THE NIGHT-TIME EXPERIENCE OF ELDERLY HOSPITALISED ADULTS AND THE NURSES WHO CARE FOR THEM

A thesis presented in partial fulfillment of the requirements for the degree of Master of Arts in Nursing at Massey University

Jo Ann Walton

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ABSTRACT

This thesis is the report of a study into the night-time experience of elderly hospitalised adults and the nurses who care for them. A grounded theory approach was used for the analysis of data and subsequent generation of a theoretical description and partial explanation of patient experiences, nursing actions and nurse-patient interactions.

Data were gathered through observation, interview, document audit and literature review; two general medical wards in a large regional hospital were the focus of field methods of data collection.

It is argued that the night-time experiences of elderly hospitalised adults are to a large degree dependent on the individual patterns of sleep and waking behaviour of these people in their normal environments. If individualised care is to be given, nurses must be aware of people's usual patterns of behaviour.

Nurses working at night engage in a series of complex decisions in the course of their interaction with patients. They work under constraints not present during the daytime, and are highly dependent on cooperation from colleagues on other shifts for information which would enable them to deliver optimum care at night. At the same time, night nurses have access to information from and about patients which could be invaluable to a total assessment of any patient's health state.

Considerations of sleep and rest are relevant to nurses working all shifts. The findings of the study have implications in terms of nurses' knowledge of all aspects of sleep; assessment practices; nurse-patient and nurse-nurse communication; nurse-patient relationships at night; ward management; and the interdependence of nurses.

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CHAPTER ONE

INTRODUCTION

While hospitals exist to provide round-the-clock care and supervision for those in their charge, few accounts of night-time in hospital are to be found in the literature. The majority of the articles which do discuss the hospital at night, or more precisely the experiences of its occupants, are anecdotal in nature. Some of these, Bentley (1985) for example, describe scenes and experiences which strike an immediate chord of recognition for nurses who have worked at night. More disturbingly, so does a description such as this:

> Night came early to Haddon. Eerie calls and cries of protest, then loud and frequent instructions from hostile inmates, who must surely have been stone deaf, were met with patient exhortations. After about an hour, suddenly the battle ended. All seemed to have been sedated and bedded down. But this was no easy peace. A bell rang. A dozen others joined in chorus. Various demands were trumpeted over and over.
>
> Later, the light outside my door went out. The silence - at last. It was music - after what had gone before. Sometimes laughter rippled from what seemed to be a kitchen annexe across the passage. It was brightly lit and looked as though it was a servery and dining room, and a staff room where the nursing-aides watched one of their portable TV sets. Newton (1979, p 15).

Newton is describing night-time in a private rest home, but the scene is readily recognisable to nurses from hospital settings of a different kind.

Apart from anecdotal reports, articles in the literature dealing with concerns of nurses at night look at such topics as the work involved (Balfe 1985; Finn 1985; Chooramun 1986); its effect on life style (Patkai, Akerstedt & Patterson 1977; Holden 1985; Minors, Waterhouse & Folkard 1985(i)); and advice for coping with night duty (Brannigan 1984; Minors, Waterhouse & Folkard 1985(i); Fiedor & Keys 1987). There are many articles of more clinical bent dealing with sleep and sleep disorders (Prokop 1982; Walsleben 1982; Schirmer 1983; Hayter 1984; Carter 1985; Hayter 1986; Hoch, Reynolds & Houck 1988;

Young, Muir-Nash & Ninos 1988), and others which focus on noise in hospitals (including Woods and Falk 1974; Whitfield 1975; Bentley, Murphy & Dudley 1977; Ogilvie 1980). A minority of papers relate to the nursing management of patients at night (Walselben 1982; Schirmer 1983; Hayter 1984; Carter 1985; Muncy 1986; Young, Muir-Nash & Ninos 1988). What is absent in the literature is documentation which attempts to give a picture of the interaction, views and experiences of nurses and patients together.

THE NIGHT DUTY EXPERIENCE

As a nurse who has spent a considerable amount of her clinical time working night duty, I was aware that for myself and for my nursing colleagues night duty has a character of its own. There is the constant paradox of being awake at night in order to help others sleep (or to help those who cannot sleep). Along with being awake at night go a number of physical and social problems - tiredness, hunger, cold and a routine out of step with most of the world. But there are benefits too. There is a camaraderie built around the team work involved when there are few staff and an increased need for vigilance (Balfe 1985). For those who tolerate it, there is often a certain excitement in being up when the rest of the working world is sleeping. And there is a satisfaction in being left to 'get on with the job'. Kemp (1984) suggests such satisfaction may indicate nurses' perceptions of freedom which is not granted to colleagues on day shift.

At night hospital corridors are usually empty, but inside the wards there is often a great deal of activity. Much of a night nurses' work is unpredictable. There are falls, more natural deaths occur at night than during the day (Walsleben 1982), wandering patients must be kept safe, and observations and treatment regimes continue or are commenced. Noise levels are often disturbingly high. Sounds of sleeping - snores, sighs and creaking beds - mix in with calls from patients, bells and telephones, and the sounds made by staff carrying out their work or talking and laughing together to aid the passage of the night. When several demands are made simultaneously someone must wait - bells are not always answered as quickly as either patient or nurse would like.

BEGINNINGS OF A RESEARCH QUESTION

While I was aware of some of the elements which make up the night time culture of the hospital, I wondered about the experiences of the patients at night. What is it like to be in hospital at night? How can nurses help clients obtain their rest and sleep? In particular I

wondered about elderly patients, who make up a large proportion of those being cared for in general hospital wards.

NIGHT, SLEEP AND THE ELDERLY HOSPITALISED ADULT

With advancing age comes an increased likelihood of hospitalisation for illness or disability. There is also evidence to suggest that the elderly demonstrate a lessened tolerance for variation in their environment. Hospitalisation causes major environmental alterations and may result in disruption of patterns and routines for the individual (Pacini & Fitzpatrick 1982), yet little is known about the effects of such changes. Hospital staffing and schedules are based on an assumption that night is for sleeping, yet nurses are often aware that many patients are awake and find the night long, lonely or busy.

The functions of sleep are not fully understood. As a fundamental human need, sleep is thought to have effects on the nervous system and on other body structures. It may be seen as restorative, or adaptive in terms of energy conservation. Certainly it is a function about which many people think and/or worry.

Facilitation of sleep and rest is viewed as a basic component of health care, yet little is known of the normal sleep patterns of older adults (Gress, Bahr & Hassanein 1981). Older people frequently express concern about changing patterns in their sleep habits. They commonly identify not sleeping soundly, sleeping too little or too much, and frequent awakenings. While there is evidence that sleep changes occur in ageing little information exists about the nature of these changes. Because of the lack of norms both patients and nurses tend to assess sleep patterns on the basis of norms for younger people (Hayter 1983). Identification of norms and patterns in sleeping behaviour would give nurses an information base for education of their clientele, for alleviating anxiety about predicted changes and for vigilance in assessing those changes needing attention (Walselben 1982; Hayter 1984; Muncy 1986; Hoch, Reynolds & Houck 1988). Knowledge derived from research on sleep patterns in the elderly might have major implications for individual care, placement in institutional setting, programme planning and staffing patterns, the use of medications, and for planning and timing of hospital routines (Gress, Bahr & Hassanein 1981; Pacini & Fitzpatrick 1982; Prokop 1982; Carter 1985; Finn 1985; Clapin-French 1986).

RESEARCH AIM AND METHOD

The questions I had at the start of the project went along these lines;
What is the night-time experience of the hospitalised elderly?
Does hospitalisation have an effect on sleep patterns?
What are the normal sleep patterns of the elderly?

It is not possible to complete a descriptive study such as I intended without also including information about the nurses involved. The total environment includes patients and nurses as two distinct groups of people. So the attitudes, opinions, beliefs and knowledge of the nurses and the interaction between nurses and patients also became a focus of the study, and my questions grew to include, for instance;
How do nurses and elderly patients experience night-time?
Or, perhaps more precisely;
What is night-time like for elderly patients and the nurses who care for them?

The aim of the research, then, was to carry out an ethnographic study of a hospital ward at night, with emphasis on describing the meaning of the situation for those involved in it. An ethnographic approach would enable me to provide detailed descriptive data which might be used by practising nurses in understanding human behaviour. Attention would also be drawn to the consumer's view. As Aamodt (1982) puts it 'Clients, patients and other users of nursing care delivery systems represent a world of ideas that make up a frontier for the discovery of nursing knowledge' (p 219).

Grounded theory was chosen as the method of qualitative analysis. In grounded theory each element of the data is eventually used to create an explanation for the problem or phenomenon under study (Simms 1981). The ultimate aim of a grounded theory approach is the generation of a theory, grounded in the data, which will enable explanation and prediction of behaviour. The understanding gained from such an explanation should have applications in prediction and control in practice situations (Glaser and Strauss 1967). Exactly what applications the study might have are not known at the outset, but it can be assumed that there will be implications for nursing concerning the nature of the ageing client and his/her experience in a hospital setting. Some insight will be gained into sleep/wake patterns of older adults and into nursing behaviours which facilitate sleep, rest and wellbeing

of clients at night; possible ramifications of these have already been touched on. It is also to be hoped that the experiences of nurses at night may be better understood; greater understanding of the work of night nurses might aid in valuing their contribution to patient care.

THE WRITTEN ACCOUNT

Having introduced the topic of the study it seems timely now to introduce the reader to the structure of the written account, with some explanation of the way in which chapters are linked together.

In **Chapter One** the area of enquiry has been introduced and the objectives of the research highlighted.

Chapter Two contains an overview of the nature of sleep and the way in which it is affected by some common clinical disorders. This chapter is intended to give background information which is relevant to the study topic.

In **Chapter Three** the discussion is concentrated on methodological issues and the approach taken for the study is explained.

Chapter Four illustrates the process of data analysis.

The next three chapters deal with the study itself. In **Chapter Five** findings from patient interviews are discussed along with other data related to the patient's experience. The nurses' world is the subject of **Chapter Six**, in which data from nurse interviews are presented. In **Chapter Seven** the researcher's interpretation of the findings is presented in the form of a set of theoretical propositions.

The implications of the study for nursing practice and education are discussed in the final chapter, **Chapter Eight**, along with a discussion of the limitations of the study and suggestions for future research.

In presenting this account of the study I have tried whenever possible to avoid the use of what might be construed as sexist language. There are traps and pitfalls in attempting to take such a course. For the sake of simplicity I have sometimes adopted the generic use of the masculine or the feminine when referring to nurses or patients. It so happened that all the nurses I interviewed were women. For that reason alone I have opted for nurses to be referred to in the feminine gender and patients as male (in fact a mixture of men and women took part in the study). Where the word 'man' appears it is used to represent a human of either gender.

Hospitalised people have been referred to as patients rather than clients, or any other such name, because they and the nurses use this term. I am aware of the connotations of passivity which the term may imply and mean in no way to reinforce it by my choice of language.

CHAPTER TWO

SLEEP: ITS NATURE AND FUNCTION, AND THE EFFECTS OF CLINICAL DISORDERS

INTRODUCTION

It is impossible to separate a study of night-time in hospital from considerations of sleep. Adults the world over expect to sleep at night (Hayter 1986). There is much literature on the subject of sleep, which has been investigated from many different angles and perspectives (Mendleson 1987 takes 86 pages to cite his references). As background to the study, this chapter consists of an overview of the stages of sleep, theories of sleep function, and the effects of some common clinical disorders on sleep. A glossary of technical terms is provided in Appendix 1.

THE STAGES OF SLEEP

Sleep is defined by Hartmann (1973) as 'a recurrent, easily reversible condition, characterised by relative quiescence and by a greatly increased threshold for response to external stimulation' (p 21). Much is known about the stages and progression of human sleep because of studies done in laboratory settings, with the aid of electroencephalograph (EEG) tracings, or more recently, polysomnograph recordings; a polysomnogram includes EEG, electromyogram (EMG) and electrooculogram (EOG) recordings (Borbely 1986).

Two distinct types of sleep (REM and non-REM) exist. Non-REM or N-REM sleep, also called synchronised or orthodox sleep, is characterised by a relative slowing of the EEG, quiescence of the autonomic nervous system, no rapid eye movements and thought-like mental activity. Pulse, respiration and blood pressure are relatively slow and regular during this period. EEG tracings can be used to classify non-REM sleep into four stages. Stage 1 occurs as a person drops off to sleep. This passes on to stage 2, to stage 3 and stage 4, as sleep deepens. Stages 3 and 4 are known as deep or slow-wave sleep, (the latter name reflecting the pattern of EEG tracings), and are followed by a lightening of sleep to stage 2, then to a stage something like stage 1, but with other distinctive EEG and behavioural features. This is REM sleep, named after its characteristic rapid eye movements; it is also known as desynchronised or dream sleep, or paradoxical sleep. Typical of this sleep stage

is a desynchronised EEG, activated autonomic nervous system and parts of the central nervous system, rapid eye movements and dream reports if a sleeper is awoken. Pulse and respiration are faster and more irregular than in non-REM sleep, blood pressure is higher and more irregular, and penile erections are present in males of all ages with little apparent relationship to dreams. The paradoxical nature of this dream sleep stems from the extreme relaxation of all muscles other than ocular ones, and the difficulty in rousing someone from this sleep stage, while EEG recordings give a picture most similar to waking of all the sleep stages (Hartmann 1973).

In the course of the night (in an ideal situation) a sleeper progresses through the sleep stages in a cyclical fashion; stage 1, stage 2, stage 3, stage 4, stage 3, stage 2, REM, stage 2, stage 3, stage 4, stage 3, stage 2, REM and so on. Each cycle - the interval from one REM period to the next- takes around 90 minutes, though it may vary from 70 to 120 minutes. Changes in the lengths of each cycle occur from sleep onset till waking; in general deep sleep periods decrease as the night progresses, while REM periods become longer, reaching their maximum toward morning (Mendelson 1987). Four or five cycles are commonly experienced in a night's sleep (Hartmann 1973).

THE FUNCTIONS OF SLEEP

While the stages of sleep are well understood, the functions of sleep remain unknown. This is, as Dement (1976) describes it, despite 'heroic efforts' on the part of researchers. Many theories exist, but it is beyond the scope of this work to delve too deeply into them. Perhaps an illustration may help to make this point. Borbely (1986) suggests that there is a possibility 'that sleep exerts a beneficial influence on physical as well as mental health, the precise nature of which is still unknown.....'(p 47). Later in his book the same author goes on to refer to the belief that sleep is for recuperation, and explains that 'no matter how commonplace this occurrence may seem from a subjective point of view, it still cannot be analysed or explained by science' (p205). What these statements illustrate clearly is a different philosophical and epistemological stance fom that involved in this study. The present researcher's interest is in the subjective experience and understandings of the participants in the study.

Hartmann (1973) postulates that sleep can be assumed to have a role in aiding optimum functioning during wakefulness. Since both sleep states (REM and non-REM) are major

states in a similar way that wakefulness is, he suggests that it is reasonable to expect not one, but a number of functions attributable to sleep. His hypothesis is that non-REM sleep serves to prevent physical lethargy and fatigue, while REM sleep, which involves the central nervous system and appears more complex, functions to preserve self confidence, energy and optimism, along with emotional adaptation to the physical and social environment. REM sleep, according to this theory, is needed in larger quantities when the day's events have been stressful or when much new learning takes place, especially if that learning is in itself stressful. Nurse writers support the idea that sleep needs are increased in stress (Prokop 1982, Carter 1985).

Hartmann's theory fits well with the 'commonplace knowledge' we possess about the functions of sleep, and points to concerns nurses might have about patients' sleeping or not sleeping, if illness and hospitalisation are perceived as stressful events. Even the most scientifically minded researchers know what it ***feels like*** to have slept poorly. Borbely (1986) suggests the effects of lack of sleep, while not immediately dangerous to health or life, are disruptive of our sense of well-being and may affect the quality of our lives. Specifically the effects of lost sleep are shown in mood, performance, personality and neurological effects (Hartmann 1973).

DAYTIME NAPPING

The question of the effect of napping on a twenty-four hour pattern of sleep and wakefulness is a source of disagreement among writers. One school has it that daytime napping reduces night-time sleep (Borbely 1986), while another says it makes no difference until late old age, at which time day time naps supplement night-time sleep to satisfy an increased need for sleep (Hayter 1983). The time it takes for a person to fall asleep is known as sleep latency. ***Sleep latency*** is inversely related to the duration of wakefulness before sleep (Mendelson 1987). Older adults have increased difficulty in falling asleep at night (Borbely 1986); it could be that this has to do with daytime napping, and yet studies have shown that many adults, particularly older ones may be chronically sleep deprived and are pathologically sleepy in the daytime. It is not known whether daytime alertness could be enhanced by older people's increasing their nocturnal sleep time (Hayter 1986), but the implications of the answer would be important for nursing; should elderly people be encouraged or discouraged from daytime napping, should they be reinforced in the common belief that older people need less sleep, or advised to get as much sleep as they can?

CLINICAL DISORDERS AND SLEEP

Many clinical disorders have an effect on sleep. Among them are such conditions as thyroid disorders, nocturnal angina, gastric ulcers, respiratory disorders, sleep apnoea, restless legs, nocturnal myoclonus, nocturia, anxiety, and depression (Kramer, Kupfer & Pollak 1980; Schirmer 1983; Hayter 1986). In some cases the physiological states of sleep itself may affect a clinical condition. Walselben (1982) explains how cardiac arrhythmias may occur during REM sleep, and therefore why most nonviolent deaths occur in REM sleep. On the same theme Hayter (1986) points out the need for nurses to be especially vigilant in the early morning hours because of lowered blood oxygen concentrations during REM sleep which put the elderly at risk at this time. Depressed elderly people, as those of any age, may have difficulty falling asleep, or staying asleep, and typically complain of early morning wakening (Hoch, Reynolds & Houck 1988). The complaints of changed sleep-wake patterns in some older people may be due to a low-grade depression (Kramer, Kupfer & Pollak, 1980).

A person suffering from Alzheimer's disease is likely to be a light sleeper who wakes frequently and does not return to sleep (Hoch, Reynolds & Houck, 1988). Nocturnal wandering is a common feature of the disease, and one of the chief problems faced by carers (Young, Muir-Nash & Ninos 1988). Sleep difficulties of older relatives, with consequent family stress, are a frequent cause of family decisions to admit an elderly relative to long-term care (Johnson & Werner 1982). Problems such as nocturnal wandering then have to be dealt with by nursing staff. None of the methods currently used to handle such situations, including chemical or physical restraint, or just letting the patient wander, are ideal, so it is heartening to read of attempts to solve such problems with more creative solutions, such as the white noise experiment tried with limited success by Young, Muir-Nash and Ninos (1988). In this project, a sound generator was used to deliver modified white noise during the night to a selected group of Alzheimer patients, in order to evaluate the use of such a noninvasive intervention to decrease nocturnal wandering. While results were not statistically significant for all patients in the study, individual analysis showed two participants to have become significantly less restless and agitated when the noise was used.

Sleep apnoea is a recently recognised but grossly underdiagnosed syndrome which interferes with night time sleep and daytime functioning (Hayter 1986). Sleep disordered

breathing is an almost ubiquitous disorder in the aged population, but does not impose any significant disturbance on daytime functioning, at least in healthy adults. However, severe cases may lead to the development of sleep apnoea syndrome, which has very marked effects on health, sleep and psychological functioning (Berry, Phillips, Cook, Schmitt, Gilmore, Patel, Keener & Tyre 1987). It is estimated that around one third of all people over 65 years may suffer from this problem, though most are unaware that the cause of their daytime drowsiness is frequent nocturnal arousal - the syndrome is defined by 30 or more apnoeic intervals lasting 10 seconds or more, recovery from which entails brief awakening. Other signs and symptoms include morning headaches, loud snoring (well described in the literature) and, not uncommonly, personality changes with consequent trouble in marital relationships or employment (Walselben 1982; Hayter 1984). Nurses are in a prime position to observe for the subtle signs of this syndrome (Hayter 1986).

Probably the most widely recognised sleep problem of all is that group of disorders synonymous with sleeplessness, the insomnias. Insomnia is defined simply by some writers, such as Hayter (1986), but others find definition rather more complex (Borbely 1986; Mendelson 1987). In general, it could be put this way; insomnia is difficulty in initiating or maintaining sleep such that daytime functioning is affected, ***by the sufferer's definition***, and which cannot be shown to be directly attributable to psychiatric or physiological causes. Insomnia is distressing. It is one of the most common complaints heard by doctors, yet often nothing is done about it (Hayter 1986). Walselben (1982) suggests that the majority of insomnias have a psychiatric or behavioural aetiology. I would change the interpretation slightly and consider looking for psychological or behavioural causes. Such an approach is obviously in the back of the minds of writers who suggest methods of improving sleep by proper sleep hygiene. Reference to these writers and their suggestions will be made in Chapter Six.

SUMMARY

The content of this chapter, which has concentrated on sleep stages, the functions of sleep and the relation of clinical disorders to sleep, provides the reader with information as background to the research. Sleep must be considered in any study of night-time in hospital. Reference to the literature concerning changes which occur in sleep patterns as a result of aging, and to sleep in the hospital setting, will be included in Chapter Five where data about the patient's experience is presented. In the following chapter discussion will centre on research methods; in particular that chosen for this study.

CHAPTER THREE

METHODOLOGY

INTRODUCTION

This study set out to look at the hospital ward at night, with the aim of describing the events that took place, and their meanings for elderly patients and the nurses who care for them. An ethnographic approach, using grounded theory as the method of qualitative analysis, was chosen as the means to achieve this. In this chapter an outline of the method followed and its application in this study will be given. A brief overview of research methods in general will serve to orient the reader to the place of the chosen method, grounded theory, in research traditions in general and in nursing research in particular. A more detailed discussion of the method will make clear the reasons for its choice; a summary of the manner in which this particular study proceeded will follow.

QUALITATIVE AND QUANTITATIVE RESEARCH

Research functions to develop or test theory, generate, discover or verify knowledge. In any discipline the method by which research is carried out and the acceptability of the result are part and parcel of a research tradition - a set of beliefs about what entities and processes make up a domain of enquiry and the epistemic and methodological norms which govern how the domain is to be investigated, theories tested, data collected and so on (Laudan 1981). What makes knowledge 'scientific' is its acceptability, and this in turn is governed by the traditions for research in the community concerned. Two major divisions in research tradition are evident within the social sciences (Duffy 1985), and are becoming clear in nursing research.

Until recently (and possibly still today) the majority of published nursing research followed the positivist tradition (Chenitz & Swanson 1984; Brown, Tanner & Padrick 1984; Duffy 1985). Such research, which also bears the name of quantitative research, is based on beliefs in causality and in the possibility of measurement of the phemonena under scrutiny. Objectivity on the part of the researcher is considered necessary and desirable, as is a separation between researcher and researched. While the positivist school of science does lead to a high degree of generalisability and thence of prediction and control of situations,

the drawbacks of the method are manifold. Chief among them from the point of view of nursing are problems involving the congruence of research method with nursing practice. Nursing's concerns, as articulated by nursing scholars, centre on three general areas - concern with principles and laws that govern the life processes, wellbeing and optimum functioning of human beings, sick or well; concern with the patterning of human behaviour in interaction with the environment in critical life situations, and concern with the processes by which positive changes in health status are affected (Donaldson & Crowley 1978). But there is more to it than that. Nursing also seeks to understand how people experience health and illness, and what meaning they place on and draw from their experiences. Greenwood (1984) asserts that nursing is a practical discipline and a social phenomenon and must therefore be researched as such. She argues that orthodox (positivist) approaches to nursing research reflect a fundamental misunderstanding of the nature of nursing and that findings are consequently often irrelevant to practice. The social nature of the discipline is also pointed out by Donaldson and Crowley (1978):

> 'It must be remembered that the discipline is defined by social relevance and value orientations rather than by empirical truths' (p 118).

Munhall (1982) focuses on the need for congruity between nursing philosophy and nursing research. She points out that since research guides practice, the linguistic components of the research paradigm should demonstrate

> 'contextual and syntactical parallelism with the beliefs and values of the discipline' (p176).

Oiler (1982) and Benner (1985) both stress the importance of research which will lead to greater understanding of health, illness and disease and of the experience of clients. Another problem posed by the positivist approach is that it depends on outcome measures, while nursing is largely concerned with and needs to concentrate on process (Williams & Schulte 1982; Chenitz & Swanson 1984; Stevens 1984). While theory is abstract and general, practice is always concretely situated and particularistic (Greenwood 1984). It makes sense, therefore, to attempt to examine the particulars rather than average them away as the positivist school would have us do.

It is in answer to the criticisms levelled at the positivist approach that the second major research tradition has begun to develop. In the behavioural and social sciences and in

nursing a move is evident toward the use of qualitative rather than quantitative research methods. Qualitative methods are characterised by their emphasis on a search for meaning, the inclusion of environmental factors, the depth of data and the treatment of 'subjects' as participants. Researchers of the qualitative school reject the assumptions of positivism and attempt to humanise the research process. Data are collected and analysed in the natural language of the researched rather than in the statistical language of the positivists, since it is seen to be important in social situations to acquire knowledge from within the phenomena as they are experienced by those under study. Observer and phenomena are intertwined, and many different but equal truths are possible, depending on the purpose and focus of the investigation (Duffy 1985). There is room for induction, deduction and intuition, all methods of coming to knowledge or deciding on a course of action used in the practice of nursing (Chenitz & Swanson 1984).

QUALITATIVE RESEARCH METHODS

Within the qualitative methods fitting this description are a number of approaches or techniques, slightly different in conceptualisation and in the degree of involvement between the investigator, participants and situation. It is beyond the scope of this chapter to detail the various types of qualitative research other than in very brief outline. In fact it is not an easy task to identify exactly where each method differs from another. The more important consideration is that the reader should understand what particular line the researcher followed in any individual study. As Brink (1987) puts it;

> 'There is little consistency in the literature on what constitutes qualitative research designs, what processes and procedures are used in qualitative methods that differentiate one design from another, and what the sampling techniques are that differentiate one design from another' (p157).

One difference that can be spelled out is the purpose that the different qualitative methods serve. While all involve study in the field, and usually the use of interview, observation and field notes, the end product of the research is different in different methods. Descriptive studies serve to describe a situation and leave it at that. At the next level are methods which seek to explain what has been seen and heard, and which may therefore predict occurrences, patterns and behaviours in the future. Grounded theory fits into this category. Other methods endeavour to create an extreme closeness between researcher and researched. Action research is concerned with investigating a problem in a specific situation and attempting to solve it in that context; the method thus deliberately sets out to change

the situation under investigation (Greenwood 1984). Feminist authors (MacPherson 1983; Webb 1984) write of a feminist research in which a political stance is taken by the researcher who is concerned with values: what constitutes right, truth and good; with analysis and understanding of women's lives; and concern for improving their state. Feminist researchers may involve themselves extensively with women in their studies, using interviews to give as well as receive information with the hoped-for end result of mutual consciousness raising (Webb 1984).

ETHNOMETHODS AND THE ETHNOGRAPHIC APPROACH

This study was undertaken using an ethnographic approach with the aim of providing detailed descriptive data about the hospital at night, with an emphasis on the meaning of the situation for those involved in it. Ethnography is a research method employed in anthropology, and to a lesser extent in sociology. The aim of ethnography, which uses participant observation as a key method, is to provide an analytic description of a culture (Van Maanen 1979).

> 'The ethnographer's unique contribution is his commitment to understand and convey how it is to "walk in someone else's shoes" and to "tell it like it is". However, he must also attend to how the participants themselves say it ought to be, typically investigating actions and beliefs in a number of categories of human behaviour' (Wolcott 1975, p113).

The importance of considering the perspectives of both patients and nurses in the night-time hospital setting was a contibuting factor in my choice of method for this study. Leininger (1987) stresses the importance of looking at both points of view, and identifies that much of nusing's research findings currently tend to reflect professional (***etic*** or outside) viewpoints rather than client/patient (***emic*** or inside) views. Categorising a number of qualitative research methods together as ethnomethods, Leininger (1987) cites her 1984 definition of ethnomethods as

> 'focusing upon the documentation, categorization and interpretation of local or emic cognitions and perceptions of the meanings, interpretations and experiences of informants, groups (or cultures) with consideration of these data in light of etic perspectives' (p17).

Included in the classification ***ethnomethod*** are methods such as ethnography, phenomenology, historical studies and grounded theory.

THE CHOICE OF GROUNDED THEORY

What led to the choice of grounded theory for this study? First, it is necessary to look at the question; 'What is the night-time experience of elderly hospitalised adults and the nurses who care for them?' Such a question does not have measurable answers and no hypothesis has been posed which could be tested. The positivist approach is not appropriate. In looking for a method I had to find one which would enable me to answer the questions I wanted to ask. A descriptive study would be possible, but it would leave out the ***meaning*** of the situation for those being studied and so would not allow the same conclusions to be drawn. I set out to study an area which I believed to be of clinical relevance and therefore I wanted to be able to explain what was happening, ideally from the points of view of both sets of participants - nurses and clients. In the early stages of formulating a research question I had thought that I would take a phenomenological approach, examining what it was like for elderly patients to be in hospital at night, and describing their experience as they live it. Such an approach would not give me the freedom to explore the research question as fully as I wanted, however. I needed to be able to talk to the other actors in the situation; the nurses who work at night. I needed also to describe the situation from the outside, as it were; as I saw it as an observer.

No researcher can know in advance what his or her findings will be, but in beginning a study in the clinical field I was keen that the findings would have practical applications and that these should be readily understandable and therefore useful to nurses. Grounded theory as a method had promise for such an outcome. Rather than testing a theory already conceived, grounded theory aims to develop theory from the data. In the process of collecting and analysing information by sifting, sorting, comparing and shuffling it, the researcher comes to an understanding of what the actors are saying and doing and what this means. An undergraduate exercise in working with grounded theory had fascinated me (Walton 1985), and I knew that this was an approach with which I would find it comfortable to work. To a large degree the method takes the thinking used in everyday life to the extreme, testing for fit and expanding areas of study as further questions arise. Precisely because it arises out of the reality of the workplace it makes sense to the participants. It explains and therefore it opens the way to prediction.

Because grounded theory requires using data from the field to build up theory it is a useful approach in areas where little is known about the subject under study (Stern 1980; Atwood & Hinds 1986; Hutchinson 1986;). Such is the case with this study. The success of

ethnomethods in little known areas may be attributed largely to the assumptions and philosophies which underlie the methods. These include the use of natural settings and of the informants' familiar environment, language, beliefs, values and actions within this setting (1987). Furthermore the assumptions underlying the method fit well with the practice of nursing. Nurse authors comment;

> 'Like Grounded Theory, nursing process involves a constant comparison of collected and coded data, hypothesis generation, use of the literature as data, and collection of additional data to verify or reject hypotheses. Ideally, each client with whom a nurse interacts becomes a research project wherein an attempt is made to find out what the client's main problem seems to be, and what the nurse can do to help the client solve the problem' (Stern, Allen & Moxley 1984, p371).

WHAT IS GROUNDED THEORY?

Grounded theory is a research approach first explicated by Glaser and Strauss (1967) who formulated the method of discovering theory from data in their studies of dying patients. The fact of ***discovery*** is important and must be set alongside Glaser and Strauss' (1967) statements that the method is flexible and may be changed to suit particular circumstances. The developmental origins of grounded theory are comparative analysis and the generation of core variables;

> 'The grounded theory method then, uses comparison as an analytic tool to generate concepts and hypotheses and to interrelate them through core variables which are both parsimonious and broad in scope' (Mullen & Reynolds 1978, p282).

Grounded theory does not aim to come up with the one right answer, but rather one which falls in the same truth space as other possible interpretations could be expected to.

> 'The researcher's will not be the only possible interpretation of the data (only God's interpretations can make the claim of "full completeness"), but it will be plausible, useful, and allow its own further elaboration and verification' (Strauss 1987, p 11).

Testing the final product of a grounded theory out on those involved in the area, or on practitioners familiar with the scene may result in a 'yes, we know' response (Stern, Allen & Moxley, 1984). Grounded theory has grab (Wilson 1985).

Its ultimate purpose is the generation of a series of hypotheses which define the social process (Atwood & Hinds 1986).

> '..the grounded theory approach presumes the possibility of discovering fundamental patterns in all of social life' (Wilson 1985, p 416).

As a form of field research grounded theory requires that the researcher become familiar with the study setting, using whatever sources and whatever methods of data collection are appropriate to the study. Data collection and data analysis continue simultaneously throughout the study in a process of constant comparative analysis. The process has been likened to a matrix operation rather than a linear process (Stern, Allen & Moxley 1984).

Through a process of selective sampling the researcher constantly looks both for patterns in the data gathered and for exceptions which do not fit categories already discovered. Data collection is considered complete when no new themes emerge from the ongoing analysis. What is hoped for at the end is an explanation of a social phenomenon;

> 'The aim of grounded theory is not complete coverage in a descriptive, logico-deductive, or scholarly sense - its goal is theoretical completeness, that is, the explanation of a social phenomenon in relevant terms' (Mullen & Reynolds 1978, p285).

The necessity for premature closure because of time constraints may alter the level of theoretical analysis which is finally arrived at (Wilson 1985; Christensen 1988), but it is considered acceptable that theories should vary in their degree of development. The final product may involve a discussion of concepts or the presentation of a set of propositional statements (Glaser & Strauss 1967; Christensen 1988).

As the data are compared and analysed increasing levels of complexity and abstraction are reached. Also, as the study progresses the researcher's questions change subtly, or not so subtly; this is an expected part of the process. Analysis progresses through coding and categorising the basic units of information obtained in the data collecting process, and by comparing the codes and categories thus generated. Eventually one or more ***core categories*** are arrived at; core categories tie all the other categories together in the developing theory. Throughout the analysis ***memos*** are written to record hunches, reminders, developing ideas and intuitions, and leads to be followed up or further questions to be asked. The final report relies heavily on these memos, which function to record the researcher's fleeting insights into the constantly developing theoretical analysis.

THIS STUDY: THE METHOD

Having discussed the general nature of ethnomethods, grounded theory in particular, it is now appropriate to outline the manner in which this study was carried out. The following section describes how the grounded theory method was used in this study.

(1) The Setting

On beginning the research I knew that I wanted to study elderly patients and nurses in a hospital setting. It made sense to seek access to the local hospital in the area where I live, and at which I am employed in one of the special units. By asking staff I discovered which wards were medical ones and from them made a choice to study the population in two wards. I have worked in medical wards in three other centres and was aware that in those cases the major proportion of the patients were in older age group. I suspected that this would be true here too, and confirmed my ideas on the subject when I talked with nursing staff who had worked, or do work, in the area. This approach is consistent with the grounded theory techniques of purposive sampling. Why choose medical wards? It had been my previous experience that many patients in medical wards are elderly. I have also worked in surgical wards where this is true too, but in these areas elderly people undergoing surgery were often very sick, had shorter stays, and at night were often, as is any surgical patient, woken for recordings, medications and so on. Pain is also a complicating factor which can be expected in a surgical ward. Although people in medical wards also may suffer pain the probability is not so great. Pain is a great disrupter of sleep. What I wanted was a population of elderly people who had been in hospital for some time; not so short a time that they were not yet accustomed to the place, and not so long that it had become very familiar to them. Nor did I want their illness or treatment to play a major role in disrupting their sleep.

The study was carried out in two general medical wards of a large regional hospital.

(2) Access

Access to the hospital, and to patients and staff was gained through the Hospital Board's Ethics Committee, with the approval of the Principal Nurse.

(3) Ethical Considerations

All human subject research raises ethical issues regarding human rights. Paramount in this case were issues relating to the acceptability of the researcher to the population under

scrutiny and that of informed consent to participate in the study. There are also ethical problems to be considered in studying people at night. The design of the project meant that I was to study the whole ward yet not everyone would be aware of my presence as researcher, nor indeed be part of the study. There were ethical problems to consider in studying the elderly; would the people involved understand what was being asked of them? Would they feel obliged to give consent? Were there cognitive, perceptual or medical reasons why certain people should not be approached? What about privacy?

In consideration of the concerns outlined the following measures were taken:

(i) Informed consent

Informed consent to take part was ensured by the selection of patient participants who were able to hear, comprehend and agree to a full verbal explanation of the nature and purpose of the study and the assistance I required of them through interview, observation and chart audit. Potential patient participants were initially identified by the Charge Nurse or Supervisor of the area concerned as being suitable for approach. A written explanation was given to each patient participant, along with the contact telephone number and address of the researcher. Questions were encouraged, and it was felt that the written explanation would be of use to visiting friends and relatives should they have any queries. The right of the participants to withdraw at any time was reinforced. At the request of the Hospital Board's Ethics Committee, written consent was obtained from each patient participant; as researcher I was originally prepared to proceed with verbal consent alone, since there is evidence that elderly patients may find the consent procedure more threatening than the participation (Kelly & McClelland 1979; Noble 1985).

(ii) Preparation for night-time observations

As some observations were to be carried out at night when darkness and quietness are desirable, it was felt important that potential subjects and their roommates were familiar with the researcher's face about the ward during daylight hours. This would diminish the possibility of patients awakening and being startled by the sight of an unfamiliar face at night. In order to achieve this I spent several hours at different times of the day in the two wards concerned before commencement of the study proper.

(iii) Avoiding interference with ward activities

Every effort was made to ensure that my activities did not interfere with the normal daily running of the ward or of staff or patient activities. All interviews were conducted in daylight

hours at times suitable to patient, staff and researcher, and in a place acceptable to both patient and interviewer.

No particular requests were made of staff once initial introductions were made, other than to cooperate with the researcher's presence on the ward. Night staff were more involved in the study than day staff. An agreement was reached with the ward Charge Nurses and Supervisors that any patient concerns or problems would be passed on to ward staff as appropriate.

(iv) Confidentiality

Confidentiality was ensured through the use of a coding system for information, the code known only to the researcher. Screening of medical and nursing notes of participants was done only with their permission and only for details relevant to the study. Drug charts, nursing notes and nursing care plans were seen for patients other than those interviewed; this was considered acceptable since no identifying characteristics were used, and each bit of information is buried in the mass of data. This decision is consistent with the ethical standards for nursing research agreed to by the New Zealand Nurses' Association. Interviews were transcribed and seen in total only by the researcher and study supervisor. Where extracts of interviews have been used in the final report every effort has been made to screen out identifying details.

While it is quite possible for informed readers to establish which hospital was used for the study, and which wards in particular, I believe that no individual patient will be recognisable in the study report to anyone other than those who are or were intimately involved in that person's hospitalisation.

(4) Participants

Participants in the study were elderly patients in two medical wards, and nurses who worked in these wards. Patient participants were chosen according to the criteria:

(i) over the age of sixty-five

(ii) recently hospitalised - within the previous six weeks, but not less than one week

(iii) illness and/or treatment not clearly interfering with sleep, at least not to an extent markedly different from that of pre-admission. With one exception, nurses interviewed were those who were working at night, or who had recently done so.

DATA COLLECTION

Three main methods of data collection were used; observation, interview and audit of nursing and medical notes. A literature search was carried out before the research proposal was written and the research question formulated; apart from a handful of articles scanned during data collection, little was read in the area until after all data collection was completed in the field and analysis well begun. In this way the literature does not colour the researcher's picture of the field, (Christensen 1988) but it is used as data in and of itself (Stern & Pyles 1985), where it may help expand the developing theory and relate it to other theories (Stern, Allen & Moxley 1984).

Interviews were tape recorded where possible, though in some cases notes were taken by hand. Information and ideas were collected through informal conversation as well as formal interviews, with both patients and nurses; throughout the data collection process field notes and a diary of progress, containing reflections and observations were kept. Memoing started as soon as analysis began, and those notes which had been jotted down earlier were separated out from the field record to join the memo pool.

Data collection in the field continued over a period of approximately four months after initial introduction to, and familiarisation with, the wards involved.

DATA ANALYSIS

Analysis of the data began after the first data collection session, in which four patients were interviewed. All interviews were transcribed by the researcher. This had the major advantage of my gaining familiarity with data as I went along. Constant comparative analysis is the key to grounded theory, and I was aided in making comparisons and finding what questions to pursue by this familiarity. Then came the time to disrupt the familiar. In order to do so I cut the transcripts up, line by line or whatever chunk seemed to have any SINGLE meaning to it. These were then sorted and coded into ***substantive codes***, which were in turn shuffled into major groupings. I then went back to see if a more abstract sorting was possible; the substantive codes were all very concrete. Thus I discovered ***theoretical codes*** and about now began seriously on the business of memos. Meanwhile patient interviews were continued until no new themes or codes were apparent in their analysis.

A second phase of interviews, this time with staff nurses, followed; most chart audits and observations of the ward at night were done at this time, since many of these interviews

were held at night. Nurse interviews also continued until saturation of themes was evident, and at this point further analysis of the data began, along with a review of the literature and commencement of writing the report. The process of analysis is best understood with examples given, and will be elaborated on in a later chapter.

THE NURSE AS RESEARCHER

My role in the hospital wards during the field research was one of non-participant observer. While I made it clear to all participants that I am a nurse, I wore civilian clothes and a name badge which identified me as Nurse Researcher. I was confident that all participants were able to comprehend and differentiate between the roles of researcher and nurse. I did feel that my nursing knowledge facilitated discussion of matters concerning health, illness and hospitalisation with patient participants (and often their roommates who joined in). I also felt that the nurses I spoke to were confident that we shared a common bond and knowledge base in discussions; my current employment status as staff nurse, the same as theirs, and my reference to previous experiences on night duty made this explicit. Christensen (1988) refers to this phenomenon;

> 'As a nurse, the researcher is able to establish a relationship with both patients and nurses which will not only preserve the humanity of the encounter, but may also contribute to the success of the research' (p48).

It is important in a study such as this that the researcher sets out clearly what were his or her preconceptions of the area under investigation, and the fact of my previous experience of nursing at night makes this the more important. While I hoped to have approached the study with an open mind as to what I would find, I suspected at the outset that elderly patients do not sleep well in hospital, that hospitals are noisy, and that many people are keen to go home in order to reestablish their normal sleep patterns or to catch up on the sleep they have lost. I thought that nursing assessments paid little attention to sleep habits, and that nurses believed older people to need less sleep than younger ones. The truth or otherwise of my pre-study conceptions will be demonstrated in the report of my findings.

RIGOR IN QUALITATIVE RESEARCH

In completing this study I have made every effort to meet the criteria outlined by Sandelowski (1986), who sets out a series of strategies to achieve rigor in qualitative research. The necessary criteria outlined by this author are those of credibility, fittingness, auditability, and confirmability. A study is credible when the descriptions and interpretations

it presents are, or would be, recognisable both to the study participants and to others who might read the resulting report. Fittingness is met when the findings of a study are meaningful and applicable to its audience in contexts outside the study situation and when the explanations reached 'fit' the data from which they were derived. For fittingness to be achieved the findings must also represent typical and atypical elements in the data. Auditability is achieved when the researcher leaves a clear 'decision trail' which could be followed by another researcher. In doing so another researcher should be likely to come up with similar, not contradictory findings and interpretations. Confirmabiliy depends on the establishment of auditability, fittingness and applicability, and is a measure of the neutrality of the findings of a study. A summary of the extent to which these conditions have been met will be included in the final chapter.

SUMMARY

In this chapter discussion has centered around research in nursing, with an emphasis on qualitative methods. The congruence of qualitative methods, grounded theory in particular, with the philosophy and practice of nursing has been emphasised, and these and other reasons for the choice of the method for this study explained. The grounded theory approach enables the researcher to examine a situation as it occurs, to collect data from a variety of sources, to speak to the participants, and from the information gathered use a specific strategy of analysis in order to make a conceptual statement or statements about what is going on in the situation. An outline has been given of the way in which the method was applied in this study. Discussion has also centered around the ethical considerations involved in this project and the manner in which they have been addressed.

The following chapter will concentrate on the process of data analysis; the use of examples will help to illustrate the method followed. The written report will follow the most logical linear form, although this is not wholly representative of the process undergone. There will always be difficulties in conveying in writing the simultaneous processes involved in grounded theory.

CHAPTER FOUR

DATA ANALYSIS: THE PROCESS

INTRODUCTION

This chapter provides the reader with an account of the process of grounded theory development. Whereas an overview of the method as a whole was presented in Chapter Three, in this chapter discussion concentrates on the process of data analysis.

DATA ANALYSIS

Data for the study were obtained from several sources. Interviews with patients and night nurses form the bulk of the information gathered. Audit of nursing documents and drug charts, observations on the wards and informal talks with nurses and elderly people were also a source of data. And in a grounded theory study the literature is also a potential source of data.

All interviews were designed to be semi-structured only. Patient participants were asked about sleep and rest, both at home and in hospital, and about their night-time habits if they woke at night. They were also asked directly to describe what it is like in hospital at night. Nurses were asked about their experiences of night duty, their impressions of night-time experiences for elderly patients, and their knowledge about sleep. The progress of each interview differed, discussion following where it lead once the basic questions had been addressed. Interviewing stopped once no new themes were identified in the transcripts.

Constant comparative analysis is the key analytic strategy in a grounded theory study. In this process all data gathered are compared with those already at hand, until a picture of the whole emerges. The emergence of a theory (even one in early stages of formulation) ***from the data*** is the essence of a grounded theory study. Glaser and Strauss (1967) describe the constant comparative method and identify the sought-after connections and relationships in the data thus:

> 'In contrast to analytic induction, the constant comparative method is concerned with generating and plausibly suggesting (but not provisionally testing) many categories, properties, and hypotheses

> about general problems (e.g., the distribution of services according to the social value of clients). Some of these properties may be causes, as in analytic induction, but unlike analytic induction others are conditions, consequences, dimensions, types, processes, etc' (p 104).

The method requires that the data be broken down into the smallest units of information, and then rebuilt, at increasing levels of abstraction, until a theoretical interpretation is attained. The process is best illustrated with examples from the study.

SUBSTANTIVE CODING

Substantive codes group and label the smallest bits of information contained in the data. Their generation requires line-by-line analysis of the material; codes are then ascribed to the information bits. The following extract from an interview is shown as it was broken down into segments; a new line is used for each separately coded item. (**Note**: researcher's comments made within excerpts from interviews are enclosed in [] brackets.)

> 'When you aren't well you can't sleep
>
> I had a pain in my back last night
>
> and they gave me digesic
>
> I take sleeping pills, one at nine and the other later at 1 or 2 am
>
> then I wake at four
>
> They are on my locker [researcher notes in fact anginine tablets there].
>
> If my legs are fidgetty and painful I have to put up with that
>
> I sit on the edge of the bed and swing them
>
> But if I take a couple of digesic they calm down for a while.
>
> I'm a bad sleeper
>
> I've never been a good one'

More than one code may be possible for any one piece of data; indeed it is desirable to code for several properties if they are evident. The following excerpts are from several

patient interviews. [**Note**: the use of ..... between extracts indicates their derivation from different participants.] The code or codes assigned to the excerpts on first analysis is shown in bold type after each item:

> 'But I find if I get up and walk it helps with the legs.' **Getting up**.
>
> .....
>
> 'I go to the toilet.' **Toileting**
>
> .....
>
> 'I have to get up during the night to urinate of course, I've got one of those weaknesses. I don't know, I suppose my bladder relaxes more at night than it does in the daytime.' **Getting up, toileting**
>
> .....
>
> 'I used to get up in the night but now I've been able to cut it down to once because a couple of years ago I had to have an operation for prostate and they fixed that up.' **Getting up, toileting**
>
> .....
>
> 'No, I don't wake in the night, I've got a good bladder.' **Not waking, toileting**
>
> .....
>
> 'So I get up and put the fire on and sit up for a while.' **Getting up**
>
> .....
>
> 'If I don't get off to sleep I get up and have a hot drink of milk and do breathing.' **Getting up, food/drink, breathing**
>
> .....
>
> 'But if I'm home I get up and put a cup in the microwave.' **Getting up, food/drink**

As substantive coding continued each piece of data was compared with others in the same and other codes, and many were coded under several headings. As can be seen with one quote above, exceptions were also coded according to their content; thus the man who does

not wake but mentions his bladder was considered to be making a statement about toileting as well as not waking. In all, forty-nine substantive codes were arrived at from interviews with patients.

THEORETICAL CODES

Once all the data were sorted into substantive codes a second analysis began. This time the aim was to raise the level of abstraction one notch; as their name suggests theoretical codes are more abstract than substantive codes. Often several substantive codes can be grouped together in a theoretical code.

In coding my data I arrived, for example, at two substantive codes; **quality of sleep**, and **enjoyment of sleep** which when later combined generated a theoretical code; **sleep as quality**. In the new code were statements such as these:

> 'Yes, there is a different quality of sleep. There's a sleep which you need for the body to revive itself but then there 's a sleep which let's face it comes about from sheer laziness.'
>
> .....
>
> 'But otherwise I sleep real solid.'
>
> .....
>
> 'I slept like a log last night.'
>
> .....
>
> 'I've had one or two little snoozes here, around half an hour or so and I wake up and think Oh, that was good.'
>
> .....
>
> 'I think my sleep, which is about four hours is quite enough. And I enjoy it.'

Another example of the collapsing of two codes into one is that of **noise**, combined with **other patients** to form a theoretical code **external disturbance**, with examples such as these from the interviews:

'...and we've had one patient here that runs around at all hours of the night, but apart from that I'm good.'

.....

'Last night he had a better night, only making the one noise that was sore bad.'

.....

'...D got into bed with Mrs G. Poor Mrs G she's low down you see...she tried my bed but she couldn't get up on here so I thought she'd gone and the next thing Mrs G gives a great big yell in the middle of the night...Someone's in my bed...'

'But it's not really so noisy here. There's not the clattering of things so much. I'm right next to the steriliser room but there are no steel pans any more.'

.....

'This lady coughs quite a lot but it doesn't annoy me unduly at all.'

.....

'...but when I do go to sleep it would take more than a traction engine to wake me up.'

The examples given have shown how two substantive codes may be included in one theoretical code. In fact a theoretical code might subsume many substantive codes.

CATEGORIES

The next step in the process was to group theoretical codes into categories. Categories and their properties are concepts indicated by the data (Glaser & Strauss 1967). In 'working the data' in the analytic process the researcher begins to see some common elements, some recurring themes, or some unifying concepts appearing in different codes. Groups of codes can thus be seen to illustrate some particular properties; they indicate a category. Categories emerge from the data at varying levels; that is at increasing degrees of conceptual abstraction as the data analysis continues. While the genesis of categories is initially in the researcher's mind alone, the interrelationships of categories form the core of

the emerging theory, and the properties of the categories must be explained in the research report in order that the theory may be put forward.

In this study one category to emerge from the analysis of patient interviews was **expectation**. Nineteen theoretical codes indicated the category and its properties. The codes were:

Catching up
Healing
Expectations
Sleep includes napping
Automatic function
Comes as you need it
Just going off to sleep
Sleeping to death
Sleep as duration
Sleep as quality
Accusations (nurses)
Tiredness and activity
Staying up late
Sleeping badly
Not sleeping well
Sleeping well
Passive approach to sleep
Accidental napping
Rest compared with sleep

The unifying concept of **expectation** is demonstrated in extracts such as the following:

> 'I feel that your body just needs time to catch up and it just works automatically.'
>
> .....
>
> 'Well these others in this room, he's 84 and this one is 81 and they sleep nearly all day. I think it's natural. I think it's the process of dying.'

.....

'Oh, I think you really need to have a little nap, say in the afternoon.'

.....

'You forget to say that you are old and that's why you lie down. I think about three hours sleep if it's not broken that's enough for any old people, they don't want no more.'

An explanation of the content and properties of each category generated and of the relationships between categories will be presented in subsequent chapters.

MEMOS

Throughout the entire data collection and analysis process the researcher recorded ideas, hunches, questions and tentative hypotheses in memos. Memos, as the name suggests, are notes, to oneself, meant to serve as a reminder; they are a written record of the direction taken in the research process and they capture elusive insights obtained as data analysis continues. Their generation increases as the study progresses. Memos themselves must be categorised and their insights used as a framework for the developing theory. Because memos are written for different purposes and at different times, like other aspects of the data they, too, exist at a variety of levels of abstraction.
During my data collection I wrote, for example,

> Difficult to tell which patients can communicate clearly - see/hear - from nursing care plans - one must surmise from notes.

This memo serves as a reminder of a problem identified at the time; it may or may not be relevant to the result of the study. A different type of memo recorded during data analysis says:

> Time to get up or go to bed is not equivalent to sleep time.

Such a memo is likely to be heeded as the theory develops. Even more so is one such as this:

> If sleep etc is mentioned in care plan it is likely to be written 'Provide a quiet environment...' HOW?? In contrast to one-to- one nursing care on

> days, night staff are involved very much in attempts at environmental manipulation and/or reaction of patients to environmental disturbance.

Because they are self directed reminders, memos serve as a free vehicle for the writer in which to capture ideas - there is no necessity to concentrate on spelling or grammar, or to avoid abbreviations.

SUMMARY

Through the use of examples this chapter gives a step by step description of the data analysis procedure undertaken in a grounded theory approach. Examples of coding and memoing are given. At each stage of the process a higher level of abstraction is reached; initial codes represent the material contained in the data, while later on categories are concepts indicated by, rather than contained in, the material gathered. It would not be feasible in writing a report to detail all the codes generated; for this reason examples have been given to indicate the process at its early stages. Categories are the most abstract conceptual elements of the study. Only one example of a category has been included in this chapter; the properties of all the categories generated and the interrelationships between them will form the basis of future chapters dealing with the findings of the study.

CHAPTER FIVE

FINDINGS: THE PATIENT EXPERIENCE

INTRODUCTION

This chapter is the first of three which will deal with the findings of the study. In this chapter discussion will centre on the hospital environment at night as elderly patients see and experience it. The constant comparative method of data analysis, central to the process of grounded theory, was described in the previous chapter. Categories emerging from the data are the concepts from which the developing theory is structured. They are not found ***in*** the data, but rather are ***indicated by it***, as data analysis progresses. The clues which lead the researcher to the emerging category are its properties, which must be explained in order that researcher and reader understand the concepts in the same way. Analysis of the data generated three categories which explain the patients' perspective on sleep and on being in hospital at night. These categories, **individual pattern, expectation** and **disturbance** will be examined in turn; references to relevant literature will be incorporated into the discussion as it progresses. The use of the literature as data has been mentioned previously (p.22); its presentation alongside other data sources is congruent with the research method, and makes for clear illustration of parallels and associations in findings and interpretations. The relationships of the categories to each other form the basis of the developing theory. They will be discussed in a later chapter, following presentation of all the study findings.

INDIVIDUAL PATTERN

The name **individual pattern** is given to a category which describes the way people are. Its meaning thus tends toward the 'typicalness' of an event, action or reaction described by an interview participant. The label **individual pattern** was chosen as being one which describes sentiments such as these, expressed by several participants:

> 'I think it's just me... I've been in and out of hospital several times and it's the same pattern right throughout, I still don't sleep.'
>
> .....
>
> '... but I never was one for a great deal of sleep.'

.....

'I'm a bad sleeper, I've never been a good one.'

.....

'My husband says "You are funny, you talk about the funniest things, you want to know the ins and outs of things", which I do; I like to get to the bottom of things.'

In this study individual pattern is relevant both in terms of sleep and of what people do at night when they are not asleep. It includes the rituals and routines people perform in their own environments and the way in which they behave toward the nurses who are caring for them when they are in hospital.

In terms of sleep, pattern relates to both duration and timing.

'At home I go to bed when television goes off; quite late. But I don't get up till about half-past eight.'

.....

'I always have eight hours sleep, easily.'

.....

'I never go to bed later than eight .....that's regular as clockwork.'

.....

'I go to bed about nine o'clock and I get up about half-past six.'

Wide variations were demonstrated in patients' reports of their times of retiring and rising, and of their times of falling asleep and waking; the two sets of activities are not necessarily the same. Although the individual patterns varied all patients made reference to habitual behaviours that could be construed as pattern.

It is not surprising to learn that individuals have different needs for sleep; averages such as the 'eight hours a night' figure are built up of a range of figures after all. At either end of the continuum Hartmann (1973) identified long and short sleepers, whose average sleep times ranged from just over eight hours to around five and a half hours. Significant differences

were found in the amount of REM (rapid eye movement or dream) sleep in the two groups, and this has been correlated with personality differences which were also found. According to Hartmann (1973) long sleepers tend to be worriers and/or more creative and less conventional in their thinking than short sleepers. What relation this finding might have to the suggestion by Oswald (1980) that most insomniacs are worriers, is not clear. Whatever the case, the concept of **individual pattern** remains, and is indeed suggested by the writings of these authors. Other authors point out that age is a factor; variability in sleep needs is said to be more pronounced in older age groups (Kramer, Kupfer & Pollak 1980; Hayter 1983).

Sleeping may include napping in the daytime, an activity which is quite often unintentional, it seems:

> 'Sometimes on a Saturday afternoon I could drop off...'
>
> .....
>
> 'Maybe when I'm watching tele on a Sunday, sitting back in the armchair, maybe I snooze, I don't know.'
>
> .....
>
> 'No, I don't nap during the day. Oh, I might sit down and watch TV and go off for a while, but I don't usually take a nap.'

The literature upholds the view that as people move into their later years they tend to take more naps during the daytime. The combination of naps and nocturnal wakenings in the elderly may be likened to the multiphasic sleep of small children (Borbely 1986), and this pattern may have a tendency to reappear when the time demands of work and social life are reduced (Tune 1969).

In data gathered from patients, reference is made to patterns having developed recently, or to their being long-standing.

> '...I could go all night without sleep when I was younger, but now I'm afraid I can't.'

> 'I think it's just me. I've been like it since I was about ten, with my mother. Two and a half hours sleep I could go on at night for weeks. It was then that my sleep pattern started.....My family used to get quite worried about me but it's been right throughout my life.'

For some people active attempts to initiate sleep, including bedtime rituals and routines, are part of their pattern.

> 'I have a sleeping pill every night...'

.....

> 'I generally have milo..'

.....

> 'I always tidy up the lounge, prop up the pillows and put the papers away. I always have a glass of water before I go to bed and I take one with me. Turn the blanket on about ten minutes before I go to bed.'

.....

> 'I've got into a habit that I have a cup of tea and I might watch TV if it's worth looking at and then I get to bed about twelve.'

Nocturnal waking may be described as part of a regular pattern, as are the actions that people take to help themselves get back to sleep:

> 'I have to get up to go to the loo sometimes. If I wake up and can't get back to sleep I get up and go out into the kitchenette and I get a piece of bread and the margarine and I have a slice of bread and margarine and a drink of milk, and I go back to bed and I'm happy as a sandboy then, I go straight off to sleep. Like a baby, yes. Well I always think I wake up like that I must need something so that's what I do and it works.'

.....

> 'If I don't get off to sleep I get up and have a hot drink of milk and do breathing [exercises]. Sometimes I get off to sleep and sometimes I don't.'

.....

'I usually get up two or three times to go to the loo...'

For others sleep 'just comes'; their approach is a much more passive one:

'Most nights I just go to sleep.'

.....

'I'm not a good sleeper. I don't sleep so well at home either. I can't do much about it.'

.....

'I think sleep just comes as we need it.'

It seems that several things happen to sleep patterns as people age. Mendelson (1987) suggests that both total sleep time and the total amount of individual sleep stages in a night are age dependent. Writers give different accounts of the precise nature of some of these changes; for example, whether total sleep time declines in old age (Hartmann 1973; Oswald 1980; Borbely 1986; Mendeleson 1987), or whether it increases (Hayter 1983): this study would tend to indicate that either may be true, depending on the individual concerned. A number of areas of consensus are found in the literature. The amount of stage four, the deepest sleep, decreases with increasing age until at age 50 it is reduced by half (Colling 1983). Also of relevance to this study are consistent findings which indicate that older people spend more time in both stages 1 and 2 sleep, with more shifts into stage 1. These are the lightest stages of sleep, and along with the shifts to lighter sleep comes a likelihood, often realised, of frequent easier arousals than occurred when they were younger. Thus older people often complain of waking more at night.

Sleeping and waking may be related to activity.

'I'm not as active since my arthritis so maybe I'm not so tired.'

.....

'I think I sleep more [than when she was younger], and if I go anywhere, you know, go to anything or go shopping I feel it's very hard for me. I get tired. I get tired if I go out.'

.....

> 'Well I don't need as much sleep as I used to. I feel as though I don't because I'm not using up any energy.'

A relaxation in the demands of social and working life as people age has an effect on patterns of waking and rising times:

> 'So I wake up about then or it could be a bit earlier, but it's not for any specific purpose.'
>
> .....
>
> 'But I don't get up till about half-past eight; there's nothing to get up for...'
>
> .....
>
> 'I suppose at this age I've got out of the habit when I was working and that, and I had to get up early, but now I suppose about eight o'clock.'

The beneficial effects of an active lifestyle and mild sleep restriction on sleep onset and waking in elderly women has been confirmed in a recent study of elderly nuns compared with a control group of retired women and housewives. Interestingly sleep maintenance and slow wave sleep showed no difference between the groups - it seems that some of the effects of aging on sleep are not influenced by lifestyle (Hoch, Reynolds, Kupfer, Houck & Berman 1987).

EXPECTATION

The category **expectation** includes all the ideas people have about what ***should*** happen at night and their beliefs about sleep. It includes their own anticipations about how things ought to be, and those that they have heard from others, about which they may be unsure. Sleep patterns do not always match expressed expectations.

Adults the world over expect to sleep at night (Hayter 1986); it is a societal expectation that night-time is for sleeping. It has already been stated that the identification of a pattern of sleeping is common among adults; people thus have individual expectations of their own sleeping behaviours and are able to recognise deviation from their own norms with little difficulty.

> 'I get all uptight after a busy day. I sort of churn things over, you know, what's happened and what's been said and what's to come...'

.....

'Yes, people do vary. Now I've got two friends at home that are exactly the same age as me and our sleeping patterns are totally different.'

.....

'But very rarely do I ever wake up. Depends, you know, if I've been worried about the kids or something then I might wake up.'

The expectations of others may be different, however;

'My family used to get quite worried about me but it's been right throughout my life.'

.....

'But he [husband] would sleep in the daytime and well I never do that. I did when I went to my daughter-in-law's for a holiday because she'd say 'Oh, Mum, you'd better go off and have your little nap in the afternoon' so I'd get into bed and read a book. I feel there's too much to do.'

A variety of beliefs is expressed about the sleep needs of adults as they grow older;

'I don't think we need as much as when we were younger..'

.....

'We need more sleep as we get older.'

.....

'Oh, I think you really need to have a little nap, say in the afternoon.'

.....

'I don't know if I need more sleep but I'm inclined to fall off to sleep anywhere.'

While the functions of sleep are not well known to the scientific community, there is a common-sense knowledge of the reasons for sleeping;

'We sleep to rest our bodies. Rest is healing.'

.....

'Personally I would say it's to unwind tensions. You know, to get into a sort of semi-comatose sleep, well everything goes and everything relaxes. It's like time out.'

.....

'We have to rejuvenate our system. Everything needs to have a rest.'

If sleep is seen as necessary for health, it is not surprising that it is thought to be needed more in illness, nor is it surprising to hear that illness sometimes interferes with sleep;

'I had an illness one time and I couldn't get into that bed fast enough.'

.....

'I feel I want more sleep when I'm unwell.'

.....

'When you aren't well you can't sleep.'

Sleep and rest are seen as different entities

'I think you need more rest but not necessarily sleep, but I think you need rest, quietness, relaxation, whatever.'

.....

'I get tired and I just sit down and take it easy.'

Indications are that sleep is measured either in terms of duration, or in terms of quality - people assess their own sleep in one, or both, of these two ways.

'I always have eight hours sleep, easily.'

.....

'I don't dream or anything. I really sleep.'

.....

'I've had one or two little snoozes here, around half an hour or so and I wake up and think "Oh, that was good."'

While some people believe they must take some action in order to initiate sleep, others trust that it will happen automatically;

> 'I can read but I don't read, I just lie there.'
>
> .....
>
> 'I feel your body just needs time to catch up and it just works automatically.'
>
> .....
>
> If I can't sleep I just read and then probably I'll just drop off with the paper in my hand.'

Previous experience of hospitalisation may colour a person's expectations of a hospital stay:

> 'Yes, I thought I would sleep here. Though I was in a lot of pain I still thought I'd sleep.'
>
> .....
>
> 'I've been in and out of hospital several times and it's the same pattern right throughout, I still don't sleep.'

For hospitalised people, nurses are a source of assistance, but they may viewed in a number of ways by patients whose expectations of them are acquired by experience and observation;

> 'I never asked them [for a drink in the night]. I have to ask for a pan often enough without asking for one in the middle of the night.'
>
> .....
>
> 'When you are lying in bed and perhaps you can't go to sleep, you've only got to ring the bell and they're there and they'll give you all the assistance you need and the comfort just to sort of soothe you down to make you sleep and you just go to sleep.'
>
> .....
>
> 'I have heard nurses when somebody rung in the night get very cross,not here, but just cross words, you know, "I was busy" or something, just in a sharp sort of a way.'

.....

'When I look at the nurses they have a hell of a job. Plus doing their job they have to be soft and tender but when they're dealing with people like that can you wonder that they get angry at times and be a bit abrupt and brusque?'

.....

'... they are always so busy, you know, looking after really sick people and it would be nice if you could ring your bell and say well I'd love a cup of tea and a piece of toast or something, but I know that's impossible. And I would never ask.'

.....

'And then they might come in and out and I like that, its companionship. I like to be near others, I don't like to be alone at night, put it that way. I'm quite a nervy person really. But I do like to see lights on and people running in and out.'

.....

'I sort of take the attitude that I don't want to ask them to do any more than they have to because they are pretty busy as it is. They are very good, they really are. Some girls are extra good, you know, and you know some I think it might be better if they'd got into some other occupation.'

.....

'I just ring the bell and the nurse comes.....'

DISTURBANCE

The category **disturbance** incorporates two dimensions; **external disturbance** and **internal disturbance**. External disturbances are those events which waken people, or prevent them from sleeping, which are attributable to causes outside the individual. Noise is probably the most obvious example. Internal disturbances are causes for wakening or difficulty sleeping which arise in the individual. Examples are pain, worry, the need to empty a full bladder and so on. For many people internal disturbances are common, and have come to be expected as part of their sleep pattern - Kirk (1987) suggests that internal factors are the predominant

source of sleep problems - but illness and hospitalisation also produce a number of potential disruptions to sleep.

Noise is troublesome to many hospitalised people, though some are not so bothered by it;

> 'It's not too noisy, I just can't sleep.'
>
> .....
>
> 'Even when I'm at home it has to be a really loud noise that will wake me up unless they're unusual. Now it could be really quiet, but if it's unusual then I'm awake in minutes..'
>
> .....
>
> 'I try to deafen myself to the people in hospital.'
>
> .....
>
> '...there's so much outside noise with pans and, especially in a medical ward with patients calling out and lights buzzing and that...'
>
> .....
>
> 'Two male nurses met in the corridor out here the other night. I thought they were having a fight; they were arguing. Then another nurse came and joined in. We wondered what on earth was happening.'

Hospitals are noisy, day and night, as researchers and patients have both reported (Woods & Falk 1974; Whitfield 1975; Bentley, Murphy & Dudley 1977; Ogilvie 1980). Noises can arouse people from sleep, and as Woods and Falk (1974) point out, unfamiliar sounds are more likely to wake people than are familiar ones, in spite of loudness, (as one participant has confirmed, above) and intermittent sounds are more annoying than continuous. Auditory thresholds have been shown to decline with age; at the same time sleep becomes less intense and is therefore more easily prone to disruption (Zepelin, Macdonald & Zammit 1984). Since a large number of elderly patients are deaf, Ogilvie (1980) found that nurses had to raise their voices to be heard, so contributing to night-time noise on the ward. This is an observation also made by the researcher in the process of the study. Deafness, however, is no guarantee that a person will not be woken by a relatively quiet sound. Footsteps, coughing, snores, cries, nurses talking, and the sounds of equipment are obvious sources of disturbance, but it has been found that patients may be bothered by

noises that nurses thought not too disturbing such as beds creaking, nurses moving or observing patients, and doors banging (Whitfield 1975). Some observers have commented on the extent to which caregivers 'seemed unaware of the extent to which they might have contributed to the wakefulness and restlessness of clients' (Gress, Bahr & Hassanein 1981, p92); this is an observation shared by the researcher. On the other hand the absence of noise may also be a problem; as Kemp (1984) points out, quietness may be unnerving for patients who cannot sleep.

The activities of other patients may be disruptive because of noise, or because of their behaviour during the night;

> 'There was a guy, oh, no-one could shut him up and he was put way down the ward so people couldn't hear him, but you could still hear him.'
>
> .....
>
> 'Otherwise no sleep last night. Not much. I did have a snooze off, in between the calls, in between the calls...'
>
> .....
>
> 'You get some who wander round as if they can't help but wander round. We had one woman come in here, she's fairly elderly, and she'll go into your bed.'

Pain and discomfort from a variety of causes makes sleeping difficult;

> 'Most of the time I sleep on the same side. It's a bit awkward with the splint - I have to sleep on my back.'
>
> .....
>
> 'The bed is OK, I can't grumble, but my back and shoulders get sore.'
>
> .....
>
> 'I had a sore throat for a while and that kept me awake...'
>
> .....
>
> 'I kept coughing so I couldn't sleep..'

Sometimes people have difficulty sleeping because of worry, or because of some unknown reason. Waking without apparent cause is a source of concern in itself;

> '...unless I've got something that really worries me and it won't let me sleep and I've got to find an answer somehow or other.'
>
> .....
>
> 'At home some nights I am awake all night for no reason. I just wonder why to myself.'
>
> .....
>
> 'But sometimes you know there's nothing, no disturbance in the room, nothing, but I just lay there and think well what woke me up, what woke me up, why am I awake? I haven't been dreaming, I haven't been thinking of anything, I just woke up and now I can't go back to sleep.'

Circadian rhythms exert a strong controlling influence on sleep and wakefulness, but the routines and rituals of a hospital are not always conducive to sleep, and they seldom match the routines people have at home. Floyd (1984) found that hospital rest-activity rhythms function as a strong zeitgeber or temporal organiser, of sleep and wakefulness. Further, she concluded that the hospital rest-activity schedule was not congruent with the sleep-wake pattern of any circadian type. It seems that adaptation to rhythm displacement becomes more difficult with increasing age (Borbely 1986). Many hospitalised patients in Pacini and Fitzpatrick's (1982) study complained of premature awakening for hospital routines such as vital signs, medication, blood tests and so on.
Participants in this study had a variety of comments;

> 'They get you ready for bed at half-past eight - it's very early.'
>
> .....
>
> 'When they've finished you it's sometimes after nine so you try to go to sleep...'
>
> .....
>
> 'I'm not sure what time they settle me and I don't worry about what time they wake me. They're always waking me up.'
>
> .....

> 'You do wake in hospital. I had my recordings taken about four times a night so they wake you for that.'

One of the things people find difficult about being in hospital at night is that there are limitations on their normal activities at night or on their usual strategies for coping with a disrupted sleep. Such limitations may be physical, environmental or social in origin. Thus the disruption extends, not just to sleeping and waking patterns but to coping behaviours as well.

> 'I don't like to put my light on and read here. once I put it out that's it, it's out. I listen to the radio sometimes, but then sometimes I don't get what I want so I turn it off and leave it off. When I'm home of course I can dial to whatever I want to. Currently here there are only two stations we can listen to.'

.....

> 'I sleep badly at home...I get up because it's no use tossing and turning and disturbing my wife so I get up and put the fire on and sit up for a while....I got up last night at nine o'clock and they said "It's too early for your breakfast" so I just had to go to bed again.'

.....

> 'You don't get anything, you know, there's nothing you can have when you wake up, you've just got to sort of just be....If I thought I was going to be in hospital for several weeks I'd certainly be fortified with a packet of biscuits and some sweets in my locker.'

Sedatives are one answer to the problem of poor sleep, yet few elderly patients spoke highly of them. Instead, some were adamantly opposed to their use, while others felt they had been given sedation unnecessarily. They prove useful for some people, however.

> 'I find that with the sleeping pill I have I'm only awake for a few minutes and I'm straight off to sleep again. Whatever wakes me up I'm straight off to sleep again.'

.....

> 'I've got arthritis and I'm not allowed to take pills much so I leave it to nature.'

.....

'I don't believe in that because I believe you can become addicted to sleeping pills.'

.....

'Night-time I don't take my pills till ten-thirty hoping I'll get to sleep but I don't.'

.....

'Yes, well he [doctor] was more concerned than me. He said "What kind of a sleeper are you?" And I said "I'm not", I said "I don't sleep at all", I said, "If I get two hours sleep a night that's it." And he said "A woman of your age should sleep and you're going to get a sedative" and he said, "It'll be very mild, it's not habit forming", and so it was he that made me go on it. I was quite happy as I was, it didn't bother me, no sleep.'

SUMMARY

In this chapter discussion has centered around the three categories which emerged from the analysis of data collected through patient interview. Where it seemed appropriate reference has also been made to findings in the literature. **Individual pattern** is the name given to a category which describes the way a person behaves; it is relevant in terms of sleep and of peoples' usual ways of coping at night when they are not asleep. **Expectation** includes all the ideas people have about sleep and their beliefs about what should happen at night. For the hospitalised individual, expectations about nurses are also important. **Disturbance** is a category which describes those events which waken people or prevent them from sleeping. Interrelationships between the categories form the basis of the emerging theory. They will be discussed in a later chapter after the presentation of all the study findings. In the next chapter, the world of the night nurse and her impressions of the patients' experience will be examined through discussion of categories arrived at in analysis of nurse interviews and document audit.

CHAPTER SIX

FINDINGS: THE NURSES' WORLD

INTRODUCTION

In this chapter the second part of the findings of the study will be presented. Discussion in the previous chapter concentrated on night-time in hospital from the patient's perspective. In this chapter the perspective changes, and the same setting - the hospital ward at night - will be examined through the eyes of the nurses who work at night. Data were gathered through interviews, observation, document audit and, later, a review of the relevant literature. As in the previous chapter, reference to the literature will be made as the discussion progresses. Analysis of data generated five categories relating to the interactions between nurses and patients at night. These categories; **expectation, awareness, promoting sleep, setting priorities**, and **allowing** will each be explained in turn. In the subsequent chapter their interrelationships with each other and with the categories generated from patient interviews will be discussed. First, however, it is appropriate to make reference to the world of the nurse as night worker, and to set the scene of the ward at night.

NIGHT SHIFT AND THE NURSE

All night workers face problems in terms of organising their lives around work at a time when the rest of the world expects to be asleep. Physically, night work is demanding. Working at night means sleeping during the day and there is evidence to suggest that daytime sleep is of an inferior quality to sleep obtained at night (Kemp 1984). Quantity of sleep may also suffer. The sharp about-turn in circadian rhythm imposed by night work results in a combination of physical and emotional symptoms often likened to jet lag. The feelings nurses have about night duty; its effects on themselves and the content of the work, provide contextual background to this study.

Although nurse participants were not interviewed in depth about their experiences of working at night or the effects that night work had on them, they made several comments which illustrate their experiences clearly:

> '...it turns your whole life around backwards and that makes you feel a bit funny, but it's OK once you get to work.'

.....

'It's a different world and you just don't see other people and it was always dark - when I got up it was just about ready to get dark again in the evening. It was awful like that - I felt like a hermit.'

.....

'One of the things I was determined about when I came on nights this time was being preoccupied with sleep. When I was training we used to do a lot of nights, about six months in three years and we used to get a month or two nights at a time and you actually cancelled everything on those times and just sort of that was your life; sleeping, eating and work, and that was all you talked about was how much sleep you got. And everyone used to ask when they came on how much sleep they got and I was determined I wasn't going to do that this time. I still tend to ask how much sleep people got.'

.....

'I was also a bit stunned because there are people who have been on nights a long long time in hospital and when I hit nights I found so much difficulty sleeping. But I had contact with a lot of people who were working fulltime nights on four hours sleep a day and I just didn't think I could. They don't look startling, but they survive.'

While there is evidence that the ability to perform tasks at night is worse than during the day, especially when people are overloaded or when increased vigilance is required, it also appears that people can rise to the challenge and so perform when it is crucial to do so (Minors, Waterhouse & Folkard 1985 (ii)). More significant for the purpose of this analysis is the constant paradox for nurses who must work at staying awake at night while they attend to others who are sleeping or attempting to do so.

Nurses who work at night talk about night nursing as being in some way different from nursing during the day. Kemp (1984) points out as benefits of working at night that autonomy and responsibility are greater, there are fewer interruptions and more time to talk to and learn about patients. Staffing levels are usually reduced at night. In the wards on which this study took place two or possibly three nurses at night was the norm - usually one of these nurses was a staff nurse, the other one or two enrolled nurses who work under the staff nurse's supervision. (An enrolled nurse is one who has completed a 12 month training, previously 18 months, and who has passed a State examination. It is a legal requirement

that an enrolled nurse works under the supervision of a registered nurse.) At night, then, a staff nurse has responsibility for the whole ward, where her colleagues on day duty could expect to be fully responsible for four to six patients or something of that order. This difference in staffing numbers reflects in part the social expectation that people will sleep at night. It is also true that fewer procedures, examinations and so on are scheduled for the night hours, unless it is imperative that they be done. Nurses are still required to be present to work, however, since some overall supervision is needed, and since patients will still require assistance at times. Illnesses do not respect the lack of daylight hours, and some treatment regimes of medical or nursing origin must be continued through the night.
Nurses comment:

> 'I liked the quietness of night duty, and I liked being my own boss and organising the whole ward myself, and you didn't have all sorts of people coming round; doctors and social workers and everything. And also people would tend to get sick at night-time and that was quite interesting in a way, that you could spend time with them and their relatives.'
>
> .....
>
> 'At night you have to work as a team because there is only two or three of you on. You are busy but you don't have the hustle and bustle of days.'
>
> .....
>
> 'Nights is not really a thing I would like to make a habit of but it was really good to get a perspective of where you work at night. It's all right to work there in the day but you just don't think about what goes on at night. It's just a totally different side of nursing altogether. A lot of people you don't even see. You know who they are and what's wrong with them but you have no idea what they are like as people if they sleep really well. And yet other people you get to know better than if you were working during the day. A couple of people got out of bed - they didn't usually get up and I didn't know who they were.

Although these comments are quite positive, some nurses do not like night duty at all. One nurse paints a particularly vivid picture:

> 'They [night shifts] just give me the spooks. Just the fact that so many people, especially elderly people die during the night. What time is it that the temperature drops? Three or four o'clock sometimes you used

> to go around the geriatric wards and they'd just popped off. And I have been around in the dark and I just go around continually with a torch and I'm just a nervous wreck, checking on the patients. It's never relaxed at night at all...Keep me on days, the land of the living.'

Nurses writing about working at night communicate a feeling that they are set apart in some way from their daytime colleagues who neither appreciate the content of their work nor include them in the decision making process at ward or patient care level. Filkins (1982) makes a plea for night nurses to be involved in the formulation of care plans and implementation of the nursing process if the aim of total patient care is to be met. Finn (1985) suggests that night nurses' work is often undervalued; Kemp (1984) details isolation, lack of information and consultation as contributing to a sense of being undervalued, and reasons that this is because night nursing is mainly supervisory, invisible and unreported. Such discontents were also echoed by the nurses in this study:

> '...you have absolutely no input into the change of the ward and quite often you walk on and there's been a major change done to the ward system and you wouldn't have been the slightest aware of it.'
>
> .....
>
> 'You are babysitting the ward too. You don't have much control in the way things are done.'
>
> .....
>
> 'It was good to see another side of nursing. I'd never really thought about what people did all night. Slept presumably.'
>
> .....
>
> 'There is also in some wards a sort of a thing between the day and the night staff which is most unfortunate. It is a lack of perception I think abut what each other does. In a lot of wards the night staff are the ones who tidy things up and then do it all again the next day.'
>
> .....
>
> 'If I wanted some change to be done all I could do was pass a message on to get the medical team or what to assess it and that often wasn't done which was annoying at times.'

THE WARD AT NIGHT

Observation of the ward at night revealed a fairly constant setting, although bed occupancy, general noise on the ward and the degree of busyness of the night staff altered from night to night. At night lights are dimmed in corridors and most rooms are darkened. Attempts are made to minimise noise and intrusion into patient's sleeping quarters except when it is necessary. Nursing staff were seen to have a regular routine of 'rounds'; that is, checking on each patient at half-hourly intervals, and attending to any needs which were detected at that time. Turning patients who could not turn themselves, and checking for and changing wet beds was accomplished by such a routine. Between rounds bells were answered, unusual noises investigated, and various other problems attended to as they arose. A patient causing particular concern might be checked more frequently than half-hourly, as might intravenous infusions, nebulisers or other equipment in use. The nursing office at night is the base for the nurses from whence they attend to calls and so on. In one ward a radio played quietly in the office all night.

SLEEP AND THE ELDERLY PATIENT: THE NURSES' VIEW

The main emphasis of interviews with night nurses was on their knowledge and beliefs about sleep and their perceptions of the night time experience of elderly patients in hospital. By the process of constant comparative analysis, five categories were generated which explain and include all the information gathered. These categories, **expectation, awareness, promoting sleep, setting priorities** and **allowing** will be explained in turn.

EXPECTATION

As with the category **expectation** generated from patient interviews, **expectation** here refers to anticipatory ideas about the way things ought to be; it refers to the nurses' opinions, knowledge and beliefs about sleep, hospitals and the natural order of things. While the meaning of the concept is the same for both groups - patients and nurses - the content is somewhat different, as will become apparent as the discussion proceeds.

Nurses have little formal knowledge about the nature of sleep and rest. They claim to have learnt little in their training, or since, about the physiology or functions of sleep, or about requirements for sleep in various age groups. They were asked specifically what they had learnt about sleep during their nursing training. Replies such as these are typical:

> 'I don't think we had any lectures whatsoever on sleep during our training....The books say older people need less sleep, but I haven't actually noticed that.'

.....

'It's something you take for granted I think.'

.....

'We haven't done much sleep in our training at all. It's quite an important area really. The elderly seem to sleep quite a bit. I remember reading somewhere that they actually need less sleep.'

.....

'I suppose older people probably need about six hours. They don't seem to have continuous sleep so much a lot of them, they tend to wake up and drop off.'

Nurses' conceptions about the functions of sleep are similar to those of their patients, and reflect what has already been referred to as common knowledge about needs for sleep, along with some apparent self consciousness about the lack of a formal knowledge base.

'Regeneration, restore energy for the day....I don't know, I'm trying to think....'

.....

'We get tired. Got to build ourselves up for the next day I suppose.'

.....

'I think to relax us, like to get away from the stresses of normal life, and to give your body a chance for healing and reviving yourself and it would be horrendous if you were awake twenty-four hours a day, seven days a week. Time out.'

In order to understand the sleep needs and behaviours of their patients nurses personalise and project from their own experience;

'Actually it did worry me if patients couldn't sleep because if it was me and I was in hospital I would be wanting to sleep at night.'

.....

'I know as a child when I went on camps and that, even if you were in a comfortable bed I found it really hard to go to sleep with all the snuffles and snivels and all that so it must be really hard if you're not well.'

.....

'I know myself that I sometimes think I haven't slept well but then I know I must have. And it's probably the same with the patients.'

.....

'I think one of the main things about not sleeping in hospital is that it adds to your problems if you don't sleep. Small problems can become really big. I say that from personal experience.'

The process of attempting to understand someone else's experience through understanding one's own is an important one for nurses. It adds another dimension to knowledge gained through experience or formal learning; indeed it may be the basis for empathic relating between nurse and patient.

Nurses' expectations of the amount of sleep needed by elderly people were rather less varied than those of the patients themselves. Nurses tended to opt for a desirable average of around eight hours, though as has already been illustrated, they had heard that older people need less sleep than this.

'I think that while they are here they need their sleep. To help them get better, and they are here for rest as well as their illness. I think eight hours at night if they can get it.'

.....

'I'd say at least eight hours. Whether they actually get that even at home I don't really know, but I'd say at least eight hours, because it must be getting more of a strain to do things, you know, your body must be getting more tired.'

.....

'Probably about six hours sleep.'

.....

'I think it comes to the stage where they need less sleep more often. I don't know how much sleep they need at night but still a good eight hours, at least. I really don't know. But if they don't sleep at night they might have an afternoon siesta and they don't have a chance to have that in hospital.'

Reference to individual patterns of sleep was made directy only once:

> 'I think everybody needs sleep and their needs are very different. You take an old person, how much sleep they require, well it all depends on how much they normally have. Some people say they are poor sleepers but it doesn't mean they can't function during the day.'

In contrast, several nurses referred to patterns of the group; that is, to the sleep patterns of all the occupants of the ward. Among these was mention of the domino effect, named in an article by Woods and Falk (1974), who refer to their finding in a recovery room that as one patient cried out, a chain reaction began and patients in adjacent beds woke and so disturbed others. Gress, Bahr and Hassanein (1981) have shown that there is a pattern of nocturnal behaviour for the group in elderly hospitalised adults. Nurses in the study describe the group patterns;

> 'The last ward I worked on was a medical ward and old people get confused at night. It just takes one and there is a chain reaction down the ward. One becomes confused and you have conversations going back and forth down the ward; "What ya doing there John?", "I'm doing nothing..."'.
>
> .....
>
> 'If there's one person awake they tend to keep other people awake like with their restlessness.'
>
> .....
>
> 'There are other nights when it is really quiet and everybody seems to sleep reasonably well.'

Also mentioned by all the nurses spoken to was a phenomenon they had each observed - that men wake earlier than women. Concern with the behaviour of the group is understandable in light of the scarcity of references to sleep patterns in nursing documents, and considering that the nurses must deal with the whole ward. Although each patient admitted is expected to have a care plan, with an outline of usual functioning and current problems, only one plan seen by the researcher, in the entire period of the study, made mention of usual sleep habits. It is not an expectation of the nurses that this should be done; they were surprised when asked if such an assessment would be useful but then conceeded that it might help;

'Actually it would help. I hadn't really thought about that but yes there is nothing written.'

.....

'It would help because then you wouldn't be getting worried if people were awake at funny hours of the night because you'd know that was normal for them and you wouldn't be going "Oh, are you all right?" and harrassing them if it was just a normal part of their time. And I think too you'd be able to note whether they are getting that normal pattern in hospital and if they weren't you could hopefully get something done about it. Yes it would be good to have it on a care plan.'

Nurses quickly become accustomed to the atmosphere of the ward at night. They know what kinds of noises are to be expected, they anticipate treatment regimes and the various discomforts that go with illness. Because of this they are able to anticipate the kinds of disturbances which may interfere with patients' sleep. It thus becomes part of the expectations of the nurse that a patient will suffer from disturbed sleep or will not sleep well in hospital, at least initially.

'I think it must be really frightening [hospital at night]. To me it seems to make the fact that they are away from home, that they are sick, that they don't really have a lot of control over their own lives really stand out at night-time when they are not in their own bed, or they are not with their partner and they haven't got their familiar things around them. And the beds are really uncomfortable. A lot of old people are uncomfortable at night anyway.'

.....

'I think it is distressing. You are hearing people that have got pain and people that are scared because they're not breathing very well, which is a lot of the CORD [chronic obstructive respiratory disease] patients are very disruptive, and nebulisers and things like that and that's really scary and it's really noisy.'

.....

'I wouldn't expect them to get much sleep. I just think it's so much different from the home environment. I mean how many single rooms do we actually have in the hospital situation? Unless patients are very ill - you know terribly exhausted patients will sleep anywhere - but if you're not that terribly ill and you're hearing all the noises in hospital I

> just don't think it's possible. And the beds are terrible. I think home is for rehabilitation.'
>
> .....
>
> 'We've got a lot of patients on frusemide in this ward which isn't very nice, poor things.' [Frusemide is a diuretic drug whose action increases urinary output. The nurse is referring to the need for frequent toileting.]
>
> .....
>
> 'Plus it's anxieties, too, that keep patients awake.'

Some nurses expected that after a time in hospital the patients would become habituated to noises, activity and so on;

> 'The older ones are also here for a lot longer so they get into a pattern. After they've been here for a while they'll sleep, patients will.'

There are some patients, however, who are frequently awake at night, and it could be that interaction with these patients becomes part of the expected pattern of a night duty.

> 'If they were awake we had quite a lot of time to talk. More than in the daytime, definitely. You sometimes get very close to patients at night, especially if they were quite often awake.'
>
> .....
>
> 'We had a man who was really up-tight, he was possibly a candidate for a heart transplant, and when he found out he just couldn't sleep he just couldn't relax, and most nights we'd sort of go in and talk to him and just go through a bit of relaxation technique that we were taught and that seemed to work quite well, better than the drugs he used to have and I think he was sort of fighting them in a way, but just sort of talking to him and calming him down he'd usually sleep quite well after that.'

PROMOTING SLEEP

The last statement demonstrates one method nurses used to help a patient who was not sleeping. There were a range of other possibilities which were expected to help;

> 'I often make them [confused patients] a cup of milo, sit with them, talk with them and explain where they are, and then pop them back to bed..'

.....

'Well depending what their need is, if they've got pain, pain relief, if they just can't get to sleep, if someone is particularly noisy that the other person complained about them we can shift them in the lounge. If somebody just can't get to sleep milky milo might help them. I've never done anything like massage which probably I should....I'd call the doctor if it's still early in the night, like twelve or one, and get some sedation charted.'

.....

'A lot of people would get a bit agitated at night actually, and oh, I think it's a result of sickness, is it? And we'd try to calm them down and explain why they were there and it usually worked all right.'

.....

'I think if you've got a nurse that can sit down and listen then that can sometimes help, even if it just eases their mind and they can get rest rather than being really tense. And I think that's the main thing that we can do, apart from all the medical things that can supposedly help.'

Sometimes there was a feeling of helplessness to alter a situation, however;

'Sometimes noise is a real problem. I haven't solved that problem. Because you can't reorganise the ward to put all the snorers together.'

Advice for nurses on how to help people learn sensible habits for obtaining rest and sleep, or dos and don'ts for poor sleepers, is readily found in the literature. Self-help books in the popular press also give similar advice, in greater detail. Covered in these works are such things as the importance of regular routine, bedtime rituals, daily exercise, comfort, minimal stimulation at bedtime, the avoidance of caffeine and/or the inclusion of milk and other foods in the diet, attention to environment and clothing, the avoidance of napping in the daytime, stress reduction and relaxation techniques for mind and body, and advice to limit alcohol and sedative drugs. It is also recommended that one does not lie in bed awake at night; rather it is considered wise to get up and do something - this way bed becomes associated with sleep, rather than with wakefulness (Segal & Luce 1968; Goldberg & Kaufmann 1978; Schwartz & Aaron 1979; Oswald 1980; Kramer, Kupfer & Pollak 1980; Maxmen 1981; Walsleben 1982; Schirmer 1983). A nurse working in a hospital setting is likely to be

circumspect reading such suggestions, since their implementation is an unlikely event in hospitals as we know them.

One of the methods used to promote sleep is the administration of sedative medication. Nurses used this approach quite often;

> 'After the initial few nights I expect them to sleep much better. If they don't I get sedation.'
>
> .....
>
> 'Halcion seems to be very common. We hand out halcion left, right and centre almost, and temazepam.'
>
> .....
>
> 'Probably about half the patients are on sleeping tablets.'

A peculiar conflict is evident in the use of sedatives, since nurses voice their disapproval of such drugs or the disapproval of the patients, or tell of the disturbance that can result if someone wakes confused as a result of sedation. Nurses have clear expectations about sedation and about its effects on the elderly patient;

> 'I don't like tablets of any sort really and I don't really agree with it.'
>
> .....
>
> 'Drugged sleep you seem to go off to sleep all right but you just don't stay asleep. But natural sleep I think that is better. Better quality sleep anyway.'
>
> .....
>
> 'I think it takes a long time to shake off sedation. People take night sedation for sleep but they are going to feel rotten for half the day as well.'
>
> .....
>
> 'Sometimes if the patient doesn't sleep they give them sedation and if it doesn't work they may sleep all day. I have seen that. Night sedation often confuses old folk more than helping them. The patient is confused all night and up all day.'

.....

'Halcion seems to make people go quite wierd, too, when they are awake.'

Some authors suggest that the temporary use of hypnotic drugs may benefit an anxious person in hospital, since the environment is strangely unfamiliar and noisy (Oswald 1980), but the common view in the nursing literature is that drugs are to be avoided. One result of hypnotic use is a raised arousal threshold, which in effect masks environmental noise, or facilitates return to sleep after wakening (Hartse, Thornby, Karacan & Williams 1983; Muncy 1986). Muncy (1986) puts the case for not using hypnotics strongly, saying 'The most common cause of a sleeping disorder is sleep medications', and 'No benefit from the use of sleeping pills has ever been satisfactorily documented' (p 8). The effect of such drugs on elderly patients is described by Johnson (1985), who found that patients on routine sleep medications (benzodiazepines), were awake more, moved more, slept less soundly, and felt less refreshed and less satisfied with their sleep than those on no medication. It also appeared that these disturbances increased with age and that disturbance continued into the daytime.

AWARENESS

Awareness is the name given to the nurse's consciousness of a patient's states of sleep or wakefulness. Intervention to promote sleep is dependent to some extent on the nurse's ability to identify a problem. There is evidence to suggest that nurses are not particularly accurate in assessing how well a patient sleeps. While Pacini and Fitzpatrick (1982) report that subjective measures of (patients') sleep correlated well with nurses observations, Fass (1971) found that nurses were correct in evaluating patients' ***quality*** of sleep only fifty per cent of the time when compared to self reports. Hayter (1983) cites similar evidence. The usual method used to determine sleep is observation, which as Closs (1988) points out, is not entirely effective. One can differentiate only between sleep and wakefulness and then not reliably; people may wake between observations; and the time of going to sleep and waking cannot be precisely judged. Then, to complicate matters, patients often pretend to be asleep so they will not bother their nurses (Dodds 1980, cited in Closs 1988). Some nurses question patients about their sleep; others rely on their own observation;

'Normally I ask them.'

.....

'If I haven't heard a lot from them and haven't seen a lot of them I put "Appeared to sleep well" [in nursing notes]'.

.....

'Well if they appeared to us to sleep well...'

.....

'If you don't hear them that's probably the only time I write "Slept well".'

Nurses recognise the limitations of their assessment of patients' sleep, and expect that there will be times when their perceptions and that of their patients will differ;

'Quite often people will say they were awake all night but they appeared to be asleep every time we were in the room.'

.....

'Our perception of sleep and the patient's perception of sleep can be completely different. And it's sometimes difficult to know who to believe. Sometimes I think they have slept well and you ask them in the morning and they say they haven't slept at all.'

Nurses are also aware that patients sometimes do not indicate that they are awake;

'Sometimes they just lie there and lie there and lie there and you don't know they are awake anyway.'

.....

'A lot of people won't tell you [if they wake in the night]. They lie there with their eyes closed too. They just don't want to bother anyone I think.'

SETTING PRIORITIES

The category **setting priorities** represents the decisions that nurses make in setting priorities and taking action to meet those situations which are deemed to be most important at any one time. Some such decisions are indicated by statements made by nurses, others were seen to be occurring during observations on the wards. For example, on one occassion an elderly woman who was confused and who wandered at night was left alone in the ward office, where nurses had been talking to her, in order that bells in the ward could

be answered. At other times bells would be left unattended while nurses completed some procedure in another part of the ward. As a result of **setting priorities** one action takes precedence over another which arises at the same time. **Setting priorities** is indicated also in the content of nurses' notes at the end of a night duty; what is recorded is that which is recognised as more important, at least to others, than that which is left unwritten.

A clear example of one action's taking precedence over another is remembered by a nurse in this statement;

> 'One woman took herself off to the toilet, we didn't hear her and she came out of the toilet and she had no clothes on she had a pair of gumboots on and our apron from the shower. I just couldn't stop laughing. Well there was this woman with chest pain so I had to give her an anginine before I could go and fix this woman and I was just hoping there was nobody else around.'

Treatment regimes for those requiring constant attention may mean that sleep assumes a lesser priority;

> 'The first night or so because of the things that happen they tend to be awake and you know sleep then is of a lower priority. You've got to not so much the obs [observations of vital signs] but there are things like B.M. sticks [blood glucose tests], all that sort of stuff has to be done.'

Sometimes priorities appear to override the nurse's better judgement, or cause her to reason out the approach she proposes to take in spite of misgivings. The use of sedation generates clear examples;

> 'I sort of wonder whether it's being abused, but it's not really. People need their sleep and they don't get a lot during the day, and they're not getting much at night, so...'
>
> .....
>
> 'After the initial first few nights I expect them to sleep much better. If they don't I get sedation. It seems to be a funny sort of way that I have of dealing with the problem. You know it's really defeating the purpose but I'm not sure....(a) they're in a strange environment and (b) they're in a strange bed and I know how long it takes me to get used to that. They are either quite anxious about hospitalisation or a lot of people haven't slept with another person in a room for ages so their chances against sleep are quite high.'

Nurses clearly value the time that they have to spend with a patient who is awake during the night. They see this time as valuable in terms of reducing anxiety, or in a nonspecific way as useful to the patient, but they also value it for themselves..

> 'I enjoy the work on nights. You get to see a bit more of the people and spend more time with them than you do on days.'
>
> .....
>
> 'I think a lot of people can identify with the night nurse because she's always there, it's something that's constant and you've often got a lot more time to sit down and discuss things, and people seem to get a bit more frightened at night. Things seem to be a bit more real and sometimes they just seem to talk about it a bit more at night. It's quite intimate really.'
>
> .....
>
> 'Oh yes, if they were awake we had quite a lot of time to talk. More than in the daytime, definitely.
>
> .....
>
> 'The patients are often quite talkative at night. I have found that out. You know I've had long chats with, indepth chats with people who've just been diagnosed with the most severe things and they tend to have their defences down at night and also you tend to have more time to have a discussion.'
>
> .....
>
> 'You could get to know them really well and they would tell you things that you would never pick up during the daytime.'

Time is seen as factor in the nurses' being with people - they are able to spend time because there are not things to do or when other tasks have been attended to. The second order priority of talking is indicated in statements such as these;

> '...if they are worried about something, like people that, you know, you come on and you do the round and you check on them and make sure they are settled and they have everything they need for the night and that, quite often if I can see that they are uncomfortable and they're not going to get much sleep I say "Come down to the office if you need us",

> or if they can't I tell them that I'll pop in later when we are not quite so busy'.
>
> .....
>
> 'Patients like talking to you on night duty, too. Because I suppose we've got time to talk to them. I enjoyed that. I found that I really had more patient contact in a way on night duty than I did during the day. You didn't always have to get things done.'

The content of nighttime conversations is almost never recorded in the nursing notes (Christensen 1988 also refers to information and observations that are not recorded), yet nurses thought they had information which was important. Instead nurses' notes contained information relating to sleep, medical or nursing interventions or suggestions about the need for further action or assessment, records of toileting and accounts of any untoward events which had occurred during the night. It would seem fair to assume that these are the items of most apparent interest. Reference to medical and/or nursing procedures could be expected to have high priority since patients are in hospital for observation and treatment. Entries such as these are typical;

> Using commode independently.
>
> .....
>
> Reasonable sleep - in chair most of night. Oxygen used intermittently.
>
> .....
>
> Disturbed sleep. No complaints.
>
> .....
>
> Responsive when spoken to when awake. No shortness of breath.
>
> .....
>
> Late to settle but once settled has slept well. Has broken areas on lower back but patient will not be on his side to sleep.

A few entries give the staff on the following duty a clear picture of a problem which requires attention, and record a fuller picture of the night's events. Presumably these are patients whose care took more time then others.

> Has slept intermittently only. Oxygen used intermittently. Patient states that it isn't that effective. Refused nebuliser adamantly until 0500. Nebuliser technique poor.
>
> .....
>
> Slept little. Up at 0300 complaining of not being able to get any air, anginine given prior for chest pain with no effect. Asked if she was anxious about going home said she didn't know she was going home. Demanded to see the doctor. Seen by Dr S. IV Braun inserted, IV morphine 5mg, IV maxolon 10mg stat dose 0340, ii panadol at 0400. IV frusemide 40mg stat dose 0340. Oxygen in situ continuously. ECG done. For review in a.m. Settled well for rest of duty.

Safety is a consideration which has a high priority with nurses. At night, with fewer staff on the ward, and in an atmosphere where lighting is poor, nurses must be constantly vigilant in order to pick up subtle clues which might indicate trouble. In the course of the study nurses were seen to attend immediately to any sound which struck them as unusual. In the literature, Balfe (1985) points out the need for nurses to be especially vigilant at night and alert to sounds of impending disaster in a way not so familiar to day nurses who are often told of a patient's deteriorating condition by visitors or others.

ALLOWING/NOT ALLOWING

Safety is also a factor in the final category to be discussed; **allowing**. The alternative to **allowing** is **not allowing**. The two states will be discussed together. **Allowing** refers to a nurse's acceptance, sanctioning or permitting of a behaviour or to the acceptance of a person's pattern of being; for instance their being a 'poor sleeper'. **Not allowing** indicates the non-acceptance of such a behaviour or condition and usually results in some action being taken. Often the reasons for **allowing** or **not allowing** are a result of circumstance, such as the effect of an event on others.

In the following statement, **not allowing** is demonstrated;

> 'Sometimes we have to move patients - usually the more elderly confused patients. Because the other patients in the room tend to get quite uptight and distressed that they are not sleeping, and it just seems to build up day after day and they end up getting more uptight and they are just not getting better themselves. We quite often move people to the lounge.'

Not allowing is implied in this statement about medication in which the nurse implies that she likes confused patients to be sedated, and thus presumably quieter;

> 'I like haloperidol, especially for confused patients.'

A nurse recounts an incident in which she **allowed** a patient's wakefulness;

> 'I remember this lady she was talking about her problems and I thought it was a good sign and she couldn't sleep. If people are awake sometimes I make a cup of tea and just let them speak. Sometimes they don't get a chance to speak or communicate during the day. But I wouldn't say it doesn't worry me, of course it bothers me to a certain extent. But I wouldn't think "Goodness now do try to get some sleep". And I wouldn't reach for the temazepam because she wasn't sleeping.'

Another nurse also talks indirectly of allowing wakefulness;

> 'We try not to offer sleeping tablets, well I don't, unless they're having a lot of trouble sleeping. And they usually ask or say that they just can't sleep.'

The comment above implies allowing the patient to take some responsibility for decision making. In a similar manner patients may chose not to take medication;

> 'A lot of the elderly don't like taking sleeping tablets though, and try hard not to.'

Or patients may be left to sleep;

> 'Well we don't try and wake them in the morning unless we have to.'

A suggestion that daytime naps are allowed but should not be was made in this statement;

> 'Sometimes people sleep all day and are awake all night. It's very easy for the day staff to let that happen and it's really up to them to change it.'

Safety and security may have a bearing on the freedom that nurses allow patients at night, but in some cases a lack of freedom to behave as they would at home seems to be due to uncertainty or lack of expectation, reinforced directly or indirectly by nurses. **Allowing** is

implied in the acknowledgement that patients may be afraid of 'breaking the rules'. Some nurses are aware that they have the power to grant such freedom;

> 'It concerns me that I know where my patients are at night and I prefer that they stay in bed. If they wanted to get up and go to the lounge that's OK as long as I can hear them. Theoretically we should let people get up and wander but there are problems attached to that idea. Problems just with the straight security thing.'
>
> .....
>
> 'I think it's a waste of time finding out whether they like open or closed windows or that sort of thing because they have no control over that in hospital.'
>
> .....
>
> 'I'm not sure if they know or not [that they could make a cup of tea]. I remember one lady she used to get up in the night quite frequently and make herself a drink. But she'd been in hospital a lot, so she knew. But probably not, some people are very frightened about what they can and can't do in hospital.'
>
> .....
>
> 'I often suggest they get up and make a cup of tea.'

Decisions about what is allowable are not always made easily. One last example demonstrates the internal struggle which a nurse may engage in between allowing and not allowing. This is an extract from the night nursing notes;

> 'Complained of IVAC and IMED [pumps which regulate the flow of intravenous infusions] noises, wanting to be moved to lounge even after it was explained that there would be no oxygen or bell handy. After being moved Mrs Z. woke her husband to keep her company as she felt "disorientated". A while later walked back to her room with the assistance of husband as said she required oxygen. Bed returned and had very little sleep for the remainder of the morning.'

SUMMARY

This chapter has dealt with findings from the data relating to the nurses' view of the hospital ward at night. Five categories were generated by constant comparative analysis of nurse interviews, field notes and chart audit and from the literature relating to nursing at night. In this chapter the five categories, **expectation, promoting sleep, awareness, setting priorities** and **allowing** have been discussed in terms of their properties. **Expectation** involves nurses perceptions of and knowledge about sleep, sick elderly people, the hospital environment and the way people behave at night. **Promoting sleep** relates to interventions nurses use in order to assist people to obtain their sleep at night. Helping people sleep is dependent on the nurses' **awareness** of a problem, assessment of sleep is also addressed in the category awareness, which deals with the nurse's consciousness of patients' sleep and wakefulness. **Setting priorities** involves the nurses' making decisions about what is most important. It indicates the actions nurses value and which they believe are valued by and important to other members of the health care team. **Allowing** and its contrary, **not allowing** refer to the acceptance or otherwise of behaviours or states-of-being of a patient. What is or is not allowed will change according to circumstance. Reference to nurses' perceptions about night nursing and a brief description setting the scene of the hospital ward at night have also been included in this chapter. In the following chapter the categories generated from both patient- and nurse-centered data will be integrated; their relations with each other will be elaborated on in a discussion of the theoretical framework developing from the study.

CHAPTER SEVEN

INTEGRATION OF FINDINGS: THE EMERGING THEORY

INTRODUCTION

The two previous chapters have served to identify and illustrate the properties of the categories generated from analysis of data relating to the night-time experience of elderly hospitalised adults and the nurses who care for them. In this chapter interrelationships between the categories will be examined, and the emerging theory which describes what happens in a hospital ward at night will be explained. Data for the study were gathered and analysed in two phases, and have been presented accordingly in preceeding chapters. This chapter will be structured in the same way, with discussion of the relationships between categories relating to the patient's experience followed by that relating to the nurses' view. The relationships between the two will then be addressed. A brief definition of each of the categories will be given at the beginning of the appropriate sections; for more detailed descriptions the reader is referred back to Chapters Five and Six.

THE PATIENT'S EXPERIENCE: INDIVIDUAL PATTERN, EXPECTATION AND DISTURBANCE.

DEFINITIONS

Individual pattern is the name given to a category which describes the way a person is. People exhibit their own ways of being, behaving, acting and reacting. **Individual pattern** is relevant in terms of sleeping behaviours and the things people do at night when they are not asleep. It includes the rituals and routines associated with bedtime and sleep that people perform in their own environments.

Expectation includes the beliefs that people have about sleep and their ideas about what ***should*** happen at night. Also included in this category are expectations about hospital and what can be expected from nurses during a hospital stay.

Disturbance refers to those events which waken people, or prevent them from sleeping. **Internal disturbances** such as pain or anxiety arise from inside the individual, while **external disturbances**, such as noise, originate from the environment.

INTEGRATION: THE CATEGORIES COMBINED

One of the most striking findings of the study was the diversity of individual patterns of night-time behaviour reported by elderly people. Individual differences were found to be typical of experiences at home and in hospital. While all participants voiced similar views about the functions of sleep; that it is necessary for healing, for conservation of energy, for time out from the tensions of the day, a wide range of views were expressed as to the sleep needs of elderly people. Sleep habits were even more diverse. As an example, usual bedtimes varied, between participants, from six in the evening to after midnight, while total sleep times were reported to range from three or four to twelve hours per night. Each participant reported routines and/or rituals which accompanied or preceded bedtime, or in which they engaged if they woke at night. While there is a similarity between many of these, each is nevertheless characteristic of that person.

It seems that whether or not elderly people sleep well in hospital, by their own account, has much to do with their individual sleep patterns and their expectations of hospital. Many do not expect to sleep in hospital, or do not sleep well at home, yet are accepting and uncomplaining about this. Others sleep well. In analysing the data collected from the study it was important to discover what connections there were between patients' experiences in order to find the best method of representing them. In fact the similarity between patient experiences lies chiefly in their difference. As will be discussed in a later chapter, the attitudes and behaviour of elderly hospitalised adults may be quite similar, yet their experiences are unique. **Individual pattern** is a core category for the explanation of the elderly patient's hospital experience.

Individual pattern is central to the patient's experience, and is acted on or influenced by expectations and disturbances. Expectations about sleep include knowledge of one's own pattern; they also colour perceptions of sleep and sleep habits. Sleep patterns do not always match expectations. For example, an elderly person may recognise an individual pattern of five hours sleep at night. If his expectation is that he really ***ought*** to be sleeping eight hours each night, he may worry about his sleep; he may also go to bed at night three hours before he manages to fall asleep. Alternatively, it may be that whatever the pattern, expectations are that this is adequate and/or necessary.

Disturbances are those events which disrupt sleep. The source of a disturbance may be from within an individual - these were named **internal disturbances** or from outside -

external disturbances. Some internal disturbances are characteristic of an individual pattern; for example, nocturnal wakenings for toileting are common, and may be accepted as normal and expected. Some disturbances may be expected though not characterisitic, (an example would be discomfort resulting from illness) while others may be quite unexpected. An elderly person who is hospitalised may suddenly find himself faced with night-time disturbances to sleep, or to his normal way of coping with not sleeping, which are new to his experience. Familiarity with the hospital situation over a period of time might lead to an extension of the boundaries of expectation, in that such previously unexpected events are now incorporated as expectations, though their effect on individual pattern may not have changed.

THE NURSES' WORLD: EXPECTATION, AWARENESS, SETTING PRIORITIES, ALLOWING, PROMOTION OF SLEEP.

DEFINITIONS

Expectation has already been used to explain part of the patient's experience. The concept has the same meaning in relation to nurses; it includes the knowledge and beliefs nurses have about sleep, in general and in relation to elderly patients, along with their ideas about how things ought to be in hospital at night. Because nurses are well acquainted with illness, treatments, and the hospital environment, they anticipate many of the things which cause disturbance to patients' sleep, and indeed may expect sleep to be difficult in hospital.

Awareness refers to the nurse's consciousness of the state of patients in her charge, in this context particularly to their sleeping or wakefulness.

Setting priorities involves deciding which events are the most important at any one time, and consequently which out of two or more should receive attention first.

Allowing and its contrary, **not allowing** refer to the nurse's acceptance or otherwise of patient's behaviours or states, e.g wakefulness or sleep.

Promotion of sleep includes those actions which a nurse undertakes in order to help a person sleep.

INTEGRATION OF CATEGORIES

Whereas uniqueness of experience was identified for patients, nurses were found to have very similar attitudes, expectations and experiences concerning night duty and perceptions of the experiences of elderly patients. It is therefore appropriate to generalise and to speak of nurses, plural, when discussing the nurses' world. There are places where individual

differences between nurses are relevant and would make a difference; these will be pointed out in the discussion contained in the following chapter.

A second major contrast is evident between the experiences of nurses and patients at night. Patients are concerned chiefly with themselves, and occupied in sleeping, attempting to sleep, or remaining wakeful, while coping with illness and a strange environment. Nurses, meanwhile, are engaged in a number of dynamic interactions. Nurses' concern is with the whole ward - that is with all the occupants of the ward - who require supervision, observation, assistance and treatment. They work in an environment where lighting is poor and noise must be kept to a minimum. Reduced staffing numbers at night mean that each nurse has responsibility for many more patients than would be the case in daylight hours. They also mean that nurses must anticipate and attempt to prevent situations which would stretch their coping to the limit.

Of prime importance is the fact that nurses expect patients to sleep at night. Their **expectations** extend also to the nature of a hospital ward; they are aware that it is a strange and noisy environment and that patients may find sleep difficult. Nurses also have expectations of how the ward ***ought*** to be; this is a kind of mental equilibrium point toward which they will steer the ward through the course of the night if they can. Because many occurrences are unexpected, and because of the few staff present at night, nurses must constantly **set priorities**, making decisions about which action to take first, which situation to attend to and so on. A constant vigilance over the state of the ward as a whole is necessary, while the order of priorities set depends to a large extent on expectations. While sleep is recognised as important, nurses must also monitor illness states and administer treatments during the night. In many cases these are considered of higher priority.

Awareness resulting from vigilance may be a stimulus for action or a decision may be made to **allow** the status quo. In the latter case a wakeful person might be left awake with no attempt to persuade him back to sleep. If a patient is frequently awake at night, nurses may come to **expect** this and to **allow** it, and to enjoy interaction with the person. In most instances **allowing** indicates acceptance of a person's **individual pattern**, e.g. of wakefulness or of ways to induce sleep. Behaviours which are allowed tend to be those which are within the nurses' expectations. Decisions **not to allow** result from behaviour outside the nurses' expectations of what is normal or desirable; this includes expectations concerning illness and treatment, and behaviours which might affect the sleep of others.

Not allowing may result in action taken to promote sleep or to limit a person's usual pattern of coping. Such action may be acceptable to the patient or in direct conflict with his desires. Nursing actions aimed at the **promotion of sleep** are carried out as a result of awareness, according to priorities and with the aim of meeting the nurses' and/or patient's expectations about sleep. Some interventions, such as the administration of sedation, may be in direct conflict with nurses' expectations of the effect of such an action.

NURSES AND PATIENTS INTERACT

Expectations are held by both patients and nurses in a hospital ward at night. Both sets of actors have knowledge and beliefs about the functions of sleep and about how much sleep is desirable or 'normal'. Both have some idea about the environmental disturbances which are part of hospitalisation. Nurses have insight into the effects of illness and treatment which patients may or may not have. In addition, nurses have their own set of expectations about how the ward should be at night, while patients have ideas about what is to be expected of nurses. Because expectations are not made explicit, neither set of actors is fully cognisant of the expectations of the other.

The **individual pattern** of a patient, which is contained in his expectations, is not known in full by the nurse although she may learn something about it in the course of her night work. Such information was not recorded on assessment forms or nursing care plans seen in the course of the study; nor did nurses expect that it should be. Nurses also had a poor formal knowledge base regarding all aspects of sleep.

Many patients believe nurses to be very busy at night, to the extent that they do not want to bother them. Patients thus engage in their own implicit version of **setting priorities**, while being aware that this is a necessary part of a nurse's work. The tendency of patients not to want to bother nurses or, indeed, disturb other patients, may result in their not using the strategies that they would at home in order to facilitate sleep. Often patients may be unaware of the possibilities, for instance of helping themselves to a cup of tea, or they have been told that they should not do so at some stage, even in a hospital experience many years before. Mention has been made earlier of the way in which nurses do or do not **allow** patient behaviours which may be characteristic of individual pattern.

As a further result of patients' not wanting to bother the nurses, nurses may be left unaware of the state of a patient - for example one who pretends to be asleep. Nurses' **awareness** is

dependent to some extent on information given by patients. Nurses know that this is a problem area. In assessing sleep, which is part of **awareness** at night, a fundamental problem exists in that sleep is a behaviour which is measurable only in quantity (and that with difficulty) by the nurse; quality of sleep can be judged only by the patient himself. Perhaps because of this nurses tended to talk about sleep in terms of quantity only, whereas patients mentioned both quantity and quality of sleep.

The **promotion of sleep** is one of the activities in which night nurses engage. Sleep is disrupted by external or internal disturbances; it follows that these actions are designed to act on the factors which disturb sleep. Nursing actions to promote sleep may be direct, for example, talking to a wakeful patient in order to alleviate anxiety, or indirect, such as moving a noisy roommate in order to help others sleep.

THEORETICAL PROPOSITIONS

A summary of the discussion concerning the interaction of patients and nurses may be made by outlining ten propositions which comprise a theoretical description and partial explanation of the night-time experience of elderly hospitalised adults and the nurses who care for them.

(i) **Sleep is a manifestation of the pattern of a person.**

(ii) **Sleep pattern is characterised by, or includes, internal disturbances and also may be broken by these, or external disturbances.**

(iii) **Pattern may incorporate active or passive attempts at initiating and maintaining sleep.**

(iv) **Expectations of the person and/or of society/others colour our views of the normalness of the sleep pattern.**

(v) **Expectations of patients and nurses may not be the same.**

(vi) **Expectations of patients and nurses are not always known to each other.**

(vii) **Patients may avoid exhibiting their usual coping strategies if they are awake in hospital at night in order to avoid bothering the nurses or disturbing others, or because they are not sure whether the nurses will allow them.**

(viii) **Setting priorities is part of the work of night nurses. Patients may also set priorities *for the nurses*, often assuming their own needs to be of low priority.**

(ix) **Nurses' awareness of a patient's sleep and wakefulness is dependent to some extent on information from the patient.**

(x) **The hospital environment, along with illness and treatment, limit the nurses' range of possibilities for the promotion of sleep. Nurses may be able to minimise external disturbances and thus aid the initiation of sleep or prevent waking, and to help people cope with internal disturbances thus assisting the return of sleep. Nurses may also help with or allow active attempts at initiating and maintaining sleep.**

SUMMARY

Discussion in this chapter has centered around condensing the findings of the study by integrating the categories identified in the previous two chapters and explaining their interrelationships. Ten propositions are put forward as the basis of the emerging theory which explains the night-time experience of elderly hospitalised adults and the nurses who care for them. In the next chapter implications for nursing practice and education will be identified, and suggestions made for possible areas of future research.

CHAPTER EIGHT

DISCUSSION AND RECOMMENDATIONS

INTRODUCTION

A number of implications for nursing practice and education arise from the theoretical description and explanation of the night-time experience of elderly hospitalised adults and the nurses who care for them, presented in the previous chapter. These implications, along with suggestions for future research, will be discussed in this chapter. Brief comments will be made regarding the relationship of the findings to the researcher's preconceptions, outlined earlier (p.23). The limitations of the study will also be identified along with a discussion of efforts made to authenticate the study conclusions.

THE NATURE OF NIGHT NURSING

The theoretical explanation of the night-time experiences of patients and nurses, given in the previous chapter, goes some way toward describing the nature of night nursing. Comments from nurses concerning their feelings about night duty, along with information regarding the effects of working at night are also important. Although these aspects were outside the main focus of enquiry for the study and were not incorporated in the generation of theory, they must be considered as part of the context in which night nursing takes place. There are difficulties attached to working at night that do not apply to working during the day. One cannot ignore the fact that night nurses work an antisocial shift at hours when most people expect to be asleep. Many pay a price for it in terms of their overall health. Not everyone can adapt; some do so only with difficulty. It is not a job that all nurses can do. Yet it is an important one.

Sleep and rest are natural functions for the human. The provision of a climate in which people can sleep, and assistance with sleeping when a problem exists, are the domain of the nurse more than any other health professional. It would be so even if nurses were not the only group present during the night-time hours. Finn (1985) suggests that what patients want is loving care:

> 'At night this consists mainly of providing an atmosphere conducive to sleep, in which patients are secure in the knowledge that competent help is available if needed' (p22).

Another nurse author implies that there is skill involved in doing so;

> 'The night nurse not only has to ensure that those patients who want a good night's sleep get it, but also that those who cannot relax completely are not made anxious by being ignored' (Chooramun 1986, p52).

Being there is of itself a nursing intervention, but there is more to working at night than supervising sleeping people. As the theoretical analysis has shown, nursing at night involves a complex series of judgements and decisions. Illness states and treatment regimes continue and must be attended to while the ward environment is kept quiet and dark as far as possible. Fewer staff are present to attend to patients' needs. As a consequence nurses' vigilance must be kept up at all times, and the management skills of planning and delegation are important alongside the meeting of immediate needs. Night nurses sometimes feel that their work is undervalued, and that they are cut off from the rest of the world, including their colleagues on day duty. Marram, Schlegel and Bevis (1974) suggest that day staff may not be particularly interested in sleep or its absence. It is to be hoped that the findings of this study might go some way toward changing such attitudes if they exist.

IMPLICATIONS FOR NURSING

Implications of the study for nursing practice and education are apparent in terms of the knowledge base of nurses, assessment practices, ward management and nurse-patient communication and relationships. In all areas the study heightens the interdependence of day and night staffs. Each area identified will be examined in turn.

The Knowledge Base of Nurses

Nurses' knowledge about sleep and rest is an area of concern to nurse practitioners and nurse educators at basic or post-basic level. A relative scarcity of reference to sleep and rest has been found in general nursing texts (Kemp 1984), while indifference to patient's sleeping patterns is demonstrated by practitioners and educationalists (Finn 1985). Muncy (1986) suggests that nurses turn away from the problem of patient's sleep because they do not know what to do about it or how to intervene effectively. The importance of knowing about patient's individual sleep patterns has been demonstrated in this study. Nurses admitted a lack of knowledge about sleep; its stages, changes to be expected through the life span and theories of its function. A good knowledge of each of these facets is important

if nurses are to carry out accurate assessments of their patients and to teach them, as well as being able to apply their knowledge in informed management of patients through the night.

Lack of knowledge of the effects of clinical disorders on sleep may mean that nurses are missing out on clues which could provide information in respect of a patient's condition, or help in detecting a problem. Awareness of sleep patterns in various clinical disorders is also important in terms of anticipating problems. Night nurses have access to information which is potentially useful to the entire health care team; acknowledgement and awareness of this fact might enhance recognition of the value of night work.

In a hospital setting there are limits to the possibilities which nurses might employ for the promotion of sleep. The restrictions of illness and treatment are real. Ward layouts are not like the environments that people are used to at home, and there is sometimes a need for compromise of individual patterns in order to accommodate the needs of the group. Discussion in the previous chapter has pointed out that nurses must, of necessity, consider the members of the ward as a whole, while attempting to meet individual needs and desires. A thorough knowledge of all methods for the promotion of sleep is necessary for nurses, however, if they are to engage in teaching patients, and if the potential for more creative solutions to sleep problems is to be realised.

Especially important is the need for education about sedative drugs. As has been discussed, nurses are not keen on their use, in principle. They worry about the effect such medications have in confusing old people, yet they continue to administer them (such medication is often prescribed to be given at the nurse's discretion). Frequently sedatives are given out by afternoon staff who cannot observe their effects through the night. Precise knowledge of the action, side effects, indications and contraindications of each drug is needed in place of the general and vague knowledge many nurses have, if the drugs are to be used wisely.

Communication

The expectations of patient and nurse regarding sleep and night-time behaviour are not always the same. Often, neither are they known to each other. Orientation of a new patient to the ward environment and especially to the expectations of nurses would seem to be an

essential part of the communication between nurses and patients, at whatever point in hospitalisation the patient is thought to be ready to receive such information. It is also important for the nurse to know something of the expectations of the patient; for example, what he expects of night nurses. This information may need to be gathered or given by day or afternoon staff initially; there is a consequent need for nurses to communicate well and to be aware of each other's expectations.

Health related uncertainties play an important part in disturbing the sleep of hospitalised adults (Kirk 1987). Night nurses are aware of this and frequently find themselves attempting to alleviate patients' anxieties at night; reference has been made of the close relationships which may result from night-time talks between patient and nurse. Good communication between staff as well as between nurse and patient is essential if such problems are to be fully addressed. Night nurses must consider reporting the ***content*** of night-time conversations in order that gaps in knowledge and specific fears and insecurities may be identified and overcome.

Assessment

Effective nursing which pays attention to a patient's individual pattern cannot be given unless that pattern is known, including the usual methods that the patient employs when the pattern is disturbed. If individual patterns were known, nurses would be better able to predict waking times and to group nursing cares at these times, thus minimising disturbance to the patient and perhaps to his roommates. A few brief notes could make a major difference in night nurses' abilities to plan individualised care and/or to reach acceptable compromises with each patient in light of the whole picture of illness, treatment and the ward environment. It is also important for nurses to be aware of patients' personality characteristics. Such information is picked up readily by nurses during the daytime, but there are some patients with whom night nurses have little interaction. It is hard to know how to address someone you do not know and difficult to get to know them if they are assuming sleep. More importantly, indications of personality and/or any problems in sensation, perception, cognition or mobility would better enable night nurses to prevent problems arising out of patients' wishing to spare them work. Again some of this information might need to be gathered by day staff.

Nurse-Patient Relationships at Night

It was stated in the previous chapter that there were instances in which the differences between individual nurses could have an impact on the character of a night duty. This would seem to be so in two ways. Firstly, the personality of the nurse and her degree of comfort in working at night may have an effect on the style of management that she adopts in overseeing the ward. The concept **allowing** is particularly involved, in that different nurses are likely to take different stances regarding the freedom that they give patients to 'do their own thing'. Differences in ward atmosphere and in the freedom that nurses allow patients at night have implications for patients' night-time experience. Patients may learn that different behaviours and varying degrees of independence are acceptable on different nights, depending which nurses are on duty, or they may assume that all nurses react similarly, and may not attempt, for instance, to make themselves a cup of tea if they have been denied on one occassion. In wards where staff change frequently, as happens where a number of part-time staff cover night duty, this situation is likely to be accentuated.

Secondly, nurses mentioned the close relationships that they sometimes built up with particular patients at night. It is postulated that these close relationships (mentioned by nurses but not patients in this study) have something to do with the 'chemistry' which draws people to spend time with each other. It seems reasonable to suggest that interpersonal closeness such as that reported by the nurses depends to some degree on the nurse's personality, as it must on the patient's. If the closeness of relationship that nurses report is true, perhaps it could be modelled by nurses on other shifts, or used in planned interventions at night.

Ward Management

There are obviously limitations to the physical changes that can be made in any ward environment. There may, however, be some possibilities. One nurse in this study made the point that she could not rearrange the ward to put all the snorers together. Certainly she could not do so at night, but her statement raises questions as to the criteria by which room arrangements are made and roommates chosen. Would it be possible to consider the ward's night-time atmosphere when rooms are allocated, since night is a time when roommates may be potentially most disturbing? In some wards wakeful patients often refrain from putting on lights at night, for fear of waking others; or from getting up, as there is

nowhere to go. It is not uncommon for the ward lounge to be used as a place to put noisy or confused patients at night, yet this would have been the place where the mobile wakeful might have sat for a while. Could a waking room be designated, or an alternative place for noisy patients? Might bed or chair-bound patients be transported to an area where they could read or listen to the radio, or are better systems for shielding light and sound from others possible?

The Interdependence of Day and Night Staff

In the discussion so far several references have been made to situations in which improvements to night-time care might be facilitated by assistance from day or afternoon staff. Night nurses themselves express some inability to change things. Some of this is real. They work under constraints of the need for darkness and quiet and in conditions of reduced staff numbers. Many patients sleep most of the night and are known only superficially to the nurses. Nursing is the one profession whose members are present in the hospital ward twentyfour hours a day. Nursing itself continues round the clock and nurses stand in for one another while others are off duty. Those working day and afternoon shifts might assist their colleagues and their patients by contributing to assessments about sleep, passing on information, and indeed facilitating night-time sleep by appropriate nursing actions during the day. Night staff, meanwhile, have contributions to make to daytime care in handing on information gathered during the night, in taking an active part in care planning, and in continuing the assessment of all patients.

LIMITATIONS OF THIS STUDY

Inevitably researchers begin their studies with some preconceptions. In a quantitative study attempts would be made to control for such effects or to eliminate them. The qualitative researcher, in contrast, acknowledges his or her preconceptions and criticaly follows through their implications or their effects on the study findings. Preconceptions held by the researcher about the experiences of patients and nurses at night were outlined early in the study report (p.23). Some of these have been upheld; the literature and many of the participants reported hospitals to be noisy, and observations by the researcher confirmed that this is so. Nursing assessments were found to include scant reference to sleep habits. No generalisations could be made about the quality of patients' sleep or their desires to go home to regain lost sleep. In contrast to the researcher's initial expectation, nurses were found not to believe that older people need less sleep than younger ones. Whether these

initial expectations were upheld or overturned, the researcher is convinced that they have not biassed the study findings.

Time constraints have been a major factor in limiting the scope of this study. As was pointed out in discussion of the methodology chosen for the study, time limits may mean premature closure of data analysis and theory generation. Only two wards were used as sites for field work, with a total of nineteen interviews (patients and nurses) providing the bulk of the data used. This is not a major problem for a grounded theory study, since it is acknowledged that findings are based on commonalities and exceptions ***in the data***, and that the reader will decide about the generalisability of the theory, making 'the necessary corrections, adjustments, invalidations and inapplications when thinking or reading about the theory' (Glaser & Strauss 1967, p232). Multiple comparison groups would have lead to a broader based theory, had the time been available to investigate further. Several directions of enquiry occur to the writer and are outlined later in this chapter - perhaps they will form the basis of nursing research in the future.

While readers must make their own judgements about the generalisability of the theory, it is important that the researcher establish the acceptability of the study conclusions in respect of the study participants, or a similar group. In Chapter Three mention was made of the criteria outlined by Sandelowski (1986) by which rigor may be achieved in qualitative research. For these criteria to be met the study findings should be recognisable, meaningful and applicable to the participants, either in fact or potentially, and to audiences outside the study setting. Also necessary are a clear decision trail; data represented by both typical and atypical elements; and explanations which 'fit' the data from which they were obtained.

Throughout the research process, discussions between researcher and study participants, and with nurses and ex-patients, have supported the developing theoretical interpretations arrived at in the study. Nursing colleagues who work, or have worked, in settings similar to and different from that of the study have voiced their recognition of the concepts identified. Many discussions have been useful in the development of the theoretical interpretations. The concept **allowing** arose in a quite different field - psychiatric nursing - as a descriptive term used by one of the researcher's colleagues. Discussion about its meaning and use resulted in the researcher's adoption of the term, and its later expansion for use in this study.

It would not have been possible to test the theoretical description and explanation finally arrived at with the original study participants, either nurses or patients, since in the time taken for the study both populations in the hospital setting have changed considerably. For that reason a comparative group of nurses was chosen for a feedback session. It was considered appropriate to talk to nurses rather than patients as the study, while focussing on patient experiences, is designed to be of use to nurses.

The feedback session was valuable in confirming the meaningfulness of the study findings to nurses in practice. Not only did the nurses recognise the concepts and theoretical propositions outlined, they also joined freely in discussion, agreeing with the description and explanation of elderly patients' night-time experiences, and offering examples of the theory in action. Discussion of the differences between patients' and nurses' expectations and the fact of their often not being known to each other extended to ways in which hospitals and nursing have changed in past decades and the implications these changes might have for elderly patients. Cases were sited of patients not wanting to bother the nurses in the daytime as well as at night, and one nurse went on to give an example of engaging in this behaviour herself during a recent stay in hospital. In using a personal example she exhibited a way of understanding through personalising and projecting which was commented on during the study as being common in nurses. The limitations imposed by hospitalisation were also discussed, as was the need for night nurses to set priorities and to manage the ward as a whole. The difficulties encountered by nurses during a recent ban on all night-time sedation in another ward were given as illustrations of these points.

In regard to auditability, the study report is structured in such a way that another researcher might follow the same process and could be expected to arrive at similar, not contradictory, findings and interpretations. All data obtained in the study were incorporated in the data analysis. While there were not many examples of atypical elements, examples of those that were found have been included in the report, and explanations reached are believed to demonstrate good 'fit' with the data from which they were derived.

It is believed that Sandelowski's (1986) criteria of credibility, fittingness, auditability and confirmability have been met.

POSSIBILITIES FOR FUTURE RESEARCH

Patient participants in the study were selected with the aim of interviewing people for whom illness and treatment was not interfering markedly with sleep. Results would seem to

indicate that this was achieved. It would be interesting to know whether the theory holds for other patient groups, for instance younger patients, or those in other types of wards. For example, what effect does recovery from surgery have on an elderly person's night-time experiences?

Do the nursing behaviours identified as occurring at night apply in other situations, and if so, which? Sleep is a natural phenomenon and a bodily function; could the theory apply to other processes and/or behaviours? Does it relate to eating and drinking, for example, or to interpersonal interactions such as are under observation in a psychiatric ward?

Do the expectations of patients and nurses differ in situations other than those described here? Which ones, and in what way does this affect patients' care?

Which nursing actions aimed at the promotion of sleep are the most effective, and under what conditions?

What is the nature of the relationship between nurses and patients at night? Which patients do nurses talk to the most, and what is the content of their conversation? Do nurses spend social time and/or obtain social reward from the patients they spend time with at night? Could it be that the patients with whom nurses report close relationships are those whose individual pattern is of night-time wakefulness? These patients would be comfortable being awake at night, while they and the nurses might identify with each other in their wakefulness.

The suggestions for possible research in the future is not definitive; no such list could be drawn. It is offered as an indication of the writer's immediate questions, in the hope that it might provide the reader with some insight into possible directions for future enquiry.

CONCLUDING STATEMENT

In this study a grounded theory approach has been used to generate a theoretical description and partial explanation of the night-time experience of elderly hospitalised adults and the nurses who care for them. The night-time experiences of elderly people in hospital have been shown to be dependent on their individual patterns of sleep and their normal

ways of coping with not sleeping when they are at home. The wide range of possibilities for such patterns was demonstrated by study participants. Nurses have been shown to engage a series of interconnected judgements in interacting with patients at night. The conditions under which night nurses work and the effects of night work on them are considered as important contextual background to the study. Nursing implications follow as a result of the theoretical interpretations made in the study; recommendations have been made in terms of the knowledge base of nurses, nurses' communication with patients and each other, assessment practices and ward management. The interdependence of nurses throughout the day and across all shifts has been stressed throughout this discussion, as has the potential for night nurses to contribute to knowledge about patients as well as attending to their comfort during the night. The findings of the study apply to nurses working in the daytime as well as those who work at night. Nurses' attention to a number of simple measures could mean a greatly increased level of comfort for elderly patients in hospital at night.

APPENDIX ONE

GLOSSARY

APPENDIX I

GLOSSARY

E.E.G.: Electroencephalogram. The record produced by encephalography: a tracing of the electric impulses of the brain recorded by electrodes placed on the scalp or in the brain. The tracing is actually an amplified record of changes in electric potential in various brain areas.

E.M.G.: Electromyogram. A record of the electrical properties of skeletal muscle, used to measure muscular activity.

E.O.G.: Electrooculogram. A record of eye muscle movement by means of changes in muscle potential.

NREM Sleep: Non-rapid eye movement sleep, also known as orthodox or synchronised (S) sleep. NREM sleep is characterised by thought-like mental activity rather than typical dreams, and is believed to be necessary for recovery from physical activity. Subdivided into four stages on the basis of EEG tracings; the waking EEG is characterised by alpha waves (8 to 12 hertz) and mixed low-voltage activity of mixed frequency. Stage 1 occurs immediately after the commencement of sleep or after brief arousals. It is characterised by low-voltage EEG tracing with predominantly theta wave activity (4 to 7 hertz). Stage 2 is characterised by intermittent 'sleep spindles'; waves of 12 to 16 hertz with spindle-shaped tracings; and certain high voltage spikes known as K-complexes. Stages 3 and 4 are indicated by relatively high voltage EEG tracings, mostly delta waves; 1 to 2 hertz.
NREM sleep is further characterised by the absence of rapid eye movements, and a quiescence of the body, or whole body jerks. Pulse and respiration are low and steady, blood pressure is low and regular.

Polysomnogram: Combined records of EEG, EMG and EOG.

REM Sleep: Rapid eye movement, paradoxical, desynchronised (D) sleep, or dream sleep. Characterised by rapid eye movemnts and dream reports from a woken sleeper. Appears on EEG to be similar to stage 1 sleep, but often with periods of 8-10 hertz alpha activity and some slower 'sawtooth' waves. Body movements, periodic twitching of facial muscles and those of the extremities occur in this stage of sleep. Pulse and respiration are faster and more irregular, blood pressure is higher and also somewhat irregular. Penile erections are found associated with this sleep stage in males of all ages, unrelated to dream content. Arousal threshold is relatively high while EEG criteria indicate sleep to be apparently light; this has led to the name ***paradoxical sleep***.

Sleep cycle: The progression through which a sleeper passes four to five times a night (in an idealised state), from stage 1 - stage 2 - stage 3 - stage 4 - stage 3 - stage 2 - REM - stage 2 and so on. REM cycles last 10 to 30 minutes each, the first beginning approximately 90 minutes after sleep begins. Towards the end of the night REM periods lengthen while NREM periods decrease.

(Miller & Keane 1978; Hartman 1983)

APPENDIX TWO

CONSENT FORM

APPENDIX II

Dept of Nursing Studies
Massey University
Private Bag
Palmerston North

Dear .....

My name is Jo Ann Walton. I am a registered nurse undertaking a study about sleep in hospital. The study is part of my work toward an M.A.(Nursing) degree.

I would like to request your assistance in the study. Your participation would involve answering some questions about your sleep at home and in hospital, and if you are agreeable I would like to refer to your medical and nursing notes. I will also be spending time on the ward observing what happens here.

All information will be kept confidential. In order to keep track of the information I collect I will either take notes or use a tape recorder during interviews. Notes and tapes will be stored securely, and made available only to myself, my study supervisor and a typist. Tapes will be erased and notes burned when the study is completed. Names will not be used.

I hope that as a result of this study nurses will understand more about the experiences of elderly patients at night and that this will help us learn better ways to help patients obtain their rest and sleep.

If you agree to take part in the study you will be free to withdraw at any time.

If you or your family have any questions about the study I will be happy to answer them. I can be contacted through the Nursing studies Department at Massey University, or by phone at 65-347 (home) or 80-106 (work).

Yours faithfully,

(signature)

APPENDIX II

I have read, or had read to me, this explanation of Ms Walton's study, and understand what is being asked of me. I agree to take part, with the understanding that I am free to withdraw at any time.

Signed.....

Date.....

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