The effect of an organisational model on the standard of care

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An Australian hospital was experiencing a long-term nursing staff shortage (in common with many hospitals throughout the world). The shortage led to concerns that patient care and supervision of less-experienced nursing staff was compromised. A survey was undertaken to ascertain which organisational models were used in the hospital, and how well these enabled nurses to provide a high standard of care. The findings suggest that the patient-allocation model should be maintained where practical and that team nursing should be trialled where poor numbers and skill-mix demand a greater degree of supervision and support.

A global nursing shortage has left many hospitals around the world facing difficulties in maintaining nursing staff numbers and the optimum skill-mix. In order to minimise the negative effects of nursing shortages, it is important to ensure that the organisational model used in each clinical area makes the best use of the available staff as well as their skills and experience.

The work practices within the Royal North Shore Hospital, a large teaching hospital in Sydney, were reviewed in light of the pressures created by a large number of nursing vacancies and the fact that many wards had a large proportion of new graduates, enrolled nurses, trainee enrolled nurses and agency staff.

A survey was undertaken to ascertain which models were in use and nurses’ perceptions of them. This article reports on the results of the survey and the recommendations stemming from it.

Organisational models

Four major models are used. These can be employed separately or in combination.

Task nursing

Nurses are organised according to the principles of task allocation. This model has a long history within nursing and was used particularly when nursing students made up the majority of the workforce. Individual tasks such as washing patients, recording observations and administering medications are distributed according to each practitioners’ level of expertise.

Patient allocation

This model, in which one nurse delivers total patient care, emerged in the 1970s in conjunction with a growing academic focus for nursing. In early research, the model was used as part of team nursing (Chavasse, 1981). The later use of pure patient allocation fits with the emergence of university-based preregistration nurse education, and with growing professionalisation of nursing (Berry and Metcalf, 1986).

Team nursing

Groups of nurses are divided into separate teams to provide care for a group of patients. Each team is led by a registered nurse, who organises the team along a continuum by assigning clinical tasks to individual nurses, or assigning individual nurses to specific patients (Matthews and Serrel, 1984). The model encompasses all levels of skills and it is characterised by a sharing of workload and the supervisory role of the team leader. Task-nursing and patient-allocation models can be operated within its framework.

Primary nursing

Primary nursing aims to enhance coordination and continuity of care through the allocation of a single, named registered nurse to be responsible and accountable for a patient’s care for the duration of her or his hospital stay (Matthews and Serrel, 1984). When the primary nurse is not on duty, it becomes the responsibility of an associate nurse to deliver the planned care (Matthews and Serrel, 1984).

Literature review

Nurse researchers have tried to evaluate these four major models, usually by comparing such aspects as patient satisfaction, staff satisfaction and quality of care. A review of the published research was undertaken.

Patient satisfaction

Themes identified for patient allocation were:

- Responsibility and control;
- Knowing the needs of patients;
- Holistic care;
- Job satisfaction.

REFERENCES


Only one study was found to demonstrate a significant impact of a model of care on patient satisfaction, and this followed a change from patient allocation in its pure form to patient allocation within a team-nursing framework across four medical wards (O’Connor, 1994). The majority of studies indicated no superiority of one model over another in terms of patient satisfaction. In general, patients are largely unaware of the way nurses organise their work (Seago, 1999; Thomas et al, 1996; Gardner, 1991; Metcalfe, 1986).

Task nursing, in particular, has been introduced with trepidation because patients are exposed to a high number of nurses (Matthews and Serrel, 1984). However, in regard to patient satisfaction, studies have not shown a significant difference between task-nursing and other models (Berra and Metcalf, 1986; Chavasse, 1981).

Staff satisfaction
A number of researchers have measured staff satisfaction – relevant here particularly because of its impact on nurse recruitment and retention. There are conflicting results. On the one hand, team nursing has been seen to improve job satisfaction and motivation (O’Connor, 1994), and to facilitate the process of delegation, freeing registered nurses to undertake the more complex aspects of patient care (Gollard and Soo Hoo, 1993; Thomas et al, 1992). However, it has also been demonstrated that some nurses working within the team framework feel they lack the opportunity to do ‘important and worthwhile things’ such as exercising individual judgment and goal setting (Carlsen and Malley, 1981).

Task nursing has been consistently assessed as giving low job satisfaction (Berry and Metcalf, 1986; Chavasse, 1981) – one explanation for its demise in general wards.

Continuity of care
The continuity of high quality care is desirable but difficult to quantify. Some studies have revealed that the introduction of team nursing improves continuity of patient care. The presence of at least one member of the team at all times to coordinate care and respond to clinical change has led to an improvement in communication (Thomas et al, 1992), and there can be a higher level of supervision for less qualified staff than with other models (Procter, 1991). This appears to be the case only when team membership is stable (O’Connor, 1994). Another requirement is that all staff clearly understand their responsibilities (Waters, 1985).

Other studies, however, have shown that team nursing does not provide as high a level of continuity of care as the patient-allocation and primary-nursing models (Mark, 1992; Gardner, 1991; Procter, 1991). The lack of conclusive evidence of the superiority of any one model suggests that change should be introduced with care. It would be justified when the current model is failing and there is no other cause that might be addressed, for example, if the ward is fully staffed. The introduction of a different model can be justified if it is intended to address a particular weakness of the one already used, for example, incorporating a poor skills-mix; or when there is no other way of solving a problem, such as when there is a staff shortage that is intractable.

Method
In the three years before this study, the Royal Prince Albert Hospital had sustained a nursing vacancy rate for permanent staff of 13–14 per cent. This rate showed no indication of improving. To ensure that standards of patient care were maintained at a high level a review of current practices was carried out. Issues of staff satisfaction and retention were also high priorities.

Nurses were asked to identify which of the four models was the primary method of work organisation in their area. They were then asked to give written responses to open-ended questions regarding the organisational models they had experienced and their perceptions of how well their current model met nursing and patient needs in the current situation. Respondents were then invited to comment on issues specific to the debate. Demographic data was collected including designation of nurse, years of experience, the name and specialty of the ward, and the number of nursing vacancies on that ward.

Results
A total of 212 out of 620 nurses returned the questionnaire from 20 wards, six intensive care/high dependency units, two outpatient clinics, and the casual pool. This represented a response rate of 34 per cent. The distribution of respondents was weighted towards senior nurses, with 76 per cent having more than three years’ experience. This was statistically comparable to the hospital’s documented nursing staff profile.

The open-ended questions were analysed by identifying common themes within the written responses. Themes were considered valid if they were raised by more than 15 per cent of respondents. The results discussed below include sample quotes from the questionnaires to illustrate recurring opinions.

Patient allocation
Patient allocation was perceived as the best model by

**Key Terms**
- Management
- Team nursing
- Patient allocation
- Skill-mix

**References**


REFERENCES


78 per cent of all respondents. Of these, 47 per cent attributed its success to responsibility and control (Box 1, p36). A number of sub-themes of responsibility and control emerged. For example, many felt that patient allocation enabled effective time management, which led to a sense of completion.

Responses suggested that responsibility was easier to shoulder when nurses had total involvement with a patient and knowledge of all relevant issues. There was a reluctance to rely on colleagues, and a need for personal control over the situation and workload.

‘I attend to observations and I know the status of my patients – I was responsible for all care. I know exactly what is going on at all times.’

Patient allocation was noted for its ability to achieve a holistic approach to nursing care that could meet people’s needs on a number of levels, and gave a sense that the patient was the primary focus of care.

‘The patient is nursed and treated as a whole person and not only seen as someone who is to have a procedure or medication given while other tasks are carried out by other RNs.’

A major theme of the patient-allocation model was ‘knowing’. Knowing the needs of the patient on a number of levels allowed respondents to take total responsibility for her or his care and to facilitate problem-solving.

‘It allows me to get to know my patients very well – being involved in all their care during a shift allows me a better insight into their health needs, and well-being.’

The patient-allocation model was described as contributing positively to job satisfaction.

‘You could concentrate solely on your own patients, providing total nursing care – therefore feeling really satisfied at the end of the day.’

Respondents also saw the model as contributing to good continuity of care for patients and nurses. Nurses voiced a desire to deliver total patient care, and this model allowed a variety in the tasks performed, and enhanced the patient’s ability to identify a named nurse.

‘It allows the nurse to give total care to that patient and so that nurse is familiar with all aspect of the patient’s care. It provides continuity and variety of tasks, rather than set, specific ones.’

Of the respondents using patient allocation, six per cent believed the model failed to meet patients’ needs because of staff shortages. The remaining 94 per cent felt that it had the greatest potential to meet patients’ needs. However, 34 per cent felt that its success was dependent on staffing numbers and skill-mix:

‘I believe it meets their needs as long as the patient:nurse ratio isn’t too high or the nurse is not so junior that they can’t cope.’

Task allocation

Only 13 out of 212 respondents had used the task-allocation model, making it difficult to draw definitive conclusions. These nurses gained control through having a narrower focus in their approach to the workload, and expressed ease in terms of time management and organisation. It was felt that successful outcomes depended on the skills and competence of the staff involved.

Task-nursing respondents spoke of ‘knowing’ in terms of knowing all the patients – having a broad overview rather than knowing a lot of information about a few people (Box 2, p37). However, it was noted that the model did not always allow nurses to develop relationships with the patient or family. So although patients were seen as always having access to someone they knew, accountability could suffer.

‘It meets medical needs but often misses things because no one has a good overview. It encourages lack of responsibility/professionalism – “it’s not my job”.’

Task nursing was seen as effective in an outpatient department, but 23 per cent of task-allocation respondents cited low levels of job satisfaction.

TEAM NURSING

There were 45 respondents (12 per cent of the total) who had worked within the team-nursing framework. In general, they felt that this reflected all the inherent positives of teamwork generally (Box 3, p37). The ability to access higher levels of skills within the team was noted and there was a sense of working together, sharing the tasks, and 59 per cent of team-nursing respondents referred to an easing of the physical burden.

‘Teams ease the workload on staff, especially if working in more physically demanding wards.’

As with the other models, the success of team nursing was seen by a sizable minority as being dependent on skill-mix and staff numbers, in this case by 28 per cent of the team-nursing respondents.

‘It attempts to meet the patients’ needs, but often skill-mix means care is substandard despite staff efforts. So few know what to do that the “in-charge” becomes supervisor with a patient load.’

The attributes and input of the individual team members...
were also perceived to influence the way patients’ needs were met with this model.

Of special note is that 28 per cent of team-nursing respondents highlighted the stress placed on senior staff. Respondents saw senior staff becoming exhausted by the need to compensate for the perceived shortcomings of other team members. They often felt overwhelmed by the extra responsibility, and stress was increased when the team contained a higher percentage of agency staff, pool staff and enrolled nurses.

‘It places more stress on senior staff and gives less time to teach new staff. Sometimes it feels like I know only a little about all the patients, and they don’t always get the care they require.’

Primary Nursing

Only one respondent claimed to use the primary-nursing model, and this nurse was a midwife making community visits for an early-discharge programme.

Discussion and recommendations

The literature on organisational models of care has failed to demonstrate the superiority of one model over another in regard to patient satisfaction, staff satisfaction or continuity of care. Patient allocation dominated as a model of care within the hospital studied, with 75 per cent of respondents and 80 per cent of wards identifying it as the primary approach to nursing organisation. It was also perceived as giving the greatest staff satisfaction, and having the greatest potential to meet patient needs.

The major benefits of patient allocation included a greater sense of responsibility and control, knowing patients and their needs, a sense of completion of tasks, and a holistic approach to patient care. Ease of time management, continuity of care, and a sense of autonomy were cited as important and attractive by respondents.

The patient-allocation model enabled nurses to keep track of where they had reached and when their duties were complete, as well as allowing them to feel accountable for the standard of care received by patients. It also allowed them to get to know patients, which appeared to allows staff and enrolled nurses.

‘It places more stress on senior staff and gives less time to teach new staff. Sometimes it feels like I know only a little about all the patients, and they don’t always get the care they require.’

The following actions were recommended in order to address identified team-nursing problems.

- Develop a model-of-care implementation team to refine the model according to the needs of the individual ward and to assist staff to move through change in a systematic and supportive manner.
- Assign a clinical nurse educator to each ward to reduce the burden on senior staff.
- Develop an evaluation tool, such as surveys before and after the model is changed, to establish a baseline and to evaluate the effectiveness of new methods of organisation.

Actions implemented

So far, 10 information sessions have been held and the subsequent recommendations have been delivered to nurse unit managers, general nursing staff and new nursing graduates within the hospital. Feedback from these sessions has suggested that nursing staff are open to change where a problem with current work practices has been identified.

The hospital has begun the process of providing clinical nurse educators (CNEs) to every ward, with 20 CNEs now in place. A team-leader training programme comprising three two-hour sessions has been developed by a working party of CNEs, and sessions are soon to begin.

One ward has begun to trial team nursing, with local job descriptions being created and revised in consultation with nursing staff. No results are yet available from this trial but two wards have voiced an interest in a trial.

A number of wards have implemented extended roles for enrolled nurses. For example on the cardiothoracic ward, where enrolled nurses now remove intercostal catheters and pacing wires. A structured training and accreditation process needs to be in place for such a programme to be safely introduced.