereas inhibitory synapses will cause the next neuron to fire at a low rate or not at all. The synapse is one of the most important features of the nerve cell, since many drugs produce their effects by stimulating or blocking the receptor sites.



Activation of receptor site excites
or inhibits postsynaptic neuron.

Figure 4.6 *Transmitting messages.*

Drugs can exert an important influence on the complex biochemical events that take place when one neuron communicates with another. There are two main ways that drugs operate:

- they can take the place of natural transmitter substances acting in their place. For example, Curare replaces the transmitter substance acetycholine, producing paralysis;
- by stimulating or preventing the release of transmitter substances. The drug Reserpine prevents synaptic vesicles from storing norepinephrine (another common transmitter substance) leading to a lowering of blood pressure.

It might be interesting to look at how some other drugs achieve their effects.

Table 4.1 *Some drugs and their effects*

Drug: Amphetamines **Physiological mechanism**: stimulate release of norepinephrine and receptor sites **Behavioural effect**: increases levels of mental and physical activity
Drug: Imipramine **Physiological mechanism**: inhibits re-uptake of norepinephrine by terminal buttons **Behavioural effect**: reduces depression
Drug: Botulinium **Physiological mechanism**: prevents release of acetylcholine **Behavioural effect**: leads to food poisoning
Drug: Chloropromazine **Physiological mechanism**: binds to dopamine receptor sites preventing dopamine from reaching them **Behavioural effect**: reduction in schizophrenic and psychotic symptoms
Drug: LSD and Psilocybin **Physiological mechanism**: influences transmission at synapses in the brain where serotonin is the transmitter substance **Behavioural effect**: produce major changes in perception
Drug: Barbiturates **Physiological mechanism**: inhibit all neural activity **Behavioural effect**: reduce anxiety and levels of activity
Drug: Nicotine **Physiological mechanism**: attaches itself to receptors normally sensitive to acetylcholine and stimulates neurons **Behavioural effect**: acts as a stimulant

Psychophysiological approaches to the explanation of behaviour provide a useful insight into the interaction between basic physiology and psychological functioning. This also illustrates the ways in which psychology has become integrated with other basic sciences. Thus the answers to questions about what lies behind our behaviour are in part the psychophysiological mechanisms that have just been discussed.

II: Personality

The term 'personality' is used by many people in the course of everyday conversation, yet if you were to ask them to define what they mean by it, they would struggle to reply. The popularity of the expression is matched only by the wealth of attempts to classify it as a concept. Thus the first endeavour must be to represent the different theories, definitions and descriptions of the personality construct before investigating its usefulness in the context of nursing care. Broadly speaking, one can divide personality theories into three main groups: *psychodynamic, psychometric* and *humanistic.*

Psychodynamic theories

As the name suggests, these theories involve elements of action and change. Personality is not simply something with which one is born; it develops through a dynamic interaction between the individual and the environment. There is no doubt that the most famous of the psychodynamic theories comes from Sigmund Freud (1856–1939). Freud called his theory *psychoanalysis* and spent the best part of thirty years developing it. It is impossible to do justice to the wealth and breadth of his writings in just a few lines, but it is important that nurses become familiar with some of the basic concepts of his theory, as many of the terms used in psychiatry are derived from his work.

Psychoanalytic theory

Freud's theory is more than a personality theory, for it includes a theory of motivation and a range of psychotherapies. However, with regard to personality, it is often useful to divide this theory into two main components: the *structure of personality* and the *development of personality.*

Personality structure

According to Freud, personality is made up of three parts: the *id,* the *ego* and the *superego.* The *id* is largely concerned with our instincts and basic needs. It resides in our unconscious and thus we are not aware of the exact status of this need or desire. Impulses arising from the body's needs build up into a tension requiring release, and it is the job of the id to make this happen. This results in pleasure if it succeeds and frustration if it does not.

The *ego* tries to maintain a balance between the id and external reality. It is the 'executive' branch of the personality, and directs the ways in which unconscious needs may be realised.

The *superego* represents the 'moral' branch of personality. It occurs later in Freud's theory and is concerned with whether the actions determined by the ego are allowed. It personifies the influence of culture and society on the behaviour of the individual. Whenever id impulses arise and are given direction by the ego, the superego acts to decide whether they conform to the norms of society.

> The ego's relation to the id might be compared with that of a rider to his horse. The horse supplies the locomotive energy, while the rider has the privilege of deciding on the goal and of guiding the powerful animal's movement. But only too often there arises between the ego and the id the not precisely ideal situation of the rider being obliged to guide the horse along the path by which it itself wants to go. Freud (1964).

The structural components of personality, together with external factors, interact in such a way as to be in continual conflict. These conflicts require resolution if a person is to function normally. The id is always governed by the *pleasure principle* which makes continual demands upon the ego for satisfaction of its needs. The ego has to consider the needs of the id in terms of the possibilities presented by external reality. This is called the *reality principle.* The result of these conflicts is anxiety. A separate form of anxiety is associated with each of the ego's 'three tyrannical masters'. Thus, *reality anxiety* (such as fear of snakes, the dark, and physical harm) is related to the ego, *neurotic anxiety* (such as fear of uncontrollable urges) is related to the id, and *moral anxiety* (such as fear of being punished for doing something wrong) is related to the superego. If the ego has difficulties resolving a conflict, it will call upon a strategy to defend itself from harm. These strategies are called *defence mechanisms,* of which there are five main ones.

Repression. The principle of this defence mechanism is 'what we don't know can't hurt us'. Threatening thoughts are prevented from emerging into awareness; to prevent anxiety we may 'forget' the name of someone who has hurt us or 'forget' to pay a bill that would put intense strain on the household budget.

Reaction formation. The ego disguises an undesirable emotion by focusing on its opposite. A child's jealousy for a newborn brother or sister may be manifested as love and affection; outward chastity may hide sexual desire.

Projection. It is easier for the ego to handle external threats than internal dangers. Therefore, anxiety arousing thoughts and feelings are accredited to others rather than to the self. 'I want to hurt her' becomes 'She wants to hurt me'. Violence is made legitimate because it is done in self-defence.

Regression. This occurs when a person reverts to an earlier stage of development. When life becomes 'too much', people retreat to times when life was much more simple. The sorts of behaviours associated with this defence mechanism are childish and often infantile.

Fixation. A part of the personality becomes 'stuck' and remains secured to an earlier period of development. The person is not permitted to proceed entirely to the next stage of development.

For example, the pleasures of sucking experienced by a baby during breast- or bottle-feeding may lead to a reluctance to give it up, and the infant will resist being weaned.

Developmental structure

Freud believed that the foundations of personality lay in the child's progression through a series of developmental stages.

The oral stage: birth to one year. The experience of sucking introduces the infant to both the pleasures and pains of the world. Pleasure stems from sucking and chewing, pain from frustration and anxiety. Parents influence the way drives are satisfied by the way in which they respond to the child at this point.

The anal stage: one to three years. During this stage children go through toilet training. If toilet training is particularly harsh, defecation can become a source of great anxiety for the child, as the child's immediate need for gratification is frustrated by the parents' demands that voluntary expulsion be delayed. The *anal retentive personality* is characterised by excessive tidiness and orderliness; a compulsion for everything and everyone to be placed in perfect order. The *anal expulsive personality* is characterised by messiness and a tendency towards being slipshod. Sometimes uncontrollable expulsion is manifest in temper tantrums or excessive physical behaviour. The aim of parents at this stage is to allow enough, but not too much, gratification, and to help the child develop enough, but not too much, self-control. However, parents who are strict about toilet training may also be strict about tidiness, so the significance of the anal content of the stage may be overestimated.

The phallic stage: three to five years. During this stage, pleasures and problems focus on the genital area. In boys, conflict centres around the sexual desire for their mothers and the consequent fear of their fathers. This is known as the *Oedipus complex* from the Greek myth of Oedipus who unwittingly killed his father and married his mother. As a result of the boy's desire, he is afraid that his father may take retribution by castrating him (the *castration complex*). The resolution of this dilemma occurs by the boy identifying with his father and striving to be like him. For girls, this stage represents a similar desire for the opposite sex parent. The successful or unsuccessful resolution of the Oedipus complex was thought by Freud to be the determining factor in all later neuroses. The ability to restrain the impulse for ego gratification results in the development of the superego or conscience. It should be remembered that Freud based his initial observations on a small sample of largely Austrian, middle-class women at the beginning of the century and therefore the extrapolation of his analyses to women in present day society is limited.

The period of latency: five years to puberty. During this period the child experiences a period of relative 'sexual' calm and concentrates on interacting with children of the same sex. Sexual energy continues to flow but is channelled into social concerns such as interactions with peers and teachers, and into clubs and sport. Development continues but is not accompanied by the storms and stresses of earlier stages.

The genital stage: adolescence. The physiological changes of puberty result in mature, adult sexuality with the biological aim of propagating the species. The choice of companion is not entirely independent of the experiences of the earlier stages. A young woman may choose a 'father figure', depending on the attitudes and patterns that have developed in the earlier years. Freud says that some internal conflict will be inevitable throughout the lifespan, but by the genital stage the individual has achieved a relatively stable personality.

To many people Freud's theory of personality seems somewhat far-fetched. However, it must be said that when someone mentions the word psychology the first name that comes to mind for most people is Freud's. But let us take an objective view of this theory and assess its strengths and weaknesses.

Strengths: Freud might not have discovered the unconscious but he certainly popularised it. Freud illustrated that we might not always be aware of the reasons for our behaviour but that they do have an explainable cause. Through the use of *hypnosis, dream analysis* and *free association* it was thought to be possible to gain access to the true motives behind behaviour. Whether access to the unconscious in this

manner is possible is uncertain; however, most people would accept that we as individuals are not always the best judges of our own designs and motives. Another strength of the theory is its emphasis upon the importance of childhood in shaping the adult personality. Whether an emphasis on the sexual nature of personality development is a strength of the theory can be questioned, but certainly it is this aspect of the theory that often causes the most controversy.

Weaknesses: there is no doubt that the theory is not scientific. Indeed, Freud never intended it to be so. However, in seeking to explain everything it could be said that he explains nothing. Let's take the following example. Suppose a child is observed during infancy to undergo extremely strict toilet training. What could we predict about the child's later personality? According to the central argument of the theory, the child should become compulsively neat, tidy and over-controlled. But the defence mechanism of reaction formation (see p. 115) would predict that the child would react against the strict toilet training by becoming messy, dirty and irresponsible. Whether the child becomes messy or neat, Freudian theory has an explanation and therefore becomes inherently untestable.

The emphasis on sex in childhood strains many people's credibility. Over the past twenty to thirty years, developmental psychologists have found children to be curious, self-motivated, social beings who seek excitement and thrills. They are not anxiety-ridden creatures trying to reduce tension created by sexual dilemmas. They are curious about sex, but then they are curious about many things in the world.

In summary, Freud provided a rich source of hypotheses for developmental research and founded a dynasty of psychoanalysts such as Carl Jung, Karen Horney, Harry Stack Sullivan and Eric Erikson (whose theory is discussed in *Chapter 11*). Unfortunately, its usefulness as a psychological theory of personality depends on whether one believes it or not, and has nothing to do with scientific validity.

Psychometric theories

Exercise 4.2: Personality inventory

Choose as participants for this experiment some friends who have never studied psychology. Ask them if they would mind spending some time doing a three-part test that will give them an indication of their personality. Tell them that all scores will be entirely anonymous and the results conveyed via coded numbers. You can either give them the test in print form or read the questions out loud.

The GU11 (BL version) Personality Inventory

I Indicate whether you think the following are True or False:

	True	False
1. Happiness is more important than success.		
2. Men and women can be both sympathetic and assertive.		
3. Our lives are largely controlled by fate.		
4. I like to be liked by other people.		
5. I am usually quite positive about life.		
6. The clothes one wears reflects one's personality.		
7. Sometimes I feel shy when I meet people for the first time.		
8. I like to watch sport on TV.		
9. Occasionally I have dreams I don't quite understand.		
10. I sometimes boast a little.		

II Look at (listen to) the following words and give the first word that comes into your mind. Please try to respond as quickly as possible.

Tape	_____	Mouse	_____
Pencil	_____	Car	_____
Mother	_____	Exam	_____
Blood	_____	Food	_____
Yellow	_____	Friend	_____
House	_____	Water	_____
Useful	_____	Man	_____

III Which of the following do you prefer?

1. a. Watching TV
   b. Having a conversation
2. a. Going walking
   b. Watching movies
3. a. A noisy party
   b. Art galleries
4. a. People who work hard
   b. People with flair
5. a. A holiday on a farm
   b. A holiday by the sea
6. a. Spicy food
   b. Plain food
7. a. Going for a ride on a bike
   b. Riding an exercise bicycle
8. a. Lots of acquaintances
   b. A few special friends
9. a. Classical music
   b. Rock music
10. a. New clothes
    b. Eating out at a good restaurant

A day, or at least a few hours, after giving your friends the test, read them the following description.

> This person has several interesting personality characteristics. For most of the time he/she is quite friendly and sociable. However, sometimes he/she can feel a bit shy, and somewhat inhibited. A major personality characteristic of this person is that he/she is not easily influenced by other people. Instead, he/she usually needs to have reasonable evidence before making up his/her mind and doesn't jump to conclusions. This person can be quite down-to-earth and businesslike if the situation requires. But he/she also has a colourful imagination, and can be quite creative. Overall he/she seems to be somewhat above average in maturity and thoughtfulness.

After carrying out this test and reading this analysis to your friend ask them whether they think that this personality assessment is at all accurate. In most cases the answer will be in the affirmative and some may even go further and say that the results are quite surprisingly appropriate.

There are two main reasons for your friend's reactions:

- The 'personality assessment' is couched in terms so general that they can apply to almost anyone. Some astrologers make use of the same principle and word their predictions so broadly that they will fit a wide range of events.
- The results are achieved because many people place great faith in tests, especially if they seem to be measuring personality in a comprehensive fashion. Therefore, it is crucial that you explain to your friend that this was not a real psychological test and that the results were made up. You should also explain to your friend that only qualified people are allowed to administer psychological tests. They are usually Chartered Psychologists but if not, they must possess a certificate from The British Psychological Society to show that they are qualified to administer psychological tests. Therefore you and your friend should make sure that any person testing you has the necessary qualifications. You should also try to ensure that the test you are taking has been standardised; that is, it is both *valid* (measures what it claims to measure) and *reliable* (measures what it claims to measure consistently). If you are unsure about any of these conditions you should decline to take the test.

'Trait' versus 'type'

Psychometrics is an approach to personality which focuses on psychological measurement. Measurement in this context involves the assigning of numerical values to psychological variables. There are two

Taking a psychological test – in this case filling in a questionnaire.

main approaches to the measurement of personality characteristics: by *trait* or by *type*.

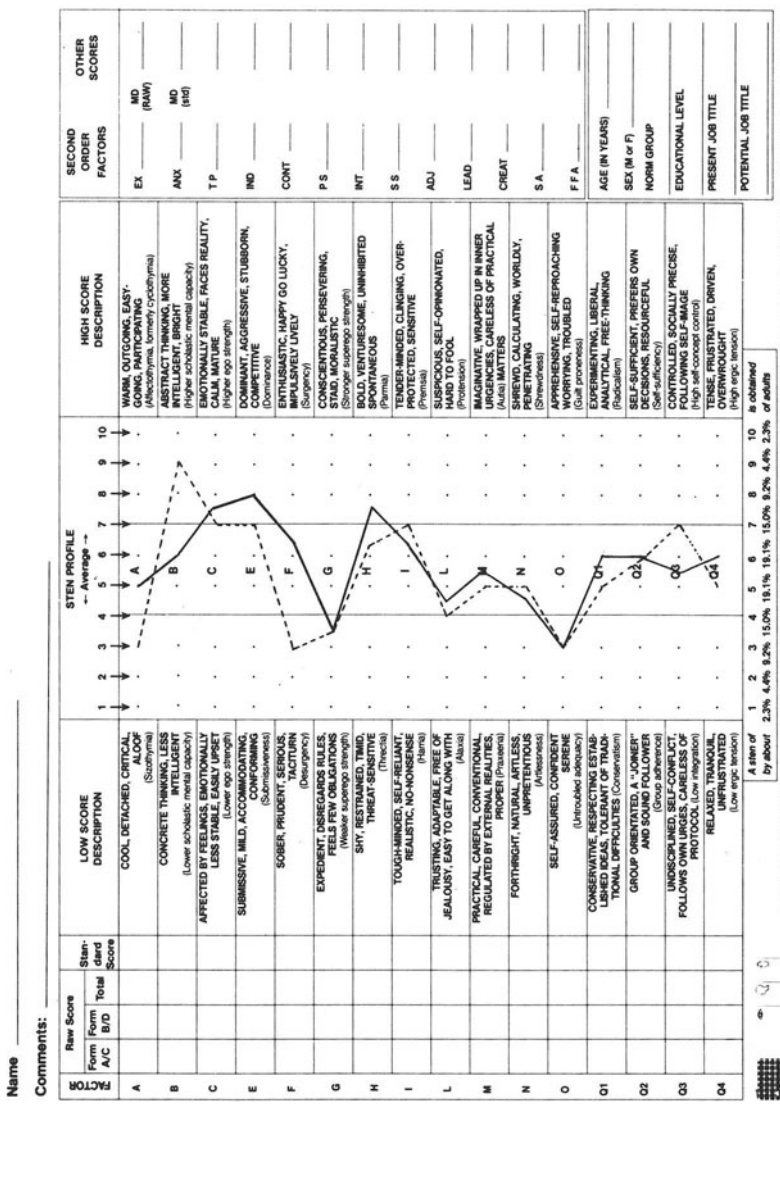
It has been estimated that there are at least 18,000 words that have been used to describe personality differences (for example, shrewd, lazy, shy, aggressive, stupid). These words do not attempt to describe the whole person but one aspect of their personality, a person's *personality traits*. On the other hand, descriptions such as 'he's a bit of an extrovert' or 'she's an argumentative sort' refer to the person as belonging to a class of individual, thus categorising them as a particular *type*.

Cattell's trait theory

We have seen that there are a vast number of personality traits, far too many to put in a questionnaire. Raymond Cattell (1946) identified what he called 12 *primary factors*, or *source traits*, that were basic to each individual's personality. Essentially, Cattell was able to group the thousands of what he called *surface traits* into these twelve basic categories of source traits. Subsequent work led to the number being revised to 16 and became known as the *Sixteen Personality Factor Questionnaire* (16PF).

Table 4.2 illustrates 16 factors and it can be seen that they are *bipolar*; that is, they represent two extremes of a particular dimension. Most

Table 4.2 *16PF Test Profile*



people's scores do not lie at the extremes of the scale but rather somewhere in the middle. The chart contains the profiles of a group of Olympic athletes and a group of leading scientific researchers. The athletes tended to score above average on emotional stability, assertion, expediency, venturesomeness and self-assuredness. The scientists, on the other hand, were reserved, intelligent, emotionally stable, dominant, serious, expedient, venturesome, sensitive, trusting and assured.

The test has been very successfully used in personnel selection. A company may give the *16PF* to its best salespeople and put all the personality profiles together to produce a 'best salesperson profile'. Prospective employees are then given the *16PF* and their profile then compared with the 'best salesperson profile' to see how similar they are. If there is quite a close relationship between the two profiles then it is assumed that the person has the personality qualities of a good salesperson. Those companies with a thorough selection process will not base their whole selection procedures on the *16PF*, but will use a variety of techniques including interviews and the following up of references as well. However, this method will only work if it is feasible to select the 'best' individuals. The best salespeople may be the ones who sell the most goods, but how one selects a group of the 'best nurses' may be a much more difficult task.

Eysenck's type theory

At about the same time that Cattell was busy developing his measures of personality, Hans Eysenck was conducting his own investigations into the structure of personality. He noted that introversion and neuroticism seemed to be identical when measured by the personality tests of the time. This was consistent with Freudian theory, but inconsistent with his findings that there were two factors: a dimension of introversion–extraversion and a dimension of neuroticism–stability. Eysenck (1970) proposed that people can be categorised into four general types according to their positions on these two dimensions (see *Figure 4.7*).

Eysenck tried to relate his personality types to neurophysiological processes. He suggested that introverts are neurologically chronically overaroused and seek to reduce this excitation by avoiding extra stimulation from the outside world. Extroverts are chronically underaroused and have to pursue extra stimulation and new experiences. According to the theory, extroverts will more easily become bored than introverts but are less likely to feel guilty and anxious. (Note that the four personality types correspond to the four humours of prescientific medicine: *melancholic* (too much black bile), *choleric* (too much yellow bile), *phlegmatic* (too much phlegm) and *sanguine* (too much blood).)

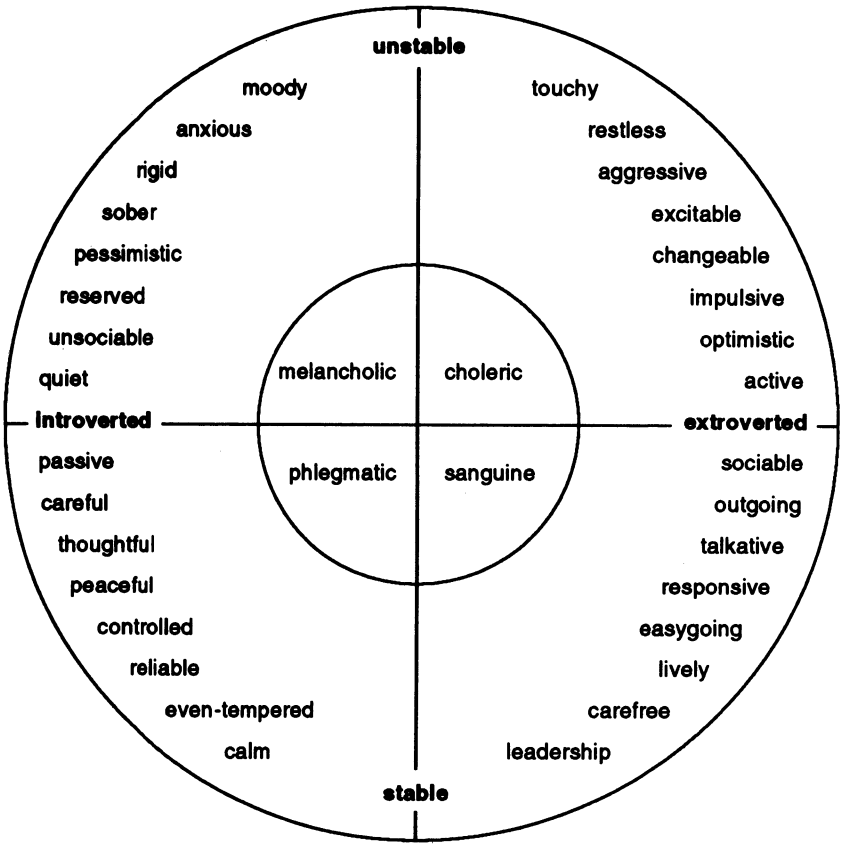
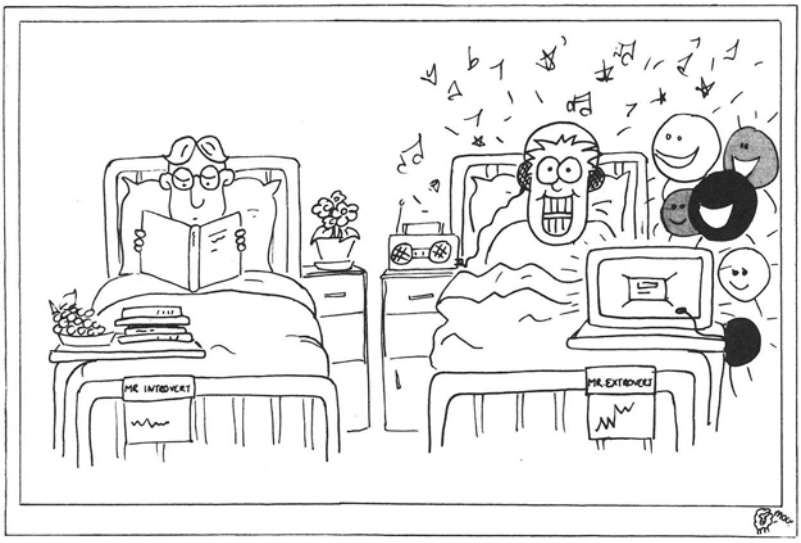


Figure 4.7 *Eysenck's four general types.*

A question that is often asked about both personality tests is 'How do you know people aren't lying or manipulating the answers to portray whatever personality they want?'. Each test deals in different ways with people who are 'economical with the truth'. The *16PF* has 236 items on the scale. Cattell solves the problem of people lying by placing similar items at, say, numbers 14 and 173; 63 and 126; 91 and 208; and so on. By the time most people have reached number 42 they cannot remember their response to number 24. If people respond in a contradictory fashion to similar components of the test then the responses are disgarded.

Eysenck deals with the problem in a different way. In his questionnaire he has a number of 'lie detector' questions like 'Do you sometimes get cross?' or 'As a child, did you always do as you were told immediately and without grumbling?'. The questions refer to situations that most people have experienced – most of us have at some time



been cross or hesitated to do what we were told. Therefore, if someone gets a high lie score, they may not be truly representative of the general population and the scores are rejected.

Eysenck and Cattell have a certain amount in common but they disagree on fundamental issues such as whether traits or types are the fundamental variables of personality. For Cattell, there are many traits which develop in different ways. Some are inherited, while others are the result of early experiences. Eysenck believes that his basic dimensions of personality have their roots in neurophysiology and are largely genetically determined. Both theories represent useful attempts to represent personality, but their limitations lie in the view that personality is in some ways prescribed and stable. This need not be the case, as we shall see in the next approach to individual temperament.

Humanistic theories

Kelly's personal construct theory

Kelly's theory differs totally from the theories of Eysenck and Cattell. He sees personality as a process of change rather than stability. According to Kelly (1955) people construct models of the world in terms of pairs of opposing concepts called *personal constructs*. People are continually striving to make sense of the world and anticipate possible events, and so we tend to see people in terms of being either pleasant or unpleasant, intelligent or stupid, kind or nasty. Kelly says that we all

have a fixed number of constructs which are essentially basic discriminations, sometimes not having labels. Constructs can be relatively tight (the opposing concepts deciduous–evergreen are restricted largely to trees) or relatively open (friendly–aloof can be used in a number of different contexts). The constituents of constructs such as events, objects and people are termed *elements*.

The most important feature of Kelly's theory is its emphasis on the process of change in personality development. When one sets up a construct it acts as a working hypothesis which can be either confirmed or refuted by experience. Thus, as you read this, you may consider me to be a person who knows quite a bit about personality theories; however, on meeting me, you may decide that my knowledge is largely superficial. In this instance I have gone from one end of your construct to the other. You may decide that this construct is not really relevant, and you would rather formulate a hypothesis of me as a good or bad writer. In this instance you would have discarded your former construct as being not really applicable and substituted a new one that seems more relevant. (You may like to think of some circumstances where your construct changed in relation to a particular individual and note that it was not just a change in your opinion but a difference in the way you viewed that person.) A good way to examine Kelly's personal construct theory is to complete a Kelly grid for yourself.

Exercise 4.3

Figure 4.8 shows a partially completed Kelly grid. Along the top are elements, that is, descriptions of types of people you might know. There are three circles in each row of the grid. These can be placed where they are by you or someone else. In this example I have provided the selection but you may wish to provide your own. The constructs on the right of the grid are arrived at by thinking of some way in which *two* of the circled elements are the same and different from the third. In this example I have decided that I know a successful person (Jim) and a happy person (Mary), who are quite carefree and happy-go-lucky, and an ethical person (Joan) who is the opposite – very principled. Two crosses are placed in the two common elements and all the other elements in the row are examined to determine whether they are either more carefree (they get a cross) or more principled (they get a blank). Look at *Figure 4.8* and see how I have developed the constructs. If I were to complete the exercise properly, I would continue till I had run out of constructs.

The next stage is to measure the similarity between my constructs. To do this I make a copy of the crosses and blanks in row 1 on a piece of paper. I place the paper under row 2 and count the number of times that a cross in row 1 matches a cross in row 2 and a blank matches a blank. A circle without a cross counts as a blank. Next, I place the paper under row 3 and repeat the procedure for all the rest of the rows. Now I copy row 2 on to a piece of

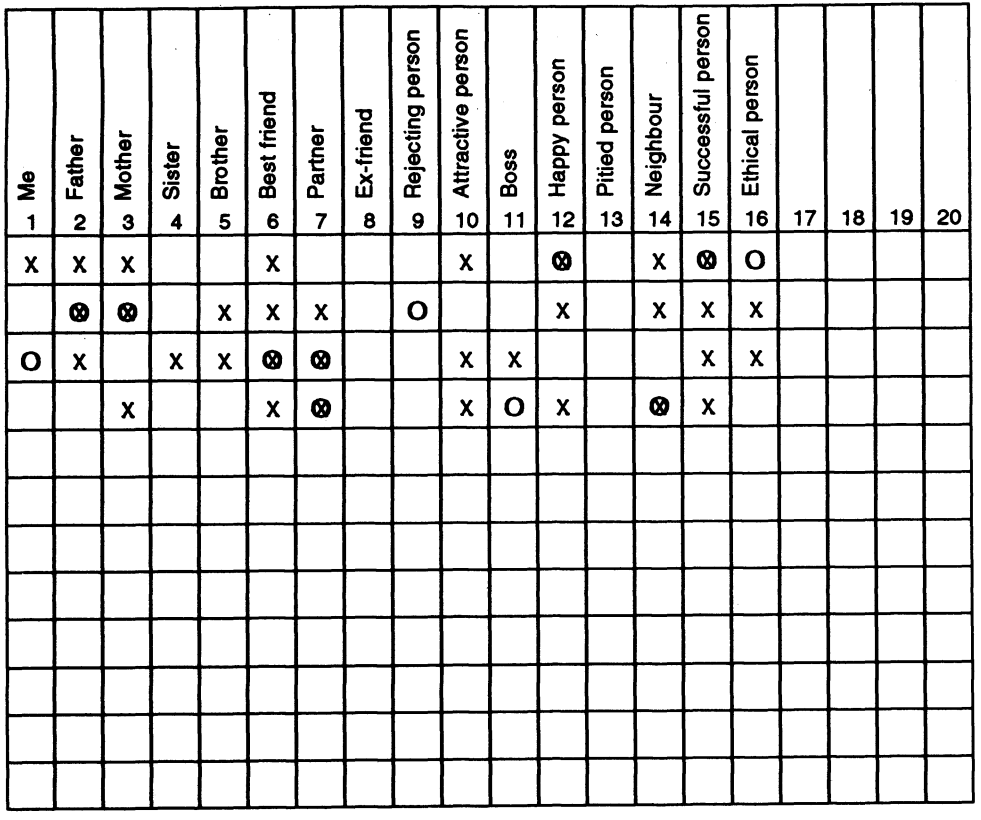


Figure 4.8 A Kelly grid.

Table 4.3 *Similarity between constructs*

Row	*No. of matching scores*
1 and 2	10
1 and 3	7
1 and 4	11
2 and 3	8
2 and 4	11
3 and 4	7

paper and compare it to the remaining rows, repeating the procedure until I have a set of matching scores as in *Table 4.3*.

If constructs are identical they will have a score of 20. If they have a score of 0, they are still identical but expressed the other way round. Thus scores tending toward 0 and 20 express similarity and scores that tend toward 10 express less relationship. I now have a measure of those constructs which relate well to each other. Try this exercise for yourself (Figure 4.9 provides a blank grid for you to use) and you will provide yourself with an outline of your personality that consists of the constructs you use to describe the world and their similarity.

Personality assessment is another way of trying to find out what lies behind our behaviour. Although it bears little resemblance to psycho-physiological techniques, the information which studies of personality can provide adds another dimension to our overall explanations of behaviour.

Summary

In the first part of this chapter the structures and functions of the Central Nervous System (CNS) and the Autonomic Nervous System (ANS) have been described. The CNS can be described as the executive branch of the body, regulating feeding and temperature, controlling movement and producing thought. The brain and spinal chord are the main components of the CNS. The ANS is divided into the sympathetic and para-sympathetic and is responsible for regulating heart rate and blood pressure in response to physical demands, digestion and temperature control.

The physiological reactions associated with emotion have been discussed with particular reference to the work of Schacter and Singer who concluded that emotional state is determined by the interaction of physical state with cognitive

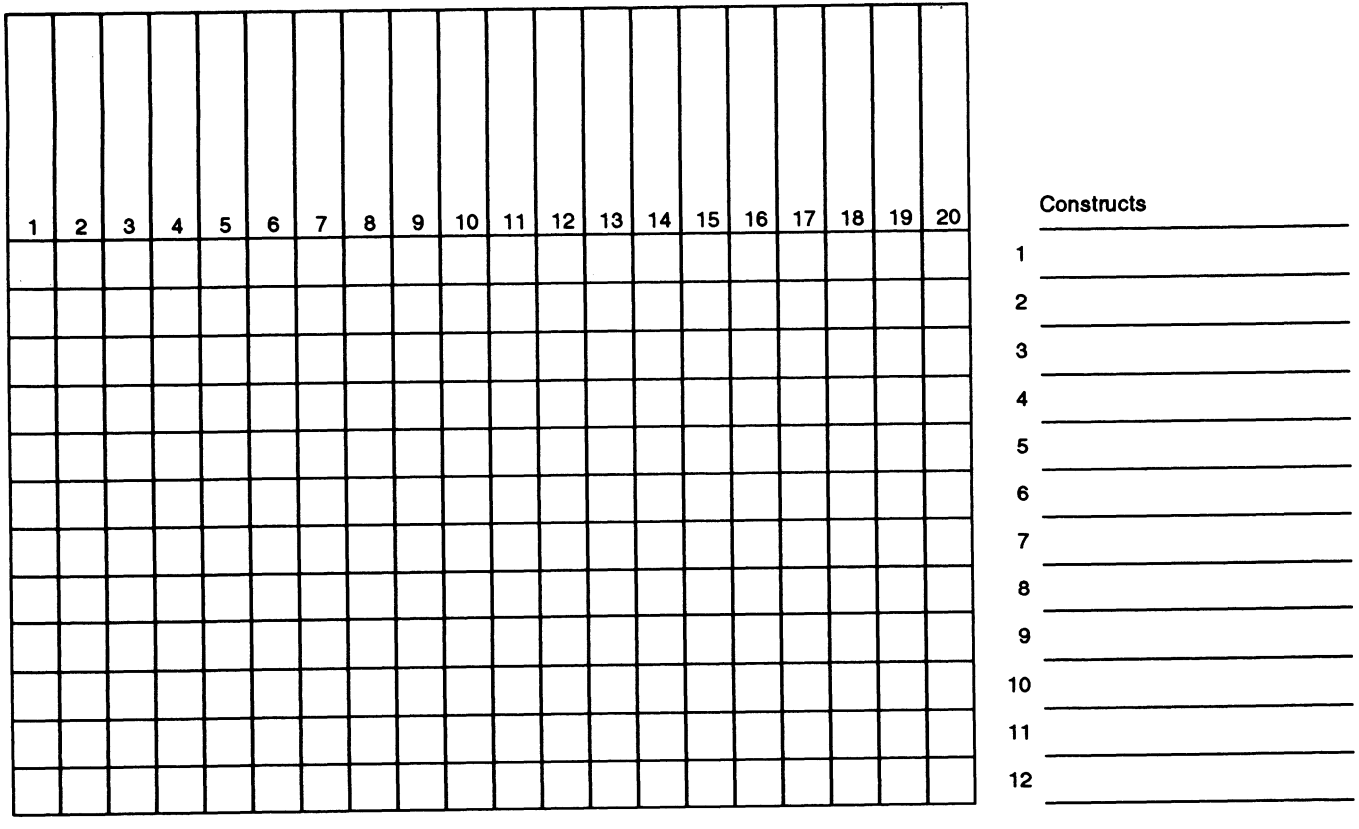


Figure 4.9 *A blank Kelly grid.*

environment. Attention has also been paid to the role of the CNS in sleep and the individual nature of sleep patterns. Insomnia and sleep deprivation and the function of sleep and dreaming have been discussed in relation to health maintenance and nursing care. The process by which messages are transmitted through nerve cells has been described along with the physiological and behavioural impact of various commonly used drugs on neuro-transmission.

In the second part of the chapter, three broad theories of personality were described. I looked at Freud's contribution to psychodynamic theory in terms of its strengths and weaknesses. Psychometric theories depend on an assumption that personality is stable and can be measured; the two main approaches to personality measurement are those which focus on traits and those which focus on type. These were discussed and examined in relation to their contribution to personality theory and limitations. Lastly, humanistic theories have been discussed, focusing in particular on Kelly's personal construct theory. This theory views personality as a process of change through continually trying to make sense of the world.

Questions for further consideration

1. Examine explanations of dreaming.
2. What are the psychophysiological correlates of emotion?
3. How are messages transmitted to the brain?
4. Compare and contrast *type* and *trait* theories of personality.
5. What is meant by a personal construct? How is it measured?
6. Discuss the problems associated with assessing the validity of psychodynamic theories of personality.

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Further reading

Bloom, F., Lazerson, A. (1988). *Brain, mind and behaviour.* New York: Freeman.
Details of the inter-relationships between brain and behaviour are presented in a fascinating way. The authors manage to examine a somewhat complicated topic in an easily comprehendable style.

Carlson, N. (1992). *Foundations of physiological psychology.* 2nd edn. Boston: Allyn and Bacon.
A comprehensive text that explains psychophysiological processes in an uncomplicated style. The book has excellent illustrations and the topics covered are relevant to nursing.

Cramer, D. (1992). *Personality and psychotherapy.* Milton Keynes: Open University Press.
This book examines the relationship between personality and psychotherapy. Theories of personality are discussed and their implications for psychotherapeutic practice are discussed. It is not intended that all nurses should become psychotherapists but it is appropriate to have some idea of what psychotherapy is.

Hampson, S. (1982). *The Construction of Personality: an introduction.* London: Routledge.

I still think that this is one of the best books on personality, especially for the reader who has little experience of the topic. The main theories and issues are discussed in just enough detail to avoid getting 'bogged down' in controversy.

Herbert, M. and Lee, (1970). *Freud and Psychology*. London: Penguin.
This book contains a series of empirical studies exploring the validity of psychoanalytic theories. It also contains readings concerned with the status and meaning of psychoanalysis.

5 *The effect of groups on behaviour*

Anne Roberts is a schoolteacher who has recently been admitted to hospital. During the drug round she notices that none of the other patients ask any questions about the drugs they are given. Although Anne wishes to know more about the drugs she has been prescribed before she takes them, she finds herself accepting them with a smile and a comment about the weather. In this situation, Anne's behaviour has been influenced by the actions of other people. If Anne had not seen herself as a member of a group of patients, or if she had been on her own, she might have been more forthcoming in asking about the drugs.

In the last chapter the focus of attention was upon the individual and his or her behavioural make up. However, individuals do not live in a social vacuum but often interact with others in a variety of contexts. Sometimes our behaviour may be influenced by groups, so it is important to examine the processes by which such influence may be exerted. In order to determine the nature of social influence it is proposed to investigate the psychology of group behaviour and then to concentrate on one specific type of group – the family.

Groups

Paulus (1989) has defined a group as consisting of

> two or more interacting persons who share common goals, have a stable relationship, are somehow interdependent, and perceive that they are in fact part of a group.

Note that a group is not simply a number of people gathered together at the same time in one place; there needs to be interaction, interdependence, some form of stability and most important of all, the individuals must perceive themselves as being members of the group.

Robbins (1989) has identified a number of reasons why we like to form ourselves into groups:

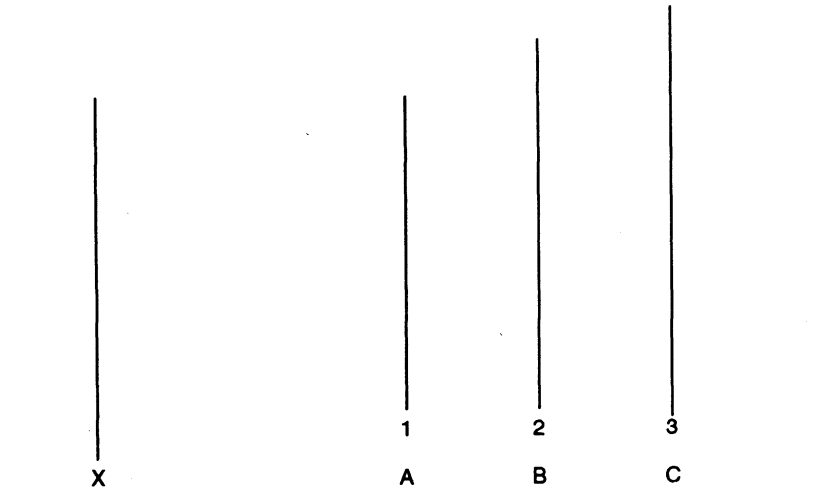


Figure 5.1 *After Asch (1951).*

- to satisfy a need for belonging and to receive attention and affection;
- to achieve goals that we would have considerable difficulty in attaining as individuals;
- to maintain and develop a sense of social identity. Self-esteem may be enhanced by membership of a group.

Having established why people form themselves into groups, it is necessary to determine how groups exert influence over individual behaviour.

Conformity

Society as a group exerts pressure on individuals to conform in specific ways. There are certain unwritten rules or *social norms* which indicate the ways in which people should behave. Forming a queue at a bus stop; wearing appropriate clothes for a formal or informal function and applauding at a concert are examples of social norms. Some social norms provide a useful function, and thus the pressure to conform has a legitimate justification; others, such as wearing a tie for certain occasions, seem to serve no obvious purpose and demonstrate a different type of conformity.

An experiment by Asch (1951) illustrated two different features of the ways in which people conform to group pressure. He asked a group of eight people to look at three lines of different lengths and compare them with a line of standard length. (See *Figure 5.1.*)

The group were asked to estimate which of the three lines was the same length as the standard line. Seven out of the eight people in the group were accomplices of the experimenter, and only one person was the true subject of the experiment. The accomplices gave truthful answers to the first 12 requests to compare the lines, but on the next eight trials were told by Asch to give false responses. Asch then asked each of the group members in turn which of the three lines, A, B, or C, was the same length as the standard line X. The first six members of the group all gave a false response and replied that line A was the same length as line X while it was perfectly obvious that the correct answer was line B. Imagine that you were the seventh person in this group – what would you do? Chances are that you would go along with the rest of them and say A, even though you could see that line B was the correct answer. Asch found that 75% of the people tested went along with the rest of the group on at least one occasion, indicating that many people would go along with the group rather than disagree openly with the other members of the group.

Asch put forward two explanations as to why a large proportion of individuals conform to group pressure

1. **Normative social influence**. People do not want to 'rock the boat'. They know the correct answer but feel that they will disadvantage themselves if they disagree with the others.

2. **Informational social influence**. If a number of people in front of you have answered in a way that contradicts your opinion, you are likely to doubt your ability to make correct responses. In situations of uncertainty we look to other members of the group for information on how to behave.

These two forms of social influence are not mutually exclusive. Indeed, the subjects in Asch's experiment could very well have experienced both at the same time. A typical mental response of the subjects in the experiment may have been: 'I am pretty sure it is line B, but why is everyone else saying line A? Am I seeing correctly? I think so. Oh well, I might as well go along with everyone else and say line A.'

However, conformity does not occur to the same degree in all situations or among all individuals. Thus it is important to determine the factors that influence the conformity effect.

Cohesiveness

Crandall (1988) has suggested that some groups elicit a greater degree of conformity than others. The more we like others, and wish to gain their approval, the more likely we are to be influenced by them. A group perceived as having high status will generate more conformity

than a group perceived as having low status. A nurse who finds him or herself a member of a high status group, such as consultants, will experience more pressure to conform than when a member of a low status group. Therefore when nurses find themselves in the company of people they regard as important or impressive, they should take care not to conform to group pressure, but to respond to the situation with the conformity effect firmly in mind.

Size

Tanford and Penrod (1984) have proposed a *social influence model (SIM)* which says that as group size increases (up to four or five people) conformity increases rapidly. But as further members are added the conformity effect levels off. Therefore, large groups need not necessarily exert more influence than small ones. The implications for team nursing are that working in groups can lead to a higher consistency of approach and a greater common purpose, but they can also maintain an orientation towards old practices which inhibits innovation.

Gender differences

Early studies by Crutchfield (1955) produced evidence that females are more likely to conform than males. However, the tasks used in these studies were more familiar to men than to women, and people tend to conform more in situations of uncertainty. More recent studies (Eagly and Carli, 1981) have found no evidence of gender differences. The differences between the two sets of studies may be resolved by noting that the early studies used male experimenters and male-oriented items, and also, since women may often occupy low status positions, the apparent *gender* differences are better represented as *status* differences.

Having an ally (social support)

If one member of the group fails to accept the position of the majority, the conformity effect is extinguished. Conformity is reduced even if the ally is viewed as incompetent or does not share the same views. It seems it is the breaking of the group's united front that is important.

Nursing implications

Morris *et al.* (1977) found that the conformity effect is further reduced if someone speaks out at the start of the questioning procedure. These findings are especially important, as where conformity of approach is required, so too is a forum in which nurses can express nonconformist ideas as a potential source of growth and development. Therefore speaking out in group discussions is an important way of resisting

conformity effects which might inhibit the potential for improving practice. Niven (1994) has said

> Many health professionals find themselves in group meetings to discuss numerous issues. The format of the group may vary, but social influence does not. Sometimes the group may be made up of members of different professions, sometimes the health professional may find him [or her] self in the presence of what he [or she] regards as high status or influential individuals. In these circumstances conformity to group opinion needs to be avoided.

Social facilitation

Social facilitation is concerned with examining the effect groups have on task performance. Do we accomplish tasks better when in the presence of others or when alone?

Imagine that one of the patients in your clinical area has died. You are familiar with, and competent in, the practices which relate to last offices. Imagine carrying out last offices on your own and then imagine carrying them out with another member of the team. Which would have the best effect on how you practised? Think about the reasons for your answer and how it fits or conflicts with the work described in the following paragraphs.

Zajonc (1965) proposed that the presence of others increases arousal, which leads to better performance on easy or well-learned tasks, but worse performance on new, difficult tasks. Further research (Sanna and Shotland, 1990) has indicated that we are also influenced by an audience's evaluation of us and the impression we are making in front of others.

However, an interesting piece of research cast some doubt over the arousal/evaluation explanation of social facilitation. Robert Zajonc and his associates found that they could produce a social facilitation effect in animals (Zajonc *et al.*, 1969). Using cockroaches in mazes, the experimenters found that when a cockroach ran a simple maze observed by four others it did so better than when it was observed running a more complex maze. Clearly, the cockroaches were unlikely to be concerned with 'looking good' or 'making favourable impressions'.

It seems that a supplementary explanation is required. Baron (1986) has put forward a theory based on the distraction caused by the presence of an audience. The presence of others when performing a complex task causes a sort of information overload whereby the individual is unable to concentrate on all the elements of the task requiring attention, thus leading to a poor outcome. Simple tasks, on the other hand, do not suffer from this distraction and focused attention will enhance performance.

Social facilitation in cockroaches.

Implications

If a nurse is required to perform a new activity in front of others, such as reading out a research report in a seminar, she will not do as well as she did when she tried it out on her own. In order to be successful at new complex activities in front of others, it is necessary to practise and practise until the nurse has a repertoire of strong, well-learned, appropriate task responses that will in fact benefit from the presence of others.

Social loafing

One feature of group behaviour is the inequality of an individual's contribution to group goals. Take the following example – a person is

having difficulty lifting a heavy object so a number of people get together to help him. Some people take as much of the load as possible, whilst others are content to appear to help without really doing very much; this is known as *social loafing*. Some people work hard in a group, others employ social loafing and do as little as they can get away with.

A German psychologist called Ringelman was one of the first to investigate the social loafing phenomena, over fifty years ago. He asked people to pull as hard as they could on a rope attached to a meter that measured the amount of force exerted by each individual. He found that one person pulling on their own exerted an average force of 63 kilos; when pulling in groups of three the average dropped to 53 kilos; and in groups of eight to 31 kilos. The greater the number of people, the less effort expended. Further research has indicated that social loafing occurs on all sorts of tasks and in many different cultures (Harkins, 1987).

How can social loafing be reduced?

- Make each person's contribution to the group easily identifiable so that minimal effort cannot be hidden.
- Increase group pressure to succeed. Develop an emphasis on group commitment.
- Provide an opportunity for group members to compare their contributions with members of other groups. People may 'loaf' because they think that their performance cannot be evaluated by others.

Group dynamics and decision-making

The following exercise is designed to give you some insights into the group dynamics of decision-making.

Exercise 5.1 Group dynamics and decision-making

Ask for five volunteers from your class or group. Explain to them that they will be required to make some individual decisions and then come together to take part in a group discussion. Take the five volunteers into another room and distribute the *Choice Dilemma Sheets* (see following). Tell them that they have to make a series of decisions on their own without consulting each other.

Example

- *Mrs J likes to go skiing whenever she can. She is quite good at it and seems to get better every time she goes on a skiing holiday. Recently she was involved in a car accident and sustained a serious leg fracture.*

Although she is now well again, she has been told that a heavy fall could damage her leg permanently, with the possibility that she will walk with a limp.

Imagine you are advising Mrs J on whether or not to go on a skiing holiday. Use the scale to indicate the lowest probability (the highest risk) of a bad fall which is acceptable if she is to go on holiday.

	Please tick
She should not go skiing at all.	———
She should go on the skiing holiday if:	
there is a 10% chance that she will have a bad fall;	———
there is a 30% chance that she will have a bad fall;	———
there is a 50% chance that she will have a bad fall;	———
there is a 70% chance that she will have a bad fall;	———
there is a 90% chance that she will have a bad fall.	———

Notice that the 'riskier' advice is at the bottom of the list. Work through the following five dilemmas noting your individual response with a tick next to the option you have chosen.

- **Choice Dilemma 1**

Ms M is a qualified nurse and has decided to enrol for a psychology course at university. She has been offered a place at two universities. The first has considerable status and a very good reputation for psychology, but quite a large proportion of the students fail to pass the course. The second university does not have such a good reputation but has a much higher pass rate.

Imagine you are advising Ms M. What is the lowest probability of her passing the course that you think she should accept to go to the first university?

	Please tick
She should go to the second university.	———
She should go to the first university if:	
there is a 10% chance of failing;	———
there is a 30% chance of failing;	———
there is a 50% chance of failing;	———
there is a 70% chance of failing;	———
there is a 90% chance of failing.	———

- **Choice Dilemma 2**

Mr H is a successful programmer in a computing firm. He is well liked by his colleagues and knows that his job is secure, but he has become increasingly disenchanted with it. He feels he needs more excitement and challenge. He has just had an offer from a 'go ahead' new company which could present an opportunity to develop his talents. He cannot guarantee that the new company, or his new job, will succeed and he would never get his old job back.

What is the lowest probability that his new job would be successful that you would advise him to accept?

	Please tick
He should not risk taking the new job.	———
He should take the new job if:	
there is a 10% chance that it will fail;	———
there is a 30% chance that it will fail;	———
there is a 50% chance that it will fail;	———
there is a 70% chance that it will fail;	———
there is a 90% chance that it will fail.	———

- **Choice Dilemma 3**

Tony is 47 years old and has developed serious cardiac problems. His life has become increasingly restricted due to his heart condition. He has great difficulty at work, cannot play any sport, and sex is totally out of the question. His doctors have estimated that he has about five to ten years to live in this condition. He has been offered the chance of major heart surgery, which, although a dangerous operation, will make him virtually a 'new man'.

	Please tick
He should not risk having the operation.	———
He should have the operation if:	
there is a 90% chance that it will succeed;	———
there is a 70% chance that it will succeed;	———
there is a 50% chance that it will succeed;	———
there is a 30% chance that it will succeed;	———
there is a 10% chance that it will succeed.	———

- **Choice Dilemma 4**

Mary is married with two children aged 10 and 13. She is an infant teacher at a local primary school. Recently, Mary has felt that she is in a bit of a rut. She looks upon her marriage as stable but somewhat unfulfilling, and in order to make her life more interesting has become involved in community work. As a result of her new interests, Mary has met a man and fallen in love with him. He is single and wants her to leave her unhappy marriage. She would leave but has doubts about whether the new relationship would succeed and be stable enough for herself and her children.

	Please tick
Mary should not abandon her marriage.	———
Mary should leave if:	
there is a 90% chance that the new relationship will work;	———
there is a 70% chance that the new relationship will work;	———
there is a 50% chance that the new relationship will work;	———
there is a 30% chance that the new relationship will work;	———
there is 10% chance that the new relationship will work.	———

- **Choice Dilemma 5**

During a recent case review, John, a student in the final year of his nursing course, is asked whether he feels he can manage to participate in

the special supervision of a client. The client is on Section 2 of the Mental Health Act and still expresses suicidal intent and a determination to leave the unit. John is worried that the client might be able to leave the unit without him knowing.

	Please tick
John should not become involved with supervising the client.	———
John should agree to participate if:	
there is only a 10% chance that the client will be able to leave the unit without John's knowledge;	———
there is a 30% chance that the client will be able to leave the unit without John's knowledge;	———
there is a 50% chance that the client will be able to leave the unit without John's knowledge;	———
there is a 70% chance that the client will be able to leave the unit without John's knowledge;	———
there is a 90% chance that the client will be able to leave the unit without John's knowledge;	———

– – –

Once the five volunteers have completed the dilemma sheets, return to the main group whose job is to observe the discussion group of the five volunteers in action. Allocate five of them to one group (NVC – nonverbal communication) and divide the others into four groups (Bales A, B, C, D; see following.)

The NVC group

We have already seen that a great deal of communication occurs nonverbally. In order to gain information related to the dynamics of group discussion it is necessary to evaluate the nonverbal signals that take place between the group members. Assign each member of the NVC group to observe one member of the discussion group. For each of the five choice dilemmas they should score the participants using the grid in Table 5.1, according to:

Facial expressions. Write down the number of smiles, nods and frowns that occur duing each choice dilemma. Also note any other facial expressions that are used.
Posture and gesture. Note the posture of the body. Is the participant leaning forward; tense; relaxed? Also observe any specific gestures used.
Voice. Record the changes in pitch, tone and volume of the voice. Note how fast or slow the person speaks and whether their voice is excited or calm.
Holding the floor. Note the number of interruptions made and the overall time spent speaking on each dilemma. Also write down your overall impressions of the person you are observing.

Table 5.1 *Non-verbal communication grid (adapted from Argyle, 1988)*

Non-verbal category	Dilemma 1	2	3	4	5	All total
Holding the floor Overall time speaking (seconds)						
Number of interruptions made						
Facial expression Number of smiles						
Number of nods						
Posture tense vs. relaxed, open vs. closed etc.						
Voice speaks fast or slow, high pitch vs. low pitch etc.						
Gesture and movement Type: fidgeting vs. still, pointing, demonstrating, etc.						
Overall impressions tense, relaxed, involved, disinterested, positive, negative etc.						

Bales A B C D

Bales (1958) developed a system for analysing the verbal content of group interaction, as indicated in Table 5.2.

Bales A: 'Dr Feelgood'. For each dilemma write down which people tend to show tension release; joke; laugh; show solidarity; raise others' status; give help; agree; understand; concur.

Bales B: 'The Giver'. Note who gives suggestions; direction; opinions; evaluation; expresses feeling or wishes; gives orientation and information; repeats; clarifies; confirms.

Bales C: 'The Asker'. Note who asks for information; confirmation; repetition; opinion; analysis; suggestion; direction; possible ways of action.

Table 5.2 *Bales group grid (after Bales, 1958)*

	Complete only one category	Participant 1	2	3	4	5
Socio-emotional area: positive reactions	1 shows solidarity, raises other's status, gives help, reward					
	2 shows tension release, jokes, laughs, shows satisfaction					
	3 agrees, shows passive acceptance, understands, concurs, complies					
	Total					
Task area: attempted answers	4 gives suggestion, direction, implying autonomy for other					
	5 gives opinion, evaluation, analysis, expresses feeling, wish					
	6 gives orientation, information, repeats, clarifies, confirms					
	Total					
Task area: questions	7 asks for orientation, information, repetition, confirmation					
	8 asks for opinion, evaluation, analysis, expression of feeling					
	9 asks for suggestion, direction, possible ways of action					
	Total					
Socio-emotional area: negative reactions	10 disagrees, shows passive rejection, formality, withholds help					

11 shows tension, asks for help, withdraws out of field					
12 shows antagonism, deflates other's status, defends or asserts self					
Total					

Bales D: 'The Downer'. Note which members of the group disagree; show passive rejection; withhold help; show tension; ask for help; withdraw; show antagonism; deflate others' status.

Arrange five chairs in the centre of the room, sufficiently far apart to enable the observers to have a good view of the group. Position the observers around the chairs in the best possible location for them to achieve their objectives. To make sure the observers know what they are doing ask them to give an example of the behaviour they are supposed to be observing. Bring the discussion group into the room and ask them to sit on the chairs. Tell them to go through the five choice dilemmas again, discussing them as a group. They should spend between five and ten minutes on each dilemma.

Results

The individual and group results of the decisions should be collated by noting the number ticked (1–6) on each dilemma by each individual and entering it in the table below.

	Individual						
	1	2	3	4	5	Average	Group
Dilemma							
1							
2							
3							
4							
5							
6							

Place the result of the group decisions in the column marked group. Take the average of the individual decisions for each dilemma and compare it with the group decision. If the average of the individual scores is less than the group score then the group has arrived at a more 'risky' decision.

The exercise you have just completed is similar to an experiment carried out by Stoner (1961). He found that the decisions made by groups on comparable dilemmas were riskier than those made by the

same people on their own. This finding tended to fly in the face of common opinion that groups such as committees and juries would produce more cautious, conservative decisions. The phenomenon where group discussion leads to riskier decisions is known as the *risky shift*.

One theory put forward to explain the risky shift was the *diffusion of responsibility*. Simply stated, it proposes that the reason group decisions are more risky is because each member of the group is able to take less personal responsibility for a decision and is able to propose more risk. Undoubtedly diffusion of responsibility does occur in certain situations and people will often behave differently in groups because they do not have to take individual responsibility for their actions.

However, Knox and Stafford (1976) noted that with some dilemmas group discussion actually produced shifts towards caution. Diffusion of responsibility theory would be unable to account for this finding. Further analysis of the risky shift effect has found that there is in fact a shift toward polarisation (Moscovici and Zavalloni, 1969). Group discussion can lead individual members to become more extreme, more risky or more cautious in their decisions. Look at the results obtained in the exercise and see whether group polarisation has occurred in the five dilemmas. If changes have occurred we need to examine the dynamics of the group to find out how and why.

It may be the case that certain individuals exercised more influence in the group discussion than others. Perhaps these individuals converted the other group members towards their more extreme views?

The Bales analysis will provide a guide to the quantity and type of communication made by each member of the group. The nonverbal analysis will give an indication of the influence being exerted via nonverbal channels. Also ask the group participants how they felt about what was going on in the group.

You may be able to identify some of the following characteristics of group behaviour.

Group decision schemes

These schemes are concerned with predicting the final decision of group discussion using simple rules:

a) *The majority wins rule.* The group finally adopts the position supported by the majority of its members.
b) *The truth wins rule.* The correct solution will ultimately come to the fore as its truthfulness becomes apparent.
c) *The two-thirds majority rule.* Used by many juries, if two-thirds of the group favour a decision it is adopted.

d) *The first shift rule.* The group adopts a position based on the first shift in opinion shown by any member.

Stasser *et al.* (1989) say that these rules are quite successful at predicting group outcomes, but the nature of the task is important. Thus the 'majority wins rule' is best in situations requiring judgement and opinion, whereas the 'truth wins rule' is best in contexts where there is a correct answer.

The straw poll

This is a procedure used by groups to address the agenda and manage the flow of interaction. Davis *et al.* (1988) found that simply learning about the current distribution of views in the group will influence the final decision. Straw polls do more than simply reflect opinion; they shape it as well.

Groupthink

This term coined by Janis (1982) refers to the process whereby group members are much more concerned with maintaining group consensus than with examining all potential courses of action. McCauley (1989) points out that groupthink is most likely to occur in situations involving an external threat to the group and is thought to have played a role in some of the most disastrous decisions of our time such as Watergate.

Over-utilising shared information

It was suggested by Stasser *et al.* (*art. cit.*) that groups are much better at repeating information already shared by most members rather than discussing new, unshared information. Furthermore, increasing the number in the group does not increase the chances of bringing original knowledge to the fore; it merely amplifies the utilisation of shared information.

Implications for nursing

It may seem from the preceding discussion that groups are not the best forum for making decisions. Yet, as was stated at the beginning of the chapter, we have a propensity to form ourselves into groups for many reasons. This being the case it is necessary that nurses understand some of the pitfalls inherent in the process of group discourse and are able to employ techniques to reduce the biases.

Techniques to help reduce biases in groups

1. Delay straw polls until there has been considerable deliberation over the matter under discussion.

Groupthink is most likely to occur in situations involving an external threat to the group.

2. Try to promote open enquiry and reservation in group discussion. If necessary, play the devil's advocate and try to find fault with points as they are made.
3. Premature group consensus can be avoided by splitting the group into subgroups to consider different aspects of the problem.
4. Examine group members' lingering doubts by providing a further opportunity to discuss them.

5. Reduce the amount of information dealt with in groups.
6. Groups spend much of their time discussing things they already know; therefore try to focus on the expertise of individual members and their unique contributions in order to avoid overusing shared information.

Finally, where there is a choice between using groups or individuals to complete tasks, the following guide proposed by Steiner (1976) may be of help. He proposed that the nature of the task influences group performance and that there are four main types of task.

Additive tasks: each member pools effort towards the completion of a task.
Conjunctive tasks: the group's final result is determined by the performance of its poorest peforming member. A team of mountaineers cannot proceed at a pace faster than its slowest member.
Disjunctive tasks: here the final result is produced by the best member of the group. A relevant solution has to be found by one of the group and then he or she has to convince the others of its applicability.
Compensatory tasks: contributions of all the group members are averaged together to produce the result. A group of experts put all their information together to produce the best possible forecast.

How do groups and individuals compare on these tasks? Put simply, groups outperform even the best individual on both additive and compensatory tasks (with the important exception of social loafing). On conjuctive tasks, groups not surprisingly do not do very well since they are performing at the level of their worst member. Lastly, on disjunctive tasks groups perform better than most individuals, but are limited to the level of their best member.

The family group

Belsky (1981) noted that one of the limitations of early research on the family was the tendency to view the family merely as consisting of mother–child or father–child interactions. She pointed out that the mere presence of a second parent affects the way the first parent interacts with the child. Belsky argued that the family group should be viewed as a system of social relationships which become more intricate with the addition of each child. Parents do influence the behaviour of their children, but at the same time children play an important role in shaping parental child-rearing practices. Anderson *et al.* (1986) illustrated that children may have nearly as much effect on their parents as parents have on their children. Boys between the ages of six and eleven years old were classified either as normal or as having

'conduct disorders'. Conduct disorders were defined as defiant, destructive behaviours often resulting in truancy. The boys' mothers were asked to interact with them for 15 minutes and then asked to interact with another normal boy; or another boy with conduct disorders, for a similar period of time. The mothers were asked simply to oversee the child's behaviour during the 15-minute sessions. Anderson *et al.* found that regardless of whether the mothers were interacting with their own or someone else's son, when they oversaw the conduct disordered boys they were more coercive and demanding than when paired with a normal boy. The defiant attitude of the conduct disordered boys brought out the worst in every mother. Furthermore, the mothers of the conduct disordered boys were found to respond in a calm and positive way when paired with normal boys.

Becoming a family

How do people respond to the birth of a child? Is it a positive event that enriches and enhances the lives of parents or is it a time of stress and disruption of the marital relationship? Dalgas-Pelish (1993) looked at the effects of the first child on the parents's marital happiness and found that marital happiness scales were lower than a comparative sample of childless couples. She suggests that it is important for nurses to be aware of the complications of these findings. Miller and Sollie (1986) looked at the experiences of 120 couples during their transition to parenthood. The couples were asked to complete and return questionnaires when the woman was in midpregnancy; when the baby was about six weeks old; and when the baby was between six and eight months old. The questionnaire was designed to measure personal wellbeing, personal stress and marital stress.

In general, more stress was reported after the birth of a child than during pregnancy. The mothers' personal stress scores were lower than the fathers' during pregnancy, but considerably higher afterwards. Personal wellbeing scores declined steadily through the three time intervals. The mother's marital stress increased steadily from pregnancy to eight months after the birth of the child. However, Belsky (1981) had previously found that some couples experience only mildly stressful events when they become parents. Belsky and Isabella (1985) point to two factors that may explain the inconsistency.

- There is less disruption in the family after the birth when the parents are older, conceive after marriage and have been married longer.
- The way both husband and wife were treated by their parents affects how they treat their own children.

Indirect effects

The interactions which take place between members of the family group can have either direct or indirect effects. Direct effects would include findings that teenage mothers who have been rejected by their own parents and who lack social support are somewhat harsh and insensitive parents (Crockenberg, 1987), or research indicating that father–child interaction differs from mother–child interaction both in quantity and quality (Lamb, 1981).

A view of family groups as a social system implies that parents also have indirect effects on their children's behaviour. Marital disharmony may affect the parents' caregiving routines and thus influence the appropriate interplay of feelings between the children and their parents. Pedersen *et al.* (1977) found that in families that experienced marital strife both mothers and fathers were likely to be unresponsive to their five-month old infants. Certainly, starting a family in order to shore up personal relationships seems a very bad idea.

Parents can also have positive indirect effects on their children. Fathers play a much more important role in the care of their babies when their partners give them encouragement to find out more and to be more concerned with the behaviour of their children. Similarly, mothers who have a close supportive relationship with their partners are more patient and sensitive to their children's needs (Goldberg and Easterbrooks, 1984). The picture that emerges is one of each family member influencing the behaviour of the others in either a positive or negative way according to the relationships in the family group itself.

Patterns of parenting

Baumrind (1977) observed 134 children at nursery school and at home. The children were rated on such items as achievement, moodiness, self-reliance, sociability and self-control. She also interviewed and observed parents while they were interacting with their children. The data was collated and three patterns of parenting emerged.

Authoritarian. Adults demand strict obedience from their children. They rarely explain why often harsh and punitive regimes are being employed.

Authoritative. Rules and restrictions are imposed on children with clear rationales and guidelines. Parents are responsive to children's needs, but expect children to abide by the rules and will enforce them.

Permissive. Adults permit their children a wide range of activities and rarely use any method of control. Whilst they do allow children to express their feelings, they pay little attention to them.

Three patterns of child behaviour were also identified: **energetic–friendly**, **conflicted–irritable** and **impulsive–aggressive**. These patterns were related to styles of parenting so that:

- authoritative parents tended to produce energetic–friendly children who were typically curious, co-operative, self-reliant, cheerful/friendly, self-controlled and purposeful;
- authoritarian parents produced conflicted–irritable children who were moody, aimless, fearful, sulky, vulnerable to stress and passively hostile;
- permissive parents produced impulsive–aggressive children who were rebellious, aggressive, aimless, impulsive, low in self-reliance and self-control, domineering and low in achievement.

These findings suggest that some form of restrictive parenting where rules are important is preferable to a more laissez-faire approach. However, it is the way in which the rules are constructed and enforced that distinguishes the energetic–friendly child from the conflicted–irritable one. Clearly Baumrind's findings favour the authoritative pattern of parenting, and when this is combined with a warm, caring family environment an excellent setting for child development can be fashioned.

However, the problem with the study is that the subjects were largely from western, middle-income families. Laosa (1981) makes the point that

> indigenous patterns of child care throughout the world represent largely successful adaptations to conditions of life that have long differed from one people to another. Women are 'good mothers' by the only relevant standards, those of their own culture.

In the socioeconomic context Ogbu (1981) has proposed that the way a family earns its living may affect the strategies that parents use to raise their children. Just as individual behaviour should be seen in the broader context of the family, so too the family should be seen in the broader context of culture and society.

Family dynamics and parenting are not just common sense. Some of the things that were believed to be wrong for children in the 1930s would be considered nonsense today. Duck (1992) has reviewed the research in this area and lists some features of 'problem families'.

- There tends to be an emphasis on punishing poor performances rather than rewarding and praising good ones.
- Parents in the family are not good observers of their children's behaviour. They fail to notice slight improvements in behaviour or effort.

- There is a lack of consistency in the use of punishment. Parents sometimes ignore transgressions whilst at other times will punish the children severely.
- There is an absence of warmth and affection in the family.
- From the children's perspective there is a disproportionate emphasis on power, coercion and force. The model presented to the children is one of aggression.

Brothers and sisters in the family

A survey by Weisner and Gallimore (1977) found that older children were the principal caregivers for infants in 57% of 186 societies studied. This finding suggests that whether or not siblings have a beneficial role to play in family life, they certainly have an important one. There is also evidence that:

- Children respond differently to siblings than to their parents.
- There are differences in the behaviour of older and younger siblings.

Dunn and Kendrick (1982) found that sibling rivalry tends to occur in families who have just experienced the birth of a second child. When the new baby arrives, older children tend to resent the amount of attention that is directed towards the recent arrival. Happily, most of the older children soon begin to respond in a much less anxious manner and come to play an increasing caregiving role in the family. Parents were found to have a significant effect on the older children by appealing to their maturity and by encouraging them to help with the baby. However, an interesting finding was that showering attention on older girls in the first few weeks after a new baby's birth may not be a good idea. Older girls whose parents went out of their way to give them attention were the ones who played *least* with and were the *most negative* towards their baby brother or sister a year later. It seems that those who played best with their younger siblings had mothers who did not permit them to mope and encouraged them to take a positive view of the baby.

Squabbles among siblings become more frequent as they get older. By the time the younger child is about two years old, they are able to 'hold their own' and confrontations tend to increase. Not all sibling interactions have a negative effect on family functioning. Stewart and Marvin (1984) found that four-year olds were able to become important sources of emotional support for infants when the mothers were absent. In certain circumstances older siblings were found to be useful role models for their younger brothers and sisters, able to transmit important information from the parents. Norman-Jackson (1982) suggested that siblings can prove productive teachers. A survey

showed that young black siblings from low-income families who had older brothers and sisters playing with them at school were less likely to have problems learning to read than a control group.

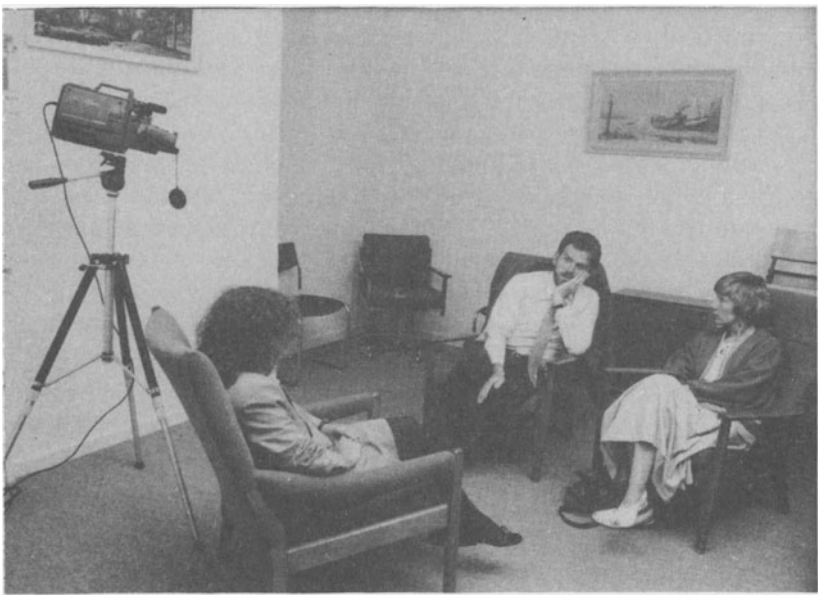
Relationships between siblings often cause problems in the family. However, older siblings can have a significant and important role to play in the structure and dynamics of the family, and their potential and usefulness should not be overlooked by parents and nurses alike.

Family therapy

Glen and Corland (1993) state that one of the fundamental goals of nursing is to provide family-centred nursing care. They say

> Since the family is a system, no one individual can be effectively cared for if that care does not consider the other members who both affect and are affected by the member seeking nursing care.

One approach that deals with the family as a system is *family therapy*. This technique was developed from the early work of Gregory Bateson and Don Jackson on communication dynamics in groups (Goldenberg and Goldenberg, 1980). It concentrates on understanding the maladaptive communication systems of a group and then restructuring it.



Assessment in family therapy.

Exercise 5.2 Role playing

A problem that often confronts nurse tutors is how to use role play in teaching students who do not have much experience of the role they are going to play. This exercise is more 'acting' than role play, but hopefully gives some insights into family therapy.

By far the best way of illustrating the issues involved in treating the whole family is to actually act out a scenario. Indeed, Holmes (1992) sees nursing as a form for dramatic performance. The following scenario is based on an actual case. There are five 'actors': Mother, Greg, Jane, Sally and the psychologist. The aim of the exercise is to illustrate how a child's problem can be anchored in a network of systems comprising the family and the community.

The scene

The family are here because Greg, who is fourteen years old, is 'out of control'. His mother does not know what to do with him. He has been playing truant from school and recently broke his leg trying to steal a motorbike. His mother has no complaints about the behaviour of his brothers and sisters who have come along too. Although the family are here about Greg, the psychologist initially gives the mother an opportunity to talk about herself. She has been married twice. In order to escape from home she married her first husband; in order to escape from her first husband she moved to a new area. She was pregnant with Greg at the time and had no nearby family or friends. Her second husband used to hit her, often in front of the children. We start about 15 minutes into the session.

Mother: Anyway, we moved again. He was so jealous I couldn't even say 'Hello' to anyone. I tried to stick up for myself and for the children but he just kept hitting me. That's how I got this.

[Points to scar under right eye]

He hit me with a lamp.

Psychologist: What you are describing sounds terrible. I don't know how you survived.

Mother: At least my kids won't have to put up with what I did. I used to go to school filthy-dirty because my mum worked and didn't have time to look after us.

[Turns to children]

Now, you've heard all this before.

[Turns back]

Every day my father would hit me with this piece of wood. He wanted to have sex with me and beat me every day. Every day I would run away and the neighbours would make me come back. They all wouldn't believe me, said it was rubbish, but my grandmother knew. This went on from nine to seventeen until I finally left home. Now I still think about it.

Right now I've got money problems. It always gets to me. But even when I manage not to think about it something just keeps hurting in my head. Today while waiting for my benefit money I just burst out crying. I have to try and live on less than £100 a week with five kids.

Christmas is coming up soon and there will be nothing for them. It's like there's this weight and it is suffocating and crushing me.

Discussion

To what extent do you think the woman's social conditions contribute to her vulnerability? What effect has this situation had on the children? She looked to each man that she married for support and seems to have got nothing. You feel it is no wonder that she seems helpless considering the way she has been treated. What would you do next if you were the psychologist?

Proposal

While the mother was telling her story the psychologist felt that she could not find a way to alleviate the mother's pain. In fact, she felt blocked out in some way by the mother and wondered if her experiences had left her closed to others and unable to trust them.

During the initial session she noted that Greg was much more attentive to his mother than the other children were. Perhaps he felt more need to help his mother but was denied the opportunity to help. It was decided to test the hypothesis that the mother would not allow the children to give her support because she had learned not to expect it from anybody. In doing so this would help Greg and the rest of the family.

Psychologist: Do the children know what you are going through at the moment?

Mother: Oh I tell them, I tell them I don't have any money but they just make a face, or shout at me. I tried to explain things to them and sometimes they seem to listen but they keep on asking me for things I haven't got. They get upset, I get upset and the whole thing just gets out of hand. I say to them that perhaps if they went out and made a bit of money that would help. It seems that I don't have any help.

Psychologist: OK, why don't you ask them for some help here and now? Let's talk about what sort of help you need from them.

Mother: What would really help me is, well, what I hate is when they invite their friends back and they just eat and eat. I don't mind giving but I don't have anything to give and what there is won't even feed them. I tell them not to give food away like that and they say 'Yes Mum' but they still go on and do it. It's little things like that. I think they know it upsets me.

Psychologist: Could you speak to them and not to me?

Mother: OK. When I come in and the house is full of kids eating food we can barely afford it's bound to make me upset. Alright? It means any food one of you gives to someone else means the rest won't get any, it'll be taken from you and I don't have any money, none unless I go out and beg for it. And sometimes I come in the house and the last thing I want is a lot of noise because I can't hear myself think. I can't think what to do next and there's nobody to talk to. That's my problem . . .

Psychologist: You're asking them for something but they're not answering. The conversation is going one way.
Mother: I've told them this time and time again but . . .
Psychologist: Get an answer. You have a young woman here, Jane, who is 17 years old; and young man, Greg, who is 14; the others, Sally and John, are listening to you. They can answer you. Go on, get some answers.
Mother: Do you understand what I'm trying to say?
Children: Yes.
Mother: You understand? Well what do you think about what I've been saying?
Greg: I think about it a lot.
Mother: Do you think I could save money by stopping people coming in? Where else can I get it from? I can't even pay the bills you know. How am I going to get more money, that's what I want to know. I can't get a job . . .
Psychologist: You started to get them to answer you but then went off on your own. You might find that the only way you are going to find out whether they understand you is to get them to answer you. Find out if they are going to work with you.

Discussion
The mother attempted to get answers from the children but only Greg responded. Discuss how the meeting could progress further. Why did the other children not answer their mother?

Proposal
The role structure in the family is not clearly delineated. The mother addressed all the children as one and did not differentiate between them. The family needs to have precise functional roles that can be allocated to each member. The mother had criticised Jane for not helping at home. Jane may not have been aware of what was expected of her. It was decided to explore this avenue.

Psychologist: As I see it, you don't seem to be giving Jane a chance to help.
Mother: I don't know – what help? What could she do, would she do?
Psychologist: Ask her.
Mother: I don't know what to ask.
Psychologist: I'll ask her for you. Jane, I want to talk to you. Your mother is going through a bad time at the moment, as I think you know. As I understand it, she is saying that you don't really understand what she is going through and don't want to help out at home.
Jane: I don't understand.
Psychologist: Well, she says that you don't want to help her.
Mother: Yes, when I tell you to help clean up the mess and maybe help wash the dishes or something. Not just you, the rest of them too. But you are the oldest and you could get Sally to help too. I get home, the music's blaring, you and your friends are having a good

time and the house is a mess. How do you think I feel when I come in to that going on and I'm already upset. You're the eldest, you're 17, you should get the other children to clear their mess up and if they don't . . .

Psychologist: Hold on a moment, give her a chance to answer.

Jane: What do you want me to say?

Psychologist: Well, your mother says that she wants some help with the house. She wants you to get Sally to help. Do you want to do these things?

Jane: Yeah, but they never listen. If they're not going to listen then I'm just not going to bother.

Psychologist: Who doesn't listen?

Jane: Well, they listen some of the time but not usually.

Psychologist: So, you would like to help clean up and get the others to help?

Jane: Yeah, I mean sometimes I've been in the house on my own and just got on with it. Then when Mum comes home she just goes up to her room and shuts the door. But sometimes they make me so mad I just don't want anything to do with them. They don't listen you know.

Psychologist: Who doesn't listen to you?

Jane: None of these three, none of them listen.

Psychologist: OK. Your mother mentioned Sally a few moments ago. Doesn't she listen to you?

Jane: I don't know, I don't know why she doesn't listen to me.

Psychologist: Why don't you find out? Ask her.

Jane: Sally, why don't you listen to me? [Turns to psychologist] See. I just can't ask her any questions.

Psychologist: Now it is my turn not to understand. Why can't you ask your younger sister why it is that she doesn't listen to you?

Jane: It's just strange, that's all. I've never done anything like that.

Psychologist: Fine, but you are her older sister and your mother has put you in charge. Your mother has asked you to help clean the house and told you to get Sally to help.

Jane: I do tell her, but she just tells me to go and boil my head.

Psychologist: Ask her now. Your mother has said that you can ask her. Ask her why she doesn't listen to you.

Jane: Why don't you listen to me when I ask you to help clear up?

Sally: 'Cause you're always shouting at me.

Psychologist: Go on, talk with her about it.

Jane: How do I always shout at you, Sally?

Sally: Because, before Mummy gets home, you keep saying to clean up the house and you keep making me wash the dishes for you.

Jane: Wait, I keep making you wash the dishes or I ask you to wash the dishes?

Sally: You tell me to wash the dishes.

[Jane is exasperated and ready to stop talking.]

Psychologist: Go on.

Jane: That's all.

Psychologist: You haven't worked anything out with her. You have a problem, now sort it out with her. Talk with her about it.

Jane: But I don't know what to ask. I mean I've just asked her why she doesn't listen and she says that I shout at her. Well I don't think I shout at her. I just say, 'Sally, go and do whatever it is', and she says 'Don't you tell me what to do, Mummy isn't here you know.'

Psychologist: Well, get her to reply to what you have just said.

Jane: Why when I tell you to do something do you always say 'Don't tell me what to do, Mummy isn't watching' and then when she gets home you tell her I said something else?

Discussion

The psychologist proceeded to encourage Jane to talk about her frustration in her attempts to communicate with her sister, Sally. She tried to help the mother become aware of her daughter's difficulties in dealing with Sally and the rest of the children. The mother felt burdened by the fact that she could not count on Jane who in turn could not count on Sally. Jane did not know how to request help, in the same way that her mother had the same difficulty asking for help. How do you think Jane could remedy the situation?

Tennant (1993) says that the importance of the family system has been de-emphasised by community psychiatric nurses in planning and delivering mental health services, but that there are exceptions to the rule. This is a long exercise, but in this instance, actually performing and acting out the roles gives a better insight into the dynamics of family interaction than setting out a theoretical discourse would. By representing the series of events in this way, one can get an idea of treating the family as a whole and not just a set of individuals. You may like to construct your own scenario based on the principles and issues outlined.

Summary

Here a number of concepts relating to the nature of social influence were introduced. I have explored the nature of groups – why people tend to form groups and how those groups influence the behaviour of the individual. Some factors which influence conformity to social norms have been discussed. They included cohesiveness, size, gender and having an ally. Other concepts are social facilitation and social loafing. Studies on social facilitation have shown that group presence is less likely to have a positive effect on the performance of complex tasks than on the performance of simple tasks. Social loafing is a concept used to describe the behaviour of those individuals within a group who make the least effort necessary to maintain their membership of the group.

An example has been given of a method of observing group dynamics in the process of decision-making. The studies from which this example has been drawn explained the tendency of greater polarisation in group decision-making in terms of diffusion of responsibility for more extreme decisions. A range of techniques have been suggested as ways in which nurses might reduce bias in group decision-making.

Towards the end of the chapter I have focused on the family as an example of one specific type of group. The family is described as a system of social relationships, with each family member influencing each other in either positive or negative ways. Different patterns of parenting have been related to a range of behavioural responses in children, and a cultural perspective has been brought to bear on family life and parenting behaviour. Lastly the chapter gives a detailed account of an example of family therapy which attempts to show how maladaptive family communication systems might be restructured.

Questions for further consideration

1. Do individuals or groups make the riskier decisions?
2. What factors influence conformity in a group?
3. Discuss the processes involved in social facilitation.
4. Are there different styles of parenting?
5. In what ways can a knowledge of group dynamics be applied to case conferences?

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Further reading

Barker, P. (1992). *Basic Family Therapy.* 3rd ed. London: Blackwell Scientific.
This should be of special interest to those nurses who intend to specialise in psychiatric nursing. However, it should also be of interest to all nurses irrespective of their speciality as it represents an important approach to analysing human behaviour problems.

Cialdini, R. A. (1993). *Influence: Science and practice.* 3rd edn. New York: Harper Collins.
This is an excellent book not only for the 'easy to read' style, but also because it provides an invaluable insight into the ways we are influenced by other

people. It is backed up by the author's prodigious research and contains a great deal of information on the influence of groups.

Milgram, S. (1974). *Obedience to authority: An experimental view.* London: Tavistock.
I recommend this book not because it is a particularly 'nice' book but because it highlights the importance of ethics in the construction of psychology experiments. When reading it one should constantly ask oneself, 'Is there an ethical way of finding out this information?'. It is useful in providing a focal point for discussion of ethical issues.

Patterson, G. (1975). *Families: Applications of social learning to family life.* Champaign, Ill.: Research Press.
This book gives useful information on the need for clear, consistent control with children in families. It investigates the role of social learning in a family context and is not just useful for parents but for nurses who have any sort of contact with children and their families.

6 *Making decisions and solving problems*

A nurse on night duty is checking the patients on the ward when she in interrupted by a call from Mr Matthews who is a patient in a different part of the ward. She decides to respond immediately and goes to find out what he wants. When she resumes her round she finds that the next patient she comes to has no pulse although his body is still warm and his colour appears normal. In spite of attempts by both herself and the resuscitation team, the patient dies. How do you think the nurse might feel about her decision to respond immediately to Mr Matthew's call? Do you think the nurse would feel differently about her decision if the patient had obviously been dead for more than a few moments?

A) Imagine that you and a friend are on your way to the theatre. You have spent £20 on two tickets for the performance. However, in the foyer of the theatre you discover that you have lost the tickets. Would you spend another £20 on two more tickets?
B) Imagine that you are on your way to the same theatre but haven't yet bought the tickets, when you discover that you have just lost £20 in cash. Would you still buy tickets for the play?

You may consider both situations equivalent and indeed in objective terms they are – you have lost £20 in both situations. However, when people are presented with both scenarios they tend to say that they would be more likely to buy new tickets if they had lost the money than if they had lost the tickets.

Decision-making

We make decisions every day of our lives. Some are more important than others, but all decisions resolve some sort of problem and many take up considerable amounts of time and effort. But how good are the decisions that we make each day? Unfortunately, according to many statisticians and mathematicians, most of them are not very good at all;

indeed mathematicians would describe us as irrational decision-makers. For example, if I say that for every time I toss a coin and it turns up heads I will give you £5, but for every time the coin turns up tails *you* have to give *me* £2, you probably will accept the offer. However, if I then say that in order to play the game with me you have to give me £1 for every toss of the coin, you might think twice about it. A rational decision-maker would jump at the chance to make some money, because if the coin were fair, over the course of two tosses you would be likely to win £5 and lose £2, leaving £3. You would have made £1.50 for each toss of the coin. Subtract your entrance fee of £1, and you have made a profit of £0.50 per game. If the entrance fee was increased to £2 you would be ill-advised to play the game, because you would be likely to average a loss of £0.50 per game.

Consider the same situation but with the stakes increased a hundredfold – heads I give you £500 and tails you give me £200, with a £100 entrance fee. A rational decision-maker would still play the game because the odds have not changed. However, we might be reluctant to play since the 'psychological risk' involved is too great; when the stakes are very high, psychological factors play an increasing role in decision-making.

This chapter examines why we are not rational in making decisions and looks at the psychological factors involved in the decision-making process. It examines decision-making from the nurse's perspective, and from the point of view of the public who have to make frequent decisions about their own healthcare.

Mistakes

There is a distinction between the 'clinical decision' and the 'statistical decision'.

The *clinical decision* involves the nurse making a prediction about the effectiveness of a particular care programme based on his or her knowledge and experience of the patient and their condition. The decision-making process sometimes involves intuition, and often the nurse is unaware how he or she came to make the decision. (Luker and Kenrick (1992) found that although community nurses consider a large proportion of their work to require a scientific basis, their practice is largely founded on experiential knowledge.)

The *statistical decision* is based on established mathematical rules. Thus, a prediction about the effectiveness of a care programme depends on statistical probabilities based on previous research studies, rather than on intuition.

People who favour the clinical decision-making approach emphasise the unique properties of the human brain, whereas those who

advocate the statistical decision-making method point to the vague, often unscientific nature of these same unique properties. Of course, both approaches are perfectly compatible and need to be used in conjunction with each other. The human brain is far more complex than any computer and thus able to produce exceptional solutions to many problems. However, the use of statistics can supplement the decision-making process to good effect.

If the nurse is aware of the typical mistakes that can be made in the process of making decisions, she can combine the benefits of her intuition with the sophistication of statistical analysis in order to produce logical *and* human results.

Representativeness

Sometimes irrelevant information can obscure judgements otherwise based on reliable details. Consider the following description provided by Tversky and Kahneman (1974):

> Intelligent but lacks creativity. Is a neat and tidy but rather a dull, mechanical person. Does not mix well with others but has a high need to achieve. He has a deep moral sense of purpose.

This is a description of a person chosen at random from a group comprising 30 engineers and 70 social scientists. What is the probability that the person described is an engineer? If you think the probability is quite high, you have been misled by the description; there is a seven in ten chance that the person described is a social scientist. Pairing the subjective personality sketch with the actual statistics distracts us from a true representation of the odds; a rational decision-maker would ignore the relatively worthless personality profile and concentrate on the 30:70 ratio of engineers to social scientists. Decisions in the context of healthcare often involve the evaluation of evidence, and they are seldom made without some form of judgement existing about the applicability of the evidence. Unfortunately, in a number of cases, inferences about the probability of results can be incorrect.

Unrelated events

People have a tendency to view unrelated events as related. Suppose a coin is tossed five times and it turns up tails every time. If you had to predict the outcome of the sixth toss, would you choose heads or tails? It might feel right to say that it is about time heads turned up, but in fact the odds are still 50:50; there is just as much chance that the result will be heads as it will be tails. The coin cannot 'remember' the five previous tails, so each toss of the coin is unrelated to the next one.

Availability of information

In each of the following pairs, which cause of death is more likely?

- Lung cancer or stomach cancer?
- Murder or suicide?
- Diabetes or a motor vehicle accident?

Lichtenstein *et al.* (1978) established that people overestimate the frequency of medical conditions which receive a large amount of publicity, and underestimate the frequency of those conditions which don't receive so much publicity. Lung cancer is thought to be more common than stomach cancer, murder more common than suicide and diabetes more common than motor vehicle accidents. In fact in each case the opposite is true. Events are judged to be more likely to occur if examples of them come easily to mind. Nurses should be careful when considering probable outcomes and be aware of the possible effects of a heavily publicised or widely available background of information.

Gains and losses

Imagine that we are threatened by a rare disease which is expected to kill 600 people. Preparations have begun to cope with its outbreak and two alternative programmes (A and B) have been proposed to combat the disease.

The exact scientific consequences of the disease are these. If Programme A is adopted, 200 people will be saved; if Programme B is adopted, there is a 1 in 3 probability that 600 people will be saved and a 2 in 3 probability that no one will be saved. Which of the two programmes would you choose?

Most people will choose Programme A because of the risks involved in Programme B. However, consider the same problem reformulated as follows. If Programme C is adopted, 400 people will die; if Programme D is adopted, there is a 1 in 3 chance that nobody will die and a 2 in 3 probability that 600 people will die. Which of the two programmes would you choose now?

Under these circumstances most people choose the risk-seeking alternative; the certain death of 400 people is less acceptable than the chance that 600 people will die. However, the two versions of the problem describe identical outcomes, the only difference being that in the first situation the death of 600 people is the reference point and the outcomes evaluated in terms of lives saved or gained. In the second situation, the reference point is no deaths, and so the programmes are evaluated in terms of lives lost. How decisions are framed to patients can determine outcome.

Imagined reference points

In the previous example the reference point is fixed – deaths or lives. Sometimes the reference point may be determined by events that are only imagined, as in the following example.

Two nurses were about to go away for the weekend from the same train station but to different destinations. Since their departure times were the same, they decided to share a taxi. Unfortunately their taxi was held up in traffic and they arrived thirty minutes after the scheduled departure of their trains. Dorothy was told that her train left on time. Mary was told that her train had been delayed and had left five minutes ago. Who was the more upset?

Most people would say Mary, yet both nurses' objective conditions and expectations of missing their trains were the same. If Mary is more upset, it is because, in the act of imagination, she came closest to catching her train. The frustration increases when a more desirable alternative is imagined. Kahneman and Tversky (1974) state:

> An individual's experience of pleasure or frustration may therefore depend on an act of imagination that determines the reference level to which reality is compared.

Implications for nursing

The research on decision-making has considerable implications for the nurse as a rational decision-maker. To summarise the main findings, it seems that:

- background details can give useful information concerning a decision, but it is crucial that the nurse is aware of the influence of subjective, irrelevant personality profiles.

- the research on decision-making indicates the desirability of avoiding casino games and machines because of adverse odds, but more importantly it should be noted that where there is a high degree of risk, people are less likely to follow rational decision-making rules. Decisions relating to patients which involve a high degree of risk require careful consideration.

- real and imagined reference points can have a significant effect on decision-making strategies and on the nurse's objective experience of outcomes, as illustrated in the cardiac arrest example at the beginning of the chapter.

Health decision-making

Every day people make important decisions about their health. These decisions can range from whether to make an appointment to see a doctor to deciding whether to continue with a therapeutic programme. A number of models have been proposed to try to account for the individual's decision-making behaviour in a variety of circumstances. I will look at the applicability of four of the main models: *conflict theory, locus of control, health belief* and *reasoned action.*

Conflict theory

Janis and Mann (1977) present five different plans for coping with stress and crisis and five stages of decision-making. The plans for coping stemmed from observing people, examining research data and monitoring public health messages. The decision-maker can adopt one of the following five patterns of coping.

1. **Unconflicted persistence** – details about risks are ignored, and the individual continues to behave complacently.
2. **Unconflicted change** – a course of action is adopted without any challenge or discussion.
3. **Defensive avoidance** – the situation is avoided either by shifting responsibility to someone else or by procrastinating over the decision. Another avoidance technique is selective attention, that is, hearing only what one wants to hear.
4. **Hypervigilance** – under conditions of pressure or panic, the individual selects the first solution that appears to work, without considering alternative courses of action.
5. **Vigilance** – a carefully considered action pattern is considered and compared to alternative plans before making a decison.

Let us consider the patterns of coping in relation to the following example.

You have taken your three-month-old son to the baby clinic for his injections. The health visitor asks if you are going to have him immunised against whooping cough. She tells you that your baby will be safer if you have him immunised against whooping cough as this disease is dangerous. You know that the whooping cough vaccine has caused brain damage in some babies. The health visitor is waiting for your decision.

a) **Unconflicted persistence**. You do nothing and complacently decide to ignore the advice of the health visitor about vaccination.

b) **Unconflicted change**. You uncritically adopt the advice of the health visitor and do not think any more about it.

c) **Defensive avoidance**. You believe that there are risks to your baby's health either way. You don't see how you can make a decision under these circumstances and ask the health visitor to decide for you.

d) **Hypervigilance**. You are aware of the risks but believe that there must be a way to safeguard your baby's health. However, you don't feel that you have had enough time or information upon which to base your decision but you make a decision as you feel under pressure to do so.

e) **Vigilance**. You accept that there are risks involved in either course of action but feel that there is a way to safeguard your baby's health and that you must have enough time and information upon which to base your decision under these circumstances.

Janis and Rodin (1980) state that

> While the first two patterns are occasionally adaptive in saving time, effort and emotional wear and tear, especially for routine or minor decisions, they often lead to defective decision-making if the person must make a vital choice.

Janis (1984) says that occasionally a vigilant action pattern may not work, specifically if a split-second response is required, but in the majority of situations it leads to decisions of the best quality. Janis provides three conditions for the vigilance pattern to take place.

1. Awareness – specifically of the risks for each alternative.
2. Hope – of finding a better alternative.
3. Belief – in having adequate time to arrive at a desirable decision.

Thus, if awareness does not occur, unconflicted persistence or change will take place; if hope is not met, defensive avoidance is to be expected; if belief that there is adequate time does not come about, then hypervigilance will be the foremost coping pattern.

If the vigilant action pattern is adopted, the individual can proceed to make a stable decision. If any of the other patterns are dominant, then

> the decision maker will fail to engage in adequate information search and appraisal of consequences, overlooking or ignoring crucial information about relevant costs and benefits. (Janis, 1984)

Locus of control

Consider the following statements.

- *When I become ill, it is a matter of fate.*
- *It seems my health is influenced by accidental happenings.*
- *When I stay healthy, it is just luck.*

If you agree with these statements then you believe that we are not masters of our own fate and that we are prone to destiny or to powers outside our control (*external locus of control*).

- *If I become ill I have the power to become well again.*
- *My physical health depends on how well I take care of myself.*
- *I am directly responsible for my health.*

If you agree with these statements, then you believe that you have the ability to determine the factors affecting your life (*internal locus of control*).

Wallston and Wallston (1984) have adapted the concept of locus of control to health-related behaviours (*The Multidimensional Health Locus of Control Scale*). They contend that an individual's locus of control will influence decisions made such that if an external locus of control is adopted then a decision to adopt a *laissez-faire* attitude to health will take place. If an internal locus of control is adopted, it will lead to a decision to do things for oneself and to take a significant role in how decisions about one's health are made.

However, Wallston and Wallston divided the external locus of control into two separate sections, 'chance' and 'powerful others'. 'Chance' refers to fate or God as being the agents of control, but it was recognised that often people depended on significant or powerful others to control their lives. Thus, a reliance on nurses and doctors to determine one's health outcomes would be classed as a 'powerful others' locus of control.

Health belief

This model has been constructed to predict a person's readiness to take action and to adopt 'healthy' behaviour patterns. Becker *et al.* (1977) see the model as being constructed from seven factors. The first two are concerned with feelings of vulnerability, comprising susceptibility and severity of illness.

The first two decisions to make concern:

susceptibility: how likely am I to contract this illness or disorder?

severity: if I get this illness, are the consequences going to be severe?

The next two decisions are based on a cost/benefit analysis:

benefits: if I take this course of action, what am I going to get out of it? Will it work?

barriers (costs): if I do this, what are the physical, psychological and financial consequences? How much stress will I have to put up with?

There are three further factors affecting the individual's decision-making process:

cues to action: do I feel ill? Did I read or see something about this condition the other day? What was so-and-so saying this morning?

diverse factors: these include social and personality factors. Also included are ethnic and demographic details which may affect decisions concerning health behaviour.

motivation: how motivated am I to be a healthy person?

Becker *et al.* suggest that the health belief model is a useful tool in predicting the degree to which people decide to play an active part in their health care.

Reasoned action

This model was put forward by Ajzen and Fishbein (1977) to account for the relationship between beliefs and behaviour. (Ajzen (1991) has recently added some modifications, so it is now sometimes known as *the theory of planned action.*) The theory is based on the assumption that the majority of health behaviour is under voluntary control. This behaviour is made up of two sets of attitudes – our private attitudes to the behaviour in question and our subjective norm or how we think people important to us believe we ought to behave. Above all, it is the attitude to the health behaviour that is important. For instance, the theory would concentrate on attitudes toward the *use* of condoms and not on condoms themselves.

Sometimes private and normative attitudes operate in conjunction with each other, while at other times they operate in opposition. Thus, some individuals might not like using condoms but know that their partners want to use them. The theory may be summarised as follows:

BELIEFS lead to ATTITUDES lead to INTENTIONS lead to BEHAVIOUR.

Evaluation of models

Having described the four models, it is now necessary to assess their usefulness in relation to health decision-making. Janis and Mann (1977) reviewed a number of studies concerning the conflict theory model and found that the findings were consistent with their predictions about the consequences of vigilant and non-vigilant coping strategies. More recently Milner (1994) used the model to successfully distinguish between the decision-making strategies of members and nonmembers of self-help groups. She found that only 40% of her sample make vigilant decisions concerning health.

The findings from studies using the health locus of control model are equivocal. Some research has found the model a useful indicator of health decision-making strategies (Heerman, 1992) whilst other studies have produced few significant relationships between health locus of control and behaviour (Wallston, 1992). In a review of the use of this theory in nursing research, Oberle (1991) says that the concept itself is not wrong but the measures adopted to investigate its usefulness are inadequate. Certainly when the model is used in conjunction with other measures it is possible to predict behaviours (Nemcek, 1990). Lau *et al.* (1986) found that when considered alone, neither an internal locus of control nor placing a high value on health could predict whether a person practised breast self-examination. But when both locus of control and health values were considered together, a positive correlation was found. Women who had an internal health locus of control *and* rated their health highly were more likely to examine their breasts. Therefore, the health locus of control model can be useful if applied appropriately and used in conjunction with other measures.

Both the health belief and the theory of reasoned action models have received support for their ability to explain the processes involved in health decision-making. Becker *et al.* (1977) found the health belief model useful in predicting weight loss in obese children. Tiedje *et al.* (1992) successfully used the model to examine patient attitudes concerning health behaviours during pregnancy. Fishbein (1982) illustrated the utility of the reasoned action model in predicting smoking and giving up smoking, and Miller *et al.* (1992) used the model to predict compliance behaviour of hypertensive patients. A comparison of these two models is provided by the following study of students' views about sexual behaviour and HIV infection.

Look at the following study and see if you agree with the interpretation of the results.

Rutter (1989) gave 128 mixed sex students a questionnaire based on the reasoned action and health belief models. The researchers were

interested in two aspects of sexual behaviour: restricting the number of partners; using safe sex methods.

Measures were taken of private and normative beliefs, the person's perceived vulnerability to HIV infection and the benefits/barriers of restricting the number of partners and using safe sex methods.

A number of variables were investigated:

1. Sexual intercourse:

a) the number of partners each person had sex with
b) whether they practised safe sex

2. Model of health behaviour:

a) theory of reasoned action
b) health belief model

3. Gender:

a) male
b) female

The results indicated that for reducing the numbers of partners:

- the health belief model failed to be of use and there were no significant results for either men or women;
- the theory of reasoned action successfully predicted both intentions and behaviour with respect to restricting the numbers of partners for men but not for women;
- private, rather than normative, beliefs were more predictive of intentions and behaviour.

For the practice of safe sex:

- there were no significant results from the health belief model with respect to the men;
- for women the health belief model successfully predicted both intention and behaviour;
- the theory of reasoned action was successful for the women in both intention and behaviour but not the men. Private beliefs played a more important role than normative beliefs.

Interpretation of results

Would you agree with the following interpretations of the results?

a) The theory of reasoned action was particularly successful.
b) Private rather than normative, beliefs play a more important role in decision-making.

c) There is a difference between behaviours associated with restricting the number of partners and the use of safe sex methods.
d) There are differences between women and men with respect to their belief–intention–behaviour relationships.

You would be correct to agree with b, c and d, but there is little evidence that a), the theory of reasoned action, is particularly successful. It failed with women in the restriction of the number of partners and it failed with men in the use of safe sex methods. This is hardly evidence of particular success, although it did prove more useful than the health belief model.

One can conclude from this study that it is difficult to say that any one model of decision-making can explain health behaviour; the issues involved are very complex. It seems that the applicability of a model depends on the circumstances and on the group of individuals. What models apply more effectively to what circumstances has yet to be determined (see Chapter 12, p. 378).

Problem-solving

Keighley (1993), in discussing the management of care in nursing, cites the work of Allinson (1971) who proposed that one way to describe decision-making is to use the rational decision-making process. After agreeing the definition of a problem, the second stage of this process is to discover all the solutions. However, little advice is given on how to achieve this goal. How *does* one go about discovering solutions to problems?

Brainstorming

This is a technique which can be used to generate solutions to problems. Initially it involves sitting down and producing as many solutions to the problem as possible (Osborn, 1963). The rules are as follow.

- *No criticism.* Write down any idea or possible solution without judging it good or bad. Evaluation comes later.
- *Encourage quantity.* Try and produce as many solutions as possible. If you run out of ideas, put your list down and come back to it.
- *Be bizarre.* Do not be afraid to write down what might seem to be wild or crazy ideas.
- *Combine suggestions.* Some ideas may be combined or improved.
- *General strategies.* Do not worry about the 'nuts and bolts' of the solution; keep to general strategies for the achievement of goals.

The following is an example of brainstorming.

John is 52-years old and has just had a heart attack. There is a history of heart disease in his family, he is overweight, works hard and smokes 30–40 cigarettes a day. He has been told that it is imperative that he stops smoking, and he understands the need to quit but has absolutely no idea how to do so. John comes to you and says 'How on earth am I going to give up smoking?'. You sit down with him and start to brainstorm some strategies. He could:

- cut down by one cigarette a day
- have his hands put in casts so he can't hold the cigarette
- try hypnotism
- suck non-sugar sweets
- just stop
- look at films of people dying of lung cancer
- buy some cigarettes, smoke one and throw the rest away
- tell everybody he knows that he's giving up
- try to avoid people who smoke
- try and avoid places where smoking takes place
- send £1 for every cigarette smoked to a cause he hates
- smoke and smoke till he vomits
- join a 'stop smoking' group
- chew nicotine gum
- pair smoking with electric shocks
- give points for not smoking and a present for every 50 not smoked
- visit a ward where people are dying through smoking
- give himself a big reward if he stops for three weeks
- switch to a low tar brand
- place 'you will die if you smoke' notices everywhere

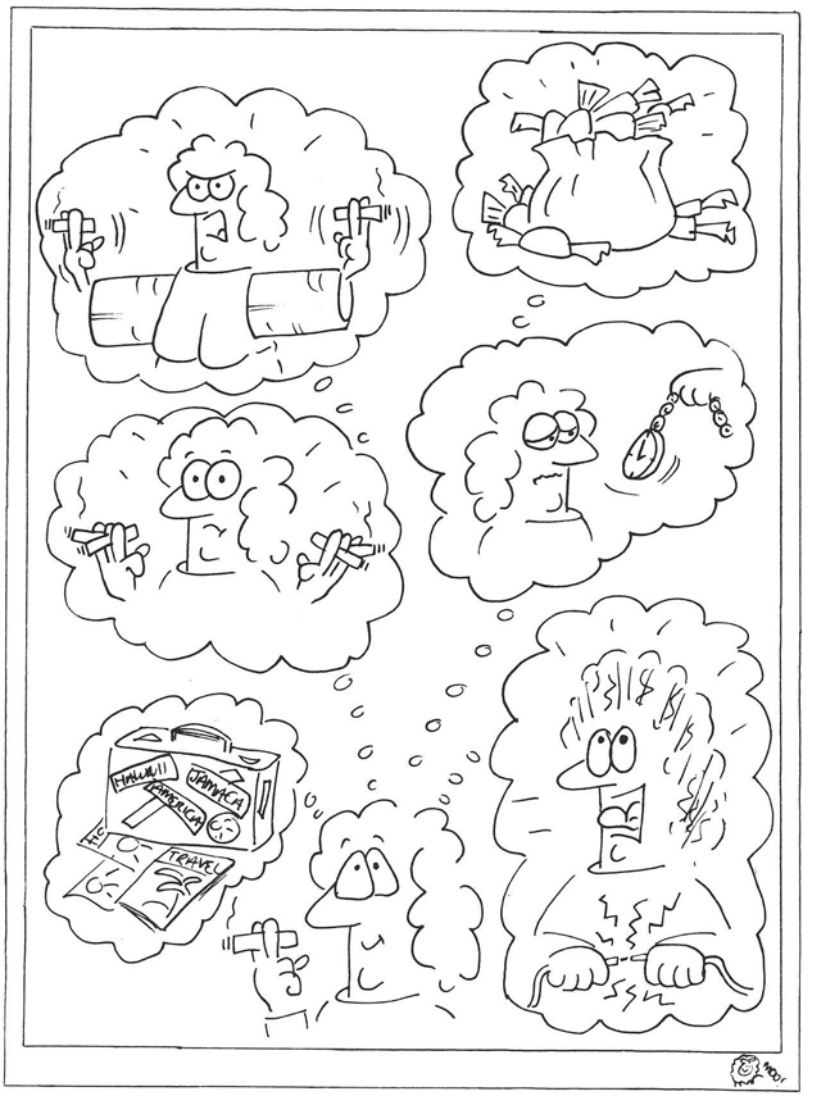
If John gets stuck, he should think of people who can help, places and times where the problem occurs, and his own abilities to cope with situations.

The next stage is to go over the strategies and apply a common-sense criteria for selection. The suggestions John decides to keep are:

- just stop
- join a 'stop smoking' group
- give points for not smoking and a present for every 50 cigarettes not smoked
- a big reward if he stops for three weeks
- chew nicotine gum

Discuss with John his reasons for choosing these strategies. Then apply practical criteria to each strategy to see whether it will work.

- Determine whether the strategy is clear enough to follow.



- Compare the positive and negative consequences of applying the strategy.
- Decide whether the strategy will actually achieve the goal.
- Establish the extent to which the person can follow it. Is it realistic?
- Does the strategy conflict with the individual's values? Do they like it?
- Award points out of 10 for usefulness of the strategy.

John decides to investigate the strategy of giving points for not smoking and a present for every 50 not smoked.

'The strategy is clear enough and I can see myself gradually cutting down'. (70% probability of success.)
'I can see myself getting the rewards but will they be good for me?'. (40% probability of success.)
'It will stop me smoking but only if I manage to keep it up.' (30% probability of success.)
'I like the idea of stopping slowly but I am convinced of the harm of cigarettes and think that I have the willpower to stop immediately'. (10% probability of success.)

John concludes that the point-awarding strategy really is not for him and decides to investigate the 'just stop' proposal with the added incentive of rewards after a specified period of time.

Of course John's chosen plan may not work, and he may have to try again, but at least he has alternatives and is not in the powerless position of not knowing what to do.

Mental ruts

Exercise 6.1: Mental ruts

The problem given is to measure out quantities of water by pouring water from one jug to another. You have one jar that holds 29 pints and another that holds 3 pints. If your task is to measure out 20 pints, the solution is to fill up the large jar and pour water from it into the small jar until full. This would leave 26 pints in the large jar. If you repeat this procedure twice you will have 20 pints in the small jar. Easy. Try to work out solutions to the following problems. This time there are three jars, and their capacity differs with each problem.

Problem	Jar A	Jar B	Jar C	Desired amount
Example	29	3	–	20
1	21	127	3	100
2	14	163	25	99
3	18	43	10	5
4	9	42	6	21
5	20	59	4	31
6	23	49	3	20
7	15	39	3	18

In each case the problem can be solved by filling up Jar B, pouring water into Jar A, then pouring water into Jar C twice. The solution may be represented mathematically thus: B – A – 2C. However, if you used this to solve problems 6 and 7, you have become 'stuck in a mental rut'; a much easier strategy would have been A – C (for problem 6) and A + C (for problem 7), eliminating the need for B altogether.

Intuition

Getting stuck in a mental rut can also occur when dealing with objects and people as well as with mathematical processes. Maier (1930) posed the following problem.

Two pieces of string are dangling from the ceiling. The goal is to tie them together. However, they are too far apart and too short for a person to keep hold of one while reaching for the other. Scattered about the room are numerous objects, including a pair of pliers. Could the pliers be of any help in solving the problem?

Most people, when faced with this problem, need hints from the experimenter in order to find the solution. The answer is to tie the pliers to one of the pieces of string and swing it to form a pendulum. On the backswing, catch it and tie it to the other piece of string. The normal function of pliers is to act as a tool and not as a pendulum, so most people fail to solve the problem immediately.

This inclination to view objects as having fixed uses is called *functional fixedness*. We can also view people in a functionally fixed way. Think back to the story about the surgeon described in *Chapter 2*. We tend to think of surgeons as being male and therefore overlook the fact that the surgeon could be the boy's mother.

One factor related to an individual's ability to solve these sorts of problems is prior experience. If a person were building a wall and mislaid the plumb line, they might tie some pliers on to the end of a piece of string and use this apparatus in place of the plumb line. This type of prior experience of using objects in different ways can help in problem solving.

Exercise 6.2: Problem solving

Take two groups of people. Give one group the following problem.

A lorry driver is travelling the wrong way down a one-way street. A policeman sees him and does nothing. Why?

Ask the other group to write down as many different ways of travelling from A to B as they can think of, and then give them the same problem to solve.

Were there any differences between the ability of the two groups to solve the problem? If the second group were better at solving the problem, then the 'travelling' task served to break the functional fixedness of seeing the lorry driver in his lorry and driving up the one-way street.

Problem-solving in social settings

An area in which problem-solving skills are particularly useful is the social domain. Many problems occur through our interactions with

other people in specific situations. The purpose of the next section is to help you identify the issues, problems and concerns of your own life in order that you might help patients do the same.

Positive and negative

Often a very simple structure can help with the identification of the major constituents of a problem.

Write down the things in your life that you feel positive about and the things that you feel negative about. Make sure you write down at least two positive features of your life for every negative feature and don't worry about the importance of each issue.

For example:

Positive
I'm not too badly off as far as money is concerned.
I get along OK with my parents.
I think I have a reasonable amount of intelligence and ability to be a nurse.
I have some very good friends.

Negative
I think I'm a bit too shy.
I hate it when others tell me I'm doing something wrong.

Now do the same for the following specific headings. The questions will give you some guidelines to start you thinking.

Ability – How good am I? Am I going to be able to get things done? Do I have what it takes to be a good nurse? Have I the ability to deal with everything life throws at me?

Identity – What do I believe in? In what ways does my life have meaning? Do I have a clear sense of purpose and direction in life? What am I confused about?

Relationships – How do I relate to others. What social settings influence the way I act sexually? What are my views on long-term relationships?

Nursing – How do I feel about the way things are going in my career? What do I get out of nursing? What am I like, and how do others see me, as a nurse?

Community – What do I do at home or with friends? Do I contribute anything to the community? Do I have enough free time? What do I do with it? What is my neighbourhood like?

Finally, it is important to review problems in specific social settings. The first stage is to write down all the social settings you can think of, as in the following example.

Social settings: friends; parents, nursing college; badminton club; student union; tutors; family; church group; friends outside college.

Analysis: take each of these settings and determine what people think about how you should act; the demands they place upon you; your thoughts; how satisfied you are.

Action: Finally, action has to be taken. Therefore choose one problem and try to think through some possible strategies. Use techniques similar to the brainstorming action plans described earlier and discuss them with friends if possible.

Making decisions and solving problems require effort and skill – intuition is not good enough on its own. English (1993) says that the 'novice to expert' model based on working from an intuitive base is flawed because alternative explanations to account for intuitive responses can be suggested. In the context of involving patients in the decision-making process, it is important to consider the skill and effort involved in decision-making. Biley (1992) says that until recently patients have been the passive recipients of nursing care, but recently this passive role has changed and nurses are now actively being encouraged to promote the inclusion of patients in decision-making.

If there are guidelines about the ways in which one can develop decision-making and problem-solving strategies then the process becomes clearer. I hope that this chapter has gone some way towards providing those guidelines.

Summary

Making decisions and solving problems are important features of the work that nurses do. Chapter 6 has looked at the psychological factors associated with irrational decision-making, a range of models which attempt to explain how individuals make decisions about their health behaviour and has looked at strategies for improving the quality of our decision-making.

Examples of the range of mistakes which people typically make have been provided and the difference between clinical decisions and statistical decisions highlighted. Four main models of health decision-making behaviour have been described. These are conflict theory, locus of control, health belief and reasoned action. Problem solving in social settings and the use of brainstorming are used as examples of ways of improving the effectiveness of decisions.

Questions for further consideration

1. Discuss the psychological factors that influence decision-making.
2. Compare and contrast models of health behaviour.
3. What is brainstorming? How can it be applied in the nursing context?
4. Outline methods of social problem-solving.
5. The way in which a problem is framed determines the response. Discuss.

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Further reading

Hurst, K. (1993). Problem-solving in nursing practice. Harrow: Scutari Press.
The problem-solving approach to nursing practice incorporates many of the principles that have been discussed in this chapter. When reading this book, it is useful to consider the processes involved in problem-solving, as well as how they are applied in the nursing context.

Janis, I. L. (1982). *Groupthink,* 2nd edn. Boston: Houghton Mifflin.
This is a very readable book. It explores the processes involved in group decision-making, which Janis calls 'groupthink'. It is illustrated by a number of examples where groupthink has led to disastrous decisions being made by eminent people.

Kahneman, D., Tversky, A. (1982). On the study of statistical intuitions. *Cognition, 11,* 123–142.
This contains a great deal of information on the psychological factors that influence decision-making. The paper requires concentration, but is well worth the effort.

Sogaard, A. J. (1993). Theories and models of health behaviour. In: Schou, L., Blinkhorn, A. S. (Eds) *Oral Health Promotion.* Oxford: Oxford Medical Publications.
I have discussed four of the main models of health behaviour, but there are others. This chapter is excellent because it discusses just about all of the models and theories of health behaviour.

7 *Learning, memory and social influence*

Mary has a phobia about spiders, and cannot enter a room unless someone has checked to make sure there are no spiders. She has been having therapy because of this phobia, and together with her therapist has agreed a programme of gradual desensitisation. She has been introduced first to pictures of spiders and, over time, to the real thing. At each session, the therapist plays some of Mary's favourite music and guides her through a range of relaxation techniques. Slowly, Mary comes to associate the idea of spiders with pleasant and relaxing sensations.

John and his wife Jean have gone to their doctor to get the results of some tests John has had. The doctor informs them that John has cancer but says that there are a number of things that can be done. He goes on to describe these in some detail. When John and Jean get home all they can remember of the interview is that John has cancer. They know they were told about various treatments but cannot recall what they were.

One facet of decision-making or problem-solving is the necessity of communicating the result effectively. Often just giving people information is not good enough. They may forget what you said or not have understood what you meant in the first place. Further, the way information is presented to people can influence the extent to which they may comply with therapeutic regimens. This chapter examines the central processes involved in learning, memorising and influence, topics which have been the concern of psychologists for many years.

Learning

There are three basic forms of learning:

1. learning from consequences (or operant conditioning)
2. learning through association (or classical conditioning)
3. learning from the behaviour of others (observational learning).

Operant conditioning

Learning from consequences has been termed *instrumental* or *operant conditioning*. A key word in this process is *reward*. Behaviour that is rewarded (reinforced) is more likely to occur again in the same or similar situation.

Take the example of a client with learning difficulties who has problems maintaining eye contact with people during conversations. The staff who work in his house decide to smile at him whenever he makes eye contact while speaking. Because he likes to be smiled at, the client increases the amount of eye contact he makes during conversation.

Similarly, it can be argued that if one punishes a person for an act, they should be less likely to repeat it. Therefore, through the joint processes of reward and punishment, people learn that some behaviours are acceptable and others are not. A third basic process of operant conditioning is negative reinforcement. This results in behaviour which enables individuals to avoid or escape harmful or unpleasant circumstances. It is important not to confuse negative reinforcement with punishment because they have opposite outcomes. An example of negative reinforcement would be the use of disclosing agents for dental plaque. The presence of the red dye on one's teeth is unpleasant, therefore brushing it off is rewarding.

An act does not need to be rewarded every time for it to be repeated. The *partial reinforcement effect* states that an organism need only receive a reward at intervals in order for the behaviour to continue. A pigeon will learn to peck at a disc to receive the reward of a food pellet. If the pigeon is rewarded with a pellet every five pecks then it will continue to peck at the disc. This is known as a *fixed ratio* schedule of reinforcement. Similarly, the same pigeon will continue to peck at the disc if it is rewarded every 30 seconds irrespective of the number of pecks, and this is called a *fixed interval* schedule of reinforcement. Both schedules lead to different patterns of behaviour:

Fixed ratio subjects respond at a constant high rate, but pause briefly after each reinforcement. An example would be workers placed on 'piece-work', where the size of their wages is determined by the amount of work completed.

Fixed interval subjects show a low response rate immediately after a reward, but gradually increase their response rate as the next reward approaches. Here workers would be paid at a monthly or weekly rate.

Sometimes the ratios and intervals need not be fixed and can vary. *Variable interval* and *ratio* schedules are, for example, where the number of pigeon pecks or the amount of time between pecks is variable, although the number required usually varies around some average value. An example of this type of reinforcement is the 'fruit

machine'. The number of people who play these machines for considerable periods of time testifies to the strength of these types of reinforcement schedules.

Frequently complex behaviour patterns can result from simple reinforcement schedules. Skinner (1974) was one of the foremost protagonists of the behavioural approach in psychology. He illustrated how a pigeon could be trained to turn in a circle, using food pellets as rewards. This process is known as *shaping*. Every time the pigeon turned to the right it was given a reward; if it turned to the left or did something else it got nothing. Gradually the pigeon learned that every time it turned right it received a pellet. The pigeon would increase the amount it turned as the schedule proceeded until finally the pigeon would revolve in a full circle in response to the reward of one food pellet. Using similar techniques, animal trainers are able to get dogs to jump through hoops of fire, elephants to sit on each other and dolphins to perform somersaults in unison. You will see that at the end of every trick the animals get a reward.

Classical conditioning

At the beginning of the century, Ivan Pavlov performed his classic experiments on salivation in dogs. He noted that the dogs in his experiments often salivated at the sight of their food containers or at the sight of the person who usually brought the food. He hypothesised that the dogs had learned to associate the food with the person or with the foodpan. This association he termed classical conditioning. The *unconditioned stimulus* (UCS) – the food – causes the *unconditioned response* (UCR) – the dog salivates. The *conditioned stimulus* (CS) – the foodpan – is paired with the food, producing the *unconditioned response* (UCR) – the dog salivates. Finally, the conditioned stimulus, the foodpan, on its own causes the dog to salivate producing the conditioned response (CR). This is represented in *Figure 7.1*.

Using classical conditioning, Watson and Rayner (1920) were able to induce fear of a white rat in a young boy named Albert. Every time the

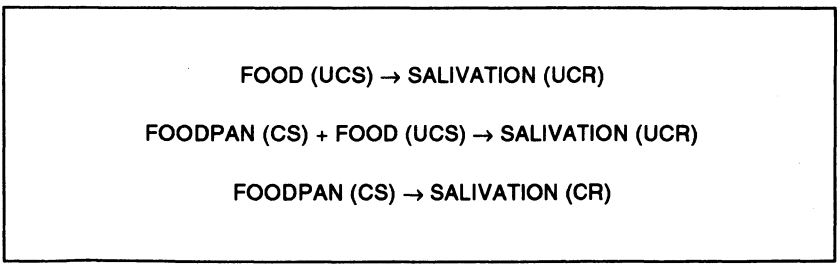

Figure 7.1 *Classical conditioning.*

rat was placed in front of Albert, the experimenters made a loud noise in his ear. Very soon Albert learned to associate the loud noise with the rat and started to cry and crawl away every time he saw it.

A patient with chronic lumbar pain reports consistent aggravation of the pain with muscle spasm in the evening. The pain seems worst when the patient is going to sleep. Over a period of time the patient begins to associate the muscle spasm with sleep and starts to experience considerable anxiety before settling down to sleep at night. This anxiety increases to the extent that the patient actually comes to fear this time of night as it has become associated with severe pain. In some patients, when movement produces an increase in pain, just the thought of moving can lead to increased anxiety, which in turn increases the pain itself.

Stimulus generalisation

Suppose a man has been conditioned to respond to spiders with fear. Might he also show fear in the presence of a small beetle? The chances are that he would indeed exhibit apprehension. This is because a person who has been conditioned to respond to one stimulus will respond to another stimulus as long as it is reasonably similar. This is called *stimulus generalisation*. Thus learning is not limited to specific items, but can be generalised to new stimuli and events.

In Albert's case, the conditioned response of fear transferred spontaneously to similar stimuli such as a rabbit, a sealskin fur, cotton wool, and Watson's beard. It did not transfer to dissimilar items, such as toy building blocks or the hair of two observers. Also, not all objects evoke conditioned responses. Seligman (1971) noted that human beings seem to acquire conditioned fears of some stimuli, such as snakes and spiders but not others, for example houses, plants and books.

Observational learning

Learning can occur by watching other people's behaviour. This type of learning is usually termed *observational learning*, or sometimes *modelling* because the person whose behaviour is observed is called the model. Observational learning takes place without any reinforcement or conditioning, merely from being exposed to a model. However, whether the model's behaviour is imitated will depend upon other factors, such as the consequences for the model and the individual (see Chapter 10 for more on the use of modelling in coping with pain).

Modelling has been used in a variety of health contexts, such as showing patients about to have surgery films of 'models' undergoing unpleasant surgical procedures such as cardiac catheterisation, endoscopy and dental procedures. The films portray people coping with the

procedures in a positive way with low levels of stress and anxiety. It has also proved useful in health education, where appropriate role models are often used to portray healthy behaviour via the media.

Memory

We have now examined how to determine a particular course of action or treatment and investigated ways in which this may be learned. The next stage is to find out why some people have difficulties remembering what to do and discuss ways in which their memory can be improved.

Although William James proposed in 1890 that there were two memories, *primary* and *secondary*, it was not until the 1950s and 1960s that the distinction became popular. Perhaps the best known model is that of Waugh and Norman (1965). They proposed that there are two types of memory store, *short-term memory* (STM) and *long-term memory* (LTM). These stores are preceded by a very small store, lasting just a few seconds, called *sensory memory* (SM).

Most opposition to the 'two process' model came from Craik and Lockhart (1972). They suggested that there was one memory store and that memory for an item depended on the amount of 'work' done to input the information into memory. The more work done, the deeper the level of processing and the less likely the material to be forgotten. An illustration of the *depth of processing model* was provided by Bower and Karlin (1974). Participants were given pictures of faces and asked to make judgements about the honesty, likeability and gender of each face. The depth of processing model would predict that those faces judged for honesty and likeability would be better remembered than those judged for gender. More 'work' is needed to assess the honesty

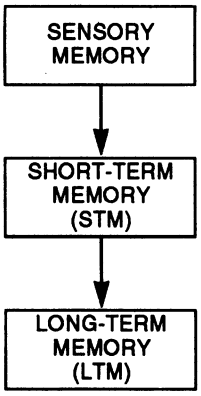

Figure 7.2 *Memory storage.*

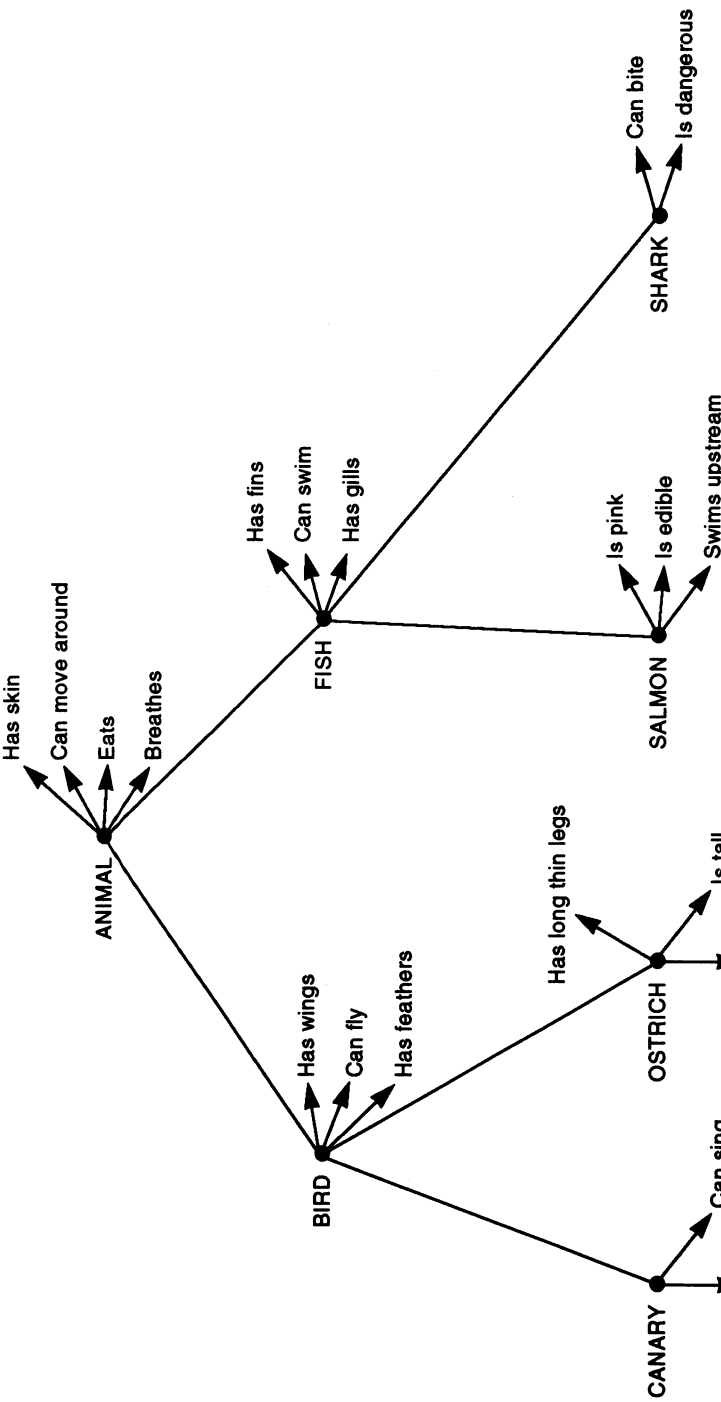

Figure 7.3 *An example of a semantic memory hierarchical network* (adapted from Collins and Quillian, 1969).

and likeability of a face and thus the memory trace is embedded deeper in the memory store. The experimenters found that recognition of the faces was much better after judging for honesty and likeability than for gender. Baddeley (1983) criticised the model for being circular, saying little more than that 'meaningful' events will be better remembered. More recently there has been a move away from 'depth' towards a concentration on the ways in which information is encoded.

Baddeley and Hitch (1974) and Baddeley (1981) investigated the qualitative components of the work done to input information into memory. They propose a *working memory* made up of a number of different systems:

a *central executive* to control the overall system;
an *articulatory loop* to facilitate the rehearsal of items;
an *auditory imagery* system which retains recently spoken language;
a *visuo–spatial scratchpad* which can briefly retain visuo-spatial material.

Newell (1992) has related the role of reflection in nursing to information-processing accounts of human memory such as the working memory model. Tulving (1972), on the other hand, concentrated on the qualitative components of LTM. He suggested that LTM could be divided into *semantic* and *episodic* memory. An example of semantic memory is the hierarchical network provided by Collins and Quillian (1969). They say that our long-term memory is structured into 'properties' and 'categories' as can be seen from *Figure 7.3*.

Episodic memory refers to the storage of personal experiences or episodes, as for example in the question 'What were you doing last Saturday night at 7 p.m.?' Both forms of memory are used at different times in different contexts. Kovach (1993) has developed a tool to help nurses code episodes in autobiographical memory. It uses quantitative content analysis to code interpretations of autobiographical memories in patient interviews.

Chunking

Exercise 7.1: Chunking (A)

Look at the following list of words. Work down the list and say each word quietly to yourself. Do not go back over them. When you have finished cover up the words and see how many you can remember.

bath
soldier
pawn
word
helium
card

horse
door
train
hug
leek
farm
net
law
knot
tree
brother
bag
rum
sheep

How many did you get right? According to Miller (1956), you should have got about seven, plus or minus two, correct. This is the limit of the memory span if the items to be remembered are unrelated and no 'aide-mémoire' is used.

If people are given too many things to remember they run out of memory space. Anderson (1986) studied doctor–patient communication in Hong Kong and found that patients were given an average of eighteen items of information to remember at each consultation. Not surprisingly, the overall recall level was only 31%.

Exercise 7.2: Chunking (B)

Try the same exercise again but with the following words.

cat
horse
monkey
mouse
dog

table
chair
sofa
stool
cushion

apple
banana
pear
orange
lemon

mother
father

son
daughter
aunt

You should find this list of words easier to remember because they have been organised into categories. You should have no difficulty memorising the four categories: animals, furniture, fruit and family, as the number is well within the memory span. You should also have little difficulty in memorising the five members of each category as they too are well within the memory span.

Miller (1956) said that when words are organised into a group they become one 'chunk' of information. Now, using Miller's rule we should be able to remember seven plus or minus two 'chunks' of information. When this is transposed into categories, there is no reason to suppose that five categories of five categories of five (or 125 words), should prove impossible to remember. One way to improve your memory is to present information in an organised way using categories where possible. Students' essays are easier to read and tutors' lectures easier to comprehend if they are organised and have some structure. A straight list of topics is more difficult to digest.

The primacy–recency effect

Examine the words you remembered from the first memory exercise. How many of them came from the beginning and from the end of the

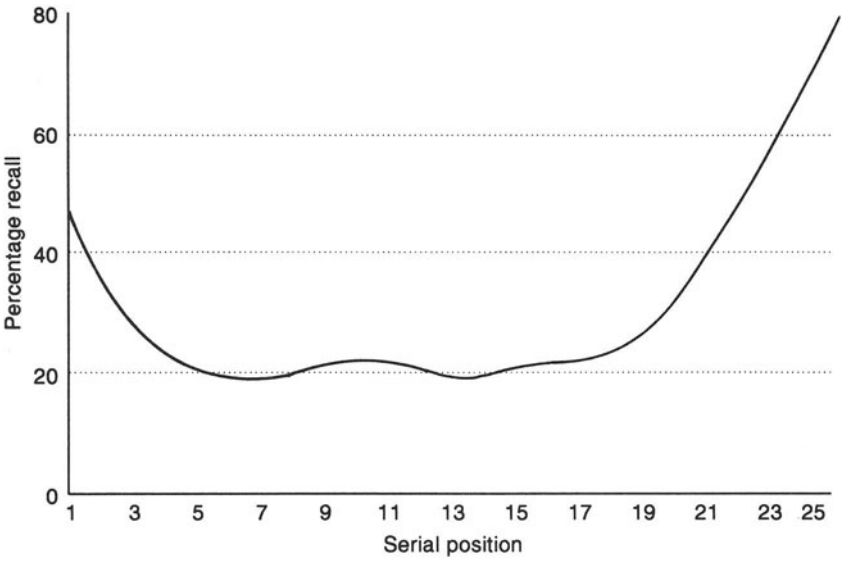

Figure 7.4 *The primacy–recency effect. A serial position curve.*

list? You will probably find that most of the words you remembered did.

The words at the end of the list are rehearsed in STM and thus remembered, no matter how long the list. If rehearsal is prevented by placing an interpolated task such as counting backwards from 100 in thirteens at the end of the list, the effect disappears. This task does not seem to have any effect on the recall of the first words in the list as they have already been assigned to LTM (Glanzer and Cunitz, 1966). Ley (1989) says that there is a primacy effect in recall of medical information. Therefore it is important to present crucial details at the beginning of a meeting with a patient, and, taking into account the recency effect, again at the end.

Imagery

Exercise 7.3: Word pairing

Look at the list of words below. They are the same ones as before, only this time presented in pairs.

bath	leek
soldier	farm
pawn	net
word	law
helium	knot
card	tree
horse	brother
door	bag
train	rum
hug	sheep

Try and pair the words into vivid, even bizarre images, such as a bath filled with leeks, or a soldier digging on a farm. Work down the list, cover up the words, and then count backwards from 100 in thirteens for 30 seconds and then see how many words you can remember.

Chances are that you did considerably better this time. This is because we have a visual memory store which can prove extremely useful when applied to mnemonic devices.

Take some time to remember the following rhyme:

One is a Bun
Two is a Shoe
Three is a Tree
Four is a Door

Five is a Hive
Six are Sticks
Seven is Heaven
Eight is a Gate
Nine is Wine
Ten is a Hen

This application of words to the numerical position of words on the list is known as *pegwords* and these can be used to memorise words from another list. Suppose you were required to remember the following words:

car
chair
horse
beach
coalminer
church
teapot
bottle
train
nurse

Having learnt the pegwords, the next stage is to pair them with the words to be remembered. An example would be a big fruit bun driving a car (the first word on the list, or 'one') or a pair of shoes placed on a chair. Using this technique you should be able to remember all ten words.

There are other types of mnemonic device. Another technique is to use familiar locations, such as rooms in your home. Imagine going into your house and climbing the stairs to your bedroom. While you do this, assign the items to be remembered to specific locations. Place a toy car in the hall, a chair at the bottom of the stairs, a horse at the top and so on. Then retrace your journey, looking for the items to be recalled in their particular locations.

Previously unrelated words can be recalled by positioning them in a story, or using the first letters of the words to spell another word. Some people use imagery to help them remember people's names. Take a person called Angela Brown. Form a bizarre image of her, using parts of her name. Picture her wading knee deep in mud (Brown) with angel's wings attached to her back (Angela). This technique, like the others, takes a bit of practice but once mastered can prove a boon in social situations.

Meyer and Dunne (1991) suggested that these types of memory techniques may facilitate the study approaches of student nurses. They

examined 45 failing and 221 achieving nursing students and found those who failed adopted studying approaches that lacked the use of memory aides.

Nursing implications

Sometimes being able to remember lots of bits of information can be very useful. To be able to refer to all your patients by name as soon as possible assists in making them feel valued and unique. However, it can be a daunting task, especially for students on relatively short placements.

The short vignette at the beginning of the chapter illustrates the need to be aware of the particular problems of retaining information during times of stress. The patient who has just been given some bad news often uses most of his or her psychological resources to deal with the shock and may pay little attention to what is actually being said at the time.

In a review of research, Ley (1988) provided seven techniques for increasing the understanding and memory of orally presented communications:

- the use of the primacy effect;
- stressing the importance of certain items;
- simplification – use of short words and sentences;
- categorising material. List category names to the patient before presenting the information to be remembered; for example, 'It is important that you eat the right foods, such as fruit – apples and oranges, and vegetables – potatoes, peas and carrots.';
- use of repetition;
- use specific rather than general statements;
- if necessary, ask the patient to repeat details to check they have understood.

However, Ley (1989) also suggests that written information should be used where possible. Not only does it aid recall, but patients prefer it (Morris and Groft, 1982). Ley and Morris (1984) found that written information about medication increased patients' knowledge in over 90% of investigations and increased compliance in 60% of investigations.

Social influence

There are a number of strategies which are used to influence people's decisions about health care. The manner in which information is presented to a person often determines the degree of compliance.

Similarly, the presence of others can have a significant effect on health behaviour. Thus the term *social influence* refers to the ways in which people's behaviour is influenced by the presence and actions of others. The 'others' include the nurse and people of influence, such as partners or friends, in the individual's life.

Social influence takes a number of forms.

Conformity – individuals alter their behaviour to adhere to social norms or socially accepted behaviour.
Compliance – asking people to alter their behaviour in some particular way.
Obedience – ordering a person to change his or her behaviour.
Modelling – behaviour is changed through observing the actions of someone else.

Conformity

Conformity has been discussed more fully in *Chapter 5* (pp. 134–137), but I feel it is worth looking at again briefly, in the context of social influence. Societies have a number of rules, some formal, some unwritten, which indicate how people should behave in particular circumstances (*social norms*). In some circumstances these norms serve a useful function – forming a queue prevents social chaos while other norms appear to have no obvious purpose. However, it is clear that there are forceful pressures to conform in many contexts.

Imagine that you are revising for your exams. Whilst engaged in this worthwhile pursuit you become aware that one of your friends is using a totally different revision technique and disagrees with you about which technique is best. This causes a slight degree of apprehension in you, but you are then joined by another friend who also disagrees with you. Do you stick to your original technique or change to the one your friends have adopted?

You might chance your luck, but if two more friends arrived and agreed with the other two, you would be under enormous pressure to change and conform.

Nurses are sometimes faced with a situation where they disagree with decisions affecting the care of their clients. They may feel that these decisions are not in the client's best interest and their professional code of conduct (*UKCC*, 1992) requires them to speak out on behalf of their client. This is particularly difficult when other members of the team are perceived as more powerful or of a higher status. The pressure to conform can be infectious; as each group member agrees with the next, personal doubts are suppressed and a false impression of unanimity arises, inevitably leading to irrational and sometimes dangerous decisions being made.

Compliance

Nurses often find themselves asking people to alter aspects of their behaviour. This may seem straightforward, but in many instances people do not do what you wish them to do. However, there are ways of phrasing requests which can significantly affect patient compliance. It is important that nurses are aware of these techniques, as they may be using them unknowingly. If patients become aware that they have been manipulated, all trust in the relationship evaporates.

The 'foot-in-the-door' technique

This technique operates on the principle that a small or petty request followed by a larger more important request will increase compliance. Freedman and Fraser (1966) conducted a famous study into the 'foot-in-the-door' technique. People were phoned at home and asked a few simple questions about the kind of soap they used. Several days later the same person phoned again, this time asking if they could send five or six people along to make an inventory of all the household products the person contacted had on hand. They explained that it would take about two hours and that access would be needed to all parts of the house. Despite the enormity of the request, 52.8% agreed to the visit, while only 22.2% agreed to a visit when asked without the 'foot-in-the-door' request. One explanation of these results is that once people comply with a small request they experience a small shift in their self-perception, coming to see themselves as 'helpful people'. When a large request follows, they do not want to destroy this self-image.

'Throwing the low ball' technique

If one of your tutors were to say to you 'Could you help me with some work I am doing on social influence? It starts at 7.30 a.m. and will only take up ten minutes of your time, I promise.' You might think that you would like to help, but that 7.30 a.m. is much too early. If your tutor phrased the same request as: 'Could you help me with some work I am doing on social influence? It will only take up ten minutes of your time, I promise.', waited for you to say yes or no and then told you it was due to start at 7.30 a.m. he or she might get more volunteers. This approach has been called 'low balling', from the baseball term to 'throw a low ball'.

Cialdini *et al.* (1978) asked students if they would put a poster up in their rooms. In the low ball condition, they agreed to display the poster and were then told that they had to collect it from the foyer, a considerable distance downstairs. In the control condition, the students were told that they would have to pick the poster up from the foyer

when asked to display it in their rooms. Cialdini and colleagues found that 60% of the students in the 'low ball' condition displayed the poster compared with 20% in the control condition. This experiment suggests that it is a good idea to avoid hasty decisions, especially when the alternatives seem simple or easy.

'That's not all' (TNA) technique

This effect is demonstrated at street markets throughout the world and it seems to work; 'Tell you what I'm going to do for you, Madam . . .'. Burger (1986) investigated the TNA effect by selling cakes at different prices. The subjects in the TNA condition were told that the cakes cost £1, but before they could reply, they were told that he would lower the price to 50 pence as it was near closing time. In the second (control) condition, the cakes were priced at 50 pence. The third condition was called a 'bargain'. Here the seller told the people that the cakes had originally been priced at £1 but were now reduced to 50 pence. It was found that 55% of the subjects bought the cakes in the TNA condition, compared with 25% and 20% in the bargain and control conditions respectively. It seems that the TNA effect involves something more than merely reducing the price. Burger says that the effect comprises an element of social reciprocity – that there is an obligation to reciprocate when another person makes a concession.

The TNA effect can prove very effective.

Ingratiation

Simply put, if people like us, they are more likely to yield to our requests. Godfrey *et al.* (1986) asked pairs of unacquainted people to engage each other in conversation. After the first conversation, one subject in each pair was told to try to make the other like him (experimental group), whereas in the control condition no such instructions were given. Individual ratings and videotapes of the conversations indicated that the subjects told to ingratiate themselves succeeded. However, Wortmann and Linsenmeier (1977) caution about the use of too much ingratiation. They found that subtle forms of flattery are more effective. Less direct techniques, such as paying attention and showing concern about what the other person says, enhance attractiveness. Also, sharing people's beliefs and opinions increases affinity.

Implications

The use of these techniques should be avoided if possible as they not only put trust at risk but are also contradictory to the emphasis on promoting self-care and decision-making. Phrasing requests in such a manner takes away the patient's ability to make a 'real' decision. The use of covert strategies further reduces the emphasis on providing open, honest, client-centred care.

Obedience

Obedience is concerned with *telling* people to act rather than *asking* them to do so. People often obey commands because they fear punishment if they fail to comply; however, under certain circumstances people will obey others even when there is no obvious need to do so. Milgram (1963; 1974) devised a series of dramatic and controversial experiments looking into the extent of people's obedience to authority.

He advertised in the local press for volunteers to take part in an experiment on learning at Harvard University. On arrival they were introduced to another person who was to take part in the experiment but who was, in fact, Milgram's accomplice. A coin was tossed to decide who would be the 'experimenter' and who would be the 'subject' in the experiment. It always transpired that the accomplice was the 'subject' and the true volunteer the experimenter. The true 'subjects' of the experiment were told that they were taking part in a study of the effects of punishment on learning. Their role was to deliver electric shocks to the other person by means of thirty switches on a control panel in front of them. The strengths of the shocks were

graded in intervals of 15, from 15 volts (slight shock) to 450 volts (marked XXX).

The 'subjects' were told to move to the next higher level of shock every time the learner made an error. In effect, the learner never received a shock, but to convince the 'subject' that the apparatus was real, a mild pulse of 45 volts was administered to him. It was prearranged that the learner would get gradually worse, and the strength of the shocks increased, until the 'subject' faced a dilemma about whether he should proceed. Milgram then gave one of three graded remarks.

1. Please go on.
2. It is absolutely essential that you continue.
3. You have no other choice; you must go on.

All the 'subjects' were volunteers and had been paid in advance. They could have terminated the experiment at any time, yet 65% showed total obedience and proceeded through the entire range to the 450 volts level.

In this, and other experiments, Milgram (1974) found that 62.5% of participants would administer lethal doses of shock even when they knew that the learner was suffering from a 'heart condition'. Some (30%) went so far as to force the learner's hand onto the shock plate when he refused to comply. However, many participants protested, verbally attacking the experimenter and displaying signs of anguish, and a fair proportion refused to obey Milgram's commands. Indeed, several participants suffered uncontrollable seizures.

Two main factors were found to be important in resisting obedience to authority.

Responsibility. In some of the experiments carried out by Milgram participants were told that they would have to accept responsibility for their actions. Under these circumstances there was significantly less obedience to authority. Hamilton (1978) found that when people are given responsibility for their actions, they are less susceptible to commands to obey.

Disobedience. Exposure to disobedient models also reduces obedience. In Milgram's (1965) initial experiments, the presence of people who visibly disobeyed his requests to increase the shock reduced the compliance figures to 10%.

Even though the participants in Milgram's experiments were given a full debriefing after the experiment, there are serious ethical concerns relating to this sort of study. Bushman (1988) has shown that obedience can be investigated in a less harmful way. A female accomplice of the experimenter ordered passers-by to give money to a

young man who needed it for a parking meter. In one condition the accomplice was dressed in a uniform; in another as a business executive and in a third as a vagrant. In the first condition 72% complied with the order, compared to 48% and 52% respectively in the other two. It seems that some outward sign of authority such as a uniform is an important factor in obeying commands.

Implications

It is important that nurses recognise the meanings people place on the wearing of uniforms. A uniform is rarely just an overall to protect personal clothing, and the meanings patients place on a nurse's uniform may well affect the kind of relationship that develops between nurse and patient.

Patients for whom a uniform means authority may expect to be told what to do and the nurse needs to be aware of this in order to encourage self care and independence.

Being aware of those factors which are more likely to counteract unquestioning obedience is important. In the light of the studies described previously, consider the likely outcome of increasing a patient's sense of personal responsibility for maintaining their own health. Consider also the effect of your perceived position of authority in relation to the gaining of informed consent from patients. It is not always easy to ensure that patients have a real choice in a climate where nurses and doctors are perceived as having (legitimate) authority.

Modelling

In many instances social influence can be exerted unintentionally. This influence can lead to either inhibition or disinhibition.

Inhibition

Suppose you are waiting in a traffic jam and are late for an important appointment. You are about to pull out and overtake the other cars when you spot someone ahead of you doing just that and then falling back into line. You have second thoughts about overtaking and remain where you are. In this situation, your behaviour has been unintentionally inhibited by somebody else's act.

Disinhibition

Imagine that you are standing in a queue waiting for a bus. Unfortunately the bus cannot stop at the head of the queue and instead stops some yards further on. You are waiting for the person at

the front of the line to start walking when someone bursts from the middle of the line and rushes for the bus. You decide that if they can do it, so can you, and you rush off as well. Here the person has unintentionally disinhibited your behaviour.

Both these examples illustrate the power of modelling. In each case the models were unaware of the effect they were having on others' behaviour, and thus it is often counterproductive to say one thing and do another, as people may be influenced by your actions even when you are unaware you are being observed.

Modelling is also an extremely useful technique for reducing pain and stress, details of which were given earlier on in the chapter (see p. 188).

Summary

It is hoped that this chapter has illustrated that communicating information is much more than simply telling the patient what to do. However, with a knowledge of the basic processes of learning, the nurse can endeavour to ensure that important details are more likely to be remembered. A knowledge of memory enables the nurse to facilitate the retrieval of information from memory. A knowledge of the social processes involved in communication enables the nurse to monitor the influence of others and of him or herself on patient behaviour.

Questions for further consideration

1. Describe the processes of classical and instrumental conditioning. Illustrate how they may be used in nursing care.
2. In what ways can memory be facilitated?
3. Assess the importance of modelling in programmes of health promotion.
4. Discuss the concepts of compliance and conformity in the context of nursing care.
5. How does 'working memory' differ from long-term memory?
6. What are the implications for nursing care of studies of obedience to authority?

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Further reading

Baddeley, A. (1983). *Your memory: A user's guide.* Harmondsworth: Penguin.
Many books on memory are either too complicated or too superficial. This one strikes a good balance between the two. Memory is presented in an extremely interesting fashion with appropriate attention being paid to detail. It also contains suggestions for further reading for those who are interested.

Cassells, A. (1992). *Remembering and Forgetting.* Leicester: BPS Books (The British Psychological Society).
This is one of a series of Open Learning Units on the cognitive processes. This Unit describes and illustrates how memory works, includes advice on how to improve your own memory, and explores the problems of eyewitness testimony, and hypnosis.

Cialdini, R. A. (1993). *Influence: Science and practice.* 3rd edn. New York: Harper Collins.
This book examines in some depth the ways in which our behaviour is influenced by other people. It has an 'easy to read' style and relates experimental findings to 'everyday' situations. The author has spent many years researching this topic and is not surprisingly considered to be one of the leading experts in this area of human behaviour.

Gross, R. (1992). *Psychology: The science of mind and behaviour,* 2nd edn. London: Hodder and Stoughton.
Learning and memory are basic features of psychology, so it is perhaps appropriate that I mention a general psychology text here. This text does not possess the 'gloss' of many introductory texts, but it does present the basic details of psychology in an understandable way. It is a popular text for A-level students.

Ley, P. (1988). *Communicating with Patients.* London: Croom Helm.
Social influence, learning and memory are all important features of communicating with patients. Here Philip Ley investigates the psychological processes involved in communicating with patients, and examines ways to improve their understanding, recall, satisfaction and compliance.

8 *Changing attitudes and behaviour*

A female patient has chronic emphysema yet continues to smoke two packets of cigarettes a day. You have told her that she has to give up smoking because her health will deteriorate further if she continues. She says to you that there is nothing wrong with smoking and anyway she enjoys it. Clearly, her attitude to the relationship between smoking and health differs from yours. You realise that you have to change her attitude to smoking, but how?

People keep telling you that you ought to lose weight. You know they have a point since you have put on over twenty kilograms in the last year. You think how it would feel to carry around that weight in a rucksack all the time. The problem is that you really want to lose weight but can't. Is there anything psychology can do to help?

Attempts to define an attitude are often too general to be useful. To describe an attitude as a 'general evaluation', as one of my students did, does not do justice to the complexity of the construct. It is more useful to examine the main components of attitudes.

- The *affective* component of an attitude is concerned with feelings. We have feelings and emotions about people, objects and issues, and thus we may like or dislike anything from pizzas to the Minister for Health.
- The *cognitive* component of an attitude is concerned with thoughts and beliefs. Again, these thoughts can be directed towards objects, people or issues. Pizzas are bad for our health because they are fattening, and the Minister for Health may not always tell the whole story.
- The *behavioural* component of an attitude is concerned with our actions toward others. Despite pizzas being fattening, we may continue to eat them, and we may keep voting for the Minister for Health's party.

We do not necessarily have an attitude towards everything, and some people and topics command complete ambivalence. However, the

strength of the attitudes we do possess is largely determined by the variables which led to their construction or formation.

Attitude formation

Many, but not all, attitudes are formed during childhood. However, the processes involved in attitude formation are the same throughout our lifespan. There are three main ways to form an attitude: *instrumental conditioning* (reward), *modelling* (imitation) and *direct experience*.

Instrumental conditioning

In the last chapter, the role of instrumental conditioning in the learning process was discussed. Attitudes, like other features of behaviour, are learned in the same way. Children are rewarded for having certain attitudes, and not rewarded or even punished, for having 'inappropriate views'. Parents and 'significant others' use rewards to promote what they consider to be good attitudes, and over a period of years the child may gradually be influenced by the views of parents, older children, teachers and other influential people.

Modelling

Individuals acquire new attitudes through observing the actions of others. Children are continually looking at adults and older children for information on how to behave, and thus adults can exert a considerable influence on children by their actions as well as by their words. Examples might be the father who talks about the perils of smoking to his daughter but then proceeds to smoke a cigarette, or the mother who shouts at her son to tidy his room but leaves her own in a mess. There is a clear dilemma between doing as the parents say or doing as the parents do. Unfortunately for the parents in these examples, there is evidence that children tend to be more influenced by actions than by words.

The use of modelling to influence attitudes is apparent in media campaigns aimed at stopping children from smoking. Superheroes, or sometimes sporting heroes, are often seen to despise smoking and favour children who do not smoke. Hopefully the children will identify with their 'idols' and copy their attitude. Watching TV programmes has been found to influence not just attitudes but also behavioural intentions as well (Schofield and Pavelchak, 1989).

However, it is not just parents and the media who are influential in attitude formation; nurses can have an important role to play in the

development of appropriate attitudes towards health by giving rewards where appropriate and by setting a good example themselves.

Recent debate about whether or not it is right to prioritise non-smokers over smokers for certain investigations and treatment suggests that there is a general and understandable uneasiness about the ethical implications of directly rewarding individuals for appropriate attitudes and behaviour towards health. The nurse may, however, help the patient identify the intrinsic rewards which can be associated with healthy behaviour. For example, a patient who wishes to give up smoking could be reminded that they will feel fitter and enjoy the taste of their food more.

The nurse's behaviour in relation to his or her own health may effect the way in which the patient receives advice about health maintenance. For example, the nurse who smells of nicotine when working with or talking to a patient will be identified as a smoker and will convey a message to the patient which suggests that it is alright to smoke. Nurses need to be aware of the messages they are conveying to patients by their own behaviour as well as through verbal communication.

In the case of the patient who wishes to give up smoking, direct experience of the health benefits will help to strengthen the patient's feelings and attitudes about the relationship between smoking and ill health. The nurse can play a significant role in drawing to the patient's attention the links between their healthy behaviour and their increasing feelings of wellbeing.

Direct experience

The third main process of attitude formation is direct experience of the target object or person – one way to form an attitude about pizzas is to eat one. Many people wish to 'see for themselves' when it comes to forming an attitude or an opinion of something new, and there is evidence that attitudes formed by direct experience are stronger and more resistant to change than those formed through indirect experience (Wu and Shaffer, 1987).

Overall, it is much simpler to influence attitude formation than attitude change. Therefore nurses can play a significant role in health education by influencing the three main acquisitional strategies mentioned in a positive way.

Attitude measurement

Attitudes can be determined by observing people's behaviour. If a crowd of people were demonstrating outside a building bearing placards saying 'GAY RIGHTS', it would not be too big a step to

conclude that the demonstrators had a particular attitude towards sexuality. However, in the majority of circumstances people do not outwardly display their attitudes; indeed in some circumstances it requires specific prompting to elicit any reaction at all. One method which is used to measure attitudes and views on general and particular topics is the attitude questionnaire. These questionnaires are sometimes called scales and usually consist of a series of statements about a particular subject. Table 8.1 gives an example of a Likert Attitude Scale.

Table 8.1 *A Likert Attitude Scale*

There is no relationship between the practice of safe sex and AIDS.

Do you:

agree strongly	agree somewhat	neither agree nor disagree	disagree somewhat	disagree strongly
1	2	3	4	5

Please circle your choice.

Exercise 8.1 Developing an attitude questionnaire

The first stage in developing an attitude questionnaire is to *select a topic* (as above). In doing so, some sort of hypothesis needs to be constructed regarding the differences that are likely to exist between the groups of people whose attitudes are being measured. The next stage is to create an *item pool*. This is a series of statements about your topic which you think would make good items in your questionnaire. Do not make these statements too long and keep them to one point. Avoid double negatives and technical language. Try and investigate as many issues as you can. You should aim to produce at least 24 items, divided between favourable and unfavourable. Assign a '+' for positive or favourable items, and a '−' for unfavourable items.

The next stage is to *see how good the items are*. This is called *validity* and refers to whether your questions actually measure what they are intended to measure. You need to find at least 20 people to answer your 24-item list. Get them to respond to each question in the Likert format described above. If the item has been assigned positively (+), they would score 1 for 'agree strongly' and 5 for 'disagree strongly'. If the item has been negatively assigned (−) they would score 5 for 'agree strongly' and 1 for 'disagree strongly'. You can, of course reverse these allocations if you wish.

Add up the scores of your subjects and place them in order of highest to lowest in a table of results. Select the top third and call them High Scorers, and the bottom third and call them Low Scorers.

Select item one from your list of 25. Go through your high scorers one by one and see if they scored four or five on that item. If they did, then a point

is awarded. Repeat the procedure for your low scorers; give them a point if they scored four or five, nothing if they didn't. Total the scores for the high and low scorer groups and compare them. If the difference between the scores of the two groups is high then it is a 'good' item; it discriminates between the two groups. If, on the other, there is little or no difference between the scores, it is not very good at disciminating between the two groups and should be discarded. Work through all the items and you will get an indication of how good or bad they are. It is up to you to select how many you want to keep and how many you want to throw away, but you should keep at least 12.

Your attitude scale now has internal validity but it is not necessarily reliable. It is no use developing a scale if it is inconsistent in its measurement of attitudes. You have to show that your scale gives the same results when it is given to the same group of people on two different occasions. After a significant amount of time, usually a few days, give your questionnaire to your participants once more and note their responses. You should now have two sets of results, which should, if your test was 100% reliable, be the same. Of course in real life this rarely happens, but to see how good a correspondence exists between the two scores, a test of correlation such as Spearman's rho is normally used. A correlation coefficient of 0.9 is good, less than 0.7 means your test is definitely unreliable. If you cannot perform this test you must use your judgement to assess the comparability of the two sets of scores.

You now have a valid and reliable test which you can use to see if different groups of people have different attitudes to your chosen topic. Psychologists would normally use many more items and many more participants. They would also use statistical tests to determine validity and reliability, but this exercise represents the basic processes involved in attitude measurement.

Attitude change

Each day we seem to be bombarded by attempts to change our attitudes to something or other. Advertisers want us to buy their product, politicians want us to share their views, and health professionals want us to adopt a healthy lifestyle. These efforts at persuasion are carried out via newspapers, TV, radio, magazines and billboards and some succeed remarkably well in their aims. In many instances, this 'persuasive communication' is being used to encourage people to change their attitudes with little cost to the advertiser. Changing the washing up liquid to an 'ecological brand', or agreeing with a particular politician, does not take much effort, but changing attitudes to health is much more difficult, as it often involves a person stopping something he or she likes and doing something he or she dislikes.

Faced with a seemingly uphill battle, nurses need to know how to

produce the most effective and persuasive communication possible. Over the past three decades, psychologists have conducted a number of experiments into persuasive communication and many of the findings relating to the factors that influence attitude change have stood the test of time.

There are three factors involved in a persuasive communication: *the communicator, the message, the target group.*

Communicator characteristics

There are certain features of a communicator which determine the effectiveness of their attempts to change attitudes. These include *credibility, likeability, trustworthiness,* and *speed of presentation of information.*

A nurse's ability as an effective communicator will depend very much on the extent to which he or she is perceived as credible. As long ago as 1951 Hovland and Weiss demonstrated that experts are seen as more credible than non-experts. They gave a talk based on an article about antihistamine drugs to an American audience. It was found that the audience was more convinced when the source used was given as *The New England Journal of Medicine* as opposed to a popular magazine.

Another factor which has been found to influence effectiveness is the likeability of the communicator. Possessing positive personality traits and physical attractiveness also increase credibility (Kiesler and Kiesler, 1969). Credibility is also enhanced if the 'audience' perceives a nurse to be similar to them, thus increasing their propensity to like him or her.

The question 'What is this person going to gain from me changing my opinion?' crosses most people's minds when they are faced with someone trying to convince them to change their attitude. Trust and the intentions of the communicator play an important role in the effectiveness of persuasive communication. If a person thinks that the communicator is liable to gain by the message being conveyed, he or she will be less likely to do as the communicator says (Hennigan *et al.*, 1982).

Finally, people who speak rapidly are usually more convincing than those who speak slowly (Miller *et al.*, 1976). Despite the general impression that 'fast-talkers' are untrustworthy, it seems that speaking fast is equated with knowledge of a subject and hence expertise. However, speaking fast can often confuse a patient, so care must be taken.

Therefore, if nurses are to be successful in persuading patients to change their attitudes, they should appear credible; that is, they should try to show expertise whilst eliciting trust and amiability.

Message characteristics

One technique which has been used extensively over the years to change people's attitudes is the use of fear. The question is, 'Does it work?' Evidence suggests that the careful use of fear in a message can induce attitude change, but only under certain conditions.

- McGuire (1969) says that the level of emotional arousal induced by a fearful message must be moderate. Too low, or minimal fear, and the subject will not be aroused by the message. Too high a fear content, and the subject may resort to denial mechanisms to deal with the threat (for example, 'that just could not happen to me').
- People must realise that they are at risk if they ignore the message. If they think the consequences of inaction are minor, emotional messages will not work.
- There has to be a belief that if the instructions of the message are carried out, the risks to health will be minimal or significantly reduced. Leventhal (1970) said that if people are given instructions on how to avoid undesirable consequences and believe that their actions will work, then fearful messages will prove effective.

Another feature of the message is the type of argument to employ. Is it best to present both sides of an argument or to stick to just one point of view? The answer is that it depends on the audience. If people are generally well disposed to your point of view then telling them the other side of the argument will be counterproductive. It is best to concentrate on emphasising the main points of your side of the argument, and not highlight any other. If the audience is undecided and also aware of the counter-arguments, it is better to present a two-sided argument. The usual form is to put forward the opposing view and attack it successfully before presenting one's own position.

Finally, continual exposure to a message produces familiarity and often results in favourable evaluations. In a study of politicians, Grush (1980) found that frequency of exposure was related to popularity. In one instance where all the candidates were unknown before the election, those that were given frequent public exposure during their campaigns were the ones likely to be elected.

Target group characteristics

People with a high need for approval and a strong desire to be liked are more susceptible to attitude change (Skolnik and Heslin, 1971). The mood of the target group is also important. Mackie and Worth (1989) found that students who learned that they had just been randomly allocated a cash prize (and not surprisingly were in a good mood) were more susceptible to persuasion than those students who did not

receive any money. The experimenters argued that being in a good mood reduces people's ability to engage in systematic analysis of the message. The reduced capacity for active thought can sometimes lead to an increase in susceptibility to persuasion.

The age of the target group is an important factor in attitude change. Krosnick and Alwin (1989) suggested that we pass through a period in our development which can be labelled 'the impressionable years'. They found that during our late teens and early twenties we are more open to change and shifts in our attitudes than at later times in our lives. However, they found no evidence to support the hypothesis that once formed, attitudes remain stable through to old age.

Forrester and Murphy (1992) investigated nurses' attitudes towards patients with AIDS and AIDS-related risk factors. They found that an AIDS medical diagnosis and a history of intravenous drug use were found to increase nurses' negative attitude toward patients and significantly reduced their willingness to interact with patients.

Reactance – bending over backwards to do the opposite

Having taken into consideration all the previously mentioned characteristics, people may still resist attempts to change their attitudes. Most people like to think of themselves as perfectly able to make up their own minds about important issues of the day. If a person is engaged in trying to change attitudes and the audience feel that their autonomy or ability to think for themselves is being restricted, they will do the opposite of what is being requested of them. This is called *reactance* and results in a negative attitude change. This is one reason why attempts at a 'hard sell' may fail.

On many occasions it is known very well that someone is trying to change our attitudes, and this forewarning of an attempt to change attitudes gives time for individuals to prepare counter-arguments and to recall relevant facts from memory (Petty and Cacioppo, 1981).

It should not be assumed that the target group has no preconceived ideas about issues. In many situations people hold particular points of view and previous attempts to change attitudes will affect a person's resistance to change.

Inoculation is one process that can have a significant effect on the success of any persuasive communication. Consider an audience that is about to be addressed by two speakers, Mrs R. and Mrs H. Mrs R. is in favour of breast feeding; Mrs H. is not. How could Mrs R. get her message across to the audience at the expense of Mrs H? She does it by inoculating the audience against Mrs H. Mrs R. speaks first and either presents the best argument possible for breast feeding, using all the techniques of attitude change, or produces an argument against the use of breast milk in an incompetent fashion. By presenting the

argument using poor ideas and an unsatisfactory presentation style the audience is stimulated into producing counter-arguments which will still be in their minds when it is the turn of the next speaker to talk. In this way Mrs R. has inoculated the audience against Mrs H.

In some situations nurses may face patients who have been inoculated against them. Many attitudes and beliefs concerning health care are transmitted to patients via a *lay referral network*. This is a network or group of people who are usually consulted by the patient when in doubt about a particular issue, and is usually made up of family and friends. If this network has already advised the patient, say in this instance, to forego breastfeeding, it makes the job of the nurse that much harder if she is to convince the patient that it is worth trying.

Counterbalancing inoculation

One way of counterbalancing inoculation of this kind is to help the patient re-examine the sources and rationality of her attitude towards breastfeeding. Of course, attitude change is not always possible, but if the nurse has spent time developing a positive relationship with the patient her credibility and likeability may influence the extent to which the patient is able to change her views.

Cognitive dissonance: attitudes and behaviour

Changing people's attitudes does not necessarily change their behaviour. Fishbein and Ajzen (1975) examined the relationship between attitudes and behaviour. Their theory was discussed in *Chapter 6*; however, another approach which has been used to try to determine the relationship between attitudes and behaviour is *cognitive dissonance* (Festinger, 1957). An example of cognitive dissonance would be a person who smokes a lot and believes that this behaviour will lead to ill health. The smoking behaviour is incompatible with the attitude towards the relationship between smoking and health, and this situation produces a feeling of discomfort or dissonance which individuals will seek to resolve. There are two ways to reduce the dissonance: 1) stop smoking; 2) change the attitude.

In the majority of circumstances, people chose the easier option, which in this instance is usually to change the attitude to smoking and health. This may be achieved by the use of self-statements such as 'Wait a minute, what about Uncle George? He smoked like a chimney and lived till he was 86' or 'Didn't I see a report the other day in the newspaper suggesting that smoking was not as harmful as people made it out to be?'.

Cognitive dissonance can also occur when there is a decision to be

made between adopting two equally attractive options. Consider the nurse who does not know whether to do the 'Nursing the child', option or to do the 'Nursing people with learning disability option'. Both seem equally desirable, yet a choice has to be made. A decision is made to opt for nursing children and immediately a state of dissonance occurs because the nurse will now miss all the advantages of doing the disability option. In this situation, the dissonance is reduced by rehearsing all the positive features of the 'child' option and all the negative features of the 'disability' option. The result may be an initial overestimation of the chosen course and a devaluation of the rejected one. Thus the forced decision has produced changed attitudes towards nursing children and nursing people with a mental disability.

Another feature of cognitive dissonance is the 'less leads to more' effect. Festinger and Carlsmith (1959) gave people either a small reward ($1) or a large reward ($20) for telling others that the dull, boring task they were doing was in fact very interesting. Afterwards the participants were asked how they felt about the task. Participants reported a greater liking for the boring tasks when they received the small reward than when they received a large one. The small reward had increased the dissonance. The subjects in the small reward group could not justify their behaviour by saying 'Well, I'm getting paid good money for doing this,' and thus rationalised their behaviour by changing their attitude toward the task. Further research on the 'less leads to more effect' has found that there are certain conditions that have to be satisfied for attitude change to take place.

1. People must believe that they have not been coerced into the attitude-discrepant behaviour.
2. They must feel that they are personally responsible for their actions.
3. There must be no hint of bribery.

Dissonance is not always counter-productive; it can be used to help people. Axson and Cooper (1985) used the 'effort justification' effect to help overweight women lose weight. This effect is based on the premise that the harder people work to achieve a goal, the more worthwhile they perceive it to be, even if the end product turns out to be rather disappointing. Axsom and Cooper reasoned that convincing individuals that a specific form of therapy designed to help people lose weight involved a lot of effort would increase its effectiveness. They gave overweight women a 'bogus' therapy which consisted of various tasks. Half of the tasks were very difficult and half of the tasks were very easy, but by no stretch of the imagination could these tasks be construed as aiding weight loss. Over a period of three weeks the subjects in the high effort condition lost significantly more weight than those in the low effort condition and the difference increased over the

next six months. Clearly, exerting considerable effort on their 'therapy' led to a commitment to restructure their diet and lose weight.

In summary, when people find that their attitudes and their actions do not correspond, they may experience pressure for change and it is usually their attitudes that change first.

Behaviour

The last link in the process of communication is action. If a person does not act on the communication then it is useless. It may be that a correct decision has been made and communicated effectively but a change in behaviour does not take place because the person, or people, in question just cannot change the behaviour. Deep-seated habits and routines are very hard to change even when people wish to do so. 'I known that I have to lose weight, but I've tried and tried and just can't'; 'You say that I have to change but how?', are statements and questions that typically accompany requests to change behaviour.

Many people lack the skill, or ability, to carry out instructions. There are, however, a number of behavioural techniques which can be used to help people change their behaviour in a desired direction. The next section describes some of these techniques, gives some general guidelines on behaviour change and finally examines how they can be applied in one specific context; that of losing weight.

Techniques of behaviour change

The techniques of behaviour change or modification have their roots in classical and instrumental conditioning (described in the previous chapter). Thus the principles of behaviour change are based on reinforcement and association.

Positive reinforcement

One of the main features of problem behaviour is the provision of inappropriate rewards. A young man in a psychiatric hospital had a particularly debilitating behaviour problem – he used to vomit over his companions at meal times. It appeared as if he could not keep any food down, so the problem became critical. The first act of the nursing staff was to check that there was no physical cause for his behaviour. It appeared that there was nothing physically wrong, so attention was switched to his behaviour. The staff closely examined the young man's behaviour and found that two rewards featured prominently – every time the man vomited he got attention; and he also got a warm bath.

The nursing staff decided to remove these rewards, and did not give the young man any attention when he vomited nor did they give him a

nice warm bath. To replace the socially unacceptable behaviours new ones were substituted. Every time the man did not vomit he was given a reward and he was encouraged to get the attention he needed from his companions rather than from the nursing staff. The use of positive reinforcement over a period of months gradually changed the man's behaviour. He was able to retain his food at meal times and also enjoy socialising with his companions.

Punishment

In the case of this man it should be noted that he was not punished for his abnormal behaviour. If the nursing staff had punished him every time he vomited they might have been successful in stopping him vomiting but they would have had no control over any behaviour he chose to replace it. For this reason, punishment on its own should not be used in the context of nursing care.

However, it is recognised that in some circumstances outside the nursing context the use of punishment may have to be considered, but it is hoped that all alternatives will have been exhausted before it is administered. If punishment has to be used, then it should be dispensed as quickly as possible. If punishment occurs too long a time after the event, no connection will be made between the event and the punishment, and in some circumstances an opposite effect to the desired outcome will occur. For instance, if parents spank their children for being naughty a considerable time after the act took place, the children may fail to make the connection between the naughty act and the spanking. Worse, the childen may think that it is perfectly acceptable to hit people for no apparent reason since they have seen this behaviour in their parents. Bee (1989) says that physical punishment should be avoided wherever possible and gives three good reasons why.

1. Children observe adults using force to solve problems and therefore will model their behaviour on what they see. It is no use saying to the child that it is alright for 'grown ups' to hit but wrong for children to do so, as research on modelling (see *Chapter 7*) indicates that children are more influenced by actions than by words.

2. The repeated pairing of a parent with the unpleasant event of being spanked will result in negative feelings towards the parent, not just because of the frustration and pain engendered by the spanking, but because of the parent being frequently associated with disagreeable acts.

3. Children may pick up in a parent's face the anger that usually accompanies physical punishment. This produces an atmosphere of rejection and frigidity rather than warmth and caring.

Patterson (1975) has suggested that there are other forms of effective control which do not rely on punishment, and other forms of punishment that do not rely on spanking or hitting.

Systematic desensitisation

An 18-year-old first year student nurse was very nervous about seeing blood. For several years, she had reacted to the sight of blood with discomfort and feelings of nausea. Up until the time she had decided to become a nurse the anxiety had not presented her with any particular problem, but now she was faced with a real quandary. In the course of her training she was shown films depicting a variety of medical conditions and often had to leave the room because she thought she would either faint or vomit if she stayed to watch. She reasoned to herself that if this was the state that she got into watching films, what would it be like when she was faced with the real thing? Her future as a nurse seemed under threat.

This was a case history reported by Rardin (1969) who used systematic desensitisation to help this nurse deal with her phobia. The technique was developed by Wolpe (1958) and involves the following four stages.

1. Learning how to relax.

2. Listing all your fears.

3. Constructing a hierarchy of threatening scenes.

4. Working through the scenes.

The student nurse constructed a fear hierarchy including items such as blood from surgery, blood from injury and blood from childbirth. Then the nurse was asked to visualise the least anxiety-provoking situation and rate her anxiety on a scale from 1–10. During this period she was given help with relaxation and provided with positive reinforcement. Slowly she worked through her fear hierarchy, visualising progressively more anxiety-provoking events until she was able to cope with visualising the most threatening situations. After one year of practising the technique the nurse was successfully able to manage her fear of blood.

Some researchers have suggested that graded hierarchies are not necessary and a close relationship between therapist and patient is not important (Miller and Morley, 1986). Nevertheless, the full technique has proved successful in a number of cases of fear and anxiety.

Exercise 8.2 Desensitisation

Although the nurse in the example had someone to help her through the technique, it can be practised on one's own. Try the following exercise but do not expect to master the technique straight away; most skills require time and effort to perfect.

- Construct a fear inventory by listing objects or experiences that bother you. What makes you embarrassed? What would make you leave a room or cross the street to avoid? What makes you feel uneasy? Here are some examples to start you off.

Human blood	Going to the dentist
Crawling insects	People who seem insane
Open wounds	Sight of fighting
Enclosed spaces	Witnessing surgery
Sight of hypodermic needles	Looking foolish
Snakes	People with deformities
Being touched	Aggressive people
Heights	Speaking in public
Being alone at night	Crowds
Dead people	Medical smells
Taking exams	Flying
Cemeteries	Mice in the hair
Nude men/women	Being ignored
Lack of control	Being teased

- Having listed as many 'fears' as possible, assign each one a value between 1–5 according to the extent to which they disturb you.

Not at all	A bit	A fair amount	A lot	A great deal
1	2	3	4	5

- If the items are related to each other, group them according to themes.
- Construct a threatening scene hierarchy. Pick one area of considerable importance and assemble some scenarios. List the scenes in ascending order of discomfort.

Example: fear of hypodermic needles

1. Watching a film with someone getting an injection.
2. A friend talks to you about the jabs he needed to go abroad.
3. You prick your finger with a needle or pin.
4. You have to give a blood sample at the health centre.
5. Driving to the health centre and parking your car.
6. Thinking about injections in the waiting room.
7. A nurse with a tray of syringes walks past.
8. Entering examination room.
9. Doctor says he wants a small sample of blood.
10. Doctor picks up syringe.
11. Smell of alcohol on cotton ball
12. Hypodermic poised in doctor's hand
13. Needle goes in.
14. Pain starts.

- Visualising the scenes
  Get into a comfortable position and close your eyes. Put on some relaxing music if you wish and start to relax all the muscles in your body. (You could use the progressive muscular relaxation described in Chapter 10). Try to imagine lying in a soft meadow on a sunny summer day, watching the clouds slowly floating by. Each cloud takes some of your tension with it.

  When you are completely relaxed, select your first scene and start to visualise it. Try to make it as real as possible. Ask yourself what colours are there in the scene. Is the light bright? What details are there – chairs, carpets, a table, pictures? Listen for sounds such as traffic noises, the wind or even your own voice. Reach out and feel some of the objects. Are they rough or smooth? Touch your clothes and feel your skin. What smells are present? Flowers? Chemicals? Perfume? Are you eating or drinking anything? If so, what does it taste like?

  Note any tension and assign it a value from 1–8. Take a deep breath, hold it, and release it slowly, saying over to yourself 'Relax, calm, let go'. Note any tension relief, switch off the scene and return to your 'meadow'.

  Repeat this procedure until your tension has decreased. It may take a few goes to do this and then you can go on to the next scene in your hierarchy. Stop when you are tired or bored.

  The technique is a skill and therefore practice is needed. Do not be disappointed if you are unsuccessful at first; keep trying. If you happen to experience the threatening scene in real life, note any tension and use it as a signal to relax. Take deep breaths and repeat your calming statement to yourself.

Programmes of behavioural change

Most programmes of behavioural change specify three main stages.

1. Assessment
2. Treatment
3. Maintenance

Assessment

The most important feature of any behavioural change programme is to define exactly where the problem lies. Mistakes at this stage are critical. The problem may be that the patient has insufficient information about what to do, in which case providing relevant details may suffice. If lack of information is not the problem, then one needs to decide whether there is a skill deficiency or a management deficiency. Again, skill deficiencies can be remedied by tuition. Management deficiencies require further investigation.

Pinpointing. Before any change in behaviour can take place it is necessary to identify the precise behaviours that need to be changed. People tend to speak about their problems in general terms. Sentences such as 'He just doesn't care for me anymore', or 'I just can't stop snacking', are of little use since they do not identify precise behaviours. Much better comments would be 'He doesn't hug me enough' or 'Every time I see a biscuit I have to eat it'. Here the problems are clearly stated in behavioural terms and can be addressed. Pinpointing may be achieved by interviewing and keeping diaries. A typical behavioural management programme would have three stages.

Stage 1. An initial interview concerned with establishing the nature of the problem, previous attempts to change, habits, reasons for wanting to change and the effects of any social networks. A daily diary, or record, is kept to assemble a 'base line' of behaviour.

Stage 2. The second interview evaluates the self-monitored behaviour patterns. The diary is discussed and any shortcomings illustrated.

Stage 3. The third interview establishes some form of commitment, or contract, by the patient to the programme. At this stage the patient is free to opt out and leave. If a decision is made to continue, usually an agreement is signed by those taking part in the programme.

Treatment

The first stage in the treatment phase is to set realistic goals. Too often people wish to 'run before they can walk'. Thus small, manageable changes in behaviour should be encouraged at first. If the goals set become too difficult, the patient will soon lose heart and give up. The events that precede an act are called *antecedents* and must be considered as well; entering a newsagent to buy a magazine can be a trigger for buying sweets.

A behavioural change regimen is constructed listing appropriate rewards for targeted behaviours and family and friends are encouraged to take part. After a while, the patient is seen again to discuss problems with the treatment programme in an attempt to stabilise the change programme.

Maintenance

Despite motivation and good intentions, there are bound to be drawbacks and failures. Therefore it is important to maintain contact with the client for at least a year to help resolve problems as they occur so that the individual does not slide back into undesirable habits.

Let's look at the following example. Jane knows that she has to lose

weight and feels that she has tried everything. She has spoken to you about getting her stomach stapled but does not know if she could go through such a procedure. She is willing to give losing weight one last try.

Assessment. Jane is asked to list:

- when she started to put on weight;
- previous attempts to lose weight;
- eating habits in the form of a diary;
- exercise patterns (diary);
- weight (diary);
- prospective social and family support.

You emphasise to Jane the importance of keeping an exact record of her behaviour.

At the next meeting you analyse her diary and find that she has been making some mistakes and point these out to her. You evaluate Jane's self-monitored weight, eating and exercise habits. Items such as snacking, 'binges' and particular situations that trigger eating are given prominent attention. You discuss with her the advantages and difficulties of dealing with her weight problem. A contract is prepared which specifies the exact guidelines and the consequences of failure to follow them. An amount of money is deposited, which will only be returned on completion of various stages of the programme. Jane is asked to go away and think about it.

At the third meeting, you review the programme and the contract. At this stage Jane may decide that she no longer wishes to continue with the programme; however if she decides to go ahead, the contract is finalised and the treatment starts.

Treatment. Initially, you give Jane advice on the sorts of foods that she should eat and construct a system to exchange the new for the old foods. A weekly weight loss of 1–4 pounds is targeted and Jane can eat her favourite foods as long as this objective is achieved.

Jane's food buying habits are investigated; you tell her to prepare a list before going shopping and to buy only those foods that have been agreed in the food exchange plan. You also suggest that she never shops when she's hungry and that she should avoid buying extra quantities of foods. Having brought the food home, she should store it away from sight in cupboards or in opaque containers. (Out of sight is out of mind.) Together you construct menus which include some favourite foods and Jane is encouraged to serve small portions of food on small plates.

You advise Jane to change the way that she eats by taking more time to chew her food and savour each bite; after all eating is meant to be a pleasurable experience. Placing small amounts of food on a fork and pausing between mouthfuls helps reduce the speed of consumption.

As soon as a meal is over, Jane is urged to leave the table and not to 'finish off' any leftovers.

Snacking between meals is a major factor in becoming overweight. The effects can be reduced by substituting low-calorie foods for the usual snacks but a better method is encouraging Jane to eat at regular intervals.

Family and friends can play an important role in altering the antecedents of Jane's eating behaviour. By avoiding continual talk about food and engaging in non-food activities, the temptation to eat is reduced. Family and friends should be asked to reward Jane for her progress and never to criticise her obesity.

Exercise is not only useful for reducing weight but it is also a good way to manage stress. Therefore an exercise plan should be constructed with the help of one of Jane's friends. If Jane tackles stress and anxiety by eating more food, alternatives have to be found and substituted.

As the treatment progresses, encourage Jane to discuss problems with the programme and to determine and provide her own rewards when she achieves her desired weight loss goals. As the desired goals are achieved, a proportion of the money deposited at the beginning of the treatment programme should be returned to Jane.

Maintenance. The meetings with Jane should become shorter and shorter as the programme proceeds. However, if there are problems, it should be ensured that Jane experiences no difficulty in making contact with you. If the eating and exercise habits to preserve weight loss are maintained for the period specified in the contract, Jane should be given the rest of the money. It should be stressed that the programme will only succeed if there is genuine motivation on Jane's part to lose weight; coercion will not work and little can be done for those who refuse to co-operate.

Summary

Whilst some may feel that changing attitudes to health and health care is the most important feature of health promotion and illness prevention, it is not. Changing* behaviour *is the ultimate goal. From the evidence it seems that changing attitudes and developing intentions to act in a particular way are the prerequisites of behavioural change programmes, not the end point of change. People need much more than good intentions to change their behaviour.

There are perhaps two cardinal rules that nurses should keep in mind when constructing behavioural change programmes. These are:

- ***make sure you know the exact behaviours and rewards. Many of us had a schoolteacher who punished children by sending them outside the classroom to stand in the corridor. Sometimes it did not work because a fair proportion of children actually wanted to stand outside the classroom!***
- ***do not bite off more than you can chew. Start with something very simple so that initial success is virtually guaranteed.***

Questions for further consideration

1. Discuss the problems associated with overcoming resistance to attitude change.
2. Distinguish between positive reinforcement, negative reinforcement and punishment, giving examples where appropriate.
3. Outline the processes involved in systematic desensitisation.
4. Discuss the relationship between attitudes and behaviour.

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Further reading

Eiser, J, van der Pligt, J. (1988). *Attitudes and Decisions.* London: Routledge. This is part of the *New Essential Psychology* series. Both authors have interests in psychology and health, and therefore their discussion of attitudes and decisions is often centred around health issues. The book assumes some knowledge of attitudes, and is not really suitable for the 'basic' reader.

Henerson, M. E. (1987). *How to Measure Attitudes.* 2nd edn. Beverley Hills: Sage.
When nursing students come to choose projects with a psychological content, questionnaires form the vast majority of proposals. Therefore it is important that students get the right information on the correct way to construct questionnaires. The book also examines other techniques for measuring attitudes.

Kazdin, A. (1989). *Behaviour Modification in Applied Settings.* 4th edn. Pacific Grove, Calif. Brooks/Cole.
The basic principles of behaviour modification are explained and then examined in many different settings. There is a large practical element to this book, and it should prove useful to those who might wish to take behaviour modification programmes further.

Milne, D. (1986). *Training behaviour therapists: Methods, evaluation, and implementation with parents, nurses and teachers.* London: Routledge.
A particular concern of this book is how we train and its impact on what is learned and applied in one's work. The material in the book is of interest to anyone with a concern for effective training, especially nurses.

9 *Adolescence, adulthood and ageing*

- Barbara: aged 16, looks anorexic, seems to get on well with her parents, has no boyfriend but two reasonably close friends, exams imminent, took a bottle of paracetemol plus a half bottle of vodka, found by her mother in a pool of vomit.

- James: aged 44, works too hard, has problems with his teenage son, knows he should do something about the pains in his chest (will see someone next week), his wife's father is intolerable at weekends, which is causing problems with his wife, thinks 'must walk the dog more often'.

- Edith: aged 72, used to be very good at her job and good at crosswords too, but her memory has been getting very bad, thinks that she has become a real nuisance to every one because of it, also gets disoriented and will not keep still, is in hospital for a back operation.

If you took away the ages of the people described above you would still be able to make a reasonable guess as to how old they were. This is because there are certain stages in our lives at which some things are more likely to happen than others. The 'world' of the adolescent is different from that of his or her father or mother, and older people do face different problems to those of their children. The purpose of this chapter is to highlight the differences in behaviour that occur at particular stages in the life-span.

Adolescence

This stage in human development is often associated with storm and stress, although some adolescents experience relatively few and minor difficulties (Rutter, 1976). Nonetheless, it is a time of potential 'crisis', and having a sense of the sorts of difficulties facing people at this time will facilitate nursing care.

Adolescence is made up of a series of sub-stages: early, middle, and

late. The problems facing the 12-year-old are not necessarily the same as those facing the 15-year-old, and therefore the term adolescence must be used in a broad context, covering a range of years from 11 to 18. Some problems may be described as physical (for example, those connected with puberty), some as psychological (identity crises) and some as social (such as those associated with changing and leaving school). Table 9.1 gives some examples of these problems.

Table 9.1 *Some examples of the physical, psychological and social factors that can influence both males and females at different stages of adolescent development*

	Adolescence		
	Early	***Middle***	***Late***
Physical	Puberty	Body image	Body image
Psychological	Sexuality	Identity: parental problems	Identity: career/ beliefs
Social	Peer problems	Becoming an adult?	Leaving home

Puberty and body image

The term 'puberty' comes from the Latin *pubertas*, meaning 'age of manhood' or, literally, 'to grow hairy'. It may be defined as the point at which a person reaches sexual maturity. Accompanying puberty is the *adolescent growth spurt*, which is a rapid increase in physical growth, and the *menarche*, the first occurrence of menstruation. For most girls, puberty begins at about 11 years old and the average female reaches the menarche within six months of her thirteenth birthday. For boys, sexual maturation begins at about 11–11.5 years old, and the penis is fully developed at about 14.5–15 years of age. At this time girls may spend a great deal of time worrying about how other people will respond to them (Greif and Ulman, 1982). They are concerned with their height and weight, the condition of their hair, the size of their ears, breasts, noses and hips, but tend to be ambivalent about their first menstruation.

Boys also have worries about their bodies, even though some of them would have us believe differently. Flaming and Morse (1991) interviewed 22 boys who were at least 15 years old about their experiences of pubertal changes. They found that a basic social psychological process for minimising embarrassment emerged. The process was comprised of four stages:

1. **Waiting for the change.** Boys developed expectations by listening to others.
2. **Noticing the change.** The boys looked at older males and imagined what the changes might be like.
3. **Dealing with the change.** They compared their physical changes to others and their own expectations.
4. **Feeling comfortable with the change.** If the boys felt they were different, they worried about the difference.

Puberty can occur over a wide range of time, and the rate of maturation has been found to influence behaviour. Jones and Bayley (1950) followed the development of 32 male late and early developers over a six-year period. The late maturers were rated as less masculine and less physically attractive than the early maturers. Jones (1965) followed up the previous study and found the 16 late maturers, now in their early 30s, to still be less sociable, less confident, less responsible and less popular with their peers. However, the late maturers were found to be less rigid and more innovative in problem-solving. For late and early maturing females, the situation is more complex, as there is evidence that early maturing females have more problems than late maturing females. Early maturing females tend to be less confident, outgoing and popular than late maturers (Aro and Taipale, 1987). However Faust (1960) found these disadvantages to be short lived, and early maturers were very popular in late adolescence.

Exercise 9.1: Rates of maturity

Try to account for the following findings.

1. Why should male early maturers have such positive characteristics as opposed to male late maturers?
2. Why should the opposite be the case for females?
3. Why should early maturing females become popular in late adolescence?

Possible answers.

1. People may react positively to the adultlike appearance of the early maturing male, giving him privileges and responsibilities normally reserved for older males. Parents have higher educational and achievement aspirations for their early maturing sons, and this positive, even harmonious, atmosphere may promote self-confidence. Conversely, if parents, teachers and other adolescents treat late maturers as unsophisticated and naïve, they may well become unsure of themselves and feel rejected.
2. Early maturing females may get teased a lot by their female classmates and by immature boys. Parents report more conflicts with early

maturing females, and thus a brusque, defiant attitude may develop which can affect relations with other females.

3. Faust (1960) suggests that as females in late adolescence develop a strong interest in relationships with males, they discover that early maturing females are very popular with boys and thus the early maturing female's popularity is boosted with her peers, although jealousy can also occur.

Body image continues to be of great concern throughout adolescence. Females are generally more sensitive to body image in themselves and in others too. Even minor accidents producing small changes in physical appearance can result in high levels of stress for adolescents (Newell, 1991).

Perceptions of body image

Price (1990) has produced a model designed to assist nurses to plan and deliver body image care that is based on five central concepts.

Body reality. This is the body as it really exists. It is the body not as we would like to see it, but as it exists or may be described in a physical examination. Threats to the body image include such events as malignant change, degenerative conditions, infection, inflammation, and poisoning.

Body ideal. This is the picture in one's head of how the body should look, and is influenced by societal and cultural norms through advertising and changing attitudes towards fitness and health. It is threatened by conditions such as anorexia nervosa, bulimia nervosa, pregnancy, obesity, incontinence, pain, attachment to ventilators, and IV infusions.

Body presentation. The reality of our bodies rarely meets our ideal, resulting in an attempt to make the two converge by presenting our bodies in a particular way. Dress, grooming, walking, and the use of aids such as walking sticks or hearing aids affect the way the body is presented. Threats to our body presentation include alopecia, abnormal gait, body odour, and attachments such as a stoma bag.

Coping strategies. Direct coping requires the patient to view the body image threat in a similar way to onlookers. Indirect coping occurs when the body presentation is adjusted to support body reality, as in the case of the patient with burns accepting analgesia in order to undergo wound toilet. Palliative coping (that which gives relief, but does not cure) often relieves immediate stress but does not affect long

term recovery. As the formation of a new body image may take months, the coping strategies adopted by the patient are very important.

Social support network. Family and friends can provide an environment conducive to the integration of the patient's new body image into society. Thus patients with an active social support network are liable to make better progress. Support can be expressed in different ways including practical aid, sympathetic listening, boosting self-esteem and acceptance into society.

Price says that through the steps of the nursing process – assessment, diagnosis, care planning, intervention and evaluation – the nurse is able to use the model 'to specify care needs more accurately and to own the means to effect improvement in body image.'

Eating disorders

Anorexia nervosa

This is an eating disorder characterised by an insistence on abnormally low body weight and a fear of becoming fat. As a result, individuals experience an altered body image and amenorrhoea (absence of menstruation) often occurs in women.

The disorder is most common in adolescent women from middle-income families. Although the term means 'nervous loss of appetite', anorexics rarely lose their appetites and can literally starve themselves to become thin (Palmer, 1988). The main problem of adolescent anorexics is their denial of the existence and severity of their condition. The causes of anorexia nervosa are complex. A theory proposed by Bruch (1974) is linked to one of the effects of starvation. This leads to the switching off of the part of the system involving the reproductive organs, resulting in a pituitary response similar to that of pre-puberty. Thus the anorexic can be seen as simply starving herself to deny womanhood, and using the results to delay maturation. It is arguable, however, whether adolescent girls are aware that their periods will stop when they practise self-starvation.

Another factor associated with the development of the disorder is parental control. Anorexia is most prevalent in middle-income families, and the fathers and mothers of anorexics are usually in professional or managerial occupations. There may be conflict between the parents' goals for their offspring and the needs and wishes of the children. Bruch tells the story of the young Spaniard who preferred to sit and starve rather than do any work. When asked why he did not get up and find himself some work, he replied 'In hunger, I am King'.

Whilst dieting itself is not a cause of anorexia, it can act as a trigger. Losing a few pounds can develop into a mania for thinness, especially when set in the context of society's emphasis on the ideal body shape as being slim.

In a recent study of 715 adolescent girls, Steiger *et al.* (1992) found that mood and eating symptoms were related to an abnormal psychological profile; there were concerns about body shape and family relationships indicating that more than one factor was involved in their condition.

The treatment for anorexia is concerned with the restoration and maintenance of a normal healthy weight, and hospitalisation is usually required in order to gradually increase the calorific intake. At this stage skilled nursing care is needed to provide emotional support and also to help implement behavioural therapy which is often used at this stage in the treatment programme. The weight maintenance phase frequently involves a cognitive–behavioural approach which concentrates on the links between the patient's feelings, behaviours and thoughts (see *Chapter 10*).

Bulimia nervosa

This is a related eating disorder marked by recurrent episodes of binge eating followed by self-induced vomiting or the use of laxatives and diuretics. Sometimes fasting or vigorous exercise is used to counter the binge eating but these techniques are not so popular as they take time to take effect (Palmer, 1988). Bulimics share the anorexics' concern with weight and body shape but are not necessarily underweight. Some also tend to experience bouts of depression. Bingeing and purging can result in a sore throat, kidney damage, menstrual problems, hair loss, erosion of tooth enamel and loss of sex drive (Szmukler, 1989). Fairburn and Beglin (1990), reviewing the studies of the epidemiology of bulimia, found that approximately one per cent of adolescent women suffer from the disorder but also point out that the figure may be higher since bulimics are known to be uncooperative with these type of surveys.

There are several treatments for bulimia nervosa, including individual cognitive–behaviour therapy to help the patient understand the causes of bingeing and how to control these episodes; family therapy in which members of the family learn how to provide support which can lessen the chances of the patient using food counterproductively; and group therapy to utilise group dynamics in the restoration and maintenance of normal eating behaviour. Meades (1993) suggests that community psychiatric nurses are well placed to observe and supervise people with eating disorders who are potentially vulnerable to relapse following discharge from hospital (see Milne, 1993).

Social and cultural factors

In the United Kingdom a 16-year-old is allowed to make one of the most responsible decisions of life – to get married and have a family. Yet this same person is not allowed to vote, drive a car or view a film rated '18' at the cinema. It is no wonder adolescents feel some confusion if society is so ambiguous about their adult status.

Although the concept of adolescence can be found in ancient civilisations, it was only during the nineteenth century that it became seen as a distinct phase of human development. When formal schooling was introduced on a mass basis it led to a long delay in young people becoming economically self-sufficient or being given responsibilities. However, this lack of prescribed adult behaviour is not apparent in all cultures. Condon (1987) notes that in the Inuit Eskimos, the young women were considered to be an adult at menarche when they were likely to be married and ready to start bringing up children of their own. The boys achieved adult status somewhat later when they were able to build a snowhouse and fend for themselves.

Sexual behaviour

Many of the problems of adolescence revolve around the lack of knowledge about what is the right thing to do in new circumstances. This can be seen in the area of sexual relations, where questions like 'How far should I go?' and 'Can I ask him to wear a condom?' are common. Seifert and Hoffnung (1991) state that the greatest increase in cases of gonorrhoea is among adolescents aged between 10 and 14 years of age, and one in five adolescents will contract either syphilis or gonorrhoea. Although the reported cases of AIDS in adolescents aged between 13 and 21-years-old was only one per cent of all reported cases in 1987, this percentage is doubling each year (Brooks-Gunn *et al.*, 1988). Further evidence of adolescents' lack of knowledge about AIDS comes from Bozzi (1988), who found that in sexually active adolescents aged between 14 and 19, only two per cent of girls and eight per cent of boys reported using condoms during intercourse, even though they believed that using condoms was effective in reducing the risks of catching sexually transmitted diseases.

A good example of how culture can determine what is right and wrong in adolescent sexual relations is given by Worthman and Whiting (1987). The Kikuyu people of Kenya have strict rules for the sexual behaviour of males and females before marriage. Girls may visit boys at a special hut used as a meeting place for the young men. If there are more boys than girls, the girls select a partner. Intimate

friends are not usually selected, as this is considered selfish. The boy ushers the girl to a bed and undresses. The girl takes her top off, but retains her soft leather apron which she passes between her legs and ties to her waist providing an effective barrier. The two lie together with their legs entwined to restrict movement of the hips. They then fondle each other and engage in 'love-making conversation' until they finally fall asleep. The girls and boys do not engage in sexual intercourse because they are taught that if their genitals touch they will become polluted and will be ostracised by their peers.

The Kikuyu society has clear rules about how adolescents should behave. Contrast this with adolescents in our society who are not provided with such guidelines.

Self-identity

Erikson (1968) characterised the main problem of adolescence as the need to achieve a secure sense of identity. Each individual's ability to form a sense of their own identity depends on the following judgements.

- What you think about other people.
- What others think of you.
- Your rating of the way others judge you.
- The ability to evaluate others as members of social groups.

The following example looks at identity formation.

'Julie was really stupid to get caught with a bottle of vodka in her bedroom by her parents.'

A statement such as this would be an example of the first judgement – what you think about other people. But according to Erikson, this is not enough. In order to develop a true sense of identity the other three categories need to be considered. Thus further statements might include: 'Wait a minute, I've had the odd illicit drink. Does that make me stupid too?'; 'What does Julie think about the way I always come home late? Maybe she thinks that's worse.'; 'Maybe parents think coming home late is worse than drinking vodka.'

The process of identity formation is difficult and *can* put strains on the adolescent's friends and family, but the idea of a generation gap between parents and adolescents seems to have been overemphasised. Coleman (1980) said that there are disagreements between parents and their children, but that they do tend to agree on what the important issues are, such as planning for the future, developing a good reputation and so on.

Csikszentmihalyi and Larson (1984) asked adolescents to carry a 'beeper' with them from when they got up in the morning to when they went to sleep at night. The adolescents were beeped randomly and asked to fill out a form about what they were doing and feeling at that time. The experimenters found that conflicts between parents and adolescents seemed mainly to be about matters of taste. Parents on the whole thought these to be trivial, whereas adolescents found them very important.

Extending Erikson's theme of identity conflict, Marcia (1966) distinguished four patterns of coping used by adolescents to deal with the task of identity formation.

Identity achievers. These individuals have gone through a period of decision-making about their lives and have decided on particular courses of action: 'I have thought through the advantages and disadvantages, and I definitely want to be a nurse'. These adolescents then actively pursue their preference of occupation, politics and religion.

Foreclosers. These adolescents are similar in that they too actively pursue goals. The difference between foreclosers and identity achievers is that foreclosers did not go through the decision-making stage: 'I'm a farmer because my Dad's a farmer'; 'I vote Conservative because my family always have.'

Moratoriums. This category refers to adolescents who are currently deciding on issues and have not made up their minds: 'I'm not sure whether it is right or wrong to live together before marriage.'

Identity diffusions. These adolescents have often tried a number of different 'identities' and rejected them all. This can result in a cynical attitude toward the issues that have been considered and discarded: 'Politicians and political parties are all the same. I stopped thinking about them ages ago.'

As adolescents grow older there is a shift from *identity diffusion* to *identity achievement* although the level of identity achievement differs for the issue in question; for instance choices in politics has a lower identity achievement level than vocational choice.

Health

Although recent studies suggest an overall decrease in adolescents' use of most drugs (Johnston *et al.*, 1988), high rates of experimentation are still common among the adolescent population. The type of drug used tends to vary with the age of the adolescent. Johnston and colleagues noted that in young adolescents (those under 15) smoking (45%) and

drinking (56%) were the most common drugs used, with 30% admitting to having used at least one illicit drug. In older adolescents (those over 15) the figures were: drinking (92%), marijuana (50%), with 57% having used an illicit drug.

Apart from the physiological and psychological damage caused by drug abuse, drugs can also produce behaviour and altered states of consciousness responsible for many accidents. In males below the age group of 10–14 years old, deaths per 100,000 due to accidents were about 20, and due to suicide about 2. From 10–14 years old onwards, the rates soar. At the age of 20, deaths per 100,000 due to accidents were 85, and due to suicide 27. Females also show an increase in deaths by accident and suicide at the age of 20, but the curve is not so severe. Females seem to attempt suicide more than males but are less likely to succeed (Holden, 1986).

Suicide

Gibbs (1990) said that nurses may experience a number of potential difficulties in communicating with those who are being assessed following an unsuccessful suicide attempt. The potential difficulties may be due to different attitudes towards suicide being held by patient and carer.

Exercise 9.2: Attitudes towards suicide

Which of the following is true?

1. People who talk about suicide don't tend to kill themselves.
2. Only certain types of people commit suicide.
3. Suicide among young people is decreasing.
4. When a person talks about suicide, you should change the subject to get his or her mind off it.
5. Most people who kill themselves really want to die.

(For the answers, see the end of the chapter.)

Nursing adolescents

Adams (1983) says that there are a number of problems facing those nurses who come into contact with adolescent patients. The main problems are identified in the following paragraphs.

Communication difficulties. Communication may be made difficult by the patient's lack of mature social skills, concerns about being ill and

the stress of hospitalisation. An affinity needs to be developed between the nurse and the adolescent, based on an understanding of the young person's condition.

Over-identification. Adams argues that empathy with the adolescent should not be achieved at the expense of over-identification, as the nurse's experiences may be out-of-date and thus irrelevant. Further, care should be taken to avoid lapsing into a 'parental role', as advice from a person only a few years older can seem patronising. The nurse should appear a concerned, mature professional person.

Confidentiality and privacy. If assurances about the confidential nature of the information given by the adolescent are not forthcoming, important details may be missed. Therefore the nurse should give due care to planning the setting of any interview.

Coleman (1980) sums up the adolescent stage of development by saying

> Adolescence is not an either/or phenomenon, but, as the evidence shows, is a period in the life cycle which contains difficulties and where stress is experienced, though of a minor rather than a major nature. There is conflict with parents, over mundane domestic issues, rather than fundamental values. Many young people experience feelings of unhappiness but on the whole these go unnoticed by parents and teachers. Adolescents do worry over their future identities as they become older but these worries rarely cause an identity crisis.

Adulthood

Whilst it is difficult to put ages to stages of development, in order to make a 'working distinction' early adulthood may be defined as 18 to 40 years of age and mid-adulthood as 40 to 65 years of age. Of course many people who are in their early forties may consider themselves to be young adults, and a number of 'thirty-somethings' may act a lot older than their physical age, but in general terms age markers act as a working guide to distinguish between the two main adult stages of development.

Early adulthood

Early adulthood is a period during which physical characteristics reach their peak. Males and females reach their maximum height by 20 and 18 years respectively, and young adults are in their prime as far as speed and strength are concerned. Muscle structure and internal organs achieve their maximum physical potential between the ages of

18 and 25, but after this period the body begins to slow down. The discs of the spine settle and thus there is a slight decrease in height. The body's fatty tissue increases with a consequent increase in weight. Muscle strength declines and reaction times level off.

As with physical functioning, mental activity reaches its prime during this stage. Some researchers have suggested that young adults go through stages of intellectual and ethical development (Perry, 1981), while others have been unable to discern any clear cut progression of stages (Belenky *et al.*, 1986). Perry (1981), in a study based on males aged between 17 and 22, proposed that intellectual and ethical development progress through nine stages divided into three categories.

Dualism

1. Essentially, the world is made up of things which are either right or wrong. Right answers are obtained by going to the appropriate person or authority for advice.
2. Some uncertainty exists due to the fallibility of some authorities.
3. Sometimes authorities may not know the answer yet, but have the ability to find it out.

Relativism

4. Anyone can have an opinion and it is possible to disagree on certain issues.
5. Simple right and wrong explanations are relatively rare. Knowledge and values exist in different contexts.
6. It is necessary to make some commitment to an idea or a concept.

Commitment

7. Starts to choose commitments to specific areas such as choosing to become a nurse, or joining a group such as Greenpeace.
8. Experiences the implications of commitments and explores issues involved.
9. Identity is confirmed through commitments made.

The process through these stages can be smooth or delayed, depending on the specific circumstances encountered by young adults. The advantage of this approach is that it provides a common sense account of the types of issues and solutions facing young adults between the years 17–22. However, it should be stressed that the theory was based on a study of males only, and thus is unrepresentative of all young adults. However it did lead to a series of studies on female young adult development.

Belenky *et al.* (1986) set out to determine whether females went through different stages of intellectual and ethical development from males. The experimenters interviewed 135 women from a wide range of socio-economic backgrounds and found five ways in which these young women represented their environment.

Silence. These women feel passive and dependent. They describe themselves as 'death and dumb'. The thinking is similar to Perry's first stage of development (see p. 238); however the women state that they don't even know the rules about what constitutes right and wrong. They had often experienced lives of abuse, chaos and violence.

Received knowledge. These women report that they learn by listening and quietly accept as truth all that they are told by figures of authority. Again the women in this group seem similar to the men in Perry's first stage, but with one main difference – whilst the men felt a strong association with their authority, the women felt a sense of awe.

Subjective knowledge. These women adopt the notion of multiple truths and base their selection on their 'gut' reactions. First hand experiences are seen to be the important determinants of truth. Sometimes a crisis of male authority has produced a marked distrust of objective sources of knowledge.

Procedural knowledge. These women distrust both subjective and objective knowledge. There is an interest in form rather than content, and how something is said is seen as more important than what is said. A feature of this category is a heightened sense of control and an analytical approach to truth.

Constructed knowledge. This is an integration of subjective and procedural ways of knowing. Women in this stage examine and test ways of constructing knowledge. There is a high tolerance of ambiguity and internal contradictions in other people's arguments.

The work of Belenky and her associates, alongside others such as Kohlberg (1981) and Gilligan (1982), represents an attempt to structure the ethical/intellectual development of women into distinct stages. It should not be assumed, however, that all women will fall neatly into each specific category and as Belenky *et al.* (1986) point out, there is no evidence of clear cut progression from one stage to another. Nevertheless, it does provide a useful description of different types of women's thought during young adulthood.

Sexuality and love

Adult sexuality has been investigated in a number of different ways. Some researchers have concentrated on the development of 'sexual

scripts' (Gagnon and Simon, 1987); others have looked at the motivations that underlie sexual behaviour (Mitchell, 1972); and yet others have viewed sexuality from a sociobiological perspective (Wilson, 1978).

Sexual scripts

Just as in *Chapter 3* where children were seen to use scripted behaviour in their development, so adults use sexual scripts in their social interaction. In Gagnon and Simon's (1950) view, culture and society play a crucial role in determining how sexuality should be portrayed. Specific sexual scripts are learned in adolescence from parents, the media and probably most commonly, older adolescents. During development, these scripts are gradually refined until they represent a culturally defined characterisation of sexuality. Thus the manifestation of sexuality through sexual behaviour will vary from culture to culture accordingly and is represented by the presence of specific sexual scripts.

Motivation for sexuality

Mitchell (1972) put forward six motivations for human sexuality expressed in the form of needs, desires and curiosity.

Needs. There are two main needs, intimacy and belonging, and Mitchell regards these as two of the most basic motives for human sexuality. Sometimes these needs may conflict with other needs, such as independence, but if intimacy and belonging are absent from relationships, depression and loneliness can often occur.

Desires. Power, submission and passion constitute the basic desires of sexual motives. In a maladaptive form, power manifests itself as domination and manipulation; in a constructive context, power may be viewed as control over the course of the relationship. Submission is a complementary need to power and relates to a need to feel cared for and looked after by someone. Finally, passion and ecstasy (from the Greek, *ekstasis*, 'to be outside of oneself') suggest the need to experience emotional euphoria with other people.

Curiosity. Just as there is a need to know more about life in general, there is also a specific curiosity about sex. Many adults are curious about their own sexuality and whether the sexual feelings of others are similar to their own.

Love

Although often conceived of as one emotion, love may in fact be many. Maslow (1970) thought that there was 'being love', which was positive and implied a certain degree of independence, and 'dependency love' which, as the name implies, involves dependency and need. Another

distinction, provided by Berscheid and Walster (1974), is between 'passionate love' and 'companionate love.' Passionate love is the sort that took place between Romeo and Juliet, and is characterised by passion and desire; companionate love is the sort that exists between parents and their children or sometimes between people who have been together for a long time. This love is based on commitment rather than intense physiological arousal.

Lee (1973) suggests that there are six types of love which can be combined to produce complex interactions.

- *Eros or romantic love.* People who score highly on Eros are attracted to partners on the basis of physical characteristics. They are sensitive to physical blemishes and often believe in love at first sight. Love for these individuals is almost totally sensual.
- *Ludus or game-playing love.* Ludus people like to flirt. They tend to keep their partners guessing about their degree of commitment to the relationship. They often enjoy teasing their lovers and get over affairs quickly, especially when they cease to be fun.
- *Storge or friendship love.* This type of love is based on caring rather than passion. It grows over a period of time and is related to the development of respect and consideration for the other person. Friendship love is typically resistant to long separations and based on mutual interests.
- *Pragma or logical love.* People in this category believe that love has to work. They are concerned whether they themselves or their partner will make good parents and are willing to work at their relationship. Pragmatism and realism are central to this type of love.
- *Mania or possessive love.* This is an anxious, uncertain type of love, where lovers often get very jealous and do stupid things if they feel the relationship is in jeopardy. Illness is sometimes used to gain attention if their partner ignores them or takes them for granted.
- *Agape or selfless love.* This type of love deals with compassion and seeks to love everybody without qualification. Agapic lovers would claim to maintain their love despite their partner's numerous transgressions.

Perhaps, not surprisingly, there is a degree of controversy as to whether these six types of love form distinct styles (Davis and Latty-Mann, 1987) or at best represent a potential to express love in a particular way. Duck (1992) provides a useful summary of love's typologies by saying:

> I suspect that researchers of love ought to look less at the presumed single-minded and enduring aspect of the person who feels love (as

psychologists tend to do when they explore love attitudes or love styles). Instead they should pay more attention to the circumstances and rhetorical/social/interpersonal contexts or situations where love is communicated in everyday life.

A somewhat different view of love is that it is either based on principles of reinforcement or on misattribution. Kenrick and Cialdini (1977) propose that we come to love someone because they do things to us that we like and we do things to them that they like. In other words, love stems from a schedule of mutual reinforcement. Another view is that whenever we feel aroused we seek to attach a label to our feelings. When we look down from a twelve-storey building we label the emotion 'anxiety'; when we get food spilled over us at a restaurant we label the emotion 'anger/frustration' and so when we are in the presence of an attractive person we label the emotion 'love'. Whilst neither view represents a comprehensive explanation of love, there is evidence that both misattribution and reinforcement do play a role in the perception of love (Walster and Walster, 1978).

Finally, can love be measured? Rubin (1970) said that it could and to illustrate his point constructed *The Love Scale* (see *Figure 9.1*). This is a series of nine statements concerning the person towards whom you (or someone else) feel love. Subjects are required to indicate on a scale from one to nine whether they agree or disagree with the statement. One is equivalent to disagree strongly, and nine agree strongly, with five implying ambivalence.

1. I feel that I can confide in X about virtually everything.
2. I would do almost anything for X.
3. If I could never be with X, I would feel miserable.
4. If I were lonely, my first thought would be to seek X out.
5. One of my primary concerns is X's welfare.
6. I would forgive X for practically everything.
7. I feel responsible for X's well-being.
8. I would greatly enjoy being confided in by X.
9. It would be hard for me to get along without X.

Figure 9.1 *The Love Scale (adapted from Zubin, 1970).*

Obviously, the nearer your score is to 81, the person in question is probably very important to you; if your score is closer towards 9, the person is probably of little relevance to you.

Rubin (1970) would not suggest that his scale is a perfect measure of

love; however there is some evidence that couples who scored high on this scale spent more time gazing into each others' eyes than couples who scored low on the scale!

Middle adulthood

Mention the term middle age and people will probably immediately think of the mid-life crisis. Such was the popularisation of this feature of middle adulthood during the seventies that it has come to represent the main concern of people in this age bracket. But what age bracket? Some people place middle adulthood firmly between the ages of 40 and 60. However a few people may act as if they are well into their middle adulthood by the time they are 35, and some 65-year-olds may act and behave as if they were 20 years younger. Therefore, to provide an age framework for middle adulthood it is advisable to say that it begins between the ages of 35 and 40, and ends between the ages of 60 and 65.

Part of the difficulty in defining middle adulthood stems from the fact that it is a relatively new phenomenon. Up until the end of the nineteenth century people were expected to die in what we now call middle age and the average life expectancy was 50. Nowadays people can expect to live a good twenty years longer. Further, the mid-life crisis is but one of the issues that have developed from research on middle age. Havighurst (1972) proposed that there were seven specific developmental 'tasks' faced by middle-aged people in our culture (see *Table 9.2*).

Table 9.2 *Havighurst's developmental tasks*

1. Accepting and adjusting to the physiological changes of middle age.
2. Reaching and maintaining satisfactory performance in one's occupation.
3. Adjusting to ageing parents.
4. Assisting teenage children to become responsible and happy adults.
5. Relating to one's partner as a person.
6. Assuming social and specific responsibility.
7. Developing leisure time activities.

As research into middle age has concentrated on many of Havighurst's developmental tasks, it is appropriate to use them as a framework for examining the main issues of middle adulthood.

Physiological changes and health

Middle adulthood is a time when the body experiences a number of changes and it is also a time when certain diseases begin to develop. Two areas of physiological change that have received a great deal of attention are the *decline in sensory acuities* and the *menopause.*

Sensory acuities

Vision. The most significant changes in the visual system occur after the age of 50. The lens of the eye becomes increasingly dense and develops a yellowish tinge, making the shades of blue and green in the eye difficult to discern. The ciliary muscles, responsible for manipulating the lens correctly, lose their efficiency and decrease in size. There is also a decrease in pupil size and the retina becomes less sensitive (Schulz and Ewen, 1988). These changes result in an overall loss of visual acuity or ability such that the closest point at which the eye can see an object without blurring gets further and further away. When this point becomes further than the arms can stretch to hold a book or read a newspaper, it is often realized that glasses are needed. Increasing age also brings with it a greater susceptibility to eye diseases such as glaucoma, which is progressively more common after the age of 40. Finally, cataracts (cloudy formations on the lens of the eye) start to become a problem about the age of 60, but are more prevalent in older people of 70 and 80.

Audition. After the age of 40, the ability to hear sounds starts to decrease. In the inner ear there is a degeneration of sensory receptor cells, loss of auditory nerve cells and a decrease of flexibility in the cochlear partition, which is responsible for the transmission of vibrations from one chamber to the other. The result of these changes is a progressive decline in the ability to hear high frequency tones. This is known as *presbyacusis.* To get an idea of what it might be like to suffer from presbyacusis, on a hi-fi system turn the treble right down and the bass right up, and note that the muffled sound is not improved by turning up the volume. Speaking loudly to patients experiencing this type of hearing dysfunction does not improve their hearing ability, and merely causes frustration.

Smell. Whilst Stevens and Cain (1987) suggest that the sense of smell declines slowly around the age of 50 and decreases rapidly after age 70, Engen (1977) and Rovee *et al.* (1975) reported no such changes. A possible resolution of these different findings may come from the contribution of factors such as disease and smoking to the sense of smell. Many of the studies reviewed did not take into consideration the extent to which the subjects had contracted mild forms of disease which may affect the sense of smell. Nevertheless,

whether due to age, disease, smoking or other factors, becoming less sensitive to certain odours can have embarrassing social consequences.

Taste. Unfortunately the sense of taste has received little attention in the research literature. Schiffman (1977) noted that the sense of taste begins to decline around the age of 50. However, more recently, Spence (1989) found that there is a decline in the ability to detect weak tastes but a retention of the ability to discriminate between familiar medium strength tastes. Much more research needs to be done in this area, especially a consideration of cultural differences with respect to both taste discrimination and preference.

The menopause

In most women, the menopause occurs between the ages of 41 and 59 years, with wide individual differences in onset and cessation. The ending of the monthly menstrual period is part of a longer process known as the *climacteric* where women make the transition from the reproductive to nonreproductive stage of life. In addition to menstruation becoming increasingly irregular in timing and amount of blood flow, other physical symptoms include hot flushes and dryness of the vagina. However, McElmurry and Huddleston (1987) say that textbook descriptions of the severity of symptoms experienced during the menopause can be highly exaggerated. In fact some women experience no symptoms at all, apart from cessation of the menses. In one study (Goodman, 1982), the symptoms reported by menopausal women were barely more numerous than those reported by women of a similar age who were still menstruating. Some of the symptoms attributed to the menopause may in fact be part of a much wider psychological adjustment to becoming middle-aged.

There is no physical equivalent of the female menopause for males.

Heart disease and Type A behaviour

Another common problem of mid adulthood is coronary heart disease (CHD). Coronary heart disease occurs when the coronary arteries narrow to such an extent that not enough blood can get through to supply the muscles of the heart with sufficent oxygen and nourishment. Factors known to affect the incidence of CHD include high cholesterol diet; smoking; obesity; high blood pressure; physical inactivity and family history. Although these factors are major determinants of heart disease, they are totally absent in nearly 50% of all new cases (Sheridan and Radmacher, 1992). These research findings have shifted attention to an examination of psychological risk factors. Two cardiologists, Friedman and Rosenman (1959), found an increased prevalence of CHD in men who exhibited what they termed a 'coronary prone behaviour pattern'. This consisted of extreme competitiveness; a high

need to achieve; aggression; impatience and time-hurry behaviour; restlessness; hyperalertness; a feeling of being constantly under pressure and a need to be in control of events. They labelled this behaviour pattern Type A.

In a study of 3454 men aged between 39 and 59 years, Friedman and Rosenman found evidence of a relationship between Type A behaviour and CHD. The Type A men had 6.5 times the incidence of coronary heart disease as men who did not show Type A behaviour patterns. Some later studies failed to find any connection between Type A behaviour and CHD (Shekelle *et al.*, 1985), but this may have been due to sampling errors and measurement problems. Certainly, Chesney *et al.* (1988) have obtained evidence that hostility, competitiveness and time urgency are strong predictors of coronary heart disease.

The modification of Type A behaviour can be very difficult. Behaviour patterns that have been built up over many years are not easy to change. Indeed, many people in mid adulthood do not see any reason to change their habits, especially if they believe that their Type A lifestyle has helped them reach high levels of attainment. Prevention programmes need to emphasise the possibility of maintaining current levels of work whilst reducing the physical and psychological cost. Roskies (1988) has developed a multimodal programme based on modifying physiological, behavioural and cognitive responses to stressful situations. Over a 14-week training programme, she claims to have significantly reduced the incidence of Type A behaviour in 'at risk' individuals. *Chapter 10* will examine this and other stress management programmes in more detail.

The midlife crisis

The term 'midlife crisis' was popularised in an article by Elliot Jaques (1965) on the careers of artists. In almost every case he studied, he found a dramatic change occurred in the artist's life at about 35. Some artists started to work at this time (Gauguin), while others gave up and some died. Since that time Levinson (1978), Sheehy (1976) and Gould (1978) have all proposed crises occurring in midlife. Levinson (1986) suggests that there are three tasks associated with this period.

1. A reappraisal and review of achievements since young adulthood.
2. A move towards accepting middle age.
3. Dealing with sources of conflict.

Levinson (1978) says

> For the great majority of men this period evokes tumultuous struggles within the self and with the external world. It must

involve emotional turmoil, despair, the sense of not knowing where to turn or of being stagnant and unable to move at all.

There are several shortcomings to these studies of midlife crises. Firstly, the samples are largely taken from small numbers of white, middle-income men. Secondly, they use the same cohort. Therefore generalising to other generations, women and people from different social and cultural backgrounds is limited. Further, McCrae and Costa (1984) point out that midlife crisis research is totally based on interview data, with little attempt at statistical analysis.

An alternative view is taken by Neugarten (1968). She proposed that mid adulthood is a time of transition where men and women may well look back at what they have achieved during their lives. If the children have left home it may be a time to reassess one's purpose in life. However, these events are not necessarily traumatic nor involve a crisis. Many women are in fact pleased when the children leave home, as it gives them the opportunity to do things that were previously impractical. However, there may be genuine anxieties about returning to work or taking on new roles. Gottfredson (1977) found that over 80 per cent of workers aged between 41 and 55 remained in the same job category over a five-year period. Of those who did change jobs, 60 per cent changed to a job within the same occupational category. Julian *et al.* (1992) examined the correlates of psychological well-being for 75 middle-aged men. They found that the best predictors of men's well-being at mid-life were perceived closeness to children, perceived closeness to spouse, adjustment to the husband role and the number of close friends.

In summary, mid adulthood often offers the opportunity for reflection and change; how this is managed will determine the degree of psychological conflict.

The 'sandwiched people'

It was Davis (1981) who said that middle-aged adults were 'sandwiched' between adolescent children and ageing parents. Care of ageing parents has only recently become widespread, mainly due to significant increases in life expectancy, but the idea that the adult children of ageing parents can hardly wait to ship them off to a home is misplaced. Brody (1990) points out that for every disabled person in a nursing home, there are two or more equally disabled elderly people living with their families. Thus caring for aged parents has become a normative part of mid-adulthood. In the absence of a spouse, the most likely people to care for the elderly are adult daughters, and since many middle-aged women go out to work, caring for aged parents as well as their own families can prove a substantial strain.

Horowitz (1985) isolated a number of types of support that adult children can provide their parents with.

- When a parent is worried or feeling low, their children can provide emotional support by cheering them up.
- Children can provide direct support by doing the shopping, running errands, taking care of the bills and, for the less mobile, bathing them and cooking food.
- They often act as a 'buffer' between the support services and the elderly person. They can fill in forms, arrange for meals on wheels, or negotiate for home-helps.
- Children can, and sometimes do, provide financial support.
- Children may have their elderly parents to live with them.

Not surprisingly, support of the elderly may bring with it strains and stresses, the most common being emotional concern about their health and safety. There are also restrictions to leisure time and almost inevitably family conflicts arise. Whilst there are also benefits, such as increased feelings of self-satisfaction and respect, care of the elderly can take its emotional toll. Therefore it is important that nurses consider support for the carers as well as for the elderly patient.

Late adulthood

With the advances that have been made in the treatment and prevention of diseases, the life-expectancy of both males and females has increased dramatically over the last 50 years. In Britain, over 14 per cent of the population is aged 65 and above; in the USA the figures are nearly as high, with about 11 per cent aged above 65. (This compares with only 4 per cent of the total American population aged 65 and above in the 1930s.) Not always has an increase in life expectancy led to better quality of life. It can be argued that, as a society, we have given scant regard to the needs of our elderly population, and too many have spent their last years poor, dependent and sick. Therefore it is important to determine the nature of the ageing process and, perhaps more importantly, to investigate ways of increasing the quality of life for people in their late adulthood.

Theories of ageing

Bacteria are able to continue living indefinitely as long as they have a sufficient supply of food and space but most animals have life-spans limited to their reproductive ability. Although the human life-span

extends way beyond the end of reproductive capabilities, it is still limited to an average of 69 years for males and 75 years for females. Why is it that we cannot live forever?

Heredity

One theory of human ageing states that the life span of any species is set by genetic or hereditary characteristics which have evolved over thousands of years. As females are likely to live for at least 25 years after going through the menopause, it is not clear what evolutionary function is served during this period of time. There may, however, be a social function. The anthropologist Margaret Mead (1970) suggested that in some tribal societies old people were extremely important for the survival of the group since it was they who could remember where food and water had been found during a drought that had occurred many years ago.

External factors

Obviously accidents curtail the life span regardless of genetic factors. But other factors known to affect longevity include marriage, rural living, being overweight, smoking and disease (Jones, 1956). Based on the work of Jones (1956) and Schulz (1978) it is possible to estimate prospective life spans (see *Table 9.3*).

Wear and tear theory

This view of ageing sees the body rather like a machine. Over a period of time the organs of the body gradually wear out, just like the parts of an old engine. However, there is no conclusive evidence that hard work alone is responsible for reducing the life span (Curtis, 1966). It seems that 'spare part' surgery will not prove to be the answer to the ageing process, as it is the interrelation of the various systems of the body that is involved in the ageing process rather than the failure of any particular organ.

Homeostatic imbalance

Homeostatic mechanisms are responsible for the maintenance of physiological balance in the body, controlling such things as the pH and sugar levels in the blood. Shock (1977) has suggested that the ability of the homeostatic mechanisms to maintain equilibrium decreases with age, and thus it is more difficult for old people to maintain body temperature during exposure to heat and cold than it is for their younger counterparts. Strains on the homeostatic mechanisms are easier to tolerate when young, and homeostatic inefficiency can result in a risk of death for older people. However, rather than being an

Table 9.3 *Prospective life spans (based on the work of Jones and Schulz)*

If you are male start with a score of 69 years.
If you are a female start with a score of 75 years.
Add or subtract years according to the following 'external' factors.

1. Subtract one year for every 10 pounds you are overweight.
2. Add three years if you engage in regular exercise two or three times a week.
   Subtract three years if your job involves a lot of sitting down.
   Add three years if you have an active job.
   If you sleep more than nine hours per day, subtract five years.
3. If you are married add four years.
   If you are over 25 and not married, subtract one year for every unwedded decade.
4. Subtract three years if you think you have been poor for most of your life.
5. If you smoke over forty cigarettes a day, subtract eight years.
   If you smoke twenty to forty cigarettes a day, subtract four years.
   If you smoke less than twenty cigarettes, a pipe or cigars, subtract two years.
6. If you have regular medical and dental check ups, add three years. If you are often ill, subtract two years.
7. If you have lived most of your life in a rural environment, add four years.
   If you have lived most of your life in an urban environment, subtract two years.
   If your house is hardly ever warmer than 20 degrees Celsius, add two years.
8. If you are Type B (relaxed and easygoing), add two years.
   If you are Type A, subtract two years.
   Add between one to five years according to how content and happy you are with life.
   Subtract one to five years according to how often you feel unhappy, worried or guilty.
9. Add five years if two or more of your grandparents lived to the age of eighty or more.
   Subtract four years if any grandparent, parent, brother or sister died of a heart attack or stroke before fifty.
   Subtract two years if anyone died of these diseases before sixty.
   Subtract three years for each case of diabetes, thyroid disorders, breast cancer, cancer of the digestive system, asthma or chronic bronchitis among parents or grandparents.
10. Add two years if you are a light drinker (1 to 3 units per day).
    Subtract five to ten years if you are a heavy drinker.
    Subtract one year if you are a teetotaller.

Please note that the figure you end up with is only a very rough estimate. Many things can happen between now and old age that will probably have a great influence on the number of years you will live. The exercise gives a reasonable indication of how your present life style is contributing to longevity, but should by no means be taken as an absolute indication of your lifespan.

explanation of ageing, homeostatic imbalance is probably better viewed as a contributing factor to the ageing process and as we shall see, other factors are also involved.

Accumulation of metabolic waste

As organisms age, the functioning of their cells is affected by the accumulation of waste products of metabolism. Collagen, a fibrous protein linked to the wrinkling of the skin and the slowness of wound healing, builds up with age and is only eliminated very slowly if at all. Another group of substances, the lipofuscins, also builds up with ageing and leads to pigmentation. However, Curtis (1966) believes that the accumulation of metabolic waste is more a symptom of ageing rather than a cause.

Autoimmunity

Animals reject their own tissues when autoimmune antibodies are produced. The frequency of this occurrence increases with age and has been associated with diseases such as rheumatoid arthritis. Further, Makinodan (1977) has noted that the thymus gland tends to degenerate with age. As this gland is responsible for normal immune processes, there may be a decline in certain immune responses with age. Whilst some leading causes of death have been linked to autoimmune reactions, autoimmunity is still more of a symptom rather than a cause of ageing.

Cellular ageing

Some of the cells in the body rarely, or never, reproduce, (for example, brain cells, muscles). Most cells reproduce themselves, however, and theoretically there is no reason to suppose why this process should not go on forever. One of the reasons put forward to account for the inability of cells to reproduce indefinitely is the presence of 'chemical noise' within the cell. Faulty transcription of information from DNA (deoxyribonucleic acid) leads to errors which hamper or deflect cell function and division. Chemical noise may also be created by a gradual build up of random replication errors (Medvedev, 1964). At the moment it is not clear whether the errors of replication are genetically programmed or are random events that accumulate with age; nevertheless, this theory seems to provide one of the best explanations so far of the physiological process of ageing.

Intellectual functioning

As the age structure of society shifts upwards, there has been increasing concern about the changes in intellectual functioning which

occur with age. In some occupations it is believed that one's intellectual contribution declines after the age of 60, whilst High Court judges are deemed to be intellectually able well into their 70s. One of the factors that has confused the issue regarding the nature of intellectual functioning in late adulthood is the presence of disease. It is important to distinguish between those changes in ability that result from disease and those that result from ageing.

Birren *et al.* (1963) examined a sample of 47 men aged between 65 and 91 who were classed as healthy. They were given a battery of medical, physiological and psychological tests, and two groups emerged. One group of men (Group A) was found to have optimal health. Another group (Group B) whilst having no clinical disease, was found to have mild diseases. When measures of the cerebral blood flow of the Group A men were compared to those of a sample of 21-year-old men, there were no significant differences. However when measures of the cerebral blood flow of the Group B men were compared to the same sample of young men, significant differences were found. Thus even a mild, or subclinical, degree of disease may affect the efficiency of brain functioning in late adulthood.

EEG (electroencephalograph) readings of both groups were taken and both groups were found to have a slower frequency spectrum than normal. This would indicate that there is a slowing down of electrical activity in the brain with age, and this may be one reason why some old people need longer to perform certain tasks.

Both groups of men were given 23 tests of intellectual performance and Group B gave poorer results on 21 out of 23 tests. Group B were particularly bad at retrieving stored information. Both groups took longer than average to complete the tests, and thus we can see that a genuine feature of the ageing process is a slowing down of performance.

Several 'personality' tests were administered to both groups of subjects. Subclinical disease was found to affect such things as the ability to terminate social interaction appropriately and showing ordered sequences of thought. A significant finding was the effects of loss on performance on both intelligence and personality measures. If a person had just lost someone close, the ability to think and interact with others was seriously affected.

Birren summarised their findings, reporting that mild disease plays a greater role in performance deficits than ageing; there is a slowing down of reaction time with age; social loss significantly effects psychosocial and cognitive abilities.

Eleven years later, a follow up study was carried out on the same subjects by Granick and Patterson (1971). Not surprisingly, one half of the men had died. Most (70%) of Group B had died, whereas most (63%) of Group A had survived. Some of the factors that were related to survival were higher intelligence, faster reaction time and lower

social loss. Two items were found to predict 80% of the survivors and non-survivors. These were:

- not smoking; and
- the organisation and planning of daily events.

Not smoking may be an obvious factor related to longevity, but why should organisation and planning be important?

Toffler (1970) proposed that a major problem for the elderly was that they were now living in a society which was totally different from the one in which they grew up. Changes have taken place so fast that the elderly person has not had a chance to 'catch up'.

> This means, generally speaking, that the child reaching teenage in any of these societies is literally surrounded by twice as much of everything newly man-made as his parents were at the time he was an infant. It means that by the time today's teenager reaches age thirty, perhaps earlier, a second doubling will have occurred. Within a seventy year lifetime, perhaps five such doublings will have taken place – meaning, since the increases are compounded, that by the time the individual reaches old age the society around him will be producing thirty-two times as much as when he was born. (Toffler, 1970)

Under these circumstances it is clear that a degree of organisational and planning ability is necessary to cope with the increased amount of 'things to do' in everyday life. In one of the few longitudinal studies in this area, Willis *et al.* (1992) investigated everyday task competence in the elderly. They examined 102 white, community dwelling older adults (16 males, 86 females) whose average age when the study started was 76.9 years. Everyday task competence was assessed in 1979 and again in 1986. The results indicated a significant mean level decline in competence over this period. However, wide individual differences were apparent, as 62% of the sample remained stable or improved in competence over the seven-year period. Those who declined in ability had particular difficulties with everyday problems which required 'new' solutions; these were particularly troublesome for the elderly if they attempted to apply routinised or stereotypical responses. It seems that, for a certain proportion of elderly people, cognitive set (see *Chapter 7*) is a problem. Some old people attempt to apply plans and strategies that have worked in the past without thinking about whether they are applicable to present circumstances.

Where there is cognitive decline, it is not necessarily irreversible. Schaie and Willis (1986) found that simple training programmes could

reverse cognitive decline in a substantial number of adults. They conclude that:

> For at least a substantial proportion of the community dwelling elderly, observed cognitive decline is not irreversible, is likely to be attributable to disuse, and can be subjected to environmental manipulations involving relatively simple and inexpensive training programmes.

These research findings have a number of implications for nurses who have frequent contact with elderly people.

- Intellectual competence does not necessarily decline with age and there is every chance that if people have been intellectually active during early adulthood, they will continue to be so in late adulthood.
- A general feature of the ageing process is the need to take more time to perform tasks. Therefore, elderly patients should not be hurried into making decisions, but should be given adequate time to make up their minds.
- Where there is some deterioration in cognitive functioning, it may be necessary to provide simple training sessions in such things as planning and organising everyday events.

Overall, it is important to make the elderly feel competent to cope with the stresses and strains of everyday life, by reinforcement, training and understanding.

Senile dementia

Dementia refers to an overall decline in intellectual functioning associated with pathological changes in the brain. If a patient is younger than 65, the term 'pre-senile dementia' is used. Holden and Woods (1982) estimated that there were 700,000 sufferers of senile dementia in the UK, with most of them (75%) living in the community. Senile dementia is characterised by a wide range of symptoms, including the following.

- Difficulty in remembering information and the layout of the environment. Thus people with dementia find new environments such as the hospital ward particularly confusing and are apt to wander around unsure of their bearings. Further, forgetting what they intended to do can lead to aimless meanderings because the real purpose of the plan has been forgotten.
- The disorientation that can result from loss of memory produces feelings of helplessness and uselessness. The disruption in behaviour

that occurs with dementia often leads to a reduction in self-esteem and feeling of social worth. These beliefs and emotions are particularly prevalent in those people who are mildly affected by the condition, since they are able to understand the full implications of their situation.

- The behaviours that generally accompany senile dementia are restlessness and a need for activity. Some of the uneasiness results from memory problems; however, in some cases there is a genuine desire to be active. Incontinence can result from a urinary tract infection, or it may be due to an inability to remember where the toilet is. Aggression and hostility may occur often due to exasperation at declining competence or sometimes simply to cover up mistakes.

Not all dementia sufferers will show all of these symptoms; indeed there are large individual differences in the nature and degree of impairment. However, there are some important guidelines to consider when nursing patients with senile dementia.

Guidelines to consider in the nursing of patients with dementia

Self-care

A dilemma facing the nurse is how much help to give senile dementia patients. Doing everything for them ensures success, but reinforces feelings of inadequacy; allowing them to care for themselves may result in failure and consequent feelings of incompetence. Orem (1985) suggests that the role of the nurse should be to compensate for any lack of self-care ability. This may be achieved by identifying a patient's specific strengths and weaknesses and then supplementing appropriate maladaptive behaviours whilst reinforcing adaptive ones. Hence, a patient who has difficulty washing may find it difficult to start but once they have begun is able to finish without any further help. In this instance the role of the nurse would be to help direct the hands at the beginning of the washing sequence and then leave the patient to finish off the process.

Reality orientation

Communication is essential for keeping one's 'feet on the floor'; it enables us to maintain contact with external reality. Unfortunately, dementia can interfere with a person's ability to maintain social relationships and hinder communication. It is therefore extremely important for nurses to communicate effectively with patients suffering from dementia, utilising all the techniques discussed in the first

chapter. Armstrong-Esther and Browne (1986) found that nurses tended to communicate less with confused rather than coherent patients, and thus every effort should be made to increase the opportunities to communicate with patients burdened by dementia.

Holden and Woods (1982) suggest three ways to improve communication by discouraging rambling talk.

1. If the patient is blatantly incorrect in what he or she says, then it is appropriate to gently disagree and put him or her right. For example, 'I understand that you would like me to fetch your wife/husband but I'm afraid she/he isn't upstairs. You are in hospital because you have not been well and she/he is at home. She'll/he'll be coming to see you this evening after tea though.'

2. Distraction is often useful. To break rambling talk, you could change the topic of conversation or point out something that is happening close by. For example, 'They are just about to start dishing up your lunch. Shall we go and see what there is to eat?'.

3. Disregard what is being said and concentrate on any feelings that are expressed. For example, 'You must really miss your wife/husband while you're in hospital'.

A second feature of reality orientation is the provision of a structured environment. The use of easily seen clocks and calendars helps confused people keep track of time. Colour-coding rooms and doors, using large signs and noticeboards can help to aid memory for everyday tasks. But most important is training the person to be able to take full advantage of the structured environment. Merely placing a person in a 'tailored habitat' and hoping that they will get on with it is not good enough; they need to be taught how to benefit from the environmental cues (Begert and Jacobsson, 1976). Not surprisingly, even people with mild dementia have difficulty in orientation when moved from their familiar home environments to new surroundings such as a hospital ward. Thus reality orientation provides the nurse with a useful combination of techniques that can be tailored to fit the needs of individual patients.

Isolation and belonging

Old people may become separated from family and friends for a number of reasons. Sometimes isolation may be due to sons and daughters moving away from the area where the elderly person lives, but there is also a tendency for old people to leave their families and friends to enjoy their retirement in 'a little cottage in the country' or 'a little bungalow by the sea'. Unfortunately, if new friendships are not

developed, elderly people may experience loneliness and as a consequence their self-esteem may be reduced. Kahana (1982) said that the availability of intimate contacts was positively related to psychological wellbeing. Thus, if elderly people do decide to move from their 'home environment', it is important to have structures for local integration should they choose to make use of them. Lowenthal and Haven (1968) interviewed 280 elderly people aged over 60 years old and found that life crises such as a bereavement were a lot easier to deal with if there was someone close in whom to confide.

Disengagement or activity

Cumming and Henry (1961) proposed that, rather than wanting to maintain close relationships, elderly people seek to disengage themselves from social contacts (*disengagement theory*). Based on a study of a small number of elderly residents in Kansas, the researchers found that their subjects tended to gradually decrease their social contacts and slowly fade out of the social scene. They suggested that old people are happiest when allowed to disengage themselves from society and that this process is inevitable and universal. On the other hand, *activity theory* (Havighurst *et al.*, 1968) states that the elderly have the same needs for social interaction in old age as they had in earlier life. Circumstances may have transpired to isolate the elderly from social interaction, but this is not of their choosing and they would prefer to retain their active lifestyle.

Clearly, there is a dilemma posed by these two perspectives. Should nurses encourage the elderly to detach themselves from social interaction or should they actively encourage it? Neugarten (1980) reviewed the evidence for the two theories and found that social participation did tend to decline with age and that there were losses of occupational roles. Further, some individuals withdrew voluntarily from participation in social interaction. However, some of those individuals who appeared to be disengaged in later life were found to have been disengaged in earlier life as well, and had been relatively uninvolved in social interaction throughout their lives. Also, it was found that those with a relatively low level of social activity and involvement did not necessarily enjoy themselves any less than other people of similar ages. Carstensen (1987) provides a useful assessment of disengagement by saying that if people are forced to withdraw from social interaction due to ill health, bereavement or relocation, they will not be likely to appreciate disengagement. But if people chose to withdraw to concentrate on a few aspects of life such as their closest friends or their favourite activities, then disengagement can become the optimal pattern of ageing.

The social network approach

Disengagement and activity theories describe some patterns of ageing but a successful analysis of the ageing process needs to take account of the variability of personality and situational factors. One of the problems associated with the study of interpersonal relationships in elderly people is the scarcity of objective measures of social interaction and isolation. It may be the case that an apparently disengaged person is in fact quite socially active. A technique that has been developed to measure the exact nature of the interrelationships between elderly people, their family and acquaintances is called *social network analysis*. A social network refers to the group of people with whom one is likely to have contact over a specified period of time. Network analysis was originally used by social anthropologists to aid them in their investigations of community familial and social relationships. A network is similar to a communication diagram and indicates the nature of the associations between people. Lopata (1975) states:

> An individual's social network can be seen as a support system involving the giving and receiving of objects, services, social and emotional supports defined by the receiver and the giver as necessary or at least helpful in maintaining a style of life.

There are two sets of criteria which are used to define social networks.

1. Interactional criteria. These refer to the frequency of interaction, duration of interaction, direction of flow of conversation, content of interaction and uniplex or multiplex relations. A uniplex relationship involves a link with only one content, such as interacting with the postman who delivers your mail. However, if a postman were to deliver mail, provide emotional support, help with the groceries and give advice about health care then the relationship would be multiplex, involving more than one content.
2. Morphological criteria. These are the size, density and clustering of a network. Density refers to the ratio of actual to potential links; clustering refers to areas of high density.

The advantages of constructing social networks for a population of elderly people has been demonstrated by Cohen and Sokolovsky (1979) in a community context, and by Powers (1992) in an institutional context. Cohen and Sokolovsky used network analysis to investigate a sample of elderly residents who lived in a series of mid-Manhattan 'single-room occupancy hotels'. These hotels, or hostels, house large numbers of people with a wide range of psychological and physical problems. In one neighbourhood, 31% had histories of

chronic alcoholism or mental illness, 15% were homebound and 50% were estimated to need substantial help from social and health services. Whilst the majority of the residents were in need of some form of care, the majority were reluctant to have any contact with the community services. Social network analysis can prove a useful descriptive tool in this context for the following reasons.

- It introduces community nurses to the idea that their patients are not always socially isolated, but often have intact, functioning support networks. Ninety six per cent of the hotel residents had average contacts of 7.5, with more than half of them multiplex.
- It enables nurses to view behaviour as an interaction between the individual and their environment. The tendency to interpret behaviour as a product of the individual was examined in *Chapter 2* in the context of the fundamental attribution error. Network analysis helps focus attention on the environmental context.
- It identifies what resources are needed; when and where. In the mid-Manhattan project, males had much larger social networks *outside* the hotels, whereas females had larger networks *inside* the hotels. Further, elderly males who became ill tended to have fewer family links than healthy males. Therefore as part of the project it was decided for males to concentrate on facilitating family links and for females to work on links inside rather than outside the hotels.
- In many cases where old people form themselves into groups a 'leader' emerges. These leaders often take responsibility for providing the group members with such things as food, support and places to meet. Considerable influence can be exerted over the group by these individuals and they are usually receptive to carers. In cases where the elderly refuse to have anything to do with nurses, leaders can be a useful source of access. Providing the leaders with information and resources is one way of helping to ensure adequate provision for the other members of the group.
- Degree of physical illness should not necessarily be equated with ability or inability to live in a non-institutionalised environment.

  Mr. L. had a number of problems including emphysema and heart disease, and could only walk a few yards. However, he regularly met with a group of other men for drinks and to play cards. Mr. A. acted as a leader to Mr. L. and to another man, Mr. D., who was the same age as Mr. L. but had better health. Mr. A. would get both men groceries and help them with such things as filling in forms. Then Mr. A. left. Mr. L. still had a fully functioning support network who were able to take on responsibility for his needs, Mr. D. did not. Thus, even though the health of Mr. L. was worse than the health of

Mr. D., he had an intact support group and was able to stay in a non-institutionalised environment.

- Disruption to a social network may occur if a well-intentioned intervention by a nurse results in a shift of care. Offering to give help to an individual can result in that person being ostracised by the other members of the support network. Offering one form of help may also lead to an extinction of other forms of help. For example, handing out money may result in the discontinuation of ties with people who not only lend money, but also provide important emotional support as well. Inadvertent intervention may interfere with a functioning network and result in dependence on the nurse.

  Steinbach (1992) examined the effects of social networks on institutionalisation and mortality among 5,151 non-institutionalised people aged 70+. Social networks decreased the likelihood of institutionalised mortality. Also, elderly people who participated in some form of social activity were less likely to become institutionalised.

Formal, or informal, analysis of social networks is useful in a wide variety of contexts as it can establish the true nature of interpersonal relationships. Rather than concentrating on disengagement or activity theories, a more fruitful approach is to focus on the establishment and maintenance of functioning support networks for the elderly (see also Chapter 11).

Baltes (1991) has said that we should be moving towards a psychological culture of old age. He puts forward a model of good psychological ageing which focuses on the dynamic interplay between three processes: *selection, optimisation* and *compensation*. He illustrates the three processes by relating a television interview with the famous 80-year-old pianist Artur Rubenstein. When asked how he succeeded in continuing to be a successful concert pianist Rubenstein mentioned three factors.

1. He noted that he maintained his ability and coped with ageing by reducing the scope of his repertoire and playing fewer pieces. (An example of selection.)
2. He spent more time at practice than earlier in his life. (An example of optimisation.)
3. He used special tricks such as slowing down his play before fast segments to give the appearance of faster play. (An example of compensation.)

The combination of these factors with a society that reflects the many faces of ageing leads to a psychological culture of old age. Baltes says:

> Providing resources for a positive culture of old age requires a

society that extends its values beyond economic criteria and is willing to allocate to old age more resources than is justified by old people's past productivity or strategies of investment in the future.

In concluding his paper he quotes the Chinese proverb 'Don't be afraid of walking more slowly. Be afraid only of coming to a halt.'

Answers to *Exercise 9.2*

1. False. Eight out of ten people who commit suicide tell someone that they're thinking about hurting themselves before actually doing it.
2. False. All types of people commit suicide.
3. False. The suicide rate for young people increased by 137% between 1960 and 1980.
4. False. Take them seriously. Listen carefully to what they are saying. Give them a chance to express their feelings. Let them know you are concerned and help them to get help.
5. False. Most people who kill themselves are confused about whether they really want to die. Suicide is often a cry for help. (Bell, 1980).

Summary

Differences in behaviour occur at particular stages in the life span, extending beyond infancy and childhood. This chapter has described some factors associated with adolescence, adulthood and old age in the light of current psychological studies and the nursing implications which can be drawn from them.

Particular attention has been given to body image, eating disorders, identity formation and suicide in relation to adolescence. Adulthood has been considered in terms of continuing cognitive development, physiological characteristics, sexuality and love as it relates to the early years, and the developmental tasks associated with middle adulthood. Finally, this chapter has explored theories of ageing and the psychological problems most commonly associated with old age.

Questions for further consideration

1. To what extent is adolescence a time of crisis?
2. Is there such a thing as a generation gap?
3. What are the main problems associated with nursing adolescents?
4. Can young adulthood be said to be relatively free from stress and anxiety?

5. Is there intellectual decline in old age?
6. Is it true that as we get old we want to 'disengage' ourselves from other members of society?

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Further reading

Duck, S. (1992). *Human Relationships*, 2nd edn. London: Sage.
The relationships referred to in this book include: attraction, love, friendship and experiences of shyness, jealousy and loneliness. These are topics not normally given a great deal of attention in the psychological literature, but are of great importance in the everyday lives of people. A knowledge of human relationships should not only help nurses understand patient's behaviour, but their own as well.

Elkind, D. (1984). *All Grown Up and No Place to Go: Teenagers in crisis*. Reading, MA.: Addison-Wesley.
An interesting study of adolescent pressures in a changing society. It uses case studies and research to illustrate the experiences of adolescents and is written by one of the best known experts in the field.

Schaie, K. W., Willis, S. (1991). *Adult Development and Aging*, 3rd edn. New York: HarperCollins.
This text also includes sections on adulthood. It covers many aspects of ageing such as personality, motivation, learning and memory, death and bereavement. The two authors have contributed a great deal of research to the study of old age.

10 *Pain and stress: a biopsychosocial approach*

The title of this chapter indicates that both pain and stress have multidimensional components. This means that one cannot investigate the psychology of pain and stress in isolation from biological and social factors. Pain and stress are neither physiological, psychological nor social, but a combination of all three. Therefore, it is important to examine the ways in which the components of pain and stress interact to produce two of the major topics in nursing practice. Karoly (1985) has said that pain is one of the most pervasive symptoms in medical practice, the most frequently stated cause of disability, and the single most compelling force underlying an individual's decision to seek or avoid medical care.

I Pain

Imagine for a moment, that you are a patient on the burns ward of a hospital. A recent accident has left half your body covered with deep burns. Pain has become your constant companion; pain-relieving medications have been minimized or withheld altogether, as they may result in prolonged periods of sleep, and a resultant inability to comply with the high levels of fluid intake required. The isolation necessary to avoid infection allows you time to recall all aspects of your present condition: the original trauma, the personal and financial ramifications, the possibility of incapacitation and disfigurement, and the excruciatingly painful medical treatments you must undergo.

Your treatment, referred to as 'open treatment', requires that the bandages which cover (and may cling to) your wounds, be removed. Hydrotherapy (or 'tubbing') follows, exposing your temperature-hypersensitive skin first to air, and then to a whirlpool bath of water, in rapid succession. Debridement (the removal of devitalized tissue) is then accomplished by means of cutting tissue away, pulling it away with forceps, or rubbing wet gauze across the surface of the wound. In addition to experiencing the pain of this treatment, you can see with your own eyes the extent of the tissue damage inflicted by the burns.

Application of an antibacterial compound and redressing the wound complete the procedure; a regimen that will be repeated twice daily for a period of several weeks.

What can be done for a person who has to experience such excruciating pain? Hopefully some answers will appear during the course of this chapter.

We will all experience pain at some time during our lives although maybe not as much as in the example given; indeed it often serves as an indication that something is wrong. However, not all people experience pain. There are some people who have a congenital insensitivity to pain. Melzack (1973) cites the case of a young Canadian woman who seemed perfectly normal except for the fact that she never appeared to experience pain. As a child she had bitten off part of her tongue whilst chewing and had burnt her legs when she kneeled on a hot radiator to peer out of a window. According to Melzack, she not only felt no pain in response to scalding water, electric shock and icy water, but showed no changes in blood pressure, heart rate or respiration either. Fortunately this condition is rare, for whilst the absence of pain may seem desirable, this woman died at the age of 29 because her body was unable to use pain as a sign of danger. Pain, it seems, is not a simple sensory phenomenon but a rather complex entity. Therefore, the first stage in any analysis of pain is to determine precisely what we are talking about.

Sanders (1985) defines pain as 'the sensory and emotional experience of discomfort, which is usually associated with actual or threatened tissue damage or irritation.' However, explanations of pain fall into two categories – types and theories.

Types of pain

The first distinction to make is between *sensory* pain and *reaction to* pain. Sensory pain relates to the pain threshold – the point at which stimulation becomes painful. If stimulation increases the pain can become unbearable. The points at which pain is felt and at which it becomes unbearable differ from person to person; some individuals will feel pain when others will not because they have a different pain threshold. Reaction to pain is the observable component, as it is only possible to estimate degrees of pain by observing an individual's reactions to it – we cannot feel another's pain. There are large individual and cultural differences in the ways people react to pain, however, and one must be careful not to fall into the trap of stereotyping a patient's pain responses on the basis of their cultural origin. Davitz and Davitz (1985) presented nurses from the USA with the following brief description of an adult patient:

Michael O'Hara, aged 37, Irish, was struck by an automobile. He was admitted to hospital with a fractured femur and facial injuries. Currently in traction, he is to remain hospitalised for an indefinite period.

The nurses were asked for their ratings of the patient's physical pain and psychological distress. The experimenters then varied the ethnic background of the individual while keeping the other details constant (Oriental, Mediterranean, Black, Spanish, Anglo-Saxon/Germanic and Jewish). For both physical pain and psychological distress, the American nurses believed that Jewish and Spanish patients suffered most, while Oriental and Anglo-Saxon/Germanic patients suffered the least. Davitz and Davitz (1985) state that:

> in discussing our research with nurses, we have found that some nurses react defensively to our findings. They strenously insist that they never generalise, that they treat all patients as individuals. That may indeed be the case for particular nurses, but our data do indicate that in general, American nurses in fact tend to share certain generalised beliefs about patients.

A second distinction that has been made is between *organic* and *psychogenic* pain. When discomfort is caused by tissue damage such as a serious burn, it is described as organic pain. When there is pain, but no apparent tissue damage, psychological factors are deemed to be responsible and this is called psychogenic pain. Many researchers now recognise that nearly all pain has physiological and psychological components and different pain experiences involve different mixtures of organic and psychogenic causes. Thus the distinction between organic and psychogenic pain is not particularly useful, and leads to some health care professionals thinking that pain with no obvious physical cause exists only in the patient's mind. There are several types of pain with no apparent physical basis.

Phantom limb pain

According to Bakal (1992), about 5–10 per cent of patients who have had a limb amputated will experience phantom limb pain. This is pain which is experienced in a limb that is no longer there or has no functioning nerves. Patients can feel either recurrent or continuous pain which has been described as burning, shooting or cramping. People who have had their hand amputated have been known to report feelings as if their fingernails are digging into the palm of their phantom hand. This may happen if the amputation stump is stimulated, as it contains severed nerves which would have carried messages to the missing limb.

Neuralgia

This type of pain involves recurrent episodes of intense shooting or stabbing pain along a nerve. Attacks of neuralgia can occur very suddenly and without any evident cause. Sometimes very minor stimuli can trigger an attack – a ball of cotton gently drawn across the skin will often produce an attack, whereas a stronger stimulus such as a pin prick will not.

Causalgia

This is usually experienced as recurrent episodes of severe burning pain, and occurs in a part of the body that has been injured but now has healed. Thus a person previously wounded in the arm may feel as if the arm is being pressed against a hot pipe even though the wound has healed and the nerves have been regenerated. Like neuralgia, minor stimulation can set it off.

Acute and chronic pain

Loeser and Fordyce (1983) state that acute pain and chronic pain have nothing in common save for the four letter word pain. Acute pain involves short-term and usually reversible discomfort, whereas chronic pain often has no identifiable cause, is not temporary, and involves psychological adjustment. Unfortunately, most research has been concerned with the analysis of acute pain, often under laboratory conditions, and thus does not necessarily relate to most chronic pain sufferers. Turk *et al.* (1983) say that a person's psychological adjustment to pain will depend on whether the underlying condition is benign, or malignant and worsening. They propose three types of chronic pain. (The distinctions between different types of pain will become increasingly important when we consider ways of controlling pain later in the chapter.)

- *Recurrent pain*: originating from benign causes and characterised by intense pain episodes followed by periods of relief (for example, migraine headaches, tension headaches, myofacial pain).
- *Intractable/benign pain*: present most of the time with varying levels of intensity (for example, chronic lower back pain).
- *Progressive pain*: characterised by continuous discomfort, associated with malignancy, and a worsening condition (such as rheumatoid arthritis or cancer).

Theories of pain

There are three major theories of pain: *specificity theory, pattern theory* and *gate control theory.*

Specificity theory

This theory proposed that there are specific pathways responsible for transmitting pain messages to a pain centre in the brain. The theory is usually accredited to Von Frey in 1894, but in fact it had its roots in the much earlier work of the French philosopher Descartes. Von Frey suggested that the quality of skin sensations such as cold, warmth, pain and touch depends on the type of nerve endings that are stimulated. Different structures of nerve endings made some of them responsive to one kind of stimulus and unresponsive to others. Pain was thought to be associated with stimulation of the free nerve endings. However, this explanation has proved to be oversimplistic since stimulation of the outer ear (which has only free nerve endings) can produce a wide range of sensations such as warmth, cold, touch, itch and pain.

Pain signals are thought to be carried by two types of fibres, A-Delta and C fibres, which follow different paths when they reach the brain. A myelin sheath around the fibres facilitates the transmission of signals. Lyn (1984) suggests that the myelinated A-Delta fibres represent immediate or sharp pain, whereas unmyelinated C fibres produce dull or aching pain. The thoracic and abdominal organs have a different nerve supply from the skin and injuries to the thoracic and abdominal organs usually have to be extensive before severe pain is experienced. (However, minimal tissue damage caused by the passage of renal stones can cause extreme pain.) Localisation of pain from these areas may be difficult, and pains originating from internal organs can sometimes feel as if they are coming from other parts of the body such as the skin. This is known as *referred pain* and occurs when the sensory impulses from the internal organ and the sensory impulses from the skin use the same pathway to the brain (Francis, 1987). Thus, although the appendix is located lower down on the right side of the body, pain from appendicitis is felt in the upper abdomen. Similarly, pain in the ear may be the result of toothache.

However, there is no evidence of a pain centre in the brain as postulated by Von Frey, and whilst specificity theory can help to explain why some injuries are perceived as painful, it cannot explain congenital insensitivity to pain or even why sometimes environmental factors can distract an individual to the extent that no pain at all is experienced.

Pattern theory

This theory tries to relate the experience of pain to particular patterns of impulses in the nervous system. It proposes that pain may occur as a result of any kind of stimulus, as long as that stimulation is intense. The receptors for pain are shared with those of touch, so that

differences in *quantity*, rather than *quality*, of nerve fibre discharge produce differences in quality of sensation. A small degree of stimulation will be classified as touch, whereas strong stimulation will be classified as pain. Exactly the same kind of nerve fibres are discharging, but the difference in sensation is due to the amount of discharge.

One problem with pattern theory is that sometimes mild stimuli can trigger intense pain, as in the case of causalgia or neuralgia. However, more serious problems for both pattern and specificity theories are that they do not consider psychological factors, such as the meaning of the situation, personality and culture, in the perception of pain. One attempt to integrate both psychological and physiological perspectives into a theory of pain is the *gate control theory* of Melzack and Wall (1965).

Gate control theory

This is based on the principle that neural mechanisms can control a 'gate' in the spinal cord to prevent pain messages from reaching the brain. The theory states that there are certain neurons, called *interneurons*, which are located in the spinal cord. These interneurons receive inputs from nerve fibres which carry pain messages, and information, such as pressure and temperature, from the skin senses.

When the interneurons are stimulated (mainly by fibres from the skin senses), the gate is closed and the pain messages are barred. There may therefore be some validity in the saying 'rubbing it makes it better'. In contrast, when the interneurons are stimulated by fibres carrying pain messages inhibition takes place, the gate remains open, and an unobstructed route exists to the brain. Melzack and Wall (1965; 1982) suggest that information descending from the brain can also open and close the gate. Therefore psychological factors such as a person's emotional state and the context of the situation would be important determinants in the perception of pain.

The experience of pain

The experience of pain is governed by three components: *sensory/physical*, *emotional* and *cognitive*.

- *Sensory/physical* – the sensory/physical component of the pain system transmits primary sensory information, such as the location of the pain and whether it is a pricking, burning or aching pain.
- *Emotional* – this component has two parts:
  (i) the degree to which we want to escape pain; and
  (ii) our emotional response to it.

- *Cognitive* – pain after a serious accident may indicate the need for rest and relaxation, whereas the pain caused by terminal disease may include factors such as anger and frustration, making the pain more difficult to tolerate.

These three components of pain also affect the opening and closing of the gate in gate-control theory. Some conditions that may affect the opening and closing of the gate are given in *Table 10.1*.

Table 10.1 *Conditions affecting gate opening and closure.*

	Sensory/physical	Emotional	Cognitive
Opening the gate	nature of injury	anxiety	attending to the pain
Closing the gate	massage	relaxation	distraction

Since its conception nearly 30 years ago, gate control theory has been the source of considerable debate. In its original 1965 formulation, most discussion centred on determining the exact nature of the anatomical and neurophysiological mechanisms responsible for the perception of pain. Melzack and Wall (1965) thought that a part of the spinal cord called the substantia gelatinosa was of prime importance for the gating process, but research has so far failed to establish its exact function in the gate control theory. Accordingly, Melzack and Wall (1982) revised their model in the following three main ways.

- They attempted to state the multiple functions of substantia gelatinosa in the process.
- They proposed a descending inhibitory input to the gate from the brain, i.e., the brain was able to control the function of the gate.
- They established the involvement of endorphins (morphine-like substances) in the experience of pain.

There is still doubt concerning the nature and location of some components of gate control theory; nevertheless, it represents a major step forward in the integration of psychological and physiological components of pain and has stimulated a multidisciplinary view of pain research and treatment.

What influences the perception of pain?

Many people think that the more the body is harmed or injured, the more pain will be experienced. This is not necessarily correct, as the degree of injury does not always correlate with the amount of pain.

Thus it is appropriate to examine some of the factors that have been thought to influence pain in order to establish the true nature of any association. At this point we should distinguish between pain *tolerance* and pain *threshold*. The majority of research has investigated people's ability to tolerate pain as opposed to their capacity to distinguish pain from sensation. Some factors that have been thought to influence pain tolerance are: *the degree of injury, the placebo effect, culture, emotion, personality* and *memory*.

Degree of injury

In a famous study comparing American soldiers injured on the battlefield with civilians hospitalised for major surgery, Beecher (1959) found that 80 per cent of the hospitalised patients requested morphine, compared to 33 per cent of the soldiers. As the differences were not due to shock or trauma-induced analgesia, Beecher proposed that the context in which the hospitalisation took place was an important factor in the differential experience of pain. For the soldiers, the fact that they had escaped death on the battlefield countered the pain being felt, while the civilians undergoing major surgery did not have such positive connotations. Beecher concluded that the degree of injury to an individual is not necessarily proportional to the amount of pain experienced.

The placebo effect

McCaffery (1983) defined a placebo as 'any medical treatment that produces an effect in a patient because of its implicit or explicit therapeutic intent and not because of its specific nature'. Some research has shown that placebos seem to produce substantial relief in about half as many patients as does a real drug (Melzack and Wall, 1982). Unfortunately, the effectiveness of placebos tends to decrease with recurrent use.

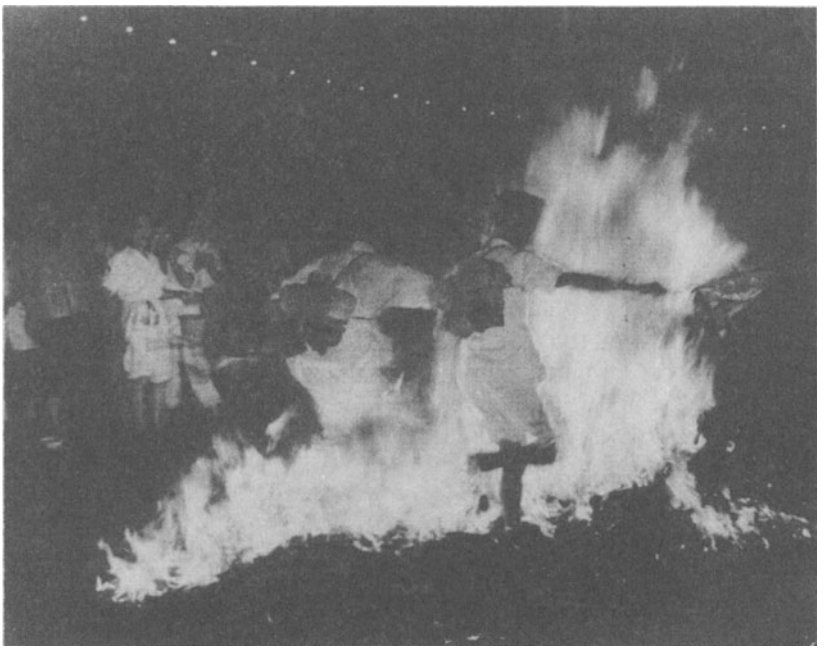
There are a number of hypotheses about why placebos can reduce pain. A popular explanation is that the patient's belief that a treatment will work activates the release of substances in the body called *endogenous opoids* (from *endogenous*, meaning 'developing from within' and *oid* meaning 'resembling') which inhibit the transmission of pain signals (Fields and Levine, 1984). But why a belief that having taken something to make the pain better should stimulate the body to produce more pain relieving substances is still unclear. Another explanation is that the placebo effect acts at a 'higher' level in the brain. One of the main functions of pain is to signal to the brain that something is wrong; if a person takes a placebo and believes it to work then the brain does not need to monitor the pain anymore since the treatment is in place. Thus the brain sends messages to inhibit the

transmission of pain signals, and the individual experiences a reduction or extinction of the pain.

Culture

There are cultural differences in both the response to pain and the behavioural expression of pain. Melzack (1973) presents striking evidence of the way in which in some cultures under certain circumstances respond to apparently excruciating pain with no visible reaction. In some remote Indian villages a hook swinging ceremony takes place, in which a young man has two hooks inserted into his back, is hoisted onto a pole and paraded from village to village. Melzack (1973) says that during the whole of this procedure the young man seems to display no pain. It is impossible to measure the exact amount of pain experienced by the young man, but by most people's standards the hook swinging ceremony would be judged to be unbearably painful. This response to pain is further evidence that the meaning of the situation, for example, its religious significance, is important in the experience of pain.

There are also cultural differences in the behavioural response to pain. Zborowski (1969) found that expressions of pain differed among ethnic groups in medical settings and suggested that the differences



The meaning of the situation can be important in the experience of pain.

were due to the attitudes and values of the ethnic groups. Third-generation Americans were found to respond to pain in a 'matter of fact way' and as if they should be good, uncomplaining patients. A sample of Irish patients was found to be similar in the expression of pain, but they chose to communicate their suffering to observers. More overt responses were observed in Italian and Jewish samples. The Italians felt that pain should be avoided at all costs, whereas the Jewish sample was much more concerned with the memory of the pain.

While culture does seem to affect the expression of, and response to, pain, nurses should beware of falling into the 'stereotype trap'. Davitz and Davitz (1985) found that although their sample of American nurses strenuously insisted that they weren't influenced by stereotypes, and treated all patients as individuals, it was found that they did tend to share generalised beliefs about patients.

Emotion

Kleinknecht and Bernstein (1978) posted anxiety questionnaires to a sample of patients before they came for dental treatment. They measured attendance, split the patients into high and low anxiety groups and asked the patients to indicate how much pain they had experienced during their appointment. The high- and low-anxiety groups were compared and it was found that the high-anxiety patients reported more pain than the low-anxiety patients. This difference was not due to the type of treatment, since similar procedures were adopted for all patients. Therefore, it seems that there is a connection between anxiety and pain. Walding (1991) reviewed the relationship between pain and anxiety for patients undergoing surgery. The conclusions were that there was a relationship between pain, anxiety and perceived powerlessness. Decreasing perceived powerlessness reduced anxiety, and thus helped to reduce pain.

Cooper *et al.* (1987) found an association between levels of stress in children and migraine headaches. Children who suffered from migraine were asked to keep diaries of their headaches over a four-month period. It was found that migraine sufferers with high levels of anxiety had more frequent and severe headaches than those with lower anxiety. The relationship between pain and anxiety can therefore be seen to be circular. The fear of pain or the anticipation of high pain levels will increase anxiety, which in turn will lead to a self-fulfilling prophecy, because an increase in anxiety will lead to an increase in pain sensitivity.

Personality

One of the tests that has been used extensively in the analysis of pain is a personality test called the *MMPI* (*Minnesota Multiphasic Personality*

Inventory). Connolly *et al.* (1978) gave a sample of 80 women the *MMPI* and then monitored their pain and anxiety levels during childbirth. They found that women who scored highly on the 'anxious–depressive' scale of the *MMPI* displayed higher levels of pain and anxiety. Further, Rapport *et al.* (1987) highlighted the differential personality characteristics associated with chronic and acute pain. Individuals who suffered from chronic back pain showed an *MMPI* profile characterised by high levels of neuroticism, while individuals with acute pain recovering from injury showed slightly elevated neuroticism scores but scores which were nevertheless well within the normal range. These findings also indicate the different psychological effects which can result from conditions that are expected to end soon compared to those that may never cease.

Memory

Lander *et al.* (1991) examined 138 children aged between 5 and 17 years-old who were attending an outpatient lab for venipuncture. The children reported their anxiety and expected pain levels before venipuncture, immediately after their visit and two months later. Four patterns of response were identified when prediction recall and accuracy were examined (see Figure 10.1). The largest group (n = 74) was labelled *realistic* since experienced and recalled pain scores were comparable. Many children in this group also had expected pain that was equivalent to their experienced and recalled pain. A second group (n = 23) was identified for whom the experience seemed irrelevant – recalled and expected pain were the same no matter whether the experienced pain was high or low. A third group (n = 23) was designated *overreactors* because more pain was recalled than had been experienced or expected. Finally, the fourth group was labelled the *denial* group as they recalled having very little pain despite expecting and experiencing mid to high levels of pain. These findings indicate that memory for pain is not always accurate, and that children possess different types of coping strategy to deal with painful experiences. With respect to older people aged between 55 to 87 years old, Walmsley *et al.* (1992) found that memories of prior pain experience had a significant effect on expectations about post-operative pain. Ratings of past pain experience correlated significantly with pain expected post-operatively.

Assessment of pain

A study by Camp and O'Sullivan (1987) found that nurses were not very good at finding out about patients' experiences of pain. Nurses were observed to document less than 50 per cent of what the patient

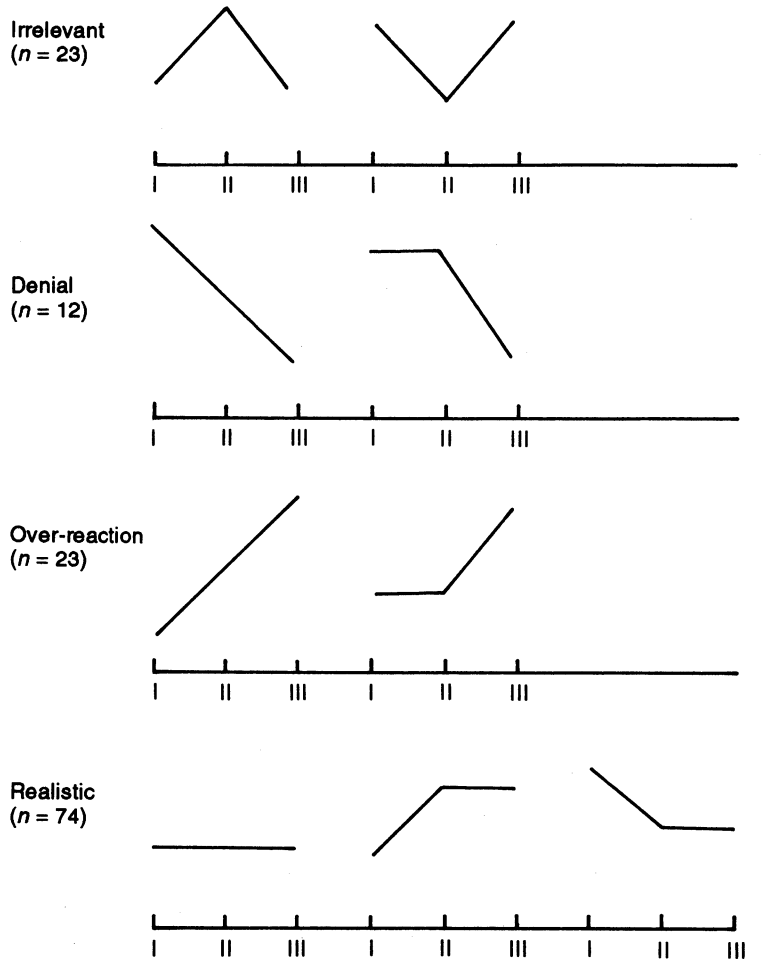


Figure 10.1 *Expected pain; II: experienced pain; III: recalled pain. Four main patterns of responses, including variations in each category.*

reported as pain, and these findings show that some nurses do not give sufficient importance to patients' reports of pain. Harrison (1991) also points out that nurses often provide inaccurate and biased estimates of their patients' pain. There are several methods of assessing pain, and they may be grouped under the following headings: *self-report methods, psychophysiological measures* and *behavioural assessment.*

Self-report measures

One of the easiest and most direct methods of assessing pain is to ask the patient to indicate the degree of discomfort on a rating scale. *Visual*

analog scales use a ten centimetre-long line with 'I have no pain' at one end and 'My pain is as bad as I can imagine' at the other. The patient marks a point on the line equivalent to the pain's intensity.

A second type of scale, the *category scale*, uses a line but has the following categories of pain interspersed along it: **No pain**; **Mild**; **Discomforting; Distressing; Horrible; Excruciating**. La Montagne *et al.* (1991) found that when children rated their pain using a visual analog scale, there was a significant correlation between the nurses and physicians' ratings of the childrens' pain, and their own ratings of pain.

Pain questionnaires are another type of self-report procedure. The most famous is the *McGill Pain Questionnaire (MPQ)* which consists of a list of words categorised into dimensions that include 20 subclasses which describe pain. The sensory dimension includes the temperature subclass hot; burning; scalding; searing; while the affective dimension includes the fear subclass fearful; frightful; terrifying. This questionnaire has proved useful in both the research and clinical domains and has helped to distinguish different patterns of pain. For example, people suffering from toothache will choose different patterns of words in the *MPQ* from people suffering from arthritis.

Psychophysiological measures

Another range of techniques involved in measuring pain uses psychophysiological indices. As pain tolerance is associated with heightened autonomic activity, measures such as heart rate and skin conductance have been employed to indicate levels of pain. Further, muscle tension has also been linked with pain, hence the use of the electromyograph (EMG), which measures electrical activity in muscles, to assess various pain states. Finally, the electroencephalograph (EEG) is used to measure evoked potentials, the sharp surges or peaks of electrical activity in the brain. Chapman *et al.* (1985) found that the amplitude of these evoked potentials increased with the presence of pain and decreased when analgesics were administered to the patient.

The advantages of psychophysiological measurements over self-report methods are that they do not suffer from response bias. When asked about their pain, people may not tell the truth, but it is very difficult to fake psychophysiological measures. However, changes in autonomic functioning, muscle activity and evoked potentials also happen in response to other stimuli besides pain, and therefore can give an inaccurate picture of purely pain experience.

Behavioural assessment

The *UAB (University of Alabama in Birmingham) Pain and Behaviour Scale* was developed for use by nurses in the course of their everyday ward

routines (Richards *et al.*, 1982). The nurse has the patient perform several activities and rates their behaviours in such areas as patient mobility and use of medication on a 3-point scale labelled 'none'; 'occasional'; 'frequent'. The ratings are added up to provide a total pain score. The authors suggest that the scale is easy to use and acts as a valid and reliable behavioural measure of pain. It is also useful in training nurses to become more aware of the nature of their patients' pain.

Pain managment

The majority of methods used to reduce or alleviate pain involve some kind of pharmacological treatment. However, a number of psychological approaches have been devised to moderate the experience of pain.

Acupuncture

Acupuncture is the process of inserting fine needles under the skin at selected points and vibrating them. The Chinese have been practising acupuncture for over 2,000 years, and the ancient Chinese thought that life energy flowed through pathways in the body, called *meridians*. Pain could be relieved by inserting a needle at specific points in the body, reducing the life energy passing through the meridians. Unfortunately there is no evidence of these meridians but there is evidence of the effectiveness of acupuncture at reducing pain. So how good is it? Melzack and Wall (1982) reviewed the evidence for the efficiency of acupuncture in relieving, and in some cases removing, pain. They came to several conclusions

- Only a small proportion of the population are likely to benefit from acupuncture. Even in China, physicians perform less than 10 per cent of their operations using acupuncture analgesia.
- Acupuncture is rarely effective for surgery in Western cultures and may only produce mild analgesia.
- Patients who benefit most from acupuncture have shown themselves to be open to suggestion and easily hypnotised.
- Acupuncture does not appear to be a success in ameliorating long term, chronic pain.

Hypnosis

Barber (1986) tells of a surgeon in the latter part of the nineteenth century who removed a cancerous tumour from a woman's breast using hypnotism to control the pain. During the procedure, the

woman was able to engage the surgeon in conversation and showed no signs of feeling pain. This situation contrasts with the widely-held picture of a hypnotist seated in front of a person swinging a gold watch on a chain saying 'You are going to sleep, you are going to sleep'.

In fact the hypnotic procedure varies enormously from altering a patient's negative perception of pain to developing deep feelings of relaxation that are incompatible with pain. The main question, as with acupuncture, is 'Does it work?'. The short answer is 'Yes it does, but only with a limited number of the population'. For some individuals hypnosis can produce pain relief very quickly and dramatically. For others it may only produce a temporary unawareness of what is going on around and about the person. Indeed, Barber (1982) has likened the process of becoming hypnotised to becoming involved in a good book, and suggested that there was a link between suggestibility and hypnotism. He proposed that:

a. People often show as much pain relief when given suggestions about how they are feeling as when they have been hypnotised;

b. those people who are highly suggestive receive the most pain relief;

c. distraction is often used in association with suggestion to reduce pain. (Barber, 1986.)

This last point fits in well with the view of Pennebaker (1984) who regards distraction as evidence of the role cognitive components play in diverting attention away from the internal sensations of the body. Thus an individual is likely to feel more pain when the external environment is boring than when it provides distractions to absorb the attention.

Hilgard and Hilgard (1975) take an opposing viewpoint with regard to the mechanisms of hypnotism. Suggestions may *modify* the emotional response to pain, but hypnosis actually *blocks* a large amount of pain from awareness and therefore being under hypnosis is an altered state of consciousness. As evidence for their claim, they report an experiment on the *hidden observer phenomenon*. The participant was hypnotised to feel no pain in one arm and then asked to immerse this arm in a bucket of ice-cold water. The activity of the other arm was to be kept out of awareness. The person was required to rate how much pain they experienced in the immersed arm on a scale from 0 (no pain) to 10 (unbearable pain). The participants in the experiment invariably reported 0. They were also asked to use the same numerical scale for the hand that was out of awareness, but they would not be aware of what the hand was writing. While the subjects were overtly describing a 0 degree of pain, the hand out of awareness was writing 2, 5, 7, and 9 degrees of pain. Hilgard and Hilgard say that the hidden observer in the

participant's brain was reporting normal pain while the hypnotised part of the brain was facilitating no pain at all. Thus the experimenters suggest that the mind is capable of blocking and monitoring pain at the same time. Hypnotic procedures can prove a useful source of pain relief to some people in some circumstances; however their widespread use by large numbers of individuals is unlikely.

Cognitive restructuring

Recently, there has been considerable interest in the relationship between people's thoughts and their experience of pain. The term *cognitive restructuring* refers to the ways in which people are able to manipulate the way they think about pain in order to reduce the harmful effects of the experience. Essential to the concept of cognitive restructuring is the idea of control. There are two forms of cognitive control: *informational* and *strategic.*

Informational control

Informational control may be defined as 'the provision of information which enables people to predict accurately what is about to happen to them'. An experiment illustrating the use of informational control in the alleviation of pain was conducted by Johnson (1975). In a laboratory setting he exposed three groups of male participants to pain. One group was given information about the types of physical sensations they might be expected to experience as a result of the procedure; a second group was given information about the procedure, but no details about the sorts of sensations to expect; and a third group was not given any instructions at all. Johnson found that information about the nature of physical sensations likely to be experienced significantly reduced discomfort. Providing the second group with details of the procedure itself produced levels of discomfort no different from those of the control group who had received no instructions at all. The intensity of the sensations was similar for all groups, but more accurate expectations were associated with a significant reduction in distress.

Comparable findings have been found in the context of patients' preparation for surgery. However, when preparation involves a number of additional components, such as reassurance, emotional support and coping techniques, information about sensations alone is not enough in itself to reduce discomfort. Information needs to operate in conjunction with reassurance, emotional support and coping techniques to prove effective (Johnson and Wallace, 1990).

Strategic control

Cognitive strategies can be classified into three types: *distraction*, *imagery* and *reinterpretation*.

Distraction – many people suffering from headaches or toothache have found that becoming engrossed in a task often negates the awareness of pain. Thus, actively engaging a distraction strategy can reduce pain. Sometimes the strategy may be passive (looking at a picture, listening to a tape) or active (singing a song, solving problems).

Beales (1979) performed a study on twelve children attending an accident and emergency department. The children, who were aged between five and thirteen years old, were observed whilst a nurse sutured a wound. The nurse tried to distract the children by talking to them whilst hiding the first suture from the child's sight. Beales noted that whenever the nurse said something like 'There, that didn't hurt, did it?', the children reported pain on subsequent sutures. Further, they found that children experienced more pain if comments were made on the unpleasantness of the wound, such as saying 'Ugh! That looks a bit of a mess, doesn't it?' Beales summarises the findings of the study as follows.

- Sometimes nurses feel they have to justify giving information about pain in order not to deceive patients. This practice may amplify the pain experience.
- Pain may be increased by the nonverbal behaviour of parents suggesting the procedure is painful.
- When their cases were being discussed, the children sometimes would misunderstand and exaggerate what was being said, thus leading to more pain and distress.

McCaul and Malott (1984) reviewed studies on the effectiveness of distraction in reducing pain and concluded that it is a useful technique as long as the painful stimulus is not too severe (for example, sutures, injections, dental drilling, early stages of childbirth). As pain increases, the ability to use distraction techniques becomes harder and harder. Also, the distractive task must attract a relatively high degree of attention and involvement on the patient's part to maintain the diversion. More recently, McCaffery (1990) says that recent research supports some of the older methods of pain control such as distraction (especially humour) and cutaneous stimulation.

Imagery – guided imagery is a strategy that asks the patient to imagine a mental scene incompatible with the pain. Usually the scenes are pleasant ones of beaches or meadows, but not always (see *Exercise 10.1*).

Exercise 10.1 Use of guided imagery

The following is an example of a visualisation strategy to deal with pain resulting from a cut hand.

Stage One. Sit down in a comfortable chair in a quiet room. Take some time to relax your body using a relaxation exercise that suits you. In your mind's eye, try to picture yourself sitting in the chair. Allow your body to merge with the visualised figure so that you feel you are the figure sitting in the chair in your mind. Try to think of your body and your image as identical twins, fitting perfectly together.

Stage Two. In your mind's eye, look at your hand. See it slip like a glove from the body. As it moves away from you, it grows larger and larger, until it becomes as big as a house standing just twenty yards away from you sitting on its base at the wrist.

Stage Three. Stand up in your mind-body and walk towards the hand. When you are about halfway there, turn around and see your other body, sitting in the chair. Say to it 'Cross your legs' and it does so. If it doesn't return to the chair and try again. When you see your other body cross its legs, the conditions are right for you to proceed to the hand.

Stage Four. When you reach the hand, you notice a door which you open and walk through. The hand is hollow, and a ladder is against the wall of the hand on the side of the palm and alongside the wound. On the floor are some patching materials, some tape and glue. You place these materials in the bucket and start to climb up the ladder to begin your repair to the cut.

Stage Five. You repair the cut in whatever way seems best to you. You might want to place glue on the edges of the cut, position the patching material, and secure it with tape. After you have patched it up, quietly watch it for a few moments to make sure it is firm. When you are sure, climb down the ladder. However, if the patch starts to slip, start your repair again and continue till you have a patch that will hold.

Stage Six. When you have achieved your desired results descend the ladder, put the materials back on the floor, go out of the door, walk back to your body, and turn around and sit down.

Stage Seven. You look at your huge mind-hand and notice there is no wound. The hand gradually shrinks as it slowly moves towards you. Finally, when it is the right size, it slips back into place just like a glove.

Stage Eight. Relax for a while, then open your eyes feeling good. Ignore your hand initially, allowing time for the body to integrate the visualisation without interference.

(This exercise may also prove useful for people who are anxious about dental care. In that case, a tooth should be substituted for the hand.)

The imagery technique is in many ways similar to distraction. The main difference is that imagery is based on imagined rather than real

stimuli and thus does not have to depend on the environment to furnish distracting situations.

Reinterpretation – this is where the patient substitutes constructive thoughts for ones that arouse harm and pain. Fernandez (1986) says that the pain experience can be redefined by using reinterpretative self-statements. These self-statements may try to reduce the unpleasantness of the situation by containing messages such as 'It's not the worst thing that could happen to me, and just think of the benefits later on', or they could redefine the context completely. An example of the latter process would be asking a person who has her hand in icy water to think of herself as the hero of an Eskimo settlement which has become dangerously short of food. In order to feed her family she has cut a hole in the ice to get fish. She knows that if she holds a small piece of bread under the water as bait it will attract fish. It is only a matter of time, she has to hold her hand under for a few more minutes and she will have saved her family.

McCaul and Malott (1984) suggest that both distraction and imagery are particularly useful for mild pain, and cognitive reinterpretation is beneficial for higher levels of pain. Cognitive restructuring techniques can be used in conjunction to provide a multimodal treatment programme. Turk *et al.* (1993) encouraged participants to increase their resistance to pain and stress by giving them a general instruction about the nature of pain; training participants to relax; providing a selection of restructuring strategies; asking participants to imagine the painful situation and their reactions to it; and getting them to play the role of a teacher instructing someone else in the procedure.

The experimenters provide evidence of the effectiveness of this treatment programme in the alleviation of chronic pain in particular. However, it is not always possible to spend the appropriate amount of time needed to develop suitable pain management skills.

Pain behaviour

The behavioural approach to pain concentrates on the observable features of pain behaviour. The three learning mechanisms that characterise pain behaviour are:

a. **operant conditioning**;
b. **classical conditioning**;
c. **modelling**.

Operant conditioning

Operant conditioning is underpinned by two key concepts: *reward* and *punishment*. Pain behaviour is frequently related to some form of

reward. If something desirable occurs whenever a person displays pain behaviour, such as attention from a spouse or parent, that behaviour will be reinforced and is thus likely to be prolonged or repeated. Sometimes pain behaviour involves negative reinforcement, such as avoiding something undesirable like a stressful job or avoiding contact with a threatening person.

It might seem proper to respond to someone in pain in a supportive and attentive fashion, but according to the operant approach to pain this will only result in rewarding the pain behaviour. Giving a person attention every time they report pain will increase the pain behaviour because attention acts as a reward. Varni and Thompson (1986) describe how the rehabilitation of a three-year-old girl with severe burns was hampered by rewarding pain behaviour. On trying to walk the girl cried 'Ow! My leg hurts'. The nurse replied quickly 'I'm sorry it hurts so much – can you show me where? Maybe we had better do some exercise some other time.' This resulted in the physical therapy esssentially being terminated because of the patient's interfering pain behaviours. Pain behaviours such as crying, complaining of the pain, and resisting the nurse's efforts to put her splints on were maintained by the hospital staff's attention to those behaviours, thus allowing her to avoid unpleasant activities such as physical therapy. Varni and Thompson decided to change the situation by instructing the hospital staff to ignore the pain behaviours instead of giving them attention; give rewards for suitable behaviour – 'If you don't cry while I'm doing this, you can have some chocolate cake after'; and commend her every time she engaged in adaptive activities.

These changes had a startling effect in decreasing the child's pain behaviours. She started to comply with the nurse's requests for exercise, and to assist the nurses in her physical care.

Classical conditioning

Classical conditioning can explain how features of the environment which were previously unconnected with pain can take on huge significance. If a person with chronic back pain goes for a walk and at the end of 100 feet always experiences intense pain, then the distance of 100 feet gradually becomes associated with back pain. The person has become conditioned to respond to the distance of 100 feet rather than to the actual amount of walking. Furthermore, when the critical distance is about to be reached, increased anxiety about the imminent pain will occur.

Another example of the process of classical conditioning in pain is the case of a patient with chronic lumbar pain. This patient used to report increased pain and muscle spasm around about the time he was

going to sleep on the ward. Thus he began to associate going to sleep with the muscle spasm and experienced considerable anxiety in the evening when the time to go to sleep approached. This anxiety, in turn, enhanced the pain and pain behaviour. Another person may have experienced pain when given an injection in the past, so that injections have become associated with pain. The traumatic experience may not have initially occurred in hospital, but it has become generalised to all needles in all settings.

Modelling

Modelling – one of the best illustrations of the way in which a 'model' can influence the experience of pain is provided by Craig and Prkachin (1978). In this experiment, volunteers were exposed to a series of electric shocks. The shocks ranged in intensity on a scale of one to five and participants were required to rate them for painfulness. Physiological measures of skin conductance and heart rate were taken. The electric shocks were given to the volunteers in the presence of a confederate of the experimenters who also was thought to be receiving shocks but actually did not receive any. In the experimental condition, the confederate always rated the shock after the volunteer and on each occasion her ratings were 25 per cent lower. In the control condition, the volunteer was unaware of the confederate's perception of shock. The results of the study showed that those participants exposed to the 'pain tolerant model' reported less discomfort than the participants in the control condition. More importantly, the physiological data indicated that heart rate and skin conductance were significantly lower for those subjects who were exposed to the pain tolerant models. The experimenters propose that exposure to someone who seems to be experiencing less pain, results in the patient not only reporting less pain, but actually seeming to experience less pain.

Nursing implications

The type of pain management procedure chosen will depend in part on the nursing context. Thus, procedures used in accident and emergency departments will not necessarily be applicable to patients being prepared for surgery or patients with chronic pain. The following represent some general guidelines relating to the context-specific nature of pain management.

- As anxiety is related to pain, nurses should try to reassure the patient by talking and developing a therapeutic relationship. The mere fact that a nurse is there and talking to a patient often reduces

anxiety. Patients arriving in accident and emergency departments are often anxious because they do not know how long they will have to wait, so explanations about estimated waiting time along with explanations of how the department functions can reduce a patient's anxiety.

- One of the main problems for patients going into hospital is their perceived lack of control. Ways in which nurses can give patients a greater sense of control are to provide information as above, but also to try to involve the patient in their own care by asking them to hold the end of a bandage or move a limb in a particular way.
- The nurse should possess a repertoire of pain management techniques and try to match them to the specific situation and to the specific patient. This is not always easy but can be achieved if the nurse is able to talk to the patient about their normal patterns of coping with pain and determine the ways in which the patient explains the cause of events.
- Finally, it is important to consider the relatives of the patient. Often it is easy to become wrapped up in the care of the sufferer without realising what the consequences are for relatives or friends. Seeing someone whom you love and care for in pain can be an extremely distressing experience, and therefore attention to the needs of relatives is important as well as care of the patient.

Whilst some studies have indicated that nurses' knowledge of pain is not what it might be (Ferrell *et al.*, 1992), they also indicate that this lack of knowledge can easily be reversed given appropriate training (Hamilton and Edgar, 1992).

II Stress and Coping

There is no doubt that stress has become a very fashionable concept for explaining a wide variety of conditions. It has been used to designate psychological symptoms preceding an illness, feelings of anxiety, discomfort, arousal, and many other conditions. Attempts to define stress are hampered by this broad collection of concepts and contexts in which the term is used. We can, however, look at different models of stress: physiological and psychological, the different types of cognitive appraisal techniques that are used to cope with stress and the various methods of stress management.

The nature of stress

Stress can be conceptualised in three ways.

1. **Stress as a stimulus**. This view sees stress as something that happens to us, perhaps arising from having a highly stressful job, or being put under pressure by not having time to complete tasks. Events and circumstances conspire to cause feelings of tension that can be interpreted as stress.
2. **Stress as a response**. Sometimes stress refers to how we respond to situations. The expression 'being wound up' is a perfect description of how stress can occur as a product of the ways in which we react to people and to circumstances. A person's response to stressors is usually termed *strain*.
3. **Stress as a transaction**. Stress can be both a stimulus and a response. Often, people become so tired that they worry about whether they can do their job properly. On the other hand, having to perform a particularly demanding task can cause tiredness. There is a transaction between people and their environments, resulting in each affecting, and being affected by, each other.

A physiological model of stress

Selye (1956) proposed that the body's response to stressful stimuli occurs in three stages. He called these stages the *General Adaptation Syndrome (GAS)*.

Stage 1 – the alarm reaction. Blood pressure initially drops below normal, then rises quickly. The pituitary gland produces adrenocorticotropic hormone (ACTH), which stimulates the adrenal glands to secrete adrenalin into the bloodstream. This reaction is sometimes known as the 'fight or flight' response because it enables the organism either to face up to the stress or run away from it. The high level of arousal cannot be maintained for very long and if the initial stress is too severe and persists, then the organism may die in this stage.

Stage 2 – the resistance stage. If the stress continues but is not strong enough to cause death, the body goes into a stage of resistance. The pituitary still produces ACTH and the adrenal cortex continues to produce glucocorticoids which stimulate the conversion of fats and proteins to sugars, thus producing energy. Arousal decreases somewhat and the body starts to replace the hormones released by the adrenal glands. Often there are few outward signs of stress but the ability to resist new stressors is reduced. Many stress-related diseases occur in this stage. The glucocorticoid hormones inhibit the formation of antibodies and decrease the formation of white blood cells. In males,

sperm production drops and in females, the menstrual cycle is disrupted.

Stage 3 – the exhaustion stage. If the stress continues, the body's ability to maintain its resistance ultimately collapses. Disease and physiological damage are likely to occur, resulting in breakdown.

According to Selye (1956), this physiological response pattern occurs regardless of the nature of the stimulus. Cold, electric shock, illness and emotional conflict will all produce the same response pattern. However, the model cannot explain why in some cases one person will experience stress while another will not, as exactly the same situation can produce GAS in one individual and not in another. It is not whether the event is stressful or not, but whether a person **thinks** it is stressful. This may be termed *cognitive appraisal*, and according to Bakal (1992) the psychological perception of threat is far more important than a simple analysis of the physiological effects of heat, shock and trauma on the body reserves.

A psychological model of stress

The psychological perspective emphasises the importance of how stressors are interpreted by individuals. In what has become a famous experiment, Richard Lazarus illustrated how presenting participants with different instructions altered their stressful experiences. Lazarus *et al.* (1965) showed participants a 13-minute black and white film about industrial accidents entitled *It didn't have to happen.* The film depicted three accidents: a man running the tips of his fingers through a ripsaw; a man losing his finger; and a worker being impaled by a plank of wood that had flown out of a machine. Participants were assigned to one of three conditions.

- *Control.* These participants were given no explanation of the events that they were about to see in the film. They were told to pay close attention to what was happening in the action sequences.
- *Intellectualisation.* This group of participants were told to analyse the film from an academic viewpoint. They had to view the film whilst assessing the internal dynamics of various situations. They were required to determine the effectiveness of the techniques used by the foreman to influence safety procedures and thus they had to try and view the film in a detached, analytical manner.
- *Denial.* The third group of participants were told that the events were all staged by actors using special effects and that nobody really got hurt in the film despite the vivid scenes.

Lazarus and his colleagues found that both the intellectual and denial instructions reduced the participants' emotional responses to the film.

Participants in the control condition had significantly higher heart beat rates and showed more skin conductance than the participants in the other two groups. Therefore, the experimenters concluded that varying the instructions reduced the emotional response to stressful sequences in the film by allowing the participants to appraise the stimuli in a less threatening manner. They had 'devalued the threat'.

One of the outcomes of this research programme was the development of a cognitive model of stress (Lazarus, 1966). The initial component of the model relates to the perception of threat. Any potential stressful stimulus is appraised in terms of the effects it may have on an individual and the consequences of their actions. Whenever a stressful situation occurs the first reaction is 'How much am I in danger from this situation?' This is called *primary appraisal.* Following the primary appraisal of threat comes a *secondary appraisal.* Here the individual asks 'What am I going to do and what are the likely consequences of my action?' Thus a nurse might find him or herself in a situation where the initial response is to worry about how he or she is going to be affected by the stress, then to be concerned about what he or she is going to do about it and how that is going to affect his or her life. Factors which influence the appraisal process are *social* and *cultural background* and *previous experience of similar situations.*

The next stage in the model is the use of coping mechanisms to deal with the stress. These are also classified into two categories: *problem-focused* and *emotion-focused.* Problem-focused strategies involve taking direct action with the stressful stimulus itself, and the individual tries to remove or reduce the threat. Emotion-focused strategies concentrate on altering one's reaction to the event.

Mary has some exams coming up in the next few days. These are important exams, and not surprisingly they are causing her a certain amount of stress because she is not sure if she will be able to pass them. A problem-focused coping strategy would be to either revise harder or decide not to take the exams. In each case the stress is confronted; in the first instance the stressful stimulus is reduced, and in the second it is removed. However, Mary feels that she can't just run away from her exams and has revised until she thinks her brains are going to burst. She decides to adopt an emotion-focused coping strategy. After her usual time revising in the library, she resolves to go home and have a nice relaxing bath, followed by reading a good book on the sofa. Tomorrow she thinks she might ask around to see if anyone is interested in going out in the evening to enjoy themselves. The stressful stimulus is still there but she has altered her response to it and now no longer feels quite so worried about passing her exams.

Nursing intervention techniques can be enhanced when they are consistent with the patient's preferred coping style. Martelli *et al.* (1987) found that patients with problem-focused, emotion-focused or

mixed-focused coping styles were able to cope more effectively when these styles were matched with appropriate interventions. They also noted that the mixed focus intervention was the most effective strategy, indicating that it is important to tackle stress from both problem- and emotion-focused viewpoints.

A central concern in nursing practice is the use of denial and intellectualisation coping mechanisms to deal with stressful situations. Bakal (1992) suggests that one of the reasons why some nurses are good at hiding their emotions is because they are in fact not feeling any emotion. Continual exposure to particularly stressful stimuli may result in an increased use of intellectualisation as a coping strategy. This may serve to distance the nurse from the stressful stimulus. However, if this stimulus is a patient or colleague, then the quality of interpersonal interaction could be affected.

Steptoe and Vogele (1986) attempted to replicate the Lazarus *et al.* experiment, using the same film about industrial accidents but changing one of the conditions. Medical students were allocated to one of three conditions: *control, intellectualisation,* or *sensation focusing* (which replaced Lazarus' denial condition). Participants allocated to the third condition were given instructions to concentrate on their emotional feelings and note their physical sensations while watching the film. Psychophysiological measures of heart rate and skin conductance were taken, as were subjective emotional responses to the film. The latter were measured using a symptom–emotion checklist based on one developed by Pennebaker (1982).

The results indicated no significant differences between any of the conditions on any of the measures except for the sensation-focusing condition which produced significantly lower levels of heart rate and skin conductance than the other two. It seems that, in this instance, intellectualisation did not work, whereas concentrating on one's sensations did. How may this finding be explained? One explanation is that the participants spent so much time concentrating on their sensations that it distracted them from the film. Leventhal (1990) put forward another theory that concentrating on finding labels for one's emotions serves to objectify the experience. It may be that sensation-focusing is a form of forced intellectualisation whereby the subjects have no choice but to try to interpret the sensory inputs in a nonemotional manner.

As with pain, involving patients in their own care can serve to intellectualise or objectify the experience, which may for some prove a useful strategy to reduce anxiety and stress. For others it may not work at all because they are adopting a counterproductive coping strategy.

Coping strategies

Another dimension to coping strategies is the emphasis on the distinction between those people (*blunters*) who tend to deny the stressful elements of a situation and those (*monitors*) who prefer to examine what is going on around them (Miller, 1987). (Other words that have been used by experimenters to describe blunters are *repressors, deniers, avoiders* and *information avoiders* and for monitors, *sensitizers, vigilants* and *information seekers* (Murray and Niven, 1992).) Miller developed a technique to measure people's preferred coping styles. She presented people with a series of scenarios such as imagining they were afraid of the dentist and had to have some dental work done, or being held hostage by a group of armed terrorists in a public building.

After each scenario the person is presented with eight statements, half of which are of the monitoring variety (for example, in the hostage situation: 'If there was access to a radio, I would stay near it and listen to the bulletins about what the police were doing') and half would be of the blunting variety (for example, in the dental situation 'I would do mental puzzles in my head').

Participants are asked to select the statements that reflect how they would react to the situations portrayed in the scenarios, and are categorised as either blunters or monitors on the basis of their responses. Clearly, the type of coping strategy that is usually adopted by a patient will have a significant effect on the effectiveness of nursing interventions. As has been suggested above, 'tailoring' interventions to match coping styles may lead to a greater reduction in patients' stress and anxiety.

A final dimension to coping processes is the cognitive/behavioural distinction. This is not so much a dimension as two distinct classifications. Curry and Russ (1985) reviewed the literature on the types of coping strategies used by children in stressful circumstances. (See *Table 10.2.*)

Table 10.2 *Coping strategies used by children*

Behavioural coping strategies
Information seeking. An attempt is made to gain information by asking questions and watching what is going on. Any medical instruments are inspected and their functions explored.
Support seeking. The child attempts to develop a supportive relationship with the nurse, involving physical and verbal interaction.
Direct efforts to maintain control. The child tries to participate in the treatment process or establishes limits and conditions.
Cognitive coping strategies

Reality-orientated working through. The child has specific, correct thoughts about procedures, before during and after treatment: 'The cut looked quite big, so I thought I would probably have to have stitches for it to mend properly.'

Positive-cognitive restructuring. The child attends to positive factors of the treatment programme: 'I tried to think good thoughts and that I would be getting a present at the end of it.'

Defensive reappraisal. Superstitious thoughts and an attempt to deny the stressful elements of the situation: 'I thought the needle was really made of rubber and just squirts water. It wasn't really going into my arm.'

Emotion-regulating cognitions. Self-statements to allay fear and anxiety: 'I said to myself, God is with you so don't worry.'

Behaviour-regulating cognitions. Self-statements aimed at controlling and regulating behaviour during treatment: 'I told myself to try and keep still.'

Diversionary thinking. Diverting thoughts away from the situation: 'I tried to concentrate on the Garfield poster on the wall.'

More research is needed on the extent to which anxious people are more likely than non-anxious people to use specific strategies; whether young children use different coping strategies to older children; and the developmental factors that influence the different choices of coping strategy.

Stress management

'Every time someone tells me to "just relax" I know something nasty is going to happen to me' – comment from a patient.

Over the years, people develop a variety of techniques to manage stressful circumstances. Unfortunately some of them, whilst successful in the short term, may prove counterproductive in the long term. A few drinks after work may lead to a dependency on alcohol and actually increase stress over a period of time. Sometimes people find themselves in novel stressful situations where their previous coping strategies seem inappropriate. Thus there is a need to give people help in learning new and successful ways of managing stress. I will now examine some of these techniques.

Relaxation

Relaxation is a skill. The ability to relax can be developed in much the same ways as interpersonal skills can be developed – with practice. There are a number of techniques that have been constructed to help people relax, the most common being progressive muscular relaxation. Edmund Jacobson (1929) thought that all forms of tension, including

mental tension, were based on the contraction of the muscles. Thus, if people could be taught to relax their muscles, their minds would become relaxed too. The technique is based upon the fact that every time a muscle contracts it creates a series of neural impulses that are sent to the brain. If many muscles are activated, tension is created. Progressive muscular relaxation aims to teach individuals to recognise when excessive muscle contraction occurs and provides training in how to relax these muscles.

Another relaxation technique concentrates on breathing and is known as deep diaphragmatic breathing. This can function as a relatively brief relaxation exercise, and after practice can be reduced to just a few minutes. As the exercise is relatively unobtrusive and also, with practice, short, it can be used in all sorts of stressful situations.

The diaphragm is a large sheet of muscle extending across the lower edge of the rib cage under the lungs and attached to the back. If we use it to facilitate our breathing, it can help us to breathe more deeply and to relax more fully. Most people tend to breathe using the muscles around the chest. To use the diaphragm correctly the abdomen should move outwards when you inhale and pull inwards when you exhale. When achieved, this technique will fill the lungs more fully and the body will receive more oxygen.

Exercise 10.2 Relaxation

- If you are able, assume a comfortable position and close your eyes.
- Become aware of your breathing.
- Notice whether you are breathing through your nose or your mouth.
- Notice the pace of your breathing.
- Notice all the muscle groups in your body. Which are tense and which are relaxed? (Those who have practised progressive muscular relaxation have an advantage here.)
- Become aware of your breathing again.
- Begin breathing through your nose, exhaling through your mouth.
- Continue, and try to breathe more deeply. To assist you with this you can now use your diaphragm. As you inhale, push your abdomen outwards so as to draw your diaphragm downwards and fill your lungs more fully. As you exhale pull your abdomen inwards so as to expel air. Try this for a couple of minutes. (You may wish to use your hand to monitor the movement of your abdomen).
- As you continue to breathe try to hold your breath for a few seconds. Inhale to a count of four . . . 1 . . . 2 . . . 3 . . . 4. Hold it for a count of four . . . 1 . . . 2 . . . 3 . . . 4. Exhale slowly to a count of eight . . . 1 . . . 2 . . . 3 . . . 4 . . . 5 . . . 6 . . . 7 . . . 8. (Repeat a couple of times)
- As you continue, monitor the sensations within your body, particularly when you exhale, and notice the relaxing effect of breathing out slowly and rhymically.

The evidence for the effectiveness of relaxation techniques in reducing stress tends to be ambivalent. In a review of the literature, Borkovec and Sides (1979) found some studies had suggested very little difference between relaxation groups and control groups. One of the reasons for these findings is that many of the studies used different measures of stress and this may account for the discrepancies. Another explanation is that relaxation reduces stress not so much by reducing muscle tension, but by arousing pleasant thoughts in people while they are completing the exercise (Peveler and Johnson, 1986). More simply, relaxation may not be effective in reducing stress because people are not prepared to spend the time in practising the technique properly and therefore do not reap the benefits. However, Wynd (1992) used relaxation training to reduce the stress associated with relapse rates in smoking cessation. As the relaxation was learned by the patients, the perceived stress was reduced and smoking abstinence was maintained.

Biofeedback

Biofeedback is a technique which monitors the status of a person's physiological processes (such as heart rate or muscle tension), amplifies them, and feeds the information back to the individual. Budzynski (1973) said that biofeedback training has three objectives:

1. to develop an increased awareness of internal physiological states;
2. to establish control over these states;
3. to be able to transfer this control from the clinic to everyday situations.

The last objective is particularly important, for if the patient cannot use the technique in a context other than the laboratory or clinic then the usefulness of the method is limited to say the least. Miller (1978) found that whilst patients were able to reduce their blood pressure using biofeedback training in the laboratory, when they returned to their natural environment the changes were not always maintained. However, when biofeedback was combined with other techniques such as breathing and relaxing self-statements, Blanchard *et al.* (1988) found it to be an effective treatment for hypertension. Furthermore, patients were able to obtain these results in their own homes.

A number of years ago Meichenbaum (1976) argued that when biofeedback works, it does so by creating the conditions for people to change their behaviour and their thinking from encouraging sickness to discouraging it. People's ability to control their muscles is generalised to an overall ability to be more in control of their lives. They may also pick up health-supporting attitudes from their therapists.

Meichenbaum is supported in his view by a case cited in Bakal (1992). A patient was an outstanding success in a biofeedback training programme designed to reduce her terrible headaches. After twelve biofeedback sessions she reported a near total disappearance of headaches. However, the physiological data indicated that she had gained little or no control over the muscle activity of her forehead. Scientifically, it seems that the function of biofeedback is quite complex and more research is needed to pinpoint exactly what is happening during the treatment programme. In the meantime, if it works for some patients, it doesn't really matter why.

The cognitive behavioural approach

The cognitive/behavioural approach to stress management emphasises the role of faulty cognition and irrational beliefs in the perception of stressful stimuli. Meichenbaum (1977) and Meichenbaum and Cameron (1983) have produced a stress management programme based on cognitive, behavioural prinicples which they have called *stress inoculation*. This technique begins with a phase designed to provide the patient with a conceptual framework for understanding the problem. The main goal of the initial phase is to change self-talk from negative to positive statements, in order to get patients to think differently about themselves. Patients are encouraged to react more objectively to stressful situations and to try to pay less heed to their emotional reactions. Thus a person who is prone to severe attacks of anxiety would be urged to first of all determine the circumstances that produce the anxiety. It is helpful if the patient keeps a diary of daily events and notes the behaviours and thoughts which accompany the anxiety attacks. This information can be used to inform the patient that anxiety involves physiological responses such as sweaty hands, increased heart rate, tense muscles, and so on. If patients can detect the physiological signs of anxiety, these may be used as cues to employ suitable coping mechanisms.

Cognitive coping may take the form of using strategies such as relaxation and deep diaphragmatic breathing to reduce physiological arousal, or it may take the form of focusing attention on the task in hand and not on feelings of fear. Details of the intensity and prospective duration of emotions are useful, as is an evaluation of patients' coping strategies. Thus there are three main phases to stress inoculation programmes.

1. *The conceptualisation phase.* Here the person learns about the nature of stress and how people react to it.

2. *The skills acquisition phase.* The person learns behavioural and cognitive skills to use in emotion-focused and problem-focused coping.
3. *Application and follow-through.* The last phase involves making the transition to using the coping skills in the real world.

An example of stress inoculation to deal with the management of anger is given by Novaco (1975). The importance of redefining or changing the structure of maladaptive thoughts is emphasised, along with conducting a situational analysis and using relaxation skills. Novaco recommends the stress coping thoughts listed in *Table 10.3* to deal with anger.

Table 10.3 *Stress coping thoughts (adapted from Novaco, 1975)*

1. Preparing for provocation.
This may upset me, but I think I know how to deal with it.
What is it that I have to do?
I can work out a plan to deal with this.
I can manage the situation, I know how to regulate my anger.
If I find myself getting upset, I'll know what to do.
There won't be any need for an argument.
Try not to take this too seriously.
This could be a testy situation, but I believe in myself.
2. Impact and confrontation.
Stay calm. Just continue to relax.
Just as long as I keep my cool, I'm in control.
Just roll with the punches.
You don't need to prove yourself.
There is no point in getting mad.
Don't make more out of this than you have to.
I'm not going to let this person get to me.
It's really a shame that this person has to act like this.
For someone to be that irritable, they must be awfully unhappy.
If I start to get mad, I'll just be banging my head against a wall. So I might as well just relax.
I can't change this person with anger, I'll just upset myself.
3. Coping with arousal.
My muscles are starting to get tight. Time to relax and slow things down.
Getting upset won't help.
It's not worth it to get so angry.
Let them make a fool of themselves.
I have a right to get annoyed, but let's keep the lid on.
Time to take some deep breaths.
My anger is a sign of what I need to do. Time to cope.
Try to reason it out.

Let's try a co-operative approach. Maybe we are both right. They'd probably like me to get angry. Well, I'm going to disappoint them.
I can't expect people to act the way I want them to.
Take it easy, don't get pushy.

4. Reflecting on the provocation.

a) When the problem is unresolved:
Forget about the aggravation. Thinking about it is only doing me harm.
Try to shake it off and think about something more important.
Relaxation is much better than anger.
These feelings will go away sooner or later. Let's make it sooner.
What about laughing at it? Is it really so serious?
Don't take it personally. Take a deep breath.

b) When the conflict is resolved and the coping successful:
I handled that one pretty well. It worked.
That wasn't as hard as I thought.
It could have gotten a lot worse.
I actually got through that without getting too angry.
I guess I've been getting upset for too long when it wasn't even necessary.
I think I'm getting better at this.

The importance of managing anger/hostility is illustrated by Barefoot *et al.* (1983). They examined the records of 255 physicians who had taken a psychological test that included a scale for hostility when they were in medical school 25 years earlier. Those with high scores for hostility were found to have rates for both coronary heart disease and overall mortality which were several times higher than those with low hostility scores. Maybe a further cognitive coping self-statement should be included – 'I'm not going to let this person kill me'.

Control

Research has found that people who feel that they have little, or no, control over events in their lives experience high levels of stress and anxiety. One factor that has been found to increase people's sense of control is predictability. Weiss (1972) gave three rats a combination of electric shock and tones. Two of the rats received small electric shocks to their tails, the third did not. The first rat heard a tone 10 seconds before the shock. The second rat was presented with a series of random tones totally unconnected with the shocks. Thus, the first rat was able to predict when the shocks would occur, the second rat could not. The third rat heard randomly presented tones but was given no shock. When autopsies were performed on the three rats it was found that there were significant differences in the amount of ulceration found in the stomach. The third rat who had received no shocks was found to have little ulceration of the stomach. The second rat, who was unable

to predict the onset of shock had extensive ulceration. The first rat, who was able to predict the shock had levels of ulceration similar to the rat who had received no shock at all. Both the first and second rats had received exactly the same stimulus but the degree of perceived control had determined its physiological effects.

One must always be wary of extrapolating results from animal studies to human behaviour; however, Rodin *et al.* (1979) have found similar results concerning perceived control using human subjects. In a densely packed lift, people who were standing close to the control panel felt less crowded and actually thought the lift was larger than those people who were standing some distance from the panel. Brown (1990) investigated the anxiety experienced by patients undergoing surgery for renal calculus disease. It was found that pre-operatively fear of general anaesthetic was a main factor, and post-operatively pain was the most commonly identified stressor. Careful pre-operative explanation was found to reduce stress.

In the hospital environment perceived control has been found to influence stress factors. Volicer (1977, see also Chapter 12) asked medical and surgical patients to rate hospital practices in terms of their perceived stressfulness. Events that were rated as very stressful included: people thinking they might have cancer; losing their sight; and knowing they had a serious illness. Most people would not be too surprised at these findings. However, other events that were rated as very stressful included patients not being told what is wrong with them; not knowing the results or reasons for treatment; or having questions ignored. Collectively these events may be construed as a lack of perceived control or the feeling of not knowing what is going on. It may not be possible to cure people with serious illnesses but the stress that occurs from patients not knowing what is happening to them can be reduced by using many of the interpersonal skills discussed in Chapter 1.

Control can be an important factor in preparing parents for their children's ICU experience. Miles and Mathes (1991) found that parents found the child's behaviour, the child's emotional response, and parental role alterations the most stressful events in the ICU. When parents were given adequate information they responded with lower levels of stress.

In many circumstances where patients are facing some kind of stress, a knowledge that they have some element of control will often help to dilute anxious feelings. Note that patients do not have to have *actual* control, but they do have to feel or think that they have some control or else stress and anxiety will usually follow. Thus nurses should try to improve predictability and create an atmosphere of control and mastery when dealing with patients who find themselves feeling anxious.

Social support

Can the presence of friends or relations reduce stress? The answer to this question is that social support *normally* has a beneficial effect in reducing stress,but not always (Callaghan and Morrissey, 1993). Social support may be defined as the help that a group of people such as family and friends provide, or are thought to provide, in stressful situations. Duck (1992) says that there are three important sorts of social support.

Emotional support. This refers to the knowledge that one is loved and cared for. It can be achieved by giving presents and compliments, expressing concern, taking an interest in other people's well being, arranging to spend time together, remembering special events and being prepared to listen without jumping in with solutions.

Esteem support. This type of support is concerned with providing people with the knowledge that they are valued and held in high esteem. Treating other's opinions as important, asking advice and allowing them to take the lead all contribute to a sense of self-esteem.

Network support. Knowing that one belongs to a network of mutual support.

These three types of support are developed through the exchanges of everyday life. They do not just exist when stress occurs, but are part of the results of dealing with friends during the course of daily life. One feature of social support is that it can provide a 'buffering' effect to stressful events. However, Cohen and McKay (1984) say that this buffering effect will only work under the following certain conditions.

Appropriate tangible support. Tangible support, such as the offer of money or care, will only be effective if it is viewed as warranted. Offers of inappropriate tangible support can result in feelings of inadequacy and indebtedness, which will inevitably compound a patient's problem.

Social acceptability. One way that social support acts as a buffer against stress is to help people redefine the situation as less stressful by turning to others who have experienced comparable circumstances for advice and help. This action will only be of use if the source of the stress is socially acceptable. Wortman and Dunkel-Schetter (1979) found that patients suffering from cancer were reluctant to discuss their condition and failed to seek out other cancer patients due to the stigma attached to their condition. Many cancer patients often avoided publicly stating that they had cancer. However, on the positive side, social support can enhance coping strategies by suggesting alternative

coping strategies based on other's previous experience and getting people to focus on the more positive aspects of the predicament.

Loss of self-esteem. Social support can play a significant role in elevating low self-opinion. Yet it will only be effective if a person's interpersonal relationships allow others to play a part in developing emotional support. If stressful events weaken one's feelings of belonging or being loved, emotional support can sometimes replace or strengthen these feelings.

When social support acts as a negative buffer to stress, it is usually due to the sorts of factors just mentioned. Help is not always offered in effective ways and when it is offered and not wanted it becomes intrusive and excessive. Finally, it is important to distinguish between the actual supportive behaviour of friends and kin and the way a person feels about the support that is an offer. A person may feel secure in the knowledge that he has a fully functioning support network who are ready to help whenever the need arises when in actual fact, this may not necessarily be the case. An important factor is the actual behaviour of people who constitute the support network. Gottlieb (1985) says that successful coping depends on the belief that others will provide help if asked and the actual manifestation of support in a crisis. Aaronson (1989) investigated perceived and received support during pregnancy. It was found that received support was just as important as perceived support in facilitating positive health behaviours such as abstinence from alcohol, cigarettes and caffeine.

In his book on the psychology of happiness Argyle (1987) concedes that negative buffering can occur and sometimes people leave a support group feeling worse than when they went in. This often happens when the sole purpose of the group is to grouch about each individual's particular problems. What constitutes happiness, according to Argyle (1987), is having a good time and being able to share it with one's friends and relations. Thus, the effectiveness of social support in ameliorating the effects of stress will depend to a large extent on the nature of the support and the context in which it is applied.

Multimodal stress management programmes

A number of people have suggested that stress management cannot be achieved through one procedure alone and that a multimodal approach is needed. Suinn (1980) developed a stress management programme consisting of two phases. Firstly, people are taught to reduce their exposure to situations which cause stress, for example deadlines, rapid paced activities and confrontations. Secondly, anxiety is reduced by the use of relaxation training techniques. This approach mirrors the

coping theories of Lazarus and Launier (1978) by emphasising a need to 'attack' the source of stress (*problem* or *active coping*) and then to try to deal with the impact of the stressor on the individual (*emotional* or *palliative coping*).

An advantage of multimodal stress programmes is highlighted by Pearlin and Schooler (1978) who say that having a particular weapon is one's arsenal is less important than having a variety of weapons. Thus Roskies (1987) advocates the use of a variety of techniques under three main headings: *physiological, behavioural* and *cognitive.* In her stress management programmes for healthy Type A individuals she starts by getting her subjects to recognise their own personal tension signs and the situations that provoke them. Subjects are required to complete a diary during the day, starting from when they wake up in the morning till they go to bed at night. They have to list the events as they occur, for example:

Woke up – Argued with son – Started work on a new project – Finished first draft – Had lunch – Late for meeting – Meeting exceedingly boring – More work on new project – Drove home – Had tea – Spoke to son about argument – Spoke to wife about son – Watched TV – Went to bed.

Each event is monitored for low, medium and high tension levels. Finally, tension signs are divided into their physical and emotional components. Thus some of the events would appear like this:

Event	*Tension level*	*Tension signs*	
		Physical	*Emotional*
Arguing with son	High	Knot in stomach	Anger/Frustration
Boring meeting	Low	Sleepy	Boredom
Project work	Med	Concentration	Resignation
Talk with wife	High	Tense shoulders	Anger/Guilt

The purpose of this stage of the programme is to: make people more aware of the situations that create tension in their lives; enable people to recognise their own personal tension signs; and determine the emotions associated with the tension signs.

Having developed skills in recognising tension, the next stage is concerned with developing skills to manage the tension. This is achieved by learning to discriminate between relaxed and tense muscles, being able to relax muscle groups using progressive muscular

relaxation and eventually, learning to use a simple command to relax the whole body. Once these new skills have been acquired they can be used to monitor and regulate tension during the day, prepare for potentially stressful situations such as interviews and meetings, and maintain self-control during a crisis.

The second stage in the programme involves behavioural stress awareness. Again, a diary is constructed of the day's events.

Travelling to college – Lectures – Lunch – Game of squash – Library – Going home – Tea – Work on essay – Read book – Go to bed

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Low, medium and high tension levels are assigned to each event. Tension signs now include a behavioural component. Table 10.4 gives examples of behavioural stress awareness.

Table 10.4. *Behavioural stress awareness*

Event 1:	Travelling to college, the bus is too slow.
Tension Level:	Medium
Tension signs:	a. Emotional/physical – impatience.
	b. Behavioural – keep looking at watch.
Event 2:	Eating lunch.
Tension Level:	Low.
Tension Signs:	a. Emotional/Physical – quite relaxed.
	b. Behavioural – tend to gobble food.
Event 3:	Work on essay.
Tension level:	Medium.
Tension Signs:	a. Emotional/Physical – concentration.
	b. Behavioural – tap pencil.

Two good reasons for managing behavioural tension are the acknowledgement that: the act of raising one's voice and getting angry increases unpleasantness for you as well the other person/people; behaving angrily towards others leads them to respond in kind.

Having developed the ability to recognise the situational and interpersonal 'triggers' likely to arouse tense behaviour, the next stage is to substitute behaviours that will cause less psychological damage. This may be achieved in a number of ways.

a. Time out. Placing a delay before any action, such as counting to ten, can reduce the 'size of the response'.

b. Incompatibility. Substituting behaviours that are incompatible with tension can diminish the experience of stress. For example, speaking very slowly is normally incompatible with speaking

loudly, therefore when people find themselves shouting they should try to speak more slowly and this should reduce the noise levels and the stress too.

c. Control. Expressing needs and complaints verbally, in a nonhostile manner produces more control over the situation.

The third stage in the programme features the cognitive correlates of stress called 'self-talk'. The daily diary is made up of the usual components such as events and tension levels, only the responses are now the links between emotions and self-talk (see Table 10.5).

Table 10.5 *Linking emotions and self-talk*

Event 1:	Kept waiting a long time for food at lunch.
Tension level:	Moderate to high.
Emotion:	Impatience/anger
Self-talk:	*Damn it! I'm not coming here again and I don't see why I should pay for such shoddy service.*
Event 2:	Tutor asks me questions I can't answer.
Tension level:	High.
Emotion:	Discomfort/embarrassment.
Self-talk:	*She must think I'm an idiot*

The aim of this is to make people more aware of what they say to themselves when they experience tension. As we have seen earlier on in this chapter, how we interpret events is very important. The student who receives poor marks for an essay can think 'Well, win some, lose some, let's see what went wrong here' or 'I can never write anything that seems to get reasonable marks'. The type of self-talk used will affect the student's feelings about themselves, their tutor and the desirability of trying hard next time. It is important to substitute new self-talk for unproductive self-talk, as shown in the examples in Table 10.6.

In some cases, stressful situations such as having to queue at the bank on Friday afternoons or waiting in a traffic jam going home every night can be predicted. When stress can be predicted it is useful to adopt a problem-focused coping strategy to either avoid the stressful situation entirely (go to the bank at a less crowded time) or plan an appropriate response to it (use the time being held up by the traffic to plan the next day's activities). Sometimes stress occurs at unpredictable moments where 'emergency braking' procedures are required. For example:

Event: Getting carried away in an argument and starting to raise one's voice.

Table 10.6. *Productive vs. unproductive self-talk*

1. Modifying emotions.	
Event 1:	Unsuccessful meeting.
Tension level:	Medium.
Emotion:	Despair.
Unproductive self-talk:	This meeting is a real disaster.
Productive self-talk:	This meeting is not as good as I would like.
New emotion:	Disappointment.
Event 2:	Argument with colleague.
Tension level:	High.
Emotion:	Anger.
Unproductive self-talk:	Nasty, vindictive, little beast.
Productive self-talk:	I wonder what's eating her?
New emotion:	Curiosity.
2. Modifying behaviour.	
Event 1:	Dropped patient's food all down me.
Tension level:	High.
Stressed behaviour:	Clench teeth/swear.
Unproductive self-talk:	What an idiot I am. I can't do anything right.
Productive self-talk:	Well nobody is perfect. How can I fix myself up?
New behaviour:	Change clothes.
Event 2:	Huge queue at the checkout in the supermarket.
Tension level:	Medium/high
Stressed behaviour:	Mutter, look daggers at supermarket staff.
Unproductive self-talk:	Incompetent shower. They take the money but can't put extra staff on to cope with a rush.
New self-talk:	I don't like it, but there is not much I can do about it.
New behaviour:	I think I'll amuse myself by looking at the other people in the queue.

Signs of stress: Tightness at shoulder and neck, thinking 'he's totally missed the point of what I've been saying', raising voice.
Braking signal: Visualise a red light and say 'stop' to myself.
Strategies to regain control: Deep diaphragmatic breathing, try to relax muscles. Stop speaking for 5 seconds then restart slowly.

In summary, the focus of multimodal stress management programmes is to 'fine tune' the detection of the physiological, behavioural and cognitive constituents of stress and then to substitute adaptive procedures tailored to each individual's specific circumstances. This can only be achieved with a great deal of practice and therefore takes quite a time to accomplish – there are no quick, easy stress management techniques (Niven and Johnson, 1989).

Summary

Although some hospital procedures and nursing practices may be unpleasant for patients, there are a number of things nurses can do to alleviate pain and reduce stress for patients in their care. This chapter has explored the theoretical basis for current pain management and stress reduction strategies.

Methods of assessing pain include self report measures, psychophysiological measures and behavioural assessment scales. A number of pain management strategies have been described, including acupuncture, hypnosis, and cognitive restructuring.

Stress has been described from both physiological and psychological perspectives. Coping mechanisms tend to depend on individual styles of coping and might be either problem-focused or emotion-focused. A range of techniques can be taught to manage stress more effectively and these include relaxation techniques, the use of biofeedback and a range of cognitive behavioural techniques.

For both stress and pain management nurses need to be able to draw on a range of strategies in order to take account of individual needs and coping styles.

Questions for further consideration

1. Discuss the psychological factors that influence pain.
2. Examine the effectiveness of psychological techniques in the management of pain.
3. What is the placebo effect?
4. How can stress be measured?
5. Describe a cognitive behavioural approach to stress management.
6. What is meant by cognitive appraisal?

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Further reading

Carroll, D. (1992). *Health Psychology, Stress, Behaviour and Disease.* London: Falmer Press.
The author has conducted a considerable amount of research on stress, particularly in the context of hypertension. The emphasis of this book is on the relationship between stress and behaviour. It discusses the psychophysiology of stress and relates the findings to coronary heart disease. It also looks at stress in the broader context of health psychology as a whole.

McCaffery, M., Beebe, A. (1989). *Pain: a clinical manual for nursing practice.* St Louis: Mosby.
It is important to view pain not just from a psychological perspective but from other standpoints too. This book takes a multidisciplinary perspective and illustrates how the studies on pain from different areas can be incorporated into practice.

Roskies, E. (1987). *Stress Management for the Healthy Type A: Theory and practice.* New York: Guilford Press.
If I were to construct a stress management programme this would be the book I would turn to. It gives practical details of how to investigate the cognitive, emotional and behavioural aspects of stress, and provides information on the running of stress management sessions based on Roskies' considerable experience in Canada.

Sofaer, B. (1992). *Pain: a handbook for nurses,* 2nd edn. London: Chapman Hall.
The aim of this book is to introduce nurses to the concept of pain. It is not restricted to psychological variables and is more concerned with the general principles of pain management. The advantage of this book is that it seems to

cover most of the relevant points about pain in just 99 pages. This must be a boon for all time-pressed nurses.

Sutherland, V. J., Cooper, C. L. (1990). *Understanding stress: a psychological perspective for health professionals.* London: Chapman Hall.
This book examines the psychological aspects of stress in a health context. Thus the examples and illustrations used are particularly relevant for nurses and other health professionals as they mirror everyday concerns.

11 *Life events, transitions and crises*

An almost inescapable part of modern life is change and the need to adapt to it. During the course of each individual's life many events will occur. Some of these will seem rather trivial, others will be of huge importance. Some events will be so momentous or influential that people's lives may be changed entirely. Some events will be reasonably predictable, while others will occur out of the blue. Finally, some events will be happy ones with positive outcomes whilst others will cause upset and turmoil. The role of psychology is to make some sense and meaning out of these episodes in people's lives. The first way it can do this is by attempting to provide a system for the classification of life events, crises and transitions.

Classification

Kimmel (1980) distinguishes between *normative* life events – those changes that are expected according to the social norms for individuals at particular times of their lives – and *idiosyncratic* life events – those changes in life patterns that are unique to that particular individual. Normative life events would include: leaving school; forming relationships; breaking relationships; and the death of parents, whereas idiosyncratic life events would include a major illness or handicap; winning a large sum of money; or the death of a child.

Developmental life-span approaches endeavour to describe the normative life events that occur throughout the course of human development. One of the most wellknown theories is that of Erikson (1963). In his *Eight Stages of Life*, Erikson outlined a series of 'crises' or dilemmas that face all individuals at particular stages in their lives. These crises signal times when people face a transition or turning point in the course of their psychological development. Each developmental stage is marked by a choice between two opposing characteristics and it is necessary to resolve the crisis before being able successfully to negotiate the next in line.

Erikson's Eight Stages of Life

1. **Basic trust versus basic mistrust (birth to 1½ years old).** The first crisis, or dilemma, to face the infant is whether the world is made up of safe, orderly, predictable events or irregular, unreliable occurrences. One of the most important features of the early interactions between caretaker and child is the degree of consistency, predictability and reliability of care. When infants sense that a caretaker is consistent and dependable, they develop a sense of basic trust in the parent. When they are cold, wet or hungry they know that their needs will be met. Trust, then, is the sense that others are reliable and predictable. Further, if infants develop secure attachments, they will go on to other relationships nurturing this sense with them.

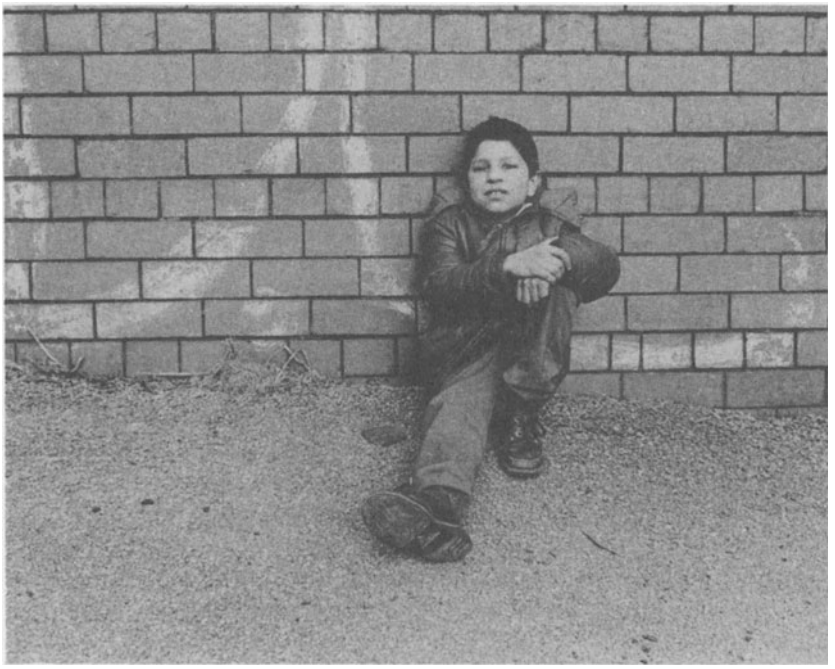
2. **Autonomy versus shame and doubt (1½ to 3 years old).** In this stage the child begins to exert greater control over actions and begins to explore the world by him or herself. Alongside this new-found independence comes a need for caretakers to regulate their child's behaviour, for example the little girl who has just wet her pants and is worried that others will see her in this state. Doubt stems from a realisation that one is not so powerful after all. Parents can help their children negotiate this crisis by explaining about social behaviour without crushing the child's independence. Those parents who remain insensitive to their children's needs, using shame and ridicule to confront oppositional behaviour may produce young men and women whose shame overrides their impulses toward self-determination.

3. **Initiative versus guilt (3 to 5 years old).** Building on the ability to control themselves, children now learn to make plans and set goals. They become aware that they can influence others and successfully manipulate their surroundings. The crisis comes when they realise that their most prized ambitions may be doomed to failure. When this sense of initiative results in the child 'going too far', or being made to feel incompetent, a feeling of guilt is generated. In the previous stage the child could be made to feel ashamed by other people, whereas in this stage he or she learns to make him or herself ashamed.

4. **Industry versus inferiority (5 to 12 years old).** Children start to expand their horizons in this stage, and schooling provides the vehicle for the development of new skills. Play becomes more purposeful and peer group comparison becomes an influential factor in behaviour. The danger at this stage is that children may

develop an excessive feeling of inadequacy and inferiority. Most of us can probably remember the hurts and failures of the classroom and playground. Sometimes children may have difficulty at this stage because they have not successfully resolved conflicts at earlier stages. A girl may have developed more doubt than autonomy at the second stage, hence she is unsure of herself as she tries to conquer new objectives. Good teachers, as well as good parents, can play a significant role in this crisis.

5. **Identity versus role confusion (12 to 18 years old).** It was Erikson who first introduced the term *identity crisis*. This refers to a confusion about one's role in the general scheme of events. Adolescents are likely to ask questions such as 'Who am I?'; 'What do I believe in?'; 'What am I going to do with my life?'. The crisis is couched in the broad terms of culture and society, and consequently the degree of confusion is related to the clarity and consistency of each culture's norms and values. For example, in the United Kingdom at the age of 16 an adolescent can make an extremely responsible decision to get married and start a family. With the consent of parents our society condones this act. However, the same adolescent is not deemed mature enough to vote, drink



Adolescence can be a time of confusion and identity crisis.

alcohol, view an '18' rated film or even drive a car. It is not surprising that there is an element of role confusion when young people are treated with such inconsistency. The crisis is resolved when the young person achieves a sexual identity, an occupational identity, an ethnic identity and knows what he or she wants to do and be.

6. **Intimacy versus isolation (young adulthood).** During this stage intimacy with others should develop. Erikson defines intimacy broadly as the ability to relate one's deepest hopes and fears to another person and to accept theirs reciprocally. The capacity to resolve this is again dependent on what has happened in the previous stage. If the development of intimacy is dependent on the ability to share oneself with another, it can only occur if a sense of identity has been developed. The formation of relationships gives access to individual feelings which can play a part in the development of self-confidence. If self-identity is fragile, people may try to avoid close relationships because they do not wish to expose their weaknesses.

7. **Generativity versus stagnation (middle adulthood).** Generativity refers to the ability to be concerned with others, with future generations and the nature of the world and society. As Erikson puts it, 'there should be an interest in guiding and establishing the next generation'. If people fail in this task, they will tend to stagnate, become pre-occupied and self-indulgent, and unable to make any contribution to the welfare of others.

8. **Integrity versus despair (late adulthood).** Integrity refers to the feeling that one's life has been worthwhile and well spent. If, however, there is a foreboding that wrong, or no, decisions have been made and life is seen as lacking integration, then despair will be felt. Despair can also occur if it is felt that it is too late to 'make things right'. One looks back on one's life and wonders what it was all about; seeing it as unsatisfactory, yet realising that there is no time to start again. If there is a sense of having helped to create a more dignified life for oneself and everybody else, then there is a sense of wisdom as well as integrity.

Not surprisingly, Erikson's theory has its strengths and weaknesses. On the positive side, it offers a useful framework within which to view the dilemmas confronting children and adults throughout the life cycle. On the negative side the theory is a bit vague and has been described as 'fuzzy' (Bee, 1989). Erikson recognised this criticism and said:

I came to psychology from art, which may explain, if not justify, the

fact that the reader will find me painting contexts and backgrounds where he would rather have me point to facts and concepts.

Secondly he seems to have rather a benign view of society as a cosy, beneficial social institution. Sometimes a healthy response to the societal ambiguities facing the adolescent would be a recognition of the difficulties involved in developing an identity.

However, the advantages of this theory for nursing practice lie in the provision of markers for those events in human development that are likely to cause people some difficulty. This enables the nurse to be aware of and understand the problems which may affect people at specific stages during their lives. What may seem an important health issue for the nurse may seem insignificant to the patient who is negotiating a personal life crisis.

Social Readjustment Rating Scale (SRRS)

This scale for representing normative life events was developed by Holmes and Rahe (1967). Instead of using developmental stages, they were concerned with the sorts of experiences that were likely to affect people during the course of their lives. They examined 5000 patient records and selected 43 events of varying severity that seemed to occur in the months preceding an illness. These events were presented to a group of 100 judges who were asked to rate them on a number of criteria:

a. length of time needed to adjust to the event;
b. intensity of the event;
c. average amount of adaptation to event.

They were told that marriage had a value of 500 and were asked to rate the 42 other events using this as a reference point. In effect, no event was found to be more than twice as stressful as marriage. The average of the numbers assigned to each event was divided by 10 and the resulting numbers became the weighting of each life event. On the basis of the results of this, the *Social Readjustment Rating Scale* (SRRS) evolved (see *Table 11.1*).

Exercise 11.1: Coping with stress

To obtain an indication of your own susceptibility to stress-induced illness, select those events from the *SRRS* which you have experienced in the past twelve months. Add together the scores for each event. Holmes and Rahe found that scoring:

150–199 points increases your likelihood of illness by 40 per cent;
200–299 points increases your likelihood of illness by 50 per cent;
300 points and over increases your likelihood of illness by 80 per cent.

But don't worry too much if your score seems high, for as we have seen, there are large individual differences in the way people cope with stress.

There are also some events that actually remove stress, for example a divorce might be preferable to a relationship full of conflict and friction. In addition, instead of life-events causing illness, they may in fact be manifestations of an illness already present.

Table 11.1 *Social Readjustment Rating Scale*

Life event (*Stress value*)
1. Death of spouse (*100*)
2. Divorce (*73*)
3. Marital separation (*65*)
4. Jail term (*63*)
5. Death of a close family member (*63*)
6. Personal injury or illness (*53*)
7. Marriage (*50*)
8. Fired at work (*47*)
9. Marital reconciliation (*45*)
10. Retirement (*45*)
11. Change in health of family member (*44*)
12. Pregnancy (*40*)
13. Sex difficulties (*39*)
14. Gain of new family member (*39*)
15. Business readjustment (*39*)
16. Change in financial state (*38*)
17. Death of a close friend (*37*)
18. Change to a different line of work (*36*)
19. Change in number of arguments with spouse (*35*)
20. Large mortgage repayments (*31*)
21. Foreclosure of mortgage or loan (*30*)
22. Change in responsibilites at work (*29*)
23. Son or daughter leaving home (*29*)
24. Trouble with in-laws (*29*)
25. Outstanding personal achievement (*28*)
26. Wife begins or stops work (*26*)
27. Begin or end school (*26*)
28. Change in living conditions (*25*)
29. Revision of personal habits (*24*)
30. Trouble with boss (*23*)
31. Change in work hours or conditions (*20*)
32. Change in residence (*20*)
33. Change in schools (*20*)
34. Change in recreation (*19*)
35. Change in church activities (*19*)
36. Change in social activities (*18*)
37. Small mortgage repayments (*17*)
38. Change in sleeping habits (*16*)
39. Change in number of family get-togethers (*15*)
40. Change in eating habits (*15*)
41. Vacation (*13*)
42. Christmas (*12*)
43. Minor violations of the law (*11*)

The main criticisms of the scale refer to the quantitative measurement (i.e. 'how much') of life stress. There is no attempt to describe or explain the qualitative features of life crises – one has to ask whether ten parking tickets are equivalent to the death of a spouse in terms of stress. While the events represented in the scale are normative, they do not necessarily depict everyday experiences.

The Hassles and Uplifts Scale

Kanner *et al.* (1981) devised the *Hassles and Uplifts Scale* to measure the psychological stress reflected in the occurrences of people's daily lives. The most frequently reported hassles by a sample of white, middle class adults aged 45 to 64 were:

1. concerns about weight;
2. health of a family member;
3. rising prices of common goods;
4. home maintenance (inside);
5. too many things to do;
6. misplacing or losing things;
7. yardwork or outside home maintenance;
8. property, investments, or taxes;
9. crime;
10. physical appearance.

The most frequently reported uplifts by the same group were:

1. relating well with your spouse or lover;
2. relating well with friends;
3. completing a task;
4. feeling healthy;
5. getting enough sleep;
6. eating out;
7. meeting your responsibilities;
8. visiting, phoning, or writing to someone;
9. spending time with family;
10. home pleasing you.

A useful feature of the scale is that it measures the extent to which each event is perceived as being severe. Thus, when Young (1987) presented the scale to a sample of 448 adults aged between the ages of 20 to 60 he found that the following events were the ones that people selected as causing them some problems:

1. paperwork;
2. nature of work;
3. work load;
4. housework;
5. physical appearance.

These were the events that were perceived to cause a great deal of stress:

1. work load;
2. free time;
3. nature of work;
4. paperwork;
5. money for necessities.

It can be seen that for this sample the main everyday hassles seemed to centre around work.

Therefore, in classifying life events, it is important to distinguish between everyday hassles which provide some stress and those that are likely to provide serious problems.

Models of life events

One of the main functions of research into life events has been to investigate the relationship between the events themselves and the resulting mental and physical disorders. If high levels of psychosocial stress lead to disorders, then one of the goals of nursing is to prevent the unwelcome mental and physical consequences of stressful life events in as many people as possible. This is just one of the goals of prevention, however. Equally important is encouraging competence, health and wellbeing. Thus primary prevention has two different goals.

1. One that emphasises the prediction and understanding of physical and mental disorders as a function of the stresses and strains of everyday life.
2. A knowledge of the process by which life events can lead to the development of what Maslow has described as 'psychological growth' in an individual.

The first approach focuses upon health programmes that operate before any damage has been done thus reducing the incidence of disorder. A thorough appraisal of the types and number of life events experienced by people are important measures of the need for such programmes. Felner *et al.* (1985) in their review of the role of transitions and life events in primary prevention, concluded that

> Identification of those conditions which consistently predispose individuals to developing physical or psychological difficulties, such as experiencing life events, may be critical to the success of efforts to justify the need for the allocation of scarce resources to preventive services. Without such evidence it may be difficult to convince those

> professionals trained in the more reactive, rather than proactive, human service delivery system.

But it is also clear that the adaptive impact of life events and transitions is a function of the quality as well as the quantity of experiences. Negative life events may have the potential to provide positive psychological growth. People who are experiencing a crisis are often more willing to pay attention and listen to what the nurse has to say. If the nurse can facilitate adaptation, learning and growth from the crisis, then the patient may be able to face future crises using the skills and competence that have been developed dealing with the present problem. In this sense, treatment represents the opportunity for primary prevention.

Sometimes it is better to focus on life events such as bereavement, disability, divorce, and chronic illness as a transition that involves various adaptive tasks rather than as markers of a major stress. Felner *et al.* (1985) suggest that 'A transitional framework allows us to focus on such commonalities and to develop strategies for enhancing an individual's adaptive abilities across a wide array of life changes.' Three examples of such a transitional framework or model are introduced next.

The cycle of reactions

Hopson (1981) introduces this model in the following way.

> As we began to discover other work on different transitions, a general picture increasingly began to emerge. It appeared that irrespective of the nature of the transition, an overall pattern seemed to exist.

The cycle Hopson and his associates identified consists of seven phases.

1. *Immobilisation.* In the first phase the person experiences a kind of paralysis. There is a feeling of being overwhelmed by the weight of the crisis. Often people are unable to make any sense of what has happened and their powers of reasoning and understanding are disrupted. The strength of feeling in this first phase is related to the degree of unfamiliarity with the transition or crisis and expectations of positive or negative outcomes.
2. *Minimisation.* A way to escape the state of immobilisation is to minimise, or even trivialise, the extent of the problem. Sometimes a person will deny that a problem exists and may even pretend to be happy. Denial can serve a useful function in giving the person time to regain composure but it will become counterproductive if allowed to be maintained over a long period of time.

3. *Depression.* As the consequences of the transition become apparent, people sometimes start to feel depressed. This condition often results from a feeling of powerlessness and lack of control over the way life is going. Losing control over emotions is a particular fear in this phase and bouts of anger are often interspersed between the periods of hopelessness. Depression can occur even if individuals have created the change in life circumstances themselves, as it is a response to not knowing how to cope with the new situation. Other emotions associated with this phase are anxiety, anger and sometimes sadness.

4. *Letting go.* Throughout the previous stages there has been a kind of attachment to 'life as it was'. The purpose of this stage is to become disentangled with the past and face up to the realities of the present. Letting go involves the person saying something like 'Well, here I am and I suppose the only thing to do is to face up to things as best I can. I don't know exactly what life has in store for me but I know I can survive.' This rearrangement of perspective and detachment from the past replace feelings of depression with feelings of optimism.

5. *Testing.* This is a period of intense activity. In any unexplored situation there will be an experimental period when new life styles and new ways of coping with problems are tried out. The person may experience failures as well as successes and therefore be subject to mood swings.

6. *Search for meaning.* This phase represents a more measured concern for an understanding of the 'hows' and 'whys' of the transition. It does not represent an attempt to restablish contact with the past but to withdraw somewhat from the furore of the testing phase and attempt to place what has happened in some kind of perspective. The search for meaning becomes a healthy form of reflective thinking.

7. *Internalisation.* The product of the previous phase is access to an internalisation of feelings and meanings. During this phase these feelings and meanings are incorporated into new behaviour.

The process of the seven phases thus represents a 'cycle of experiencing disruption, gradually acknowledging its reality, testing oneself, understanding oneself, and incorporating changes in one's behaviour.' (Hopson, 1981). The level of morale during the cycle drops drastically during phase three only to end up in phase seven, higher than when it started.

Hopson notes that progression through the seven phases is by no means always smooth and neat. Also, each individual's progressions

and regressions are unique. Some people may never get beyond the denial phase while others may become 'stuck' in the depths of depression, unable to let go. Finally, he notes that transitions are most stressful if 'they are unpredictable, involuntary, unfamiliar, of high magnitude (degree of change), and high intensity (rate of change).'

Implications

As opposed to life event markers, this model provides an illustration of the qualitative changes that accompany life events and transitions. There is a lack of information concerning how people can be 'trained' to negotiate each of the phases so that they may reach the goal of internalisation, but in any case, this may be outside the remit of the nurse and more the responsibility of trained counsellors. If nurses have a general pattern of how patients experience life crises, they can produce a programme of care based on the general and particular needs of patients undergoing such problematic phases in their lives.

The personal competency model

Danish and D'Augelli (1982) state that 'The development of personal competency, a goal of intervention, is defined as the ability to be self-reliant and to do life planning.' Essentially this model proposes that the more resources an individual has at their disposal, the better their ability to deal with life events and crises. This model considers that there are consistent similarities between life events so that, whilst content or knowledge to confront these events may differ, the skills and attitudes necessary for a successful resolution of the problem overlap.

Danish and D'Augelli (1982) have constructed a programme designed to promote skills in dealing with life events, transitions and crises. It consists of the following six components.

Goal assessment. In this part of the programme it is the individuals themselves who decide what it is important to learn and the role of the nurse is to act in an advisory capacity and to use his or her expertise to help the patient identify goals. There are two main ways to help people identify their goals:

(i) to get people to concentrate on specific, positive behaviours and provide an opportunity to try them out to see if they fit in with desired needs;
(ii) to differentiate between those goals that are important to the individual, and those that are important to others.

Knowledge acquisition. One factor that may make it difficult to identify appropriate goals is a lack of knowledge. Therefore it is vital that the

nurse is able to provide the person with the relevant information needed to achieve his goals.

Decision-making. Another factor that may hinder goal attainment is a lack of decision-making skills. The approach that Janis and Mann (1977) use to help people achieve a constructive decision-making strategy is described in Chapter Seven.

Risk assessment. Some people will know what to do and how to do it but be prepared to take a risk. This factor is similar to the benefits/barriers component of the Health Belief Model (see Chapter 6) and simply stated suggests that if the costs outweigh the benefits, people are unlikely to take a risk.

Social support. This model endorses the view that it is essential to marshal the co-operation of friends and relatives in maintaining new behaviour. Social support in this context is not just a 'buffer' but a positive resource.

Planning of skill development. The last skill in the programme is being able to plan the development of skills. This is a process intended to help people design and implement their own skill programmes.

The goal of the programme is to empower people to help themselves, and so the nurse is viewed very much as a teacher using an educational approach, as well as a carer and therapist.

The process of training in or facilitating the skills needed to confront life transitions follows a series of steps.

- The skill has to be defined in strict behavioural terms. It is no use using general terms such as 'relating better to people'. How to relate should be specified in a series of exact behaviours.
- The reasons for using a particular technique should be discussed, and the skill itself should be presented and debated.
- Some sort of yardstick or benchmark should be specified that relates to attainment criteria. People need to know when they have achieved certain levels of competence.
- It is useful to present clients with examples of effective and ineffective skills so that they can see the differences between the two.
- The skills should be practised under supervision where possible. It is not always possible for direct supervision of skills to take place, but immediate feedback on skill attainment does provide the best learning environment.
- Emphasis should be placed on continued behavioural rehearsal and practice in 'real life' contexts.

- If necessary, a behavioural checklist should be constructed for feedback. Other evaluation methods and techniques ought to be discussed.

Therefore, the format of the process of skill attainment includes an understanding of what is required, a demonstration of the skill and practice of the skill with feedback. Thus this model, or approach to life events, emphasises the role of the nurse as a teacher rather than as someone involved in clinical treatment, and there is an emphasis on prevention and 'growth' rather than treatment and cure.

A categorisation model

In contrast to the other two approaches, Moos (1986) presents a model that sets out two categories of tasks and skills that can be used to manage life transitions and crises. It is based on an analysis of a wide range of crises such as bereavement, disasters, abduction, and chronic illness. The model firstly sets out a series of adaptive tasks which will be needed to handle the crisis; secondly it describes sets of coping skills people use in a crisis; and thirdly it looks at factors that determine individual differences in response to crises. It will be seen that some of the features of this model are included in other models as well.

Adaptive tasks

Establishing meaning. After the initial shock of the event has subsided, there is a need to understand the significance of the situation in terms of its consequences for individual adaptation. Explanations should be developed to account for the event and people should try to accept and construct a foundation for their present circumstances.

Confronting reality. During any crisis or transition there are numerous tasks to be completed which are related to the event. For instance, after the death of a loved one there are funeral arrangements to be made and finances to be sorted out. People often need help in confronting these tasks so that they can deal with the main crisis.

Sustaining relationships. Maintaining contact with family and friends can be a difficult task during a crisis or transition. Friends of a woman who has miscarried may not know if or when she would like a visit. Sometimes, due to the nature of the relationships between people and their families, communication can be difficult. Thus it is necessary to maintain adequate levels of social support within the individual's social network. Furthermore, nurses can play a significant role in creating empathic communication between family members.

Maintaining emotional balance. The nature of the crisis will determine the strength and type of emotional response. However, it is important for people to try to maintain a degree of emotional balance in order to

develop a positive perspective when dealing with the event. This is not to deny the individual any emotional response, as most crises involve powerful emotions, but being able to maintain a balance is the first step in developing more control over the circumstances.

Preserving self-image. Many life crises involve a reduction in self-image. This is particularly evident in cases of rape. However, people who have been through a divorce may well experience difficulties in forming new relationships due to a low image of themselves and lack of self-confidence. It is important for the nurse to strike a balance between giving help and allowing the person to develop their own solutions and thus develop greater self-esteem.

Moos (1986) says that while all five adaptive tasks are necessary in each crisis, some will be more relevant than others depending on the specific characteristics of the event. Parents of chronically ill or disabled children will face a number of specific tasks in adapting to their child's condition (Canam, 1993). It is extremely difficult to maintain emotional balance in the case of death of a child and it may be equally difficult to regain self-esteem after rape. Thus the event, and an individual's response to it, will determine the priority of adaptive tasks.

The adaptive tasks are not easy to implement and require many coping skills to deal with them. Moos suggests that the coping skills people use in response to crises and transitions may be categorised into three groups: *appraisal focused, problem focused* and *emotion focused.*

Appraisal focused coping

This group of skills tries to modify the meaning of the situation. If a crisis is expected, such as the death of a loved one, people will often mentally prepare themselves for the event. Recalling successes in coping with past events can also prove helpful. Sometimes a crisis that seems overpowering can be better understood if it is dissected, or broken down, into manageable elements. Another appraisal focused skill is the ability to redefine the situation in a more positive light. This may take the form of a comparison with others who are less fortunate, or it may involve constructing alternative 'worse case scenarios'. Finally, as has been stated before, denial can prove to be a positive response to a crisis in the short term if it gives a person a certain amount of 'breathing space' to come to terms with the event.

Problem focused coping

Confronting the problem and dealing with its consequences form the main focus of this set of skills. Information skills are concerned with obtaining information about the crisis and investigating appropriate courses of action.

Nurses can contribute a great deal towards the development of

information skills, not just by providing knowledge, but by helping the patient to develop the skill of obtaining knowledge.

A further set of skills relate to the ability to solve problems. Again, nurses can help with the development of these skills. The aim is to create an environment where people are able to cultivate a sense of competence and self-esteem. New skills go hand-in-hand with changing activities and exploring new sources of accomplishment. Thus, after a sudden death or divorce the person may experience a need to become involved in self-help groups or to seek alternative activities. Indeed, the presence of chronic illness or disability is likely to dictate a totally new perspective on life.

Emotion focused coping

One of the adaptive tasks is emotional control, but this should not be achieved at the expense of 'bottling up' emotions. Initially it is perfectly appropriate for people who are undergoing a crisis to give vent to their feelings. This may include not only crying but anger and despair too. Sometimes laughter is involved; this does not mean that the person is uncaring, but it can reduce tension. After emotional discharge a degree of control can often be exercised and people can then start to accept the situation. Moos calls this 'resigned acceptance' and sees it as representing a conscious decision to accept things for what they are.

Variables affecting the ways in which people cope with crises and transitions

Having set out adaptive tasks and coping skills there are three more variables that affect the ways in which people deal with life crises and transitions.

Demographic and individual differences

Age, gender, ethnicity, and socio-economic status are factors known to affect the ways in which individuals manage life crises. People's cognitive and emotional maturity, their self-confidence and how they dealt with previous crises are important factors as well.

Event-related factors

These refer to the type of stressor. The specific characteristics of the events themselves will likewise effect the style of crisis management. Controllable events will command more problem focused strategies, whereas uncontrollable events will elicit emotion focused responses.

Environmental factors

Aspects of the social and physical environment refer to social support and cohesion, institutional community resources and voluntary services. Social cohesion can lead to the expenditure of more coping resources in tightly knit families; however, in most circumstances, social cohesion leads to more positive than negative outcomes. For example, community resources in the guise of child care facilities may prove invaluable to a person who has just become a single parent.

Nursing implications

At first sight the complexity of Moos's model might seem to make it difficult to use, with five adaptational tasks, three types of coping skill and numerous individual, event- and environmental-related factors. However, it can be used as a framework for understanding individual crises and transitions. Oleson and Shadick (1993) applied the model to the nursing care of elderly persons relocating to a nursing home. They suggest that the conceptual model depicts a process by which nurses may help elderly persons cope effectively with relocation. A nurse might think 'How on earth can I help this person? What can I do?' The models presented represent a blueprint for action. One can look at each individual situation and ask questions based on the models such as:

- What are the individual and demographic aspects of this situation? What type of event is this? What social support is available?
- What sort of adaptive tasks have priority?
- What sort of coping skills need to be defined?

And with Hopson:

- Where is this person in the cycle of transition?
- What are the characteristics of the next stage?

And with Danish and D'Augelli:

- What are the skills needed in this particular case?
- How can a programme be constructed to enable individuals to acquire the relevant skills?

Just as the person experiencing crisis or transition needs to break a seemingly overwhelming problem into potentially manageable bits, so too does the nurse.

It might prove useful to bear in mind the models of Hopson, Moos and Danish and D'Augelli when examining some specific crises/ transitions such as bereavement, dying, handicap and illness.

Bereavement

Bereavement literally means 'to take away from' and is usually used when someone close has died. Grief is the emotional response to the death, while mourning is the culturally determined expression of bereavement and grief. The majority of the research into bereavement has centred on grief and has attempted to describe the common components of people's emotional response to bereavement. Most studies have attempted to describe grief as a series of stages that need to be worked through in order to achieve a healthy adjustment to loss. There seems to be considerable disagreement about the number of components to the grieving process and also whether it is necessary to proceed through all of them to reach a stage of adjustment. Lindeman (1944) originally proposed that there were three main stages:

1. initial shock and emotionality;
2. intermediate distress;
3. a recovery phase.

Ramsay and deGroot (1977, cited in Gross, 1992) describe nine components to the grief process.

1. Shock and numbness.
2. Disorganisation.
3. Denial and behaving as if the deceased was still alive.
4. Depression, pining and despair.
5. Guilt, both real and imagined.
6. Anxiety about losing control, and the future.
7. Aggression and anger.
8. Resolution and an acceptance of the death.
9. Re-integration where acceptance is put into practice.

Gass and Chang (1989) analysed bereavement in terms of Lazarus' model of stress and coping discussed in the previous chapter. They found that both widows and widowers who had lower threat appraisal, more problem-focused and less emotion-focused coping, greater resource strength and younger age suffered less psychosocial health dysfunction.

There are distinct common themes in many of the different approaches to the grief process. Parkes (1986) has summarised these into four main stages.

1. **Numbness and denial.** The initial reaction to death is usually characterised by a period of numbness, as if one's feelings have been 'turned off'. Associated with numbness is denial. This often takes the form of pretending that the deceased has in some way managed to escape death.

2. **Yearning or pining.** In this stage there is a need to try to

recreate the dead person. It is common for people to think that they have seen the deceased in a crowd or heard them speak. Pining, longing and a feeling of emptiness are typical characteristics of this stage.

3. **Despair and depression.** Following the acknowledgement of death there is an intense feeling of despair and sometimes depression. A feeling of helplessness and hopelessness at the inability to bring back the dead person often occurs. Other emotions such as anger, guilt and anxiety may also occur in this stage.

4. **Recovery and reorganisation.** Hopson (1981) would call this stage 'letting go'. At some point people realise that their lives must go on and they must attempt to break with the past. Acceptance of the death and a search for a new meaning to life are the key elements of this stage. The degree of recovery and the time span of this stage vary from person to person.

These stages should be seen as reflecting the sorts of grief reactions that occur during bereavement. Kalish (1981) has said that the stages should not be viewed as a fixed sequence of events to be followed in order to reach the final goal of recovery. There may be times when yearning and pining are felt at the same time as despair. Recovery may seem to be proceeding well when an event such as an anniversary triggers the whole grief reaction once more.

Nurses' responses to death

Wright (1991) suggests that some emotional responses to death are more difficult to manage than others. Based on his nursing experience in accident and emergency departments, he has drawn up a list of the emotional responses to sudden death that nurses find most difficult to cope with.

1. **Withdrawal.** As we have seen, a period of withdrawal is a necessary part of the grieving process since it enables the bereaved to organise themselves. However, if withdrawal leads to continued strong denial of the death, problems can arise. Under these circumstances it is appropriate to stress to the bereaved that the problem is here to stay and has to be confronted. Wright says that this period is particularly difficult for the nurse because the length varies from individual to individual and it can be hard for nurses to sit and do nothing when they are used to active care. Often the mere presence of someone is all that the bereaved person needs.

2. **Denial.** Death affects nurses as well as the bereaved and sometimes going along with their need to deny the actuality of the event seems to be a caring response to their predicament. In the short term little damage will be done by denial responses, but in the long term this

will prove counterproductive. Frankness and honesty communicated in a caring fashion are the hallmarks of the correct way to deal with this response.

3. **Anger.** Anger often occurs in some form or another and it can be directed at nurses, doctors, family and even the bereaved themselves. The correct way to deal with anger is not to leap to the defence of the targets of wrath but to realise that this is not a time for well-thought-out, logical analysis. It is important to try to empathise with the feelings of the bereaved rather than suppress aggression. Empathy and understanding can be particularly difficult to achieve if the objects of aggression are one's colleagues.

4. **Isolation.** Despite being surrounded by people, the bereaved can often feel isolated and totally alone. This is not the same as withdrawal but can be a response to the need to work through the loss. Nevertheless, attempting to direct attention to family and friends who can help may be counterproductive.

5. **Bargaining.** This response is particularly apparent in instances of infant and child death. The parent will promise everything they have, even their own lives, in order to get back their lost child. It is seen by some as an attempt to gain control over an otherwise uncontrollable situation. Parents may get angry if nurses refuse to indulge in this bargaining process, and can start to feel discriminated against.

6. **Inappropriate responses**. It may seem strange that the death of a loved one evokes reactions such as laughter, yet laughter may be a form of tension release or defence mechanism. Death is a huge strain on the system, and trivial, inappropriate responses may be the body's way of relieving the stress to a certain extent.

7. **Guilt.** Sometimes people will test nurses with their feelings of guilt. 'It's all my fault, isn't it?' is a typical guilt response. It is important that nurses are able to reassure the bereaved person either that it is not their fault or that human nature is fallible.

8. **Crying.** There are still some people who view crying as a weakness, but on the whole it is seen as a valuable reaction to death. It can break down barriers and it is a relief when it signals the end of pent up emotion. In some cases people will want to cry but cannot. If it is at all possible they should be encouraged to cry, but sometimes crying will not occur till months, occasionally years, after the event.

9. **Unfinished business.** The sudden death of a loved one leaves many things left unsaid. Nurses can help by spending some time

listening to regrets about what should have been said or should have been done.

Parathian and Taylor (1993) were concerned that student nurses may be exposed to bad practice in communicating bad news to patients. They found that role modelling was successful in facilitating learning in the nursing students irrespective of whether they were exposed to a negative instance of a poor model or a positive instance of an expert model.

Wright (1991) says that dealing with the bereaved is never an easy task, due to the intense feelings associated with the event, and occasionally a lack of information about how to deal with people who have just lost someone close to them. But if a nurse knows what to expect and is able to respond with empathy, the whole process can become somewhat less stressful for all concerned.

Bereaved children

How does death affect children? The extent to which death affects children depends on two main variables:

1. the child's age; and
2. the child's experience of death and dying.

The first systematic study of children's conceptions of death was carried out by Nagy (1948) in Budapest. She asked over 400 children aged between 3 and 10 years old to write, draw and talk about what they thought death was all about. On the basis of their responses, Nagy proposed that there were different conceptions of death at different ages.

Stage One (3–5 years old). In this stage children have little idea about the permanence of death. They see it as a temporary state, akin to sleeping. Indeed, one child said that the reason you had to be quiet at funerals was because you might wake the dead person up. Also, if certain requirements are met the dead person may come back to life. Therefore, according to Nagy, there is little finality to a young child's sense of death.

Stage Two (5–9 years old). As children of this age group tend to view the world in 'concrete' terms, their conceptions of death are similar. Death now has a visual representation as the 'bogey man' or a skeleton in a black cloak. People who are clever manage to outwit death and escape. Thus one's longevity depends on how good one is at escaping death when it comes to call.

Stage Three (9 years old and above). In this stage children develop an adult concept of death. It is viewed as inevitable, universal and irreversible.

Sometimes children confuse cause and effect and link together two

unrelated events. For instance, a grandparent always said to her grandson that he should remember to brush his teeth twice a day. On the day that the grandmother died the boy forgot to brush his teeth. He thinks that not brushing his teeth led to the death of his grandmother and feels that he is to blame for her death. It may seem ridiculous to us as adults, but to the young boy it makes sense.

The second factor that affects children's concept of death is the extent of their experience of death and dying. Situations such as the death of a pet animal can promote a child's understanding of what it means to die. Bluebond-Langner (1977) found that young children suffering from terminal illnesses were able to conceive of death as being irreversible, through experiences such as the death of pets and so on. Therefore there are situations that tend to force children to view death in an adult fashion.

Schaefer and Lyons (1986) have produced some guidelines on how to tell children about death. They suggest that it is no use saying things like 'Granny has just gone to sleep', as this can create false fears of sleeping. Rather, the child should be given an explanation as to why everyone is so sad (for example 'Mummy and Daddy are sad because . . .'), and be told what dead means (for example, 'The person's body has stopped working and won't work anymore').

Of course children will be upset by these explanations, but Weber and Fournier (1985) say that trying to shelter children may limit their ability to learn through practical experience about this extremely important life-cycle event, and may lead them to fear death excessively.

Coping with dying

The most famous student of the process of death is undoubtedly Elizabeth Kübler-Ross. She proposes that there are five stages to the process of dying (see *Table 11.2*).

Many dying patients do not always follow the trajectory predicted by Kübler-Ross and therefore the stage theory should not be accepted as a manual for dealing with dying patients. The stages of the process of dying do represent the sorts of problems the dying patient is likely to encounter, but the order and strength of the experience may vary. Sometimes denial and acceptance alternate throughout the living–dying interval; sometimes anger is felt after bargaining and again later on. However, if patients are given the opportunity to work through the problems outlined by Kübler-Ross, they, and their families, are likely to experience fewer difficulties during the dying period.

Coping with physical handicap and illness

In 1988, the Office of Population Censuses and Surveys produced evidence that in an average health district of 250,000, about 250 people

Table 11.2 *The five stages to the process of dying (after Kübler-Ross)*

I Shock and Denial Denial helps prevent the patient from being overwhelmed by the initial shock of realising that they are facing death. Patients may go from doctor to doctor in hope of obtaining a different diagnosis. Compartmentalisation, where patients hold simultaneous contradictory beliefs, may also occur. For example, they may accept that they are going to die, but at the same time discuss long-term plans.
II Anger An essential stage in coming to terms with death. This is the most difficult stage to deal with because the patient's anger may come out in all directions, sometimes apparently at random. Feelings of resentment towards healthy people and a feeling of 'why me?' occur in this stage.
III Bargaining In this stage the patient attempts to postpone death, often trying to 'strike a bargain with God'. This can take the form of agreeing to devote one's life to worthy causes if one is allowed to live. Bargaining involves similar 'faulty thought' or 'magical thinking' to that seen in young children's ideas about death. Depression can set in once the patient realises no bargain can be struck.
IV Depression According to Kübler-Ross, depression occurs in approximately half the cases of people who are dying. This may be seen as a form of anticipatory grief and disengagement, but it can cause problems for the patient's family. The patient is preparing to die but friends and family are encouraging them to hold on to life a bit longer. In this stage, the patient needs permission to die so that they can let go of the people they hold dear.
V Acceptance This stage is characterised by withdrawal from others and from 'worldly concerns'. Kübler-Ross views this time as being neither happy nor sad, but a time for contemplation. This is a peaceful period, almost devoid of feeling, where the individual develops a degree of quiet expectation.

under the age of 65 years would need some form of special care due to impairment or disability. The World Health Organisation (1980) distinguishes between impairment, disability and handicap thus:

- *impairment* is the basic physical effect caused by illness or disease on the body or the brain;
- *disability* is the loss of function resulting from impairment;
- *handicap* is the social and occupational disadvantage that results from a disability.

Coping with disability

Wilkinson (1989) puts forward some factors that can influence the way people cope with becoming disabled.

- *The age of acquisition.* Congenital conditions such as spina bifida tend to have a different effect on a family than diseases that tend to be acquired later in life such as Parkinson's Disease.
- *Insidious versus traumatic conditions.* Insidious diseases are diseases, such as rheumatoid arthritis, that develop gradually in people who have previously enjoyed good health. Traumatic injuries that occur suddenly, such as injuries to the spinal cord, will have a different psychological impact.
- *The stability of the condition and the prognosis.* The extent to which diseases are likely to remain stable, such as cerebral palsy, or are likely to progress, such as muscular dystrophy, will influence the individual's perception of the future.
- *The severity of disability and degree of dependency.* Different demands will be placed on carers according to the severity of the disability. The degree to which the person is restricted also affects the degree of dependency and may place further demands on carers.
- *Intellectual functioning and personality change.* Head injury and brain damage can lead to multiple disabilities affecting not only mobility, but also memory and social judgement as well. Personality changes require specific consideration.
- *Pain and other illness.* The presence or absence of pain and the frequency of periods of associated illness will affect psychological adjustment.

Research based on coping with disability is divided into two areas: an individual focus and the social context.

The individual focus attempts to view disability as a person's positive or negative reaction to their condition. In this respect one might predict that disability would invariably result in psychological distress and discomfort. Research findings are equivocal on this matter. For instance, Gardiner (1980) found greater psychological disturbances than normal in a group of rheumatoid arthritis sufferers; Motet-Grigoras and Schuckit (1986) found higher levels of depression and alcohol abuse in a group of congenitally disabled young men than in a group of similarly aged controls. However, Kostin (1973) found disabled people were not significantly different from non-disabled people with respect to overall adjustment and satisfaction with life. These differences may be explained with reference to the models of Danish and D'Augelli, Hopson and Moos presented earlier in the chapter. The degree to which people with a disability experience psychological problems will depend on various factors, including the following.

- The person's position on the 'cycle of reactions'. If a person has experienced a debilitating condition, their psychological state will mirror the degree to which they have progressed through the cycle of reactions. Thus, if a person has not managed to 'let go' of their former selves, they are liable to be depressed. If on the other hand they have managed to see themselves as a person with a disability in one area but expertise in many more, then they will have achieved a state of integration and feel more self-confident about dealing with the world.
- The extent to which the person has used adaptive tasks and developed coping skills. The ability to confront reality, establish the meaning and significance of the situation, maintain a reasonable emotional balance and develop a satisfactory self-image will determine the degree to which people with a handicap experience psychological distress.

Coping with illness

One of the first problems is finding out whether one is actually ill or not. This may seem a somewhat superficial issue, but how many of us have decided that we feel ill and have gone to see our doctor only to feel better in the waiting room? What do you do? Do you pretend that you still have the symptoms or do you say to your doctor 'Well, I did feel ill, but do you know, I feel better now.' The perception of physical symptoms is not as 'clear cut' as many people may think.

An illustration of the psychological, as opposed to the psychiatric, factors involved in the perception of illness is provided by the 'June Bug Incident'. A textile mill in the USA was closed down because many of the workers fell ill with a mysterious illness called the 'June Bug', so called because of the month in which the 'epidemic' occurred. It was thought that a 'bug' (insect) had infested the materials in the mill, but no evidence of its existence could be found.

Usually when no physical explanations exist for an illness, other factors are said to be involved. In this case a psychiatric explanation was put forward in the guise of a conversion reaction such as mass hysteria or hysterical contagion. A conversion reaction is the loss, or alteration, of a sensory or motor function. It is an unconscious process whereby an unacceptable reaction to a situation is converted into some sort of bodily feeling or loss of function. These disorders are known to occur during times of stress and so it was hypothesised that the workers in the mill had converted their stress into this mysterious disease. Stress may well have been a factor in the condition, but the presumption that the disease was a case of mass hysteria is unfounded as there is a simpler psychological explanation for this train of events at the textile mill.

The employees of the mill were all under a great deal of stress since it was the height of the production season. The stress revealed itself in many different ways, including a number of unpleasant bodily sensations. As soon as some of the workers started to collapse, the others who were close by searched for an explanation to the events happening around them. In this case, the remaining workers formed an 'illness hypothesis' based on presumed insect infestation. The workers' 'funny feelings' now had some legitimate label – they were the result of a virus. As word got around the mill, more and more people thought that their feelings were the June Bug virus and their thoughts would be reinforced by people 'dropping like flies' all over the factory. This feature of illness behaviour is known as *mass psychogenic illness*.

Pennebaker (1984) says that symptom perception is characterised by two processes: *external vs internal sensory information*; and *hypothesis construction*.

External vs internal sensory information. Information comes to the brain from two main sources: outside the body and from within it. At any one time, external information is competing with internal information for the individual's attention. Thus, when the external environment is relatively 'quiet', increased attention is paid towards information coming from within the body. Similarly, when the external environment requires a great deal of concentration, less notice is taken of internal sensations. Therefore, people are much more likely to report internal physical symptoms and sensations when the external environment is boring or lacking in information.

Pennebaker says that if one listens to people in the cinema, there will be more coughing during the boring parts of the film than during the exciting scenes. People notice the tickling in their throats especially when someone else coughs, drawing attention to the internal sensation. Similarly, people who perceive their occupation as boring and dull report more physical symptoms and take more medication than people with interesting and absorbing jobs. Alternatively, when the external environment is particularly stimulating, or when one is concentrating on a complex task, the pain of a toothache or headache becomes less noticeable. In summary, it seems that we are more likely to notice internal sensations when the external environment is quiet, and less likely to sense these sensations when the perceptual system is engrossed in a stimulating task.

Hypothesis construction. Another aspect of symptom perception is the tendency to jump to conclusions about what is wrong, set up a hypothesis and look for details to support it. Once a framework has been established, items from the external environment are selected to fit in with it. An example of this would be a person who thinks they have a particular disease and then constructs an 'illness hypothesis' to

fit the symptoms. Each internal sensation that fits the illness hypothesis is heralded as evidence of the presence of the disease; each sensation that disconfirms the illness hypothesis is ignored. Thus different people may interpret the same 'symptoms' in diverse ways because they frame their sensations differently.

Exercise 11.2

This exercise is based on an experiment by Anderson and Pennebaker (1980).

Split your participants into three groups. Prepare some strips of reasonably rough sandpaper or emery paper. Before the experiment, tell all the participants that they have to sign a consent form as standard practice. However, there are in fact three different consent forms for the three different participant groups. These should be worded as follows.

Group One – *I understand that I will come into contact with a stimulus that has been found to produce a mild degree of pain.*

Group Two – *I understand that I will come into contact with a stimulus that has been found to produce a mild degree of pleasure.*

Group Three – *I understand that I will come into contact with a stimulus that produces a sensation.*

Give each participant a piece of sandpaper and ask them to place their middle fingers on the sandpaper and rub them up and down for a minute or so. It is important that each group has as little contact with each other as possible.

After touching the sandpaper, each participant has to rate the stimulus on a 13-point pain–pleasure scale. Provide each subject with the following scale:

–6	–5	–4	–3	–2	–1	0	1	2	3	4	5	6
PAIN												PLEASURE

In the Anderson and Pennebaker (1980) experiment, participants in the pain group produced an average rating of –1.00. The participants in the pleasure group produced an average rating of +1.01, and the participants in the control group produced an average rating of +0.13.

The results you obtain may, or may not, replicate those of Anderson and Pennebaker; however it is important to remember the basic principles underlying the exercise – the relationship between a cognitive framework and the experience of emotion.

A final illustration of the interrelationship between symptom perception and different cognitive frameworks is given by Ruble (1977). The participants in the experiment were forty women who were selected because they all menstruated on the same day. They were given a

simulated electroencephalic examination which they were told could locate their position in their menstrual cycle with a high degree of accuracy. On the basis of the supposed results the women were split into three groups.

1. **Premenstrual group.** They were informed that they were within 1–2 days of beginning menstruation.
2. **Intermenstrual group.** They were told not to expect the onset of menstruation for 7–10 days.
3. **Control group.** They were not given any information.

All three groups completed a questionnaire about the physical and psychological symptoms associated with menstruation. The results indicated that the women in the premenstrual group rated themselves as experiencing more water retention, pain, changes in eating habits and different levels of arousal than women who believed themselves to be intermenstrual. Ruble did not deny the physical aspects of menstruation, but argued that the cognitive framework regarding the cycle location influenced the experience of symptoms.

The psychological components of illness perception have considerable significance for hypochondriasis. A common misconception of the hypochondriac is of a person who is 'putting it on'. Whilst in some cases patients who know they are healthy but wish to be sick may attempt to hoodwink the nurse into thinking that they have some ailment, the majority of hypochondriacs have a genuine although misplaced belief that they are ill. Barsky and Klerman (1983) define hypochondriasis as 'an unrealistic interpretation of one's bodily sensations as abnormal, leading to the fear and belief that one has a serious disease'. They put forward three possible reasons for the disorder.

1. *Amplification of sensations.* Patients who are hypochondriacs amplify and enhance normal bodily sensations. They report increased arousal and heightened perceptual sensitivity.
2. *Misinterpretation of symptoms.* Normal bodily sensations resulting from such things as indigestion and stomach flutter are misinterpreted as indications of serious illness. The incorrect diagnosis leads to an increase in emotional response which in turn can exacerbate the sensations, thus leading to a firmer conviction that they are ill.
3. *Predisposition to think in physical terms.* The hypochondriac has a predisposition to view the world in physical terms. He or she is oversensitive to physical sensation and eager to substantiate feelings as indicators of dysfunction.

In summary, the primary underlying disorder of hypochondriasis is a perceptual or cognitive defect rather than the illness behaviour itself.

As such, the patient will benefit from treatments that seek to identify the defect and address the irrational thoughts. The cognitive therapies mentioned in the previous chapter, such as stress inoculation training, seem ideally suited to achieve this reorientation of thought.

Once it has been established that illness is actually present, the ways in which people cope with illness will depend on several factors.

Severity of illness. Although the severity of illness does not always correspond with the strength of psychological reactions, some illnesses, such as cancer and heart disease, usually produce more noticeable psychological responses than, say, asthma and arthritis, but not always. There is a range of considerable individual differences in response to illness. The person who has started to lose their hearing in one ear may construe this event as devastating, whereas the person who has been told that they have kidney disease may take it in their stride and come to terms with their circumstances.

Location in the body. The site of the clinical disorder has particular significance for the patient. Clearly, people who are particularly active respond badly to illness which limits their mobility. However, disabling disorders seem to be seen as more of a threat by men than by women, while women tend to react especially badly to disfiguring diseases. Kincey (1989) says that psychological responses to surgery such as mastectomy may depend on several factors such as culture, age, personality and coping strategies. Therefore, it is important to view the disfigurement in a broad context rather than to apply only specific codes of practice.

Onset and duration of illness. An unexpected and acute onset of illness may cause a number of problems in the short term, but if the illness is relatively brief, the problems will usually be resolved quite quickly. Chronic illness may have less initial impact on the patient than acute illness but often involves considerable long-term readjustment.

Social factors. Experiencing illness when starting a new job is particularly troublesome, but it may seem a 'blessing in disguise' if one is looking for an excuse to escape from a difficult situation. The reactions of family and friends will also have an effect on the patient's perception of the severity of the illness and the delay between deciding that they are ill and seeking treatment. Recovery from illness tends to be quicker in those patients who have high levels of social support from family and friends.

Models for coping with illness

Both Moos' (1984) and Hopson's (1981) models can usefully be applied to illness. Moos' approach is useful in distinguishing between the problem-focused and emotion-focused coping strategies. Thus

problem-focused procedures are used to seek information, learn new skills and participate in treatment programmes. Obtaining information ranges from becoming more familiar with different forms of treatment to learning more about the causes of the illness. New skills that are associated with illness will vary in terms of their complexity. Running a home dialysis machine can seem more daunting than discovering a new way of sleeping. It is important for patients to discover, with help, their own ways of coping with the limitations imposed by illness. Specific ways of walking or sitting may minimise pain and rearranging the home environment can often facilitate independence. Kline Leidy *et al.* (1990) propose a framework based upon nursing theory. A major premise is that individuals with limited psychosocial attributes and a preponderance of unmet basic needs will be more likely to perceive events as threatening and thus experience heightened symptoms and acute exacerbations of their illness.

Emotion-focused strategies necessarily deal with the emotional demands and consequences of illness. Moos illustrates the importance of allowing the patient time to come to terms with their condition by permitting initial denial. Helping the patient to be more objective and less overwhelmed is a useful coping strategy which at the same time permits an expression of feeling.

Hopson's model is especially relevant to those patients whose reaction to illness produces strong emotional feelings. When these reactions are perceived as abnormal, intervention is required. The commonest psychological response to illness is depression, which is one of the axes in Hopson's cycle of reactions. Depression is most prevalent after the initial stage of illness and it is estimated that between 20 to 30 per cent of patients suffer from depression in some form or other due to illness. When the full meaning of the situation sinks in, the person can sink to the bottom of the cycle and remain there indefinitely. The feelings of helplessness and hopelessness associated with illness result in a passive, often withdrawn response, to the situation.

If there are strong feelings of guilt, then patients may feel that the illness is justified and self-blame can occur. If, due to self-blame, patients try to change their maladaptive behaviour so that there is less chance of the illness recurring, a small amount of self-blame can be advantageous.

Another strong emotion that tends to occur alongside depression is anxiety. This occurs as a consequence of uncertainty about the cause and outcome of the illness. It may not necessarily be related to the illness itself but be a general response to the circumstances and conditions surrounding the patient. Coping with anxiety takes many different forms and these have been discussed in detail elsewhere in this book. It is important to identify the type of coping strategy used by

the patient and then match the treatment procedures accordingly. Thus, if a patient is using a 'vigilant' coping strategy, they will find a lack of information stressful. If, however, they are using a 'denial' coping strategy, too much detail will be counterproductive.

Nicholls (1993) makes some interesting points regarding psychological intervention in physical illness. He believes that there are three key areas of skill: *emotional care, informational care* and *counselling.*

Emotional care. There is a need for care to be based on an understanding that emotional responses are part of illness. Therefore it is necessary for nurses to be able to recognise and acknowledge this part of being ill. An important skill is to be able to recognise how patients are coping and what their specific concerns about their illness are. Enabling patients to express their concerns can be difficult, but Nicholls says that this can be achieved by:

(a) making the situation non-threatening;
(b) providing the means for patients to recognise their own feelings;
(c) facilitating the expression of emotion;
(d) communicating understanding, empathy and acceptance;
(e) devoting time and support.

Providing information. Since patients respond to illness and cope with it in different ways it is important to find out what they know and what they want to know. It is also necessary to realise that a patient's need for information may change over time. Therefore a reluctance to discuss the details of a condition at one point does not mean that this will always be the case. Continual monitoring is required to be aware of new areas of need and evaluation of previous procedures.

Counselling. This involves some of the skills examined in Chapter 1. Listening to patients and facilitating the examination of problems and fears is of primary importance in nursing care. Similarly, patients need help to explore their situation and come to an understanding of their feelings and responses. Being able to empathise with patients makes these tasks a lot easier as it is only after the predicament has been explored thoroughly that one can move on to suggesting solutions. If there is one main fault that nurses tend to make, it is jumping to conclusions too quickly. Patients need time and space to come to terms with their circumstances, and often what seems an obvious solution turns out to be inappropriate.

Summary

There are many different life crises and illnesses requiring specific forms of nursing care. Each crisis, event, transition and illness needs further analysis to understand all the issues

involved. However, it is hoped that this chapter has provided the framework, or* schema *within which to interpret, and act on, all types of crisis and transition. The framework is not a fixed template but a process of perceiving empathically the events that patients experience.

Questions for further consideration

1. Distinguish between the concepts of crisis and transition.
2. What are the stages of bereavement? Do they have to occur in any specific order?
3. Discuss Erikson's *Eight Stages of Life.*
4. Examine the psychological components of illness perception.
5. Discuss the main issues surrounding nursing people with disabilities.
6. Compare and contrast the models of coping with life transitions, events and crises.

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Further reading

Bruce, N., Carpenter, K. (Eds) (1992). *Personal Coping: Theory, research, and application.* Westport: Praeger.
Not only does this book contain a number of interesting chapters on life stress and coping, but it also contains an exposition of Moos's model of coping that is related to personal growth. The approach, which is also known as the model of Schaefer and Moos, is discussed in the context of a number of life crises.

Fisher, S., Reason, J. (1988) (Eds). *Handbook of Life Stress, Cognition and Health.* Chichester: Wiley.
A comprehensive selection of chapters that illustrates the diversity of life stress and transition. Some of the sections are easier to understand than others but this is a book well worth dipping into.

Hopson, B., Scally, M., Stafford, K. (1988). *Transitions: the challenge of change.* Leeds: Lifeskills.
This is a practical book designed to help people manage their own life transitions. It is based on the Hopson model discussed in this chapter and provides a good account of how to develop a response to life events.

Nichols, K. A. (1993). *Psychological Care in Physical Illness,* 2nd ed. Beckenham: Croom Helm.
This book investigates the psychological factors that are important in a wide range of physical illnesses. It also concentrates on the effects that hospitalisation can have on behaviour. Of particular interest is the emphasis on client-centred care.

Wright, B. (1993). *Caring in crisis,* 2nd ed. Edinburgh: Churchill Livingstone.
Much of the content of the book is based on the author's extensive experience in Accident and Emergency departments. It provides a practical account of how to deal with 'crises' such as bereavement and aggression, and gives information that is specifically directed at nurses.

12 *The hospital and the community*

> Well, I ask the nurses about the blood pressure and if they don't tell me, I go to my chart and look at it. It's six of one and half-a-dozen of the other. When the doctor comes by, I listen to him. I get some information from him when he's speaking about me to the students, although he doesn't know he's giving it to me.
> McKinlay (1975)

Hospitals have not always existed. The ancient Roman army was one of the first groups of people to provide 'hospitals', in the form of separate barracks for their ill or wounded soldiers. From about AD 542 Christian monasteries took on the role of caring for the sick, in addition to sheltering the poor and needy. During the eighteenth and nineteenth centuries, hospitals became much more specialised and established wards for different categories of illness. These institutions still catered mainly for poor people, who often died of their afflictions, and so most people, if they could afford it, were treated at home by private physicians. With the advances in medical knowledge and treatment at the end of the nineteenth and beginning of the twentieth centuries, the reputation of hospitals improved and they became widely accepted as institutions with a variety of functions such as treating disease and injuries, preventing illness, conducting tests and research, teaching and assisting patients' rehabilitation. However, while the physical experience of hospital has vastly improved, the psychological experience of the hospital is still found to cause problems for both patients and staff.

Stress rating scales

Volicer *et al.* (1977) devised the *Hospital Stress Rating Scale* to assess the degree of stress patients experience during periods of hospitalisation. Medical and surgical hospital patients were asked to rate events in terms of their perceived stressfulness (see *Table 12.1*). From these results it can be seen that some of the most stressful events involved lack of communication – not being told the nature of the diagnosis

Table 12.1 *Perceived stressfulness of events experienced during hospitalisation (adapted from Volicer* et al., *1977)*

Factor	*Stress-scale Events*	*Mean Rank Score*
1. Unfamiliarity of surroundings	Having strangers sleep in the same room with you	13.9
	Having to sleep in a strange bed	15.9
	Having strange machines around	16.8
	Being awakened in the night by the nurse	16.9
	Being aware of unusual smells around you	19.4
	Being in a room that is too cold or too hot	21.7
	Having to eat cold or tasteless food	23.2
	Being cared for by an unfamiliar doctor	23.4
2. Loss of independence	Having to eat at different times than you usually do	15.4
	Having to wear a hospital gown	16.0
	Having to be assisted with bathing	17.0
	Not being able to get newspapers, radio or TV when you want them	17.7
	Having a roommate who has too many visitors	18.1
	Having to stay in bed or the same room all day	19.1
	Having to be assisted with a bedpan	21.5
	Not having your call light answered	27.3
	Being fed through tubes	29.2
	Thinking you may lose your sight	40.6
3. Separation from spouse	Worrying about your spouse being away from you	22.7
	Missing your spouse	28.4
4. Financial problems	Thinking about losing income because of your illness	25.9
	Not having enough insurance to pay for your hospitalisation	27.4
5. Isolation from other people	Having a roommate who is seriously ill or cannot talk with you	21.2
	Having a roommate who is unfriendly	21.6

Table 12.1 *Continued*

Factor	*Stress-scale Events*	*Mean Rank Score*
	Not having friends visit you	21.7
	Not being able to call family or friends on the phone	23.3
	Having the staff be in too much of a hurry	24.5
	Thinking you might lose your hearing	34.5
6. Lack of information	Thinking you might have pain because of surgery or test procedures	22.4
	Not knowing when to expect things will be done to you	24.2
	Having nurses or doctors talk too fast or use words you can't understand	26.4
	Not having your questions answered by the staff	27.6
	Not knowing the results or reasons for your treatments	31.9
	Not knowing for sure what illnesses you have	34.0
	Not being told what your diagnosis is	34.1
7. Threat of severe illness	Thinking your appearance might be changed after your hospitalisation	22.1
	Being put in the hospital because of an accident	26.9
	Knowing you have to have an operation	26.9
	Having a sudden hospitalisation you weren't planning to have	27.2
	Knowing you have a serious illness	34.6
	Thinking you might lose a kidney or some other organ	35.6
	Thinking you might have cancer	39.2
8. Separation from family	Being in the hospital during holidays or special family occasions	22.3
	Not having family visit you	26.5
	Being hospitalised far away from home	27.1

Table 12.1 *Continued*

Factor	*Stress-scale Events*	*Mean Rank Score*
9. Problems with medications	Having medications cause you discomfort	26.0
	Feeling you are getting dependent on medications	26.4
	Not getting relief from pain medications	31.2
	Not getting pain medication when you need it	32.4

(34.1%); having one's questions ignored (27.6%); not knowing the results of, or reasons for, treatment (31.9%); and staff talking too fast or using difficult words (26.4%).

Maslach (1982) used the *Maslach Burnout Inventory (MBI)* to measure the stress experienced by nurses in the hospital environment. She found that there was a relationship between the amount of time spent taking care of patients and emotional exhaustion. Emotional exhaustion was defined as 'feeling tired when thinking about going to work'. More recently Guppy and Gutteridge (1991) looked at the factors that were associated with perceptions of stress reported by nurses in a general hospital. The main factors concerned with the sources of stress were: interpersonal relations, resource problems and dealing with death. There were no differences between the wards in the hospital in relation to stress; however, there were differences according to grade of nurse, and job satisfaction was correlated with nursing experience.

A positive feature of surveys such as those conducted by Volicer *et al.* is that the problems that have been identified as important by patients are not insoluble. However communication and understanding *can* be improved, as the following experiment by Ley *et al.* (1976) illustrates.

Patients on three wards of a general hospital were assigned to three conditions.

Ward A. Patients were given an extra visit by nurses or doctors every ten days. During these visits attempts were made to ensure that the patients had understood what they had been told about their condition and treatment. No new information was provided, as the purpose of the visit was to clarify existing information.

Ward B. Patients were given extra visits to discuss their welfare and food, but received no clarification of the information given.

Ward C. No extra visits were given.

The results of this experiment indicated that the patients from Ward A were approximately twice as satisfied with the way they had been treated as patients from the other two wards. In Ward A 80 per cent of patients were satisfied with communication; in Ward B 41 per cent were satisfied and in Ward C 48 per cent were satisfied. The results of this study indicate that one of the main problems facing patients in hospital is that of uncertainty over procedures and information given, but with a little more effort from both nurses and doctors, this uncertainty can be significantly reduced.

Surgery-related stress

Uncertainty may be particularly apparent in those patients waiting for surgery or invasive medical procedures. In Chapter 10, techniques for coping with stress were found to fall into behavioural, cognitive and emotional control categories. Similarly, styles of coping with surgery and unpleasant invasive techniques also fall into these categories.

Cognitive control is concerned with enabling patients to focus on the positive aspects of the medical procedure, such as the benefits, whilst ignoring the unpleasant features. Langer *et al.* (1975) investigated the use of cognitive control in patients waiting to undergo types of surgery which typically had favourable prognoses, such as hernia and hysterectomy operations. One group of patients received training in the use of cognitive control. This involved discussion about what the positive aspects of the surgery might be, and then patients were encouraged to think about these positive features when feeling distressed about the surgery. The control group of patients spent an equal amount of time engaging in general conversation. Nurses rated the behaviour of both groups of patients before and after surgery and kept a note of patients' requests for pain relief. Those patients who received the cognitive control training were found to have lower levels of both pre- and post-operative stress, and made fewer requests for medication than the patients in the control group.

Behavioural and informational control reduce discomfort by getting the patients to perform actions that are incompatible with the stress of the procedure, such as relaxation, breathing and coughing exercises. These also provide knowledge about the sort of sensations to expect during the procedure. Anderson (1987) found that giving male cardiac patients waiting for coronary bypass surgery both informational and behavioural control reduced the patients' anxiety before and after the operation. The patients were given the standard preparation for

surgery, which consisted of the patient and the nurse discussing two pamphlets outlining the procedures relating to the surgery. Patients then watched a video about the procedure, which included interviews with patients who had successfully recovered from the operation. They were also given an audiotape describing sensations they might experience. Finally, the patients were taught how to perform behaviours such as coughing exercises and ways to turn in bed after the operation. Generally speaking, if patients have a limited opportunity to take an active role in coping, informational and cognitive control are particularly effective preparations for surgery and for stressful medical procedures. When patients can take some form of direct action in relation to their condition, behavioural control should be used to reduce discomfort.

Corney *et al.* (1992) interviewed 105 patients who had undergone major surgery for carcinoma of the cervix or vulva in the previous five years. They found a high proportion of their sample depressed and reporting chronic sexual problems. Both the patients and spouses indicated that they would have liked more information on the after-effects of the operation including physical, sexual and emotional aspects.

Social domain and surgery

The social domain should also be considered in the context of preparation for surgery. Kulik and Mahler (1989) studied patients who were scheduled for coronary bypass surgery. Two nights before the operation the patients were asked whether they would like to share a room with a person who was scheduled to undergo the same operation; a person who was recovering from the same operation; or if it made no difference who they shared with.

The results indicated that 60 per cent of patients preferred to share a room with someone who had just had the operation compared with 23 per cent who had no preference, and 17 per cent who would prefer to share with a person waiting for the same operation. This would seem to support the patient's need to be provided with accurate information, in this instance about what the oepration actually feels like from a patient's perspective.

Stages in patient care

To indicate that hospitalisation involves a period of preparation for admission as well as a period of readjustment after discharge, Kincey (1989) provided a model that considers these stages in the care of patients.

The preoperative stage

It is important to realise that the cognitive and emotional reactions of patients vary enormously and high levels of anxiety may interfere with their ability to understand and make decisions about information. Certainly the patient needs to be clear about whether the surgery is essential or optional.

A patient's level of understanding should be ascertained and any gaps or misconceptions corrected. It is probably a good idea at this stage to find out the coping style of the patient and tailor the information given on procedural details accordingly.

If probabilities are used in relation to outcomes, then care should be taken to consider the difficulties patients may experience in understanding the implications of certain courses of action, especially if they are feeling nervous or anxious.

The preoperative admission information should not only give clear, relevant, factual information about hospital policy and self-preparation, but should also make patients feel free to ask about procedures and conduct.

Postoperative hospitalisation stage

After recovery from the anaesthetic, the patients should be given clear verbal feedback about the surgical procedure that has been undertaken.

Nurses should be aware that patterns of pain experience vary considerably between patients undergoing the same surgical procedure. The absence of verbal requests for pain relief may not correlate with nonverbal signals.

> Ward staff should recognise that patients are assessing their own recovery in terms of comparisons with other patients whom they perceive as undergoing a similar process, and in terms of their own expectations of how rapidly they should recover after surgery (Kincey, 1989).

Therefore it is important for nurses to be able to correct misinterpretations and point out appropriate progress comparisons.

The self-care information presented to patients before discharge should be framed in specific behavioural terms. That is (when it is possible to be exact), information should be given about when it would be safe to engage in walking, resume sexual activity, lifting, and so on. Patients should be told if it is impossible to predict the exact timing of activities.

Post-discharge stage

Psychological, as well as physical, progress should be assessed post-discharge. Major surgery can engender loss of physical function, changes in self-image and numerous other psychological sequelae. Reactions may include anger, depression and anxiety, all of which should be dealt with in an accepting manner.

At some point, the opinion of either specialist or lay support groups should be considered. However, this action should not be forced on patients and if they are uncertain about whether to seek help, a familiar person and setting should be used to set up initial contact.

Wilson-Barnet and Carrigy (1978) monitored patients' daily emotional reactions from the time that they were admitted to a general hospital ward to the time when they were discharged. Emotional reactions were measured using a mood adjective checklist, interviews with the patients and the *Eysenck Personality Inventory*. The first finding to emerge was that patients' anxiety scores were significantly higher during the first 24 hours of their hospital stay than the average of the scores during their entire stay in hospital. This occurred for both anxious and non-anxious patients. Factors that did not seem to be important were age, sex and whether the patients had been admitted from the waiting list or as emergencies. Some of the reasons given by the patients for their anxiety included 'not wanting to leave the family'; 'fear of hospitals'; and 'worries about illness'. Those patients who rated themselves as 'not so ill' felt more negative about their admission to hospital.

A significant finding of the study was the relationship between the patient's personality and the time taken to adjust to the hospital. Those patients who scored highly for emotionality took longer to adjust, and in many cases it took these patients up to five days to become attuned to the hospital. Wilson-Barnett and Carrigy concluded that those patients who have a highly emotional disposition probably respond to admission with negative emotions which will then persist for some time. Others may initially report feelings of anxiety and unhappiness but lose them after a day or two.

Privacy and territoriality

Privacy

One feature of day-to-day life which has to be compromised on admission to hospital is privacy. In addition to the discomfort caused by their illness, patients have to put up with exposing their bodies to strangers. Whilst this is accepted as a feature of being in hospital, it is

not a normal feature of everyday life. Similarly, when people wish to have private conversations they are usually at liberty to do so, but in hospital it is not always easy to. In some instances patient privacy may be at odds with the nurse's need to effectively monitor their patients. Gadbois *et al.* (1992) analysed the spatial and temporal organisation of the work of nurses in medical and surgical units of a French hospital. The units were designed around a U-shaped configuration. An analysis of nurses' trips completing various aspects of their work indicated that this was not the best design as far as workload was concerned. Jaco (1979) found that the type of ward design most favoured by nurses for patient observation was a radial arrangement; however, this was the design least preferred by patients when privacy was considered. This illustrates an important point – that in many cases it will prove impossible for patients to have privacy when they are in hospital. The role of the nurse is to try to make them feel that they do have some control over their environment. If, despite the adverse circumstances, patients develop a feeling of control over their privacy, their levels of stress and anxiety will be reduced, leading to increased levels of health and wellbeing.

Placing screens and curtains around a patient's bed does afford some privacy, even though the barrier is acoustically imperfect. However, some patients are reluctant to ask for privacy, since they are scared of being labelled a 'difficult patient'. Again, if it is not possible to give patients direct control over opening or closing curtains, blinds or screens, they must be made to feel that they can ask for assistance whenever they wish. Attention to what may be regarded as cosmetic, or even petty, details does have substantial psychological benefits which can be measured in both financial and medical terms. Cameron (1993) investigated what constituted comfort from a patient's perspective. The findings indicated that comfort was not viewed as a passive process with patients waiting to receive help, but as a dynamic process with each patient actively engaged in increasing comfort levels.

Territoriality

Territoriality is related to privacy in as much as it is also concerned with the use of personal and public space. People naturally feel more comfortable when they are on their home ground. Altman (1975) has classified territories into three types.

1. *Primary territories*: places where people are able to exert complete control, such as their own homes.
2. *Secondary territories*: these are semi-public areas affording limited access to strangers. Examples are the front path of a house or its doorway.

3. *Public territories*: areas where access is provided to everybody, for example a park bench or a shopping mall.

Although these are defined territories, there can be a tendency amongst some cultures to try to change public territory into primary or secondary territories by placing items of clothing such as a coat or hat on a seat to discourage others from sitting there. Finding a spare seat on a bus or train is fine, but how much better it is when one finds a seat with three vacant ones surrounding it.

Schumaker and Reizenstein (1984) state that:

> Hospitalised patients leave the comfort and security of their homes (primary territories) and enter an unfamiliar setting in which the classification of territory is ambiguous. Although they are assigned to their 'own rooms,' patients have no choice in the furnishings of the room and only limited control over who enters the room, or when a person enters it. In addition, patients are expected to perform behaviours in this environment that they have heretofore usually confined to their own primary territories (e.g. sleeping and resting, discussing personal issues with friends, and grooming).

They go on to suggest a number of 'benefits and barriers' to the personalisation of the hospital environment, including the following.

- Patients should have as much opportunity as possible to personalise their setting in the hospital, as this reduces the negative impact of the discontinuity between leaving the home environment and entering the hospital habitat.
- There should be consultation between patients, nurses and those involved with hospital design with regard to the personalisation of space.
- Although the specific details of personalisation may differ from one hospital to another, consideration should be given to such items as a bulletin board viewable from the patient's bed, a locker for clothes with shelves for grooming materials and a table within easy reach of the patient.

The following obstacles, or barriers, to the implementation of personalised patient space should be considered.

- Space in hospitals is a 'valued commodity', therefore consideration should be given to providing space for the patients and the space required for other needs.
- Often there is a requirement for technical equipment, which will compete with a patient's personalised space.

- Too much personalised space can disrupt the provision of appropriate nursing care.

Noise in the hospital environment

> Noise is a psychological concept and is defined as sound that is unwanted by the listener because it is unpleasant, bothersome, interferes with important activities, or is believed to be physiologically harmful (Kryter, 1970).

Noise can inflict most irritation when people find themselves in a new environment. For example, people who go to live near a railway line, or on a busy street may have difficulty sleeping at first, but soon habituate to the noisy environment and after a while seem not to notice the noise at all. Indeed, when these same people are placed in a quiet environment, they often experience discomfort at the lack of noise.

In hospitals, while some of the sounds may not be loud, they may nevertheless still cause considerable irritation. The sounds which occur in intensive care units may cause significant stress, disturbance and sleep problems for patients, but at the the same time may be perceived as normal and necessary for patient care by the nursing staff (Topf, 1992).

Unfamiliar, unpredictable and uncontrollable sounds have been described as particularly stressful stimuli. With this in mind, it must be remembered that patients are often particularly sensitive to noise due to the fact that they are ill and in many cases experiencing little, or no, stimulation. One has only to think of how we feel when we hear a strange sound in the middle of the night to appreciate what some patients may feel on their first night in hospital (Evans and Cohen, 1987).

The use of light in the hospital environment

Unfortunately, the needs of patients and hospital staff are often at odds where lighting is concerned. In many circumstances medical staff require high levels of illumination, whereas patients often prefer low levels. High levels of illumination produce greater productivity and increased accuracy and have also been evaluated as less stressful by staff (Barnaby, 1980). On the other hand, patients may need low levels of lighting to rest and sleep, and indeed, feelings of warmth, comfort and relaxation are usually associated with low levels of illumination. However, an experiment by Martynuik *et al.* (1973) illustrated that the different lighting needs of patients and staff *could* be accommodated in one unit. Groups of patients and staff were placed in a room with six

different lighting systems and were asked to rate the lighting arrangements on perceptual clarity and spaciousness. The participants were also given pairs of words such as pleasant–unpleasant; satisfying–frustrating; relaxed–tense and asked to rate each lighting system on a scale within each pair of words. The most popular choice for all participants was a combination of overhead downlighting with peripheral and overhead diffuse lighting. The main implication of this and other studies is that appropriate hospital lighting arrangements *can* be produced if planners are prepared to consult nurses and patients on the type of lighting that reflects everyone's needs. In the same vein, expertise should be brought to bear on the design of windows, type of glass used and the integration of natural and artificial lighting.

Pollution and smells

A polluted working environment can be at the least irritating and at the worst unbearable. It has been found that there are large individual differences in the sorts of odours that people find irritating, as people tend to habituate to odours. Some people who work all day in a 'smelly' environment become totally unaware of the odour and it can come as a shock when people unused to the smell reflect their distaste, either verbally or nonverbally. However, it should be recognised that some forms of pollution and some smells *can* be reduced. Many hospitals operate a 'no smoking' policy, where smoking is prohibited except in designated smoking rooms. This policy works well as long as the people who smoke do not feel victimised and help is provided for those wishing to give up smoking. Some hospital odours are unavoidable, and here the presence of a good ventilation system is essential.

The hidden message

It may seem that to concentrate resources on developing 'user friendly' lighting systems or on reducing obnoxious smells is trivial in comparison with the 'real' needs for life-saving hospital equipment. This may be so, but consider the following points.

- All hospitals convey a 'hidden' meaning or message to patients. This message is largely communicated by the attention paid to the sorts of details mentioned. Often it is 'the little things' that have the most influence on a patient's first impression of the hospital.
- When designing new hospital environments, ideally patients and staff should be allowed to consult with the designers and architects to produce a hospital that reflects the needs of the people who live and work there. This is not necessarily a matter of finance.

- The design and structure of the wards and rooms, the provision of plants and suitable furnishings, and attention to physical comfort and privacy can communicate warmth and personal control as well as professionalism and competence.
- The hidden message should be 'You are important!'.

Sick role behaviour

When patients enter hospital they normally have some idea of what is expected and how they should behave. Lorber (1975) interviewed over 100 patients at the beginning of their stay in hospital. The patients were all over 40 years of age and had been admitted for surgery ranging from moderate to serious in terms of severity. The patients were asked to indicate whether they agreed or disagreed with the following series of statements.

1. The best thing to do in the hospital is to keep quiet and do what you are told.
2. I co-operate best as a patient when I know the reason for what I have to do.
3. When I am sick, I expect to be pampered and catered to.

On the basis of the patient's responses to these questions, they were allocated to either a 'passive' or an 'active' group. Thus, if a patient agreed with (1) and disagreed with (2) and (3), they would be assigned to the passive, conforming group.

At the end of each patient's stay in hospital Lorbor interviewed them again. She found that the patients' sick role beliefs were an indicator of their reported hospital behaviour. Those patients who had been assigned to the passive group were less likely to argue and complain then those in the active group. Before the patients were discharged the medical staff were asked to rate the patients as 'good', 'average' or 'problem', and to provide descriptions of each patient's behaviour and their reaction to it. In most cases, the patients rated as 'good' were found to be co-operative, uncomplaining and stoical while those rated as 'problem' were unco-operative, complaining, overemotional and dependent. Patients who were *too* passive could also cause the nurses problems. In one instance, a patient who was very ill did not want to bother the nurses, even when she really needed care. Consequently, the nurses frequently had to check on her status, which disrupted routines.

The nurses in this study recognised that 'problem' behaviour could stem from a severe medical condition and distinguished between two types of patients:

- those patients who are very ill and often have a poor prognosis. Because of the severity of their condition nurses accept their behaviour and realise that they need a lot of attention.
- those patients who are perceived as taking up more nursing time than they actually need or is warranted by their condition. These patients, it is often felt, frequently complain, argue and fail to co-operate.

Problem patients

Why are some patients seen as 'a problem' in hospital? One answer to this question is that *reactance* has occurred. In Chapter 2 I suggested that when people feel that their sense of autonomy is being denied they react against the source of the denial and the people associated with it. In the context of hospitalisation, some patients feel that their freedom and ability to think and act for themselves is being eroded. A patient may not be allowed to get out of bed because of their injuries, or to watch television late at night because it would disturb the other patients. The response to reactance is anger and a determination to be as unco-operative as possible. Taylor (1979) says that reactance can manifest itself in

> petty acts of mutiny such as making passes at nurses, drinking in one's room, smoking against medical advice, and wandering up and down the halls. Such minor incidents tend to irritate nursing and custodial staff, but rarely do any damage. However, petty acts of mutiny can turn into self-sabotage, such as failing to take medications which are essential to recovery, or engaging in acts which have potentially fatal consequences.

Although the ideal way of dealing with such patients is to respond in an assertive rather than an aggressive manner, giving reassurances and providing explanations, this does not always occur. There can often be a tendency to ignore or criticise a patient's problem behaviour and to respond less quickly to their calls for attention.

Another explanation for 'problem' patients is based on the notion that the main fault with studies such as Lorber's (1975) is that they cast the patient in the role of either good or bad. In their review of 'good and bad patients', Kelly and May (1982) suggest that patients come to be defined as good or bad not because they have a particularly 'difficult' personality or possess behavioural quirks, but as a consequence of the interactions that take place between nurses and patients. They say that nurses symbolically take on the role of the patient both to make, and to make sense of, their own role, and it is in doing so that

the labelling of patients inevitably takes place. The good patient is one who confirms the role of the nurse while the bad patient denies that legitimation.

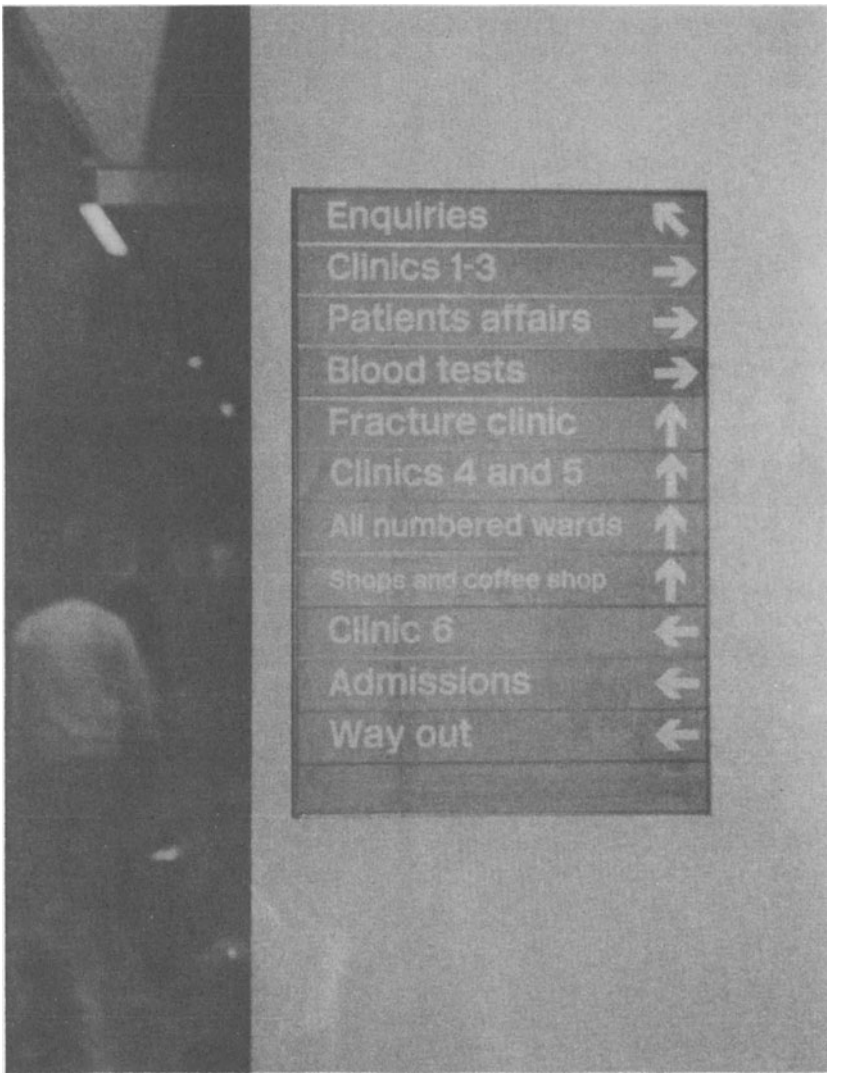
Essentially, Kelly and May are saying that sick role behaviour should not be viewed as a patient *characteristic*, but as an *interaction* between medical staff, the hospital environment and the patients. This perspective suggests that nurses have a much more positive role to play in affecting the behaviour of patients, and by looking at their own actions they can analyse how they react to specific situations.

One of the main problems associated with hospitalisation is not the label 'good' or 'bad' patient, but the label 'patient'. Effectively, the message associated with the patient role is one which ascribes powerlessness, helplessness and insignificance. A 'patient' sits or lies passively while all responsibility, decisions, procedures, basic care functions and planning are undertaken by the medical staff, often without the person involved being told what is happening. All this strips away personal status, dignity and control (Nichols, 1989). One factor that has been found to be instrumental in the development of feelings of lack of control on entering the hospital environment is *confusion*. Kornfield (1972) suggested that there were three sorts of confusion.

1. *Geographic confusion* – what is 'patient territory' and what is not? Finding one's way around large hospitals can be very daunting, and signs can often be confusing and use unfamiliar terminology. Arriving for the first time at a hospital and not knowing where to go or how to get there causes a great deal of anxiety. If one works in the same environment for some time a 'cognitive map' develops, and what may have seemed a maze becomes commonplace to the extent that directions seem obvious. However, this is not the case for the newcomer. What seem to be clear instructions to someone who has worked in a hospital for some time may not be so clear to someone who is new to the situation. The best way to help people find their way is to take them to their destination and say 'I was just going there myself'. This may not always be possible for a whole host of reasons, but one should try to give directions in a patient-centred fashion. It may seem trivial to give attention to helping patients find their way in the hospital environment, but this first impression is all important. If on entering the hospital environs patients feel 'cared for', they will have developed a positive first impression which will often remain with them (see Chapter 2).

2. *Sub-cultural confusion* – a state of wondering who does what and when. It refers to not knowing who people in the hospital are and what they are supposed to do or not do.

3. *Role confusion* – where questions such as 'How am I supposed to behave in this situation?'; 'How are my needs going to be met?' and



Finding one's way around large hospitals can be daunting.

'How am I meant to communicate with the nurses and doctors?' are asked.

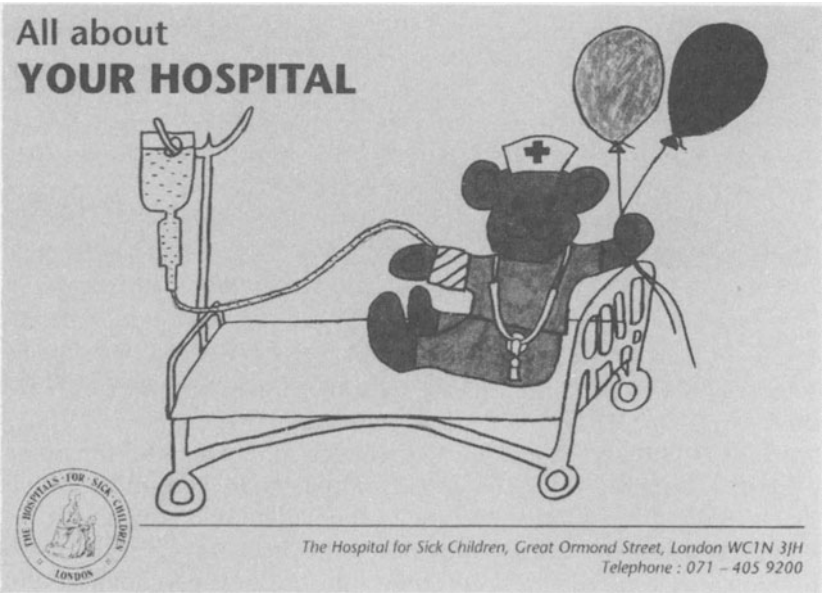
Nichols (1989) says that one way to reduce confusion is for the nurse to adopt a teaching role. The nurse should try to determine which aspects of the hospital are confusing to the patient and which features of the environment cause particular difficulties. In an attempt to provide client-centred care in a renal unit, the unit psychologist and the nursing staff got together to produce the following aims.

1. To attempt to produce an environment where patients perceive themselves as 'associates' to the health care team and as such are included whenever possible in decision-making about their treatment.
2. To require the patients to try to keep themselves informed, thus reducing the stress of 'not knowing'.
3. To use the unit's educational facility to try to achieve self-efficacy in dialysis, diet, and exercise.
4. To take advantage of emotional care and support.

Although this regime puts pressure on patients to take an active role in their own care, Nichols suggests that the majority of patients do take up the invitation to work with the healthcare staff. Finally, he says that staff have needs too and a balanced, negotiated compromise is the situation most likely to succeed.

Children and hospitalisation

The process of hospitalisation can prove particularly upsetting for children (see Chapter 2 for a discussion of the effects of hospitalisation on child development). Super (1981) found that the distress associated with hospitalisation and short-term separations peaked at about 15



Some hospitals have booklets on children's admission to hospital.

months of age in a wide variety of cultures. The experience can be made easier, however, if parents can be involved in preparing their children for a stay in hospital. Sarafino (1986) suggested that parents can:

- explain the reasons why the child has to visit the hospital;
- provide the child with opportunities to ask questions about what is going to happen to them and provide answers which are easily understood;
- if available, read through booklets on children's admission to hospital with their child;
- when taking the child to hospital, explain the procedures for going to the toilet and other such routines, and point out that they will be able to have breakfast in bed;
- tell the child when and how often they (the parents) will be able to be with them.
- preserve a calm and relaxed manner in order to convey a matter of fact approach to the changes in their child's circumstances.

Giving children information about their hospital stay

There is a certain amount of controversy concerning the amount of information children should be given prior to medical procedures. Melamed and Siegel (1975) investigated the use of a video entitled *Ethan has an operation* in preparing 4- to 12-year-old children for hernias and tonsillectomies. The children were split into two groups and matched for age, gender, culture and type of operation they were about to undergo. One group saw the operation video while the other group watched a video about a boy going on a trip to the countryside. The operation video portrayed the events that Ethan experienced from the time of his admission to hospital to the time of his discharge, and although he was visibly apprehensive at first, he gradually overcame his anxiety and completed the treatment without distress.

The experimenters used three methods to assess the emotional adjustment of the children to being hospitalised: *skin conductance; self-reports of anxiety;* and *observers' ratings of emotional behaviour.* The two groups were assessed the evening before the surgery and again three weeks after discharge. The results indicated that all three measures demonstrated that there was a significant difference between the two groups' anxiety levels. The group that watched the 'operation' video experienced less anxiety before and after the operation than those who saw the 'trip to the country' film.

Timing the presentation of material to children

Thus there seems to be evidence that children may benefit from

exposure to materials such as videos which portray events in hospital. However, it must be recognized that some children employ a *blunting* strategy to deal with stress and anxiety. These children do not want to know what is about to happen to them, as they are attempting to deny the stressful elements of the procedure, and preparations of this type may make them more anxious. Dahlquist *et al.* (1986) suggested that timing, the child's age and previous medical experiences are other factors to consider when preparing children for hospitalisation. Children younger than seven years of age seem to prefer being presented with information shortly before the medical procedure, whereas older children like to have the details some time before the event. Also, young children appear to be made *more* anxious by information if they have previously experienced uncomfortable medical experiences. (See Douglas, 1993, for more detail on the issues involved in the care of sick children in the hospital environment.)

It can be difficult for nurses who are familiar with the hospital environment and the medical procedures that occur within it to appreciate what it is like from the patient's point of view. However, it is important to try to see things from the perspective of the patient who is unfamiliar with, and somewhat apprehensive about, what is going to happen to them. The more one is able to understand the needs and concerns of patients, the less daunting an experience hospitalisation will be for them.

The community

It is difficult to define what exactly constitutes a community, but all communities have physical, social and cultural dimensions. All of these components are interrelated, and it makes sense to look at them together as they highlight specific issues in the psychology of nursing care in the community. There are a number of different psychological perspectives that synthesise the physical, social and cultural components of communities into a workable framework. Nevertheless, each perspective attempts to conceptualise health and human behaviour in two main ways.

1. To view behaviour not from the individual perspective, but as an interaction between people and their environment.
2. To focus on ways to improve the quality of people's lives and to promote health.

Environmental psychology

Lewin (1951) emphasised the importance of the environment by saying that all behaviour was a function of the interaction between

person and environment. People do not exist in a vacuum but are part of their surroundings; they shape, and are shaped by, their environment. Therefore, when studying nursing in the community, it is necessary to construct a model of human behaviour that reflects the interrelationships between people and their habitat. Moos (1979) put forward a 'social ecology' model which represents this *person–environment fit.*

- **Physical setting.** Temperature, rainfall, pollution and architectural design are all important features of health behaviour. Arthritic patients who were exposed to stormlike pressure and humidity experienced increasing pain sensations (Hollander and Yeastros, 1963).
- **Organisational factors.** The size of an organisation and how the work space is structured can affect people's health. (Many of these issues were discussed in the previous section on the hospital.)
- **Human aggregate**. This factor is concerned with the characteristics of the inhabitants of a particular environment. Gender, age, income, background and culture are some of the main components of the human aggregate. Some people refer to this factor as *social epidemiology.*
- **Social climate**. The extent to which people interact with and support each other are important dimensions of community care. The presence of functional social networks and support groups creates a positive social climate where people feel they have more control over their circumstances.

There are other features of Moos's 'social ecology' model, but these four variables represent the main categorisation of the environmental system and provide a useful template for assessing factors influencing health behaviour in the community. A clearer picture of the social ecology model can be obtained by selecting one area and looking at it within this framework.

Crowding and health

The physical setting. Galle *et al.* (1972) distinguished between four different elements of population density and crowding in Chicago: the number of persons per room, the number of rooms per housing unit, the number of housing units per residential structure and the number of residential structures per acre. They found a relationship between all four components and fertility, delinquency and hospital admission rates. Fuller *et al.* (1993) suggest that two major factors are thought to be involved in the relationship between health and crowding. These are that:

- high levels of crowding lead to an increase in stress which has an adverse effect on health; and
- people living in close proximity with each other are likely to be more prone to communicable disease.

Organisational factors. Social density, or the number of people in a group, affects the influence of crowding on behaviour. Higher social density has been thought to increase complaints of illness, raise blood pressure and increase the number of psychiatric admissions (Paulus *et al.*, 1978). However, one has to take into consideration the ways in which space is used as well as the level of dwelling unit density. This last point is particularly relevant to the next factor, the human aggregate.

Human aggregate. A wellknown experiment by MacDonald and Oden (1973) illustrated how the use of space could mediate the effects of crowding. They examined three married couples who were trying to simulate the conditions they were about to experience during their work with the Peace Corps. The couples had to live together in one room 30 feet square for three months. This would seem to be a recipe for confrontation and conflict, yet, because the couples developed a high degree of co-operation with each other, they experienced little stress. Indeed, they were found to show enhanced marital relationships, were chosen as social-emotional leaders (see Chapter 6) by other volunteers and regretted leaving their accommodation more than those who had been assigned to living in a hotel. The co-operation between the couples had led to the development of decisional control over their environment which diminished the effects of the crowded space.

Social climate. Groups who show social cohesion are less likely to experience stress in crowded conditions than groups who do not get on well together. In a review of studies on crowding in dormitories, Karlin *et al.* (1979) found that uncohesive groups of individuals experienced more stress, acted more competitively, performed less well in exams and felt more helpless than their counterparts who had formed into socially cohesive groups.

Thus it appears that the effects of physical crowding can be tempered by the amount of perceived control that inhabitants have over their surroundings and in their interpersonal relationships between residents. Living in crowded conditions need not produce stress and ill health if people get on well together and determine, as a group, to do something to improve the situation. Nurses working in the community can play a crucial role in facilitating the development of cohesive groups who can then evolve an agenda for dealing with their specific problems.

Noise, pollution and heat

Another way of investigating the environment is to examine the effects of specific features on health and behaviour. Just as noise, pollution and heat are important in a hospital context, so do they play an equally distinct role in the community. It is important for those nurses who work in the community to be aware of the ways in which certain features of the environment affect health and behaviour.

Noise

Cohen *et al.* (1986) reviewed the effects of environmental noise on health and behaviour. They found that people who, for instance, live near busy airports suffer a wide range of health disorders, such as cardiac insufficiency, pregnancy complications, high blood pressure, nervous and gastrointestinal diseases. Furthermore, unpredictable and uncontrollable sound levels have been described as more stressful than those under one's control (Evans and Cohen, 1987).

In one study which examined children from four primary schools situated beneath the flight path of Los Angeles airport (over 300 flights per day; one every 2.5 minutes during school hours), the effects of the noise were found to increase the children's blood pressure and decrease their motivation for school work, compared with a matched sample of children from 'non-noisy' schools (Cohen *et al.*, 1979). Some people who live in noisy environments say that after a while they become unaware of the noise and adapt to it. However, these same children were examined a year later with similar results, indicating that adaptation to noise does not necessarily occur.

Pollution

The presence of high levels of photochemical oxidants (smog) in the atmosphere has been linked to people suffering from depression, hostility, anxiety and the increased use of healthcare facilities. Evans and Jacobs (1984) found that people suffering from stress were more susceptible to the negative effects of high levels of smog than those who reported less stress. Furthermore, the perception of the effects of pollution was tempered by how long the residents had lived in the area. People who had lived in areas with smog for a period of time regarded it as less of a problem, exaggerated their health and had a higher locus of control than those residents who had only recently moved into the area. Despite the physical and emotional dangers of smog, long term residents seem to come to accept the pollution psychologically and not perceive it as a problem.

Thunder and lightning storms, wind and other atmospheric conditions that split ions into positive and negative do seem to affect

individuals' moods. Baron (1987) found that the presence of negative ions increased whatever emotion was being experienced at the time. Thus, when negative ions were present, Type A individuals experienced more aggression, and people with similar attitudes liked each other more than those with dissimilar attitudes. Nurses working in the community should be aware not only of the effects of atmospheric pollution on physical health, but also of the consequences for human behaviour as well.

Temperature

There seems to be a positive relationship between temperature and aggression, and people tend to become more irritable and uncooperative as the temperature rises. Simpson and Perry (1990) found in a study conducted in the US that as the average monthly temperature rose, incidences of rape and aggravated assault also increased. Carlsmith and Anderson (1979) found that the most dangerous outbreaks of violence occurred when temperatures were in the mid-80s. Milder forms of aggression, such as car drivers beeping their horns, also increased with temperature. Kenrick and McFarlane (1986) measured the amount of horn beeping at a driver of a car that remained stationary at a green traffic light, and found the amount of beeping increased with increases in temperature during spring and summer days.

However, care must be exercised if causal connections are to be made between aggression and temperature, as other factors may be involved. For example, as the temperature rises, people may increase their consumption of alcohol to quench their thirst, which may be the real cause for heightened interpersonal aggression.

The ecology of human development

Bronfenbrenner (1979) once criticised the number of psychology experiments conducted in the laboratory by saying that developmental psychology had become 'the science of the strange behaviour of children in strange situations with strange adults for the briefest possible periods of time'. Possibly the same could be said of studying health behaviour in a hospital environment – it is an attempt to study the strange behaviour of people in strange situations with strange adults for brief periods of time. Working in the community at least enables nurses to observe people in their familiar and usual environment. As I mentioned before, people do not exist in a vacuum but interact with their environment in such a way as to influence and be influenced by their habitat. Therefore, in order to gain a more appropriate view of human behaviour one must study it in relation to

the surroundings. Bronfenbrenner (1979) proposes that we view the development of individuals within their ecological environment, which he defines as a nested arrangement of concentric structures, each contained within the next. He refers to these structures as the *micro-*, *meso-*, *exo-* and *macrosystems* and defines them as follows.

The microsystem. This is a pattern of activities that occur in a particular setting such as a school, day-care centre or the home. It refers to the interpersonal relations between people and the roles they play in these settings.

The mesosystem. The mesosystem is in fact a group, or system, of microsystems. For a child these might be the relations between home, school and friends; for an adult, between family, work and social life.

The exosystem. This refers to one or more settings not directly involving the individual, but having an indirect effect on their behaviour. The exosystem for a young child might be the parents' place of work or an older brother or sister's class at school.

The macrosystem. This system is consonant with culture, sub-culture or ethnic group. The essential ingredients of settings such as schools, cafes and medical practices are the same in all countries, yet there are important differences which are determined by the diversity of cultural and ethnic groups.

Bronfenbrenner's framework allows us to view individual behaviour in a much broader perspective. It provides a template which nurses can use to represent individuals in their community context, thus facilitating the development of more effective care plans and health promotion programmes.

Social networks and support

We have seen in Chapters 9 and 10 that social support affects a person's physical and psychological wellbeing and that it is important to distinguish between different types of support (informational, practical, emotional) and different types of social network (large vs. small; dense vs. distributed). Community nurses are in an ideal position to aid the development of social networks and also to use established networks for the implementation of indirect care. (The area of social support and indirect care is discussed in greater detail in Milne, 1993, Chapter 8.) However, a review by Gillis (1993) on the determinants of a health-promoting lifestyle point to social support being second only to self-efficacy as the best predictor of a health-promoting lifestyle.

The use of Bronfenbrenner's approach to describing the community enables nurses to locate individuals within a group of nested systems; however it does not give an indication of the relationships between individuals within these systems. Constructing a person's social net-

Exercise 12.1: Support from Social Networks

This exercise takes quite a time, but most people find the results interesting and, what is more, you will be able to use the technique with others if you have first practised it on yourself.

- First, make a list of people in your social network in the spaces on the left of the following grid. (There is room for 20 people; if you want to include more, add more spaces.) How do you decide who to include and who to leave out? The following guidelines will lead to a workable network for understanding crisis support. Write down the names of:

- *Members of your family* whom you see regularly. (Exclude distant relations you never see or see only at formal family gatherings.)
- *Friends* you see regularly or with whom you keep in contact by letter and telephone.
- *Neighbours*, if you regularly go into each other's homes. (Exclude neighbours with whom you pass the time of day in the street.)
- *Colleagues*, if you have frequent contact and feel there is a personal relationship (but exclude those with whom you have only formal, impersonal contact).
- *Include* anyone else who is emotionally significant to you, although you may be temporarily estranged or separated.
- *Exclude* casual acquaintances, purely professional contacts (eg dentist, accountant) or people you know only through someone else.

- After making the list, start with name 1 and go along the row; the numbers along the top refer to the other people on the list. Under each column, ask 'Do these two people have a relationship with each other?' If in doubt about defining 'relationship', use the same criteria as above. Place a tick in each box where a relationship definitely exists, and a question mark if there is only a weak relationship or if you are not sure. Repeat this procedure for Name 2, Name 3 and so on until the grid is complete.

- Next, for each person, tick (using the four right-hand columns) if you would turn to this person for support in a crisis. The kind of support you would look to them for is as follows:

  E = emotional support
  P = practical help
  C = companionship
  A = advice and information

- Then take a plain piece of paper and sketch out a diagram of your network using circles to represent relatives, triangles for friends and squares for colleagues. Draw a solid line between two people who have a tick, and a dotted line for a question mark. You may need two or three sketches before you are happy with the best way of arranging the people and the lines between them.

- Take four copies of the final diagram and take four different coloured pens to represent the four types of support. On each diagram

Exercise 7 Social Network Grid

Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	E	P	C	A
1	★																							
2	★	★																						
3	★	★	★																					
4	★	★	★	★																				
5	★	★	★	★	★																			
6	★	★	★	★	★	★																		
7	★	★	★	★	★	★	★																	
8	★	★	★	★	★	★	★	★																
9	★	★	★	★	★	★	★	★	★															
10	★	★	★	★	★	★	★	★	★	★														
11	★	★	★	★	★	★	★	★	★	★	★													
12	★	★	★	★	★	★	★	★	★	★	★	★												
13	★	★	★	★	★	★	★	★	★	★	★	★	★											
14	★	★	★	★	★	★	★	★	★	★	★	★	★	★										
15	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★									
16	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★								
17	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★							
18	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★						
19	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★					
20	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★				

separately, highlight your potential sources of support. (You can do this all on the one diagram, but it might become muddled and hard to see the different colours clearly.)

Analysing the social network and support diagram

You now have a social network diagram which highlights the sources of four different types of help. The following questions will help you think about the results:

? How many people are there in your network? (An average size would be about 12, but remember that quality is just as important as quantity.)

? Is your network high or low density? (That is, are there many lines between all the members or only a few?)

? Are there sub-clusters of relatively dense groups linked only by one or two solid or dotted lines?

? Is your network dominated by one group, whether relatives, friends or colleagues or does it contain people from all these domains?

Now look at the four types of social support. Are you using the whole of your network for support or only a small proportion of it? Are the same few people being used for all four types of support or do you spread the load? Is there any one type of support which is clearly lacking in your network? Thinking about these questions will often reveal ways in which you are not mobilising help as effectively as you could.

work gives the nurse information on who is in the network, the frequency of interactions, their duration, the nature of their content, and so on.

Of course nurses do not have to construct formal networks for each individual but it is a good idea to have some knowledge of the main features of the network so that key members can be enlisted to give support. Dean (1986) describes a study where key members of a person's network were used to promote health. Women who were likely to give birth to premature and low birthweight babies were given information about smoking, drinking, labour, delivery and care of the baby. Throughout the project, members of the woman's social network attended the sessions so that they got the same information as the prospective mother, knew what to expect, and what community services were available. Dean claims that the inclusion of network members in the process of health promotion led to a greater acceptance

of information and a greater use of community services. The study is also useful as it gives examples of the sorts of questions to ask to obtain an idea of a person's social network. As suggested at the beginning of this section, nurses can also be influential in creating opportunities for social networks to develop and this is a major feature of the community development approach to health promotion.

Community development

One of the main problems for nursing in the community is gaining access to those people who really need attention. Often the people who need help the most are those who are the most reluctant to have anything to do with health professionals. There seems to be a greater prevalence of ill health in the lower income groups (Whitehead, 1987). This has provided problems for nurses engaged in health promotion, since these groups of people do not seem to respond to the more traditional health promotion methods, such as mass media campaigns (Gatherer, 1980). The community development approach seeks to tackle such barriers to good health by:

- responding to the perceived and expressed needs of a particular community;
- not imposing pre-determined ideas and prescriptive programmes upon the community;
- improving social skills, self esteem, assertiveness and reducing feelings of powerlessness;
- developing and facilitating self-help groups.

By concentrating on trying to get people to gather information and learn for themselves, nurses can encourage people to become more empowered and self-reliant.

A community development health project: 'Health in the shop front'

In 1987 a project was set up to try to promote community health by providing individuals and local groups with appropriate information and support to make informed health decisions. The project was situated in the northeast of England and attempted to achieve its aim in two ways. These were: to provide a 'drop in' information and advice service on all aspects of health, its maintenance, and health related services (statutory and non-statutory); and to provide support for local self-help groups, offering a range of services to groups or to individuals wishing to set up local self-help groups.

The project was situated in a 'shop front' in the middle of a city centre so that people would notice and take advantage of the

information centre. The centre was open four days a week for members of the public to drop in for free, confidential information on all aspects of health. People did not need an appointment nor did they need to give any personal details, thus ensuring anonymity. As the site in the shopping centre of the city was non-medical in appearance, it tended to attract people who would not normally use medical type services. The centre was staffed by a senior health education officer who was also an experienced nurse, and information was made accessible through face-to-face contact. The centre acted as a central information store and referral agent, not just for statutory services such as GPs and health visitors, but also for non-statutory services, such as voluntary and self-help organisations.

The centre also acted as a self-help support project. Many of the self-help groups in the area did not require any assistance, but for those that did, the centre was able to provide use of the centre for meetings; secretarial/duplicating facilities; help with publicity; mail and phone contact point; training; links between group and community; links between group and professionals; and act as a referral agency to groups.

During the 12 month period (April 1988–March 1989) the project was evaluated (Niven and Milner, 1989). The main findings were as follows.

Enquiries – during this 12 month period there were 1522 enquiries (395 males and 765 females). All age groups were represented except the under 20s who tended not to make enquiries at the centre.

Information requested – the three topics most requested were:

1. Information about specific diseases, such as coronary heart disease, or arthritis.
2. Nutrition.
3. Women's health issues.

Referrals made – these were mainly to:

1. Self-help groups – local, regional and national.
2. Other NHS professionals (not GPs), such as the Health Education Department, Health Visitors, screening services.
3. Other organisations, such as the Community Health Council.

How did the people using the centre find out about it? The majority of clients using the centre did so because they were just 'passing by', although publicity materials continued to play an important role in drawing attention to the centre. There was an increase in the number of clients using the centre as a result of 'word of mouth' recommendations of friends and relatives, and in those coming back to the centre having used it before. The self-help groups supported by the centre ranged from the Hyperactive Children's Support Group and the

Parkinson's Disease Association to the Agoraphobics Support Group and the Menopause Support Group.

This example illustrates how health can be 'taken to' people in a community setting. Due to the informal nature of the centre, people who were passing by, maybe doing their shopping, were encouraged to drop in and discuss health concerns. These discussions led in many cases to the client being referred to an appropriate self-help group or NHS agency. Of course, one is entitled to ask whether self-help groups succeed in their expressed aims. I feel that it is important to distinguish between different types of self-help group (Niven, 1990). The structure, aims and objectives of the group are related to factors such as decision-making skills and self-esteem. An important role of the centre was to provide training in the best ways to run self-help groups and to advise on issues as they occurred. In this way the project attempted to accommodate the principles of community development and to produce individuals who were able to determine their own health needs and obtain advice on how they could be achieved.

In their review of the strategies for the maintenance of health-promoting behaviours, Redland and Stuifbergen (1993) emphasise the removal of barriers, creation of supportive environments and the development of a strong sense of self-efficacy as important aspects of the adoption and maintenance of health-promoting behaviours. They suggest that future attention should be directed toward promoting healthy lifestyles and the development of 'wellness' thinking.

Culture

People from different societies think in different ways, just as children think in different ways to adults. Herein lies the problem, for in order to understand what is going through a child's mind we must try to put ourselves in their position and attempt to view the world from their perspective. This can be very difficult – some would say impossible. Yet in order to communicate in an effective manner with children it is important to attempt this task (see Chapter 3). The same can be said about people from different cultures – they often view the world in a different way from ourselves. Therefore in order to communicate effectively with people from other cultures we must try to make the same 'quantum leap'. Of course, there are similarities of thought and behaviour across cultures, just as there are differences, and it is the job of the cross-cultural psychologist to investigate these similarities and differences.

A nurse might say that this would be all very well if she were going to take up nursing in Papua New Guinea, but what application does it have to everyday life? What this nurse has overlooked is the fact that we live in a multicultural society. We do not have to move to Papua

New Guinea to come into contact with people from different cultures. Therefore it *is* important for nurses to have some idea of how culture can affect behaviour.

One of the most important principles of cross-cultural research is never to assume that speaking the same language is equivalent to understanding. Cole and Scribner (1974) conducted an experiment with two members of the Kpelle tribe of West Africa which illustrates this point very well. The participants were asked to sit side-by-side at a table, separated from each other's view by a partition. In front of them on the table were a number of wooden sticks of different shapes and sizes. The experimenter, who could speak fluent Kpelle, instructed the subjects to pick out certain sticks from the piles, describing them as for example, the long thin one or the short fat one. After they had done this, the partition was removed and the sticks were examined. In many instances the sticks that the two subjects had selected were different; exactly the same request had been given to each subject but had often resulted in a dissimilar outcome. Cole and Scribner explained their results by saying that what had seemed like a straightforward series of requests from the experimenter was confusing and somewhat alien to the participants because of the difference in the conceptual realities of the experimenter and participants. Since the Kpelle had never experienced anything like this before and were unsure what was going on, they had difficulty knowing exactly what was required of them.

Implications for nursing care

The implications for nursing in a multicultural context are that if the conceptual realities of the nurse and the patient are different, communication may be difficult; indeed, what the nurse thinks is a perfectly simple, straightforward task may seem incomprehensible to someone from a different culture.

There have been a number of studies illustrating how nurses' attitudes to pain and disability differ according to culture. Davitz and Davitz (1985) investigated the attitudes of 1400 nurses from 14 different countries (Uganda, England, Israel, China, USA, Puerto Rico, Thailand, Nigeria, Japan, Belgium, Nepal, Korea, Taiwan and India) towards patients' pain (see also Chapter 10). The results indicated that nurses from different countries varied in their assessment of the pain and psychological distress suffered by the patients. Interestingly, the English nurses often rated patients as overreacting to pain and were in fact astonished to find patients complaining of 'minor matters'. This led to English nurses being labelled as efficient but unsympathetic, but of course they were not unsympathetic; it was their assessment of the expression of pain which differed.

Westbrook *et al.* (1993) examined the attitudes of 665 health

professionals from China, Italy, Germany, Greece, Arabia and Australia toward 20 disability groups. They used the *Social Distance Scale* described in Chapter 2 to measure attitudes, and found significant differences between cultures in attitudes towards disability. The order of greatest acceptance of disability was: Germans, Australians, Italians, Chinese, Greek and Arabic groups. In all communities people with asthma, diabetes, heart disease and arthritis were the most accepted, while people with AIDS, mental retardation, psychiatric illness, and cerebral palsy, were the least accepted of the disability groups.

The following example illustrates the importance of the global perspective when looking at the behaviour of other cultures.

It is based on a study carried out in South America by Wellin (1955). The water supply in the town of Los Molinos in Peru was contaminated. Boiling water before drinking it could reduce the risks of typhoid and other water-borne diseases. A rural hygiene worker called Nelida was employed to visit the households in the town and tell them the reasons why they should boil their water. A few of the families already boiled water before Nelida arrived, but after two years of visiting the town's 200 households, only 11 had begun to boil their drinking water. Why were so few prepared to do this? Can we apply the theories of health behaviour discussed in Chapter 6 to account for those who did and did not boil their water? Let us look at the following examples.

Mrs E. is a very thorough and meticulous woman, but has a household of seven to look after. She would like to boil their drinking water but does not do so. There seem to be a number of limiting conditions as to why she does not:

1. The fuel for the stoves is limited so that fires can only be lit three times a day.
2. Most hearths can only accommodate one pot at a time, so boiling water is ruled out during preparation of the meals.
3. Any prepared food or boiled water left overnight is considered 'sleeping' food, and has to be cooked or boiled again the next day.
4. Since most of the water is drunk during the midday heat, the only reasonable time to heat it is after breakfast. However, Mrs E. has to leave the house to perform essential chores after breakfast and cannot boil the water at this time. (Indeed, every housewife in Los Molinos who does boil water does not leave the house or has someone to whom the task can be delegated).

Thus the reasons for non-compliance seem fairly logical and could be predicted by some of the models of health behaviour previously discussed. But what about those who *do* boil their water? Is it only because they are able to stay at home?

Mrs A. boiled her water before the arrival of Nelida. She suffers from what she says her doctors have diagnosed as sinus trouble, and she is known in the town as a 'sickly person'. She thinks her sinusitis came about when 'cold' entered her respiratory passages. For all people in Los Molinos, 'cold' is associated with harm and must be avoided by the very young, old, pregnant and sick. Wellin states that

> At no point does the notion of bacteriological contamination of water enter the scheme. By tradition, boiling is aimed at eliminating not bacteria, but the innate 'cold' quality of unboiled water.

In fact, the eight women who were already boiling their water when Nelida arrived were 'sickly'.

Under these circumstances models such as health belief, locus of control, and theory of reasoned action would have difficulty in predicting the reasons for this type of behaviour. A cultural perspective highlights the strengths and weaknesses of models of health behaviour. Sometimes health behaviour follows an ordered, logical route, and in these cases the models provide a useful framework for understanding the decisions made by individuals; however, sometimes behaviour is not so logical or predictable, and the only way to come to some sort of understanding of what is going on is to concentrate on the specific aspects of each individual case, be it a person or a culture.

Although this study may seem somewhat dated, the principles it illustrates could not be more timely. We live in a multi-cultural society and this study illustrates the importance of taking a global perspective on human behaviour. (See also Miner's (1956) article on body ritual among the Nacirema – this could provide the basis for an interesting discussion on cultural differences.) Whilst I believe Wellin's example has implications for community nursing here in this country, it illustrates the importance of cross-cultural studies in examining the applicability of theories and models developed in the West to cultures elsewhere in the world.

Summary

Health and illness cannot be fully understood in isolation from the environment in which they occur. This chapter has taken a look at both hospital and community as health care environments in order to explore their impact on the behaviour of individuals.

People's experience of hospitalisation has been described in relation to the stress incurred by communication problems and uncertainty about procedures and information. Stress also

occurs as a result of the environmental features of hospitals and as a result of role changes imposed on the individual.

Finally, the community has been described in relation both to specific environmental features and in terms of general structures. Nurses working in the community need to understand and take account of the wider environment in which people function and the cultural differences which exist between people in a multicultural society if they are to offer the most appropriate forms of care.

Questions for further consideration

1. How can the models of Bronfenbrenner or Moos be of use to community nurses?
2. Assess the importance of patients' perceived control during hospitalisation.
3. Are there such people as 'difficult patients'?
4. To what extent is it important to conduct cross-cultural studies of health behaviour?
5. Discuss the use of social networks in the provision of health care.

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Further reading

Llewelyn, S. P., Trent, D. R. (1987). *Nursing in the Community.* Leicester: BPS Books (The British Psychological Society) and Routledge.
Nursing in the Community includes many useful references to the role psychology can play in community nursing. There is a good breadth of coverage and many of the chapters will complement the issues discussed in this chapter.

Orford, J. (1992). *Community Psychology: theory and practice.* Chichester: Wiley.
The book is split into two sections: theory and practice. The theoretical section deals with problems in the community, social support and empowerment. The practical section investigates prevention, self-help and understanding organisations. This book is useful reading for all nurses especially those who wish to take up nursing in the community.

Segall, M. H., Dasen, P., Berry, J. W., Poortinga, Y. H. (1990). *Human Behaviour in Global Perspective: an introduction to cross-cultural psychology.* Boston: Allyn and Bacon.
There are many introductory psychology texts but very few introductions to cross-cultural psychology. This is one of the few and it also happens to be a good book. It provides an excellent introduction to the area and is written by acknowledged experts in the field.

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