# NURSES' PERCEPTIONS OF PATIENTS' REQUIREMENTS FOR NURSING RESOURCES 

Sandra V. Dunn, RN, PhD, PRONA, Chair in Nursing Practice, Ainders University/Finders Medical Centre, Adelaide, South Australia

Karl Schmitz, RN, CNOC, DipAppSc, BA, BNg, MEdSt, GradDipBioethics, Lecturer, Ainders University of Adelaide, South Australia

Accepted for publication October 2003

Key words: nursing resources, organisational context, high dependency


#### Abstract

The study used semi-structured interviews in an interpretive research design to explore nurses, perceptions of patients requiring disproportionate amounts of nursing resources, and factors influencing those perceptions. A total of 50 senior nurses from a variety of medical and surgical settings, including a high dependency unit, were interviewed and the data analysed to determine common themes and differences between participants.

The four major themes of patient characteristics, family needs, staffing and organisational context defined the factors nurses perceived as influencing their perceptions of patients' dependency. Patient requirements for nursing resources were seen as a continuum rather than a specific point, and were balanced on the combined influences of the four themes. At times, demands imposed on nursing resources lead to nurses' perceptions of delivering less than ideal care, stress and frustration. The latter applied particularly to factors that were outside of the control of nurses such as staffing levels and skill mix.


## INTRODUCTION

Health and illness can be considered as a continuum, ranging from perfect health to lifethreatening critical illness. To facilitate the management of illness in hospitals, care and work has been divided into specialist areas and, while this may have conferred advantages, concentrating equipment, skills and expertise, it has also created a gulf between the care available in such areas and the general ward. Matching patients' requirements for nursing care and resources to the continuum of illness can break down resulting in more acutely ill patients being cared for on the already hard-pressed general wards (Ridley 1998).

## LITERATURE REVIEW

Nursing requires a dynamic interplay of biological, sociological and psychological science and art to provide optimum patient care. Nursing care and work is more than a set of tasks and actions. Nursing work can be seen as a therapy, where the quality of nursing care and work has a direct therapeutic effect on the well-being and recovery of the patient (Barr and Bush 1998). Nurses identify the type and severity of patients' needs during their interactions with patients and, from this, nursing care is planned, prioritised, and implemented (Morse 1991; Barr and Bush 1998). The crucial importance of the nurse-patient relationship is well recognised as nursing care deals with the most personal aspects of an individual over a 24 -hour period and results in a unique relationship developing between nurses and patients (Morse 1991; Rundell 1991; O’Connell 1998; Williams 1998).

High dependency units have been developed to provide a level of care intermediate between that provided in an intensive care unit and that level of care which is available in a general ward. Staff in high dependency units monitor and support patients with, or likely to develop, acute (or acute on chronic) single organ failure. Medical diagnosis
and patient acuity generally define admission to such units (Clarke 1996; Elliott 1997).

The key feature of high dependency unit patients is that they require close observation and monitoring such as hourly vital signs, fluid status monitoring, frequent and/or multiple intravenous medications, rather than direct intensive medical and nursing interventions. This close monitoring is designed to reduce or avoid complications, improve patient outcomes and reduce overall hospitalisation requirements and costs (Clarke 1996). Measures of patient acuity, however, do not necessarily align with nursing workload nor do they account for the continuous assessment, planning, implementation and evaluation required to care for high dependency patients (Endacott and Chellel 1996; Needham 1997).

Nursing work includes not only directly observable behaviours but, also, such aspects as knowledge, experience, beliefs and values. Furthermore, focusing on the physical state of the patient, measuring what is done instead of what needs to be done, may ignore unmet patient needs and therefore not encompass the complexity of nursing activities and work (Endacott and Chellel 1996; O’Connell 1998). Nursing work extends beyond the patient to their family and significant others encompassing areas such as discharge planning and coordination of the multidisciplinary health team for associated family assessments and treatments (Adams et al 1995; Endacott and Chellel 1996). The practice of nursing includes physical, emotional and intellectual work designed to meet complex and multifaceted patient needs (Chaboyer and Creamer 1999).

Extensive research has been conducted on the needs and experiences of patients' family members. For example, studies have demonstrated that the partners of myocardial patients are at high risk for a wide range of psychological and physical effects. These include fears for the partner's life and health, of financial devastation, of altered family and social relationship, of ability to cope with lifestyle changes, of failing personal health and strength (Hilbert 1994; Theobald 1997; Kettunen et al 1999). High levels of psychosocial support are often provided to families by nurses in general ward settings (Gibson 1997). Studies also indicate that family's needs may fall into three areas: confidence in the care the patient is receiving, support in coping with the patient's illness, and support for maintaining family functioning (Kettunen et al 1999; Ramitru and Croft 1999). Nursing staff are in an ideal position to meet the acute needs of the patient's family through providing education and demonstrating excellent patient care, assisting family members to recognise and attend to family needs, providing family members with appropriate opportunities to care for the patient, and offering counselling and referral to support services and other resources (Burr 1998; Kettunen et al 1999; Ramitru and Croft 1999). Relatives and patients regarded good nursing as
individualised patient care based on mutual respect, which anticipated and related to patient needs. The care was offered willingly and included open communication (Attree 2001a). Nurses' perceptions of spending a lot of time on family and relative support as an important part of nursing work might be an ideal that was not borne out in reality when observed patterns of nursing care paid little attention to patients' families (Pearson et al 1999).

Aiken et al (1997) reported that there has been very little linkage of research into patient outcomes and organisational factors. Yet, nurses are the single largest number of health care professionals and represent one of the primary forces of clinical intervention. Staffing ratios and skill mix have been linked to adverse events and mortality rates but little effort has been expended to explain any possible correlations. Nonetheless, restructuring affects skill mix and nurse staff ratios with consequences on patient outcomes (Aiken et al 1997; Kovner et al 2002). Decreasing resources, increasing patient acuity concomitant with increasing workloads appear to be a certainty and any system needs to be able to account for accurate definition and quantification of nursing resource requirements (Graf et al 2003). Adams et al (1995) and Attree (2001b) listed several factors as influencing nursing care and outcomes. These included, for example, nurses' characteristics, in particular nurses' level of experience and competence, nurses' perceptions of their autonomy, leadership skills, relationships and staffing levels and working conditions such as level of afforded decision making capacity, resources, physical ward environment and organisational support.

Patients requiring high levels of nursing resources force conflicting demands on nurses. Attempting to meet the acute needs of highly dependent patients while attending the legitimate demands of the majority of patients, leads to inappropriate or less than ideal care for all concerned (Clarke 1996). Inappropriate demands on nurses and inappropriate care provided to patients contribute to high levels of job stress and to feelings of frustration, inadequacy, self-doubt, lowered self-esteem, irritability, hopelessness, depression and burnout (Kennedy and Gray 1997; Barr and Bush 1998; Williams 1998; Tovey and Adams 1999; Stordeur et al 2001).

Further areas of stress in nursing included: high workload; emotional and ambigous demands, uncertainty of patient outcomes, varying levels of knowledge and experience; patient aggression and supervision; inability to provide appropriate patient care; communication on the unit; floating between wards; resource constraints; increasing administrative loads; and conflicts with physicians and other nurses (Adams et al 1995; O’Connell 1998; Tovey and Adams 1999; Attree 2001b; Stordeur et al 2001).

Budgetary cuts and economic rationalisation are factors which have lead to nurses' frustration and concern about their ability to deliver quality care (Williams 1998; Tovey and Adams 1999; Attree 2001b; Jones and Cheek 2003;

Sand 2003). Furthermore, only abundant or sufficient time allowed nurses to deliver quality nursing care. When there was insufficient time available, nurses were unable to consistently provide quality nursing care to all their patients. This resulted in nurses reporting increased levels of stress and dissatisfaction with work (Williams 1998; Healy and McKay 2000; Lambert and Lambert 2001; Jones and Cheek 2003; Severinsson 2003).

The physical and psychological sequelae of high levels of stress experienced by nurses have been well described in the literature. This stress carries costs for the employing organisation through absenteeism, staff conflict and rapid staff turnover (Kennedy and Gray 1997; Tovey and Adams 1999). Furthermore, the negative impact of job stress on the nurse and the organisation may directly and indirectly affect the quality of nursing care provided to patients and patients' families (O'Connell 1998; Williams 1998; Tovey and Adams 1999).

Much is known regarding the physical, emotional and intellectual attributes required to provide nursing care (Adams et al 1995; Clarke 1996; Endacott and Chellel 1996; O’Connell 1998; Chaboyer and Creamer 1999). Several studies have explored the major stressors experienced by nurses and the results of these stressors in nursing staff (Kennedy and Gray 1997; O’Connell 1998; Williams 1998; Tovey and Adams 1999; Healy and McKay 2000; Lambert and Lambert 2001; Strachota et al 2003). Nurses' own perceptions of their work and patientrelated workload issues are, however, not clear. This study explores nurses' perceptions of patients requiring disproportionate amounts of nursing resources, across a range of acute care medical and surgical environments, and including the multiple facets of physical, emotional and intellectual labour.

## THE STUDY

## Aims

The aims of this study were to:

- Explore nurses' perceptions of the characteristics of patients requiring a disproportionate amount of nursing resources.
- Describe factors influencing these perceptions, including differences between wards.


## METHOD

The study used semi-structured interviews in an interpretive research design. The study was approved by the clinical research ethics committee.

## Sample

Sampling was directed towards suitable cases, rather than random sampling or large numbers (Sarantakos 1993). Purposive sampling was appropriate for this study
to gather a rich description of the experience of recovery from those nurses best able to provide such data.

Sampling was conducted in two stages. First, wards representative of the broad scope of nursing practice in a major acute care hospital were selected as settings for the study. These wards included cardiac, orthopaedic, acute medical, surgical, high dependency, and renal specialty patients. Nursing staff on targeted wards were informed about the study during regular ward inservice meetings and by means of fliers posted on the wards.

Next, senior nurses in charge of shifts were invited to be interviewed. These nurses all had extensive clinical experience in their specialty ward area and frequently had undertaken post-basic education in their specialty area. In their charge role, these senior nurses were aware of the condition of all ward patients and responsible for assigning staff workloads on their shifts.

## Data collection

Nurses' perceptions of patients requiring a disproportionate amount of nursing time were sampled using focused one-to-one interviews. Focused interviews are used for respondents familiar with the research topic in order to gain information about their subjective perceptions. The structure of the topic is known but answers cannot be predicted (Dane 1990).

Interviews of approximately five to 15 minutes took place over a period of three months. Fifty registered nurses representing all shifts and all days of the week were included in the interview schedule. The interviews focused on nurses' generic descriptions of patients requiring disproportionate amounts of nursing time, any outstanding examples of such patients they recalled, and examples of such patients currently being cared for on their wards.

All interviews were conducted by members of the research team and notes were taken in the field. Prior to commencement of any interview, the nurse involved was asked to confirm consent to participate in the interview process and to sign an informed consent if she or he had not already done so.

## Data analysis

Interview notes and verbatim quotes were analysed for common themes and for differences between participants. Using the qualitative technique of constant comparison, data analysis was commenced concurrently with data collection (Strauss and Corbin 1990). This strategy provided the opportunity to follow up on themes that were identified in earlier interviews and seek confirmation of emerging similarities or differences between the roles. The research team met regularly during data collection and analysis to discuss data interpretation, collate responses, and determine directions for upcoming interviews. Discussion and interpretation continued until all members of the team were confident that the themes
identified accurately reflected the participants' comments. Data collection continued until saturation of categories was achieved.

## FINDINGS AND DISCUSSION

The data analysis yielded four broad categories of issues that nurses perceived as influencing patients' use of nursing resources:

1. patient characteristics (biophysical, psychosocial),
2. family needs,
3. staff issues, and,
4. contextual influences.

The four major themes of patient characteristics, family needs, staffing and organisational context defined the factors nurses perceived as influencing their perceptions of patients' dependency. Patient dependency was seen as a continuum rather than a specific point, and was balanced on the combined base of the four themes (see figure 1). Comments from the field notes taken during the interviews are presented in italics.


## Patient characteristics

Patients who require disproportionate amounts of nursing time were divided into two complementary areas: biophysical characteristics and psychosocial characteristics. Although these characteristics sometimes occurred independently, more often they were found together.

## Biophysical

Nurses readily and immediately identified extensive biophysical needs as characteristic of those patients requiring disproportionate amounts of nursing time. Initial interview comments, regardless of the specialty of the ward, were invariably linked to the acuity of the patient's illness and often referred to medical diagnosis:

- Patient may be unstable, especially first day post-op or post procedure or on admission. Following angiography/ angioplasty, thoracic surgery, or extensive gastric surgery. Patient with unstable angina, asthma, hypoxic, or bleeding...
- May require frequent monitoring, may have multiple lines and procedures occurring at the same time, ie. frequent antibiotics.
- Fractured neck of femur mobilisation requires two to three support people. Need increased resources because [we] want to enhance outcomes for patient; for example, not to use the mobiliser, which will not help bone density but rather the idea is to get patient involved.

Participants' comments indicated that characteristics associated with patients requiring disproportionate amounts of nursing resources included: biophysical instability, complex treatment regimes or isolation. Elliott (1997) and Clarke (1996) noted that patients placed in high dependency units often required close observation and monitoring rather than direct intensive nursing interventions. Participants in this study described the same close monitoring requirements in general medical and surgical wards as well as in the designated high dependency unit. At times, the boundaries between general and high dependency wards were blurred and indistinct as matching of care to the continuum of illness broke down resulting in more acutely ill patients being cared for on already hard-pressed general wards (Ridley 1998).

## Psychosocial

Specific psychological problems that nurses commonly associated with patients requiring disproportionate amounts of nursing resources included confusion, dementia, disorientation, restlessness, aggression or lack of cooperation. Depression, unrelieved pain and anxiety were also commonly identified problems for these patients and the nursing staff. Elderly patients, and patients admitted following drug overdoses, head injuries or trauma, often required extensive nursing work and time:

- Trauma, especially young patients regarding coping, requires social 'just chatting'; family needs lots of time.
- Frequently hospital patients needing pain relief can be very demanding, for example, chronic pain and families [of patients with chronic pain].
- Non-compliant patient, confused or physically aggressive, may need restraint even while doing minimal care.
- Aggressive, confused, multi-trauma, elderly and head injured patients in need of orientation plus these are physically sick as well. Work at the patient's pace can't be rushed; relatives can be very stressed as well.

Gibson (1997) noted that a high level of psychosocial support frequently needs to be delivered by nurses in general settings. On the other hand, O'Connell (1998) contended that emphasis was placed on the physical aspects of care with scant appreciation of patients' psychosocial needs. The current study, however, demonstrates the high value nurses placed on the psychosocial needs of their patients, and indicated that fulfilling those needs was often a major focus of care for those patients requiring a disproportionate amount of nursing resources.

## Multiple patient needs

Biophysical needs and psychosocial support often overlapped for the same patient, further increasing demands on nursing time:

- Cardiomyopathy, acute pulmonary oedema, sick and social issues, chest pain - waiting for transplantation, terminal illnesses and social situations at home .
- Confused, aggressive post op patients needing constant monitoring, more staff, more time for procedures, eg, six registered nurses to restrain to keep from injury - agitated and restless.
- Palliative patient - high input of time, requires physical care plus related psychological care - lots of time to spend with patients to deal with death.
- Fractured neck of femur and demented - requires communication, requires two people for mobility/incontinence, needs discharge planning and organisation of placement.

Participants' comments reflected not only the strong links between biophysical and psychosocial patient characteristics but also the intimate interweaving of patient and family needs.

## Family

Family support needs were readily identified as a common theme influencing nurses' perceptions of patients requiring high levels of nursing resources:

- Long-term patients with social problems, for example, elderly, depressed or head injury patients with relatives, $60 \%$ of time is spent on patients and $40 \%$ on relatives.
- Families of all post-op patients require explanations, reassurance, and encouragement, as all post-op patients are unstable.
- Relatives very stressed. For example, when patients have head injuries and are elderly, relatives of transplant patients too.

Although increased family support needs most often occurred in the context of patients requiring high levels of biophysical nursing care, they occasionally occurred independently:

- Spend little time with patient but lots with relatives. I intervene for relatives, might require ward coordination, it gets out of control if not dealt with.
- Anxious family - need to nurse family - nursing relatives not just the patient.

Participants in this study supported previous studies in identifying the multifaceted needs of patients' families. These needs were commonly related to the patient's condition and served to reassure family members that patients were receiving appropriate nursing care (Kettunen et al 1999; Ramitru and Croft 1999). The current study and earlier research have also described families need for counseling and referral to support services as noted by previous researchers (Burr 1998; Kettunen et al 1999; Ramitru and Croft 1999; Attree 2001a).

Participants in this study, however, also described the high levels of nursing resources required to meet these diverse family needs, stating that family support could comprise $40 \%$ of their nursing workload in some cases. This finding is not supported by previous research and, in light of Pearson's et al (1999) study demonstrating the gap between nurses' perceptions of their work and observed measures, may require further study.

## Staff issues

The first two themes participants' identified as influencing nurses' perceptions of patients' requirements for high dependency nursing care focussed on patient and family needs, however, a large number of comments addressed issues related to staffing levels and expertise, that is 'skill mix', of staff on the ward:

- Senior staff members are given the high dependency patients because they are able to prioritise workload and delegate work more effectively than junior staff. This is emotionally draining for senior staff.
- In wards which don't get extra staff to cope with high dependency patients, increased stress from overall workload [results], plus realities of shift work for example late-early which is draining.
- Patient problem is outside the usual scope of practice. For example, a Below the Knee Amputation on a cardiac ward and hourly rebandaging of skin graft is required.

Nurses observed that the ward was better able to accommodate patients demanding of nursing time and energy when there was a high proportion of senior staff with knowledge, skill and experience in the specialty area. In addition, stress experienced by the nursing staff was reduced. If, however, there were a number of junior staff, too few staff, or staff unfamiliar with the ward, for example agency or relieving nurses, the additional patient demands were not readily accommodated and led to a perception of disproportionate nursing requirements for some patients, which may not have been the case if adequate support or time would have been available
(Healy and McKay 2000; Attree 2001b; Kovner et al 2002). These comments supported the conclusions of Kennedy and Gray (1997), O’Connell (1998) and Williams (1998), demonstrating that nurses' perceptions of patient dependency may be determined not only by factors directly related to patient care but also by those unrelated to direct patient needs.

Some participants in the current study mentioned individual or personal factors, for example family concerns, lack of sleep or personal role expectations, as influencing their ability to cope with work demands. These factors may also have influenced nurses' perceptions of patients requirements for a disproportionate amount of nursing resources. These themes, however, were not specifically addressed during the interviews nor were they saturated in the data. This is an area requiring further research.

## Organisational context

Finally, there were comments reflecting nurses' perceptions not of the patient, family or staff, but of the organisational context in which the nursing care was delivered:

- Receiving ICU patients - paging medicos, clarifying notes, following up undone tasks, coordinating patient's care, chasing equipment.
- Usually rushed through general wards - transfer to high dependency unit left to last minute when patient is very unstable rather than earlier which affects both patient and other patients who are neglected.
- Staffing levels, experience and type of work influence perception of high dependency nursing care.
- Degree of familiarity with equipment and procedures.
- Chasing support and equipment.
- A busy ward leads to minimal nursing time with patients, need more staff.

Staffing levels and support from other staff were often identified as factors important in the perception of workload and quality patient care (Aiken 1997; Attree 2001b; Jones and Cheek 2003). When the ward was busy and not well staffed, there was too little time available for patients and nurses were unable to consistently provide quality nursing care to all their patients, which led to expressions of stress and dissatisfaction (Williams 1998; Healy and McKay 2000; Lambert and Lambert 2001; Stordeur 2001; Sand 2003; Severinsson 2003; Strachota et al 2003). These factors were also noted in previous research (Adams et al 1995). However, in contrast to previous studies, professional relationships and leadership were not mentioned at all by nurses in this sample.

In addition, the computerised acuity and patient care database, Excelcare, was perceived by some participants to increase nursing resource requirements, especially those of complex patients:

- Excelcare - can't find appropriate units of care, lack of time to complete, need to adjust to compensate, units of care wanted don't exist.
- Not enough computer terminals to access Excelcare when limited time is a problem.
- Excelcare doesn't accurately reflect amount and delivery of comprehensive nursing care due to lack of time and staff to fill in completely.

O'Connell (1998) reported that lack of time influenced the quality and accuracy of documentation. Excelcare or other data systems may not be regularly updated therefore may not reflect the care and complexity of the patients' conditions. Graf et al (2003) outlined the requirements of a system to accurately define and determine nursing resource requirements reflecting, among other factors, patients' acuity. The notion that there is a successful prescription for determining appropriate numbers of nurses is questionable based on increasing evidence of ineffectiveness (Adams et al 1995; Endacott and Chellel 1996).

Organisational context issues external to the health care agency most frequently related to student educational needs, including students from a variety of health care professions and universities. These student needs influenced nurses' perceptions of the nurses' ability to meet patient care requirements by competing for the limited staff time and energy available:

- Communication with physiotherapy, nursing and overseas students - increasing numbers, they don't fit in with routine, need monitoring for patient contact and explanations.
- [Students have an] uncertain knowledge base and [require] support.
- Juniors and students require supervision, which adds to the pressure.

Although there has been considerable discussion of the financial costs and benefits associated with delivery of tertiary-based nursing education, there is little research on which to base any informed decisions. In particular, further research is required to explore the impact of clinical supervision on nurse-patient interactions, nursing productivity or stress experienced by the registered nurse.

## SUM M ARY

Patient characteristics were dominant in nurses' perceptions of patients consuming a disproportionate amount of nursing time. Although for some types of patients, for example, those with head injuries or complex monitoring needs, biophysical needs increased the demands on nursing resources. Nurses also commented frequently on the time and energy required to deal with patients with increased psychosocial needs, for example, confused patients requiring frequent reorientation and explanations, or young trauma patients requiring
assistance in coping with their changed circumstances. Nurses' perceptions were remarkably consistent from ward to ward, with similar types of patients consistently described across all the study settings.

Other identified influences on nurses' perceptions of the factors affecting nursing time required by their patients related to family needs, staff issues and organisational context. Increased family needs were often associated with the patients whose biophysical and psychosocial characteristics placed them at the high end of the nursing resource requirement continuum. However, on occasion increased family needs could be independent of patient characteristics.

Staff issues, including staff numbers and expertise, also influenced nurses' perceptions of patient needs. If the ward was short of nurses, or the available staff were relatively inexperienced, patients who might otherwise be considered fairly low dependency were perceived as highly demanding of the limited nursing resources.

Contextual influences competing for use of nursing resources also shaped nurses' perceptions. Influences internal to the agency included communication and administrative processes, as well as equipment and human resources to support patient care. The most commonly noted external influence was student placements, with increased demands on both nurses' time and energy.

Nurses saw these major categories as interacting to determine where, on the continuum of nursing resource requirements, they perceived their patient to be balancing at any specific time.

## LIMITATIONS

The limitations of this study include those inherent in all interpretive research, which could have introduced interviewer as well as interviewee bias. In addition, the sample population may not have been representative of nursing staff, patients, or nurses' perceptions of those patients although the reasonable sample size $(\mathrm{n}=50)$ and two stage sample enrolment served to recruit those nurses best able to provide the data.

The study was conducted over a three-month period, which might have been too short a time to discover significant parameters of patients requiring a disproportionate amount of nursing resources. There was no attempt to differentiate responses on the basis of either nurses' or patients' demographic data; it may well be that the findings of this study would vary in such subgroups. Patients' and families' views and perceptions were not a part of the research design, yet constitute an important domain in the interpretation of this study. Finally, as with all qualitative data, the findings are not necessarily generalisable to other samples but should be considered in relation to their applicability in a variety of contexts.

## IM PLICATIONS FOR PRACTICE

The participants in this study were in strong agreement regarding the implications of caring for patients requiring a disproportionate amount of nursing time in a general ward setting:

- It all takes extra time, which reduces time for other patients.
- Disruption to other patients when nursing high dependency patients requires more attention.
- Technology comes first - psychosocial issues are left until later if there is time.
- If patients [who require a disproportionate amount of nursing resources] are not transferred from general ward other patients get less care.
High quality nursing care results from meeting all the patients' and family members' needs. Needham (1997, p.84) expressed concerns regarding current government health reforms in the market economy with health being 'reduced to a commodity, the patient to a consumer and workload measured through increased productivity and outcome, quantity of care rather than quality'. Such economic and bureaucratic changes may serve to compartmentalise certain aspects of nurse care such as physiological or technological, failing to recognise that biophysical and psychological dimensions are interdependent and exist within a social context including the family, staff and health care organisation.


## CONCLUSION

Nursing care ranges from simple to complex, encompassing physical, emotional, and intellectual labour. The nursing role carries with it responsibilities to patients and their families, the employer, the nursing profession and wider society, placing enormous and sometimes conflicting demands on the nurse providing direct patient care. These demands may be exacerbated in caring for patients requiring extensive use of nursing resources in a limited resource environment.

Nurses in this study described the multidimensional aspects of quality nursing care, balancing the importance of biophysical interventions with the value of continuous caring awareness involving the patient, family and health care colleagues. Nurses' perceptions of patients' requirements for nursing resources and the factors influencing those perceptions provides a more rationale basis for distribution of nursing resources and may serve to improve the quality of patient care in an increasingly resource-limited health care sector. Nurses' expressed their frustration about times of excessive demands for nursing resources in general, which lead on occasions to less than ideal nursing care. Staffing levels and staffing mix, as factors outside of the control of ward staff, were mentioned specifically.

## REFERENCES

Adams, A. Bond, S. and Arbers, S. 1995. Development and validation of scales to measure organisational features of acute hospital wards. International Journal of Nursing Studies. 32(6):612-627.

Aiken, L. Sochalski, J. and Lake, E. 1997. Studying outcomes of organizational change in health services. Medical Care. 35(11):NS6-NS18

Attree, M. 2001a. Patients' and relatives' experiences and perspectives of 'good' and 'not so good' quality care. Journal of Advanced Nursing. 33(4):456-466.
Attree, M. 2001b. A study of the criteria used by healthcare professionals, managers and patients to represent and evaluate quality care. Journal of Nursing Management. 9:67-78.

Barr, W. and Bush, H. 1998. Four factors of nursing care in ICU. Dimensions of Critical Care Nursing. 17(4):214-223.

Burr, G. 1998. Contextualising critical care family needs through triangulation: An Australian study. Intensive and Critical Care Nursing. 14(4):161-169.
Chaboyer, W. and Creamer, J. 1999. Intellectual work of the critical care nurse: Applications from a qualitative study. Australian Critical Care. 12(2):66-69.

Clarke, T. 1996. A quality review of high-dependency patient care. Australian Critical Care. 9(3):96-101.

Dane, F. 1990. Research Methods. Pacific Grove: Brooks/Cole.
Elliott, D. 1997. Costing intensive care services: A review of study methods, results and limitations. Australian Critical Care. 10(2): 55-63.
Endacott, R. and Chellel, A. 1996. Nursing dependency scoring: Measuring the total workload. Nursing Standard. 10(37):39-42.
Graf, C., Millar, S. and Feilteau, C. et al. 2003. Patients' needs for nursing care. Journal of Nursing Administration. 33(2):76-81.

Gibson, J. 1997. Focus of nursing in critical and acute care settings: Prevention or cure? Intensive and Critical Care Nursing.13:163-166.
Healy, C. and McKay, M. 2000. Nursing stress: The effects of coping strategies and job satisfaction in a sample of Australian nurses. Journal of Advanced Nursing. 31(3):681-688.

Hilbert, G. 1994. Cardiac patients and spouses: Family functioning and emotions. Clinical Nursing Research. 3:243-252.

Jones, J. and Cheek, J. 2003. The scope of nursing in Australia: A snapshot of the challenges and skills needed. Journal of Nursing Management. 11:121-129.
Kennedy, P. and Gray, N. 1997. High pressure areas. Nursing Times. 93(29):26-28.
Kettunen, S., Solovieva, S. and Laamanen, R. et al. 1999. Myocardial infarction, spouses reaction and their need of support. Journal of Advanced Nursing. 30(4):479-488.

Lambert, V. and Lambert, C. 2001. Literature review of role stress/strain on nurses: An international perspective. Nursing and Health Sciences. 3:161-172

Morse, J. 1991. Negotiating commitment and involvement in the nurse-patient relationship. Journal of Advanced Nursing. 16(4):455-468.

Needham, J. 1997. Accuracy in workload measurement: A fact or fallacy. Journal of Nursing Measurement. 5(2):83-87.

O'Connell, B. 1998. The clinical application of the nursing process in selected acute care settings: A professional mirage. Australian Journal of Advanced Nursing. 15(4): 22-32
Pearson, A., Fitzgerald, M. and Walsh, K. et al. 1999. Patterns of Nursing Care Research Monograph Series. University of Adelaide

Ramitru, P. and Croft, G. 1999. Needs of patients of the child hospitalised with acquired brain damage. International Journal of Nursing Studies. 36(3):209-216.
Ridley, S. 1998. Intermediate care, possibilities, requirements and solutions. Anaesthesia. 53(7):654-64.

Rundell, S. 1991. A study of nurse-patient interaction in a high dependency unit. Intensive Care Nursing. 7:171-178.

Sand, Å. 2003. Nurses' personalities, nursing-related qualities and work satisfaction: A ten year perspective. Journal of Clinical Nursing. 12:177-187.

Sarantakos, S. 1993. Social research. Basingstoke: MacMillan.
Severinsson, E. 2003. Moral stress and burnout: Qualitative content analysis. Nursing and Health Sciences 5:59-66.
Stordeur, S., D'hoore, W. and Vandenberghe, C. 2001 Leadership, organisational stress, and emotional exhaustion among hospital nursing staff. Journal of Advanced Nursing. 33(4):533-542.

Strachota, E., Normandin, P., O'Brien, N., Clary, M. and Krukow, B. 2003. Reason registered nurses leave or change employment status. Journal of Nursing Administration. 33(2):111-117.

Strauss, A. and Corbin, J. 1990. Basics of qualitative research: Grounded theory procedures and techniques. Newbury Park:Sage.

Theobald, K. 1997. The experience of spouses whose partners have suffered a myocardial infarction: A phenomenological study. Journal of Advanced Nursing. 16(3):595-601.

Tovey, E. and Adams, A. 1999. The changing nature of nurses' job satisfaction: An exploration of sources of satisfaction in the 1990s. Journal of Advanced Nursing 30(1):150-158.

Williams, A. 1998. The delivery of quality nursing care: A grounded theory study of the nurse's perspective. Journal of Advanced Nursing. 27(4):808-816.

