The trials and tribulations of team-nursing

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Aim The aim of this study was to review the team-nursing approach to care adopted by two general medical wards in a large private hospital. The delivery model of care was reviewed to determine the factors that enhance and/or hinder the timely delivery, continuity and communication of care.

Method All nursing and ancillary staff who worked on two medical wards at a private teaching hospital were invited to participate in the study. Thirty-eight participants from the two wards took part in focus group discussions, individual interviews and completed the Staff Continuity of Care Questionnaire.

Findings Findings indicated that achieving functionally sound teamwork is a complex task that is affected by the interplay of a number of organisational, patient and staff factors. Its smooth application is further affected by the uncertain and changing conditions on the wards, which are difficult to control and impact on the smooth delivery of patient care. The findings revealed strengths and weaknesses in teamwork, communication of care, documentation and discharge planning. The results also highlighted factors that enhance and hinder the smooth delivery of care. This paper details the factors that influence the delivery of care from the perspectives of nursing staff and makes recommendations to enhance the delivery of patient care using a team-nursing approach.

Keywords: delivery model, team-nursing, acute care.

Introduction

The current health care environment of a shortage of registered nurses, budget constraints and changing consumer expectations have led to the development and use of innovative service delivery models (Christensen & Bender 1994). These delivery models of care should be structured to improve communication and to optimise continuity and timely delivery of patient care. Developing a delivery model of care that maximises these factors is fundamental to providing quality patient care (O'Connell 1998). Re-organising the way in which care is delivered is a complex task as organisational and patient factors such as the skill mix, ward routines, type of documentation, style of handover and the transfer of patient information across the multidisciplinary team, all impact upon the effectiveness of the delivery model of care (Bradley 1999, O'Connell 2000, O'Connell & Penney 2001).

A major factor that needs to be considered in the development of a suitable delivery model of care is the change in skill mix among health professionals brought about by the current shortage of registered nurses (RNs) and the increasing use of enrolled nurses (ENs). The variation in contextual factors across wards and differences in staff skill mix has led to the use of several hybrid delivery models of care (Zander 1992). A review of the literature revealed very few recent articles published on the issue of skill mix and delivery models of care and a need for further work in the area.

Generally, nursing care is delivered using two main delivery models of care, the primary-nursing model and the team-nursing model, or a hybrid of both incorporating the strengths of each delivery model of care (Marquis & Huston 2000). A primary-nursing delivery model of care uses only RNs, where one RN is allocated a number of patients for whose care this nurse is accountable during the patients' hospital stay (McGillis et al 2004, Tiedeman & Lookinland 2004).

Under a team-nursing delivery model of care, nurses and ancillary staff with different levels of education, skills and licensure are assigned responsibility for a group of patients for the duration of a shift, under the direction of an RN (Marquis & Huston 2000, McGillis et al 2004, Tiedeman & Lookinland 2004).

The use of a team approach to care has appeal, as it has potential to take advantage of each member's skills and level of experience for the effective and efficient delivery of care (Gibbs...
A team approach can also reinforce the RN’s role as delegator and coordinator of care (Conger 1992).

The restructuring of delivery models of care in acute care settings has resulted in RNs at all levels being required to supervise and lead different levels of workers (Marquis & Huston 2000). The introduction of unlicensed assistive personnel (i.e. ward assistants) in recent times has meant that RNs are not only ‘hands-on’ carers; they now require management and leadership skills to lead the team (Borbasi et al. 2004). Marquis and Huston (2000) suggest that RNs who are required to assume team leadership roles are often inadequately prepared to perform these tasks and thus require further training.

A study conducted in a 30-bed orthopaedic ward reviewed the impact of the implementation of a team-nursing model on nursing staff behaviour (Gollard & Soo Hoo 1993). Findings suggested that the team-nursing model encouraged increased productivity from RNs and ENs, and made the most of each team member’s skills. The RNs reported increased autonomy as their roles included managing and directing care. Care planning, documentation and patient education was also found to improve with the implementation of the team-nursing model.

Researchers have also investigated delivery models of care that combined team-nursing and primary-nursing. One small study evaluated the change from a primary-nursing delivery model of care to a primary-nursing – team-nursing model (Hyams-Franklin et al 1993). Staff practising under the new joint model identified a number of advantages and disadvantages. The advantages included the increased availability of human resources to dedicate to patient care, having tasks divided between teams, and a reduction in staff isolation. The disadvantages of this model included the fragmentation of care due to a breakdown of communication among the team members and a lack of equity in the allocation of tasks, causing the RNs to be overwhelmed.

Previous studies have presented conflicting findings on the effectiveness of the team-nursing delivery model of care. Team-nursing has been shown to influence the quality, coordination and communication of patient care, both positively and negatively. In a study exploring the influence of nurse staff mix and delivery models of care (total patient care, team-nursing and primary-nursing) on patient care outcomes, McGillis et al (2004) found that team-nursing using RNs, registered practical nurses (RPNs) and unregulated workers promoted a significant positive influence on the co-ordination and communication of patient care. By contrast, delivery models of care that employed only a professional mix of staff (RNs and RPNs) did not encourage good communication or coordination of care. The researchers found it difficult to explain this finding but felt it may be partially explained by the ward units having clearly defined roles for all three levels of workers, yet when only RNs and RPNs delivered the care, it was assumed that each level of worker had an inherent understanding of each other’s roles. It appears that the positive characteristics of team-nursing (i.e. good communication and coordination of care) are a consequence of team members having clearly defined roles and responsibilities (Gollard & Soo Hoo 1993, McGillis et al 2004).

Due to changing staff skill mix and increasing patient acuity within the study hospital, the way care was delivered required a change from a patient allocation model to a team-nursing approach. As part of this study, two wards (Ward C and Ward S) were chosen as the pilot wards to implement the team-nursing delivery model of care. These wards were chosen as they were medical wards with highly dependent patients that required the employment of different levels of staff for the delivery of care. The review of team-nursing on these wards was conducted after the team-nursing delivery model of care had been in use for six months.

Staff members on each ward worked closely with a project officer to develop the new model and participated in a number of team-nursing development workshops. Although there were defined parameters for the implementation process, each ward was allowed some flexibility in the development and implementation process to ensure ownership, cooperation and sustainability. In establishing the delivery model of care on Ward C the term ‘nursing partnerships’ was used instead of ‘team-nursing’ as the project team did not want to portray this delivery model as being task oriented and hierarchical. Staff members were recognised for the individual skills and abilities they brought to the partnerships and the decision making process. Although it was intended that this type of approach be implemented on Ward S, the staff members on this ward preferred to implement a more traditional approach to team-nursing that suited their needs.

**Aim**

The aim of this study was to review the team-nursing approach to care used on two medical wards in a private hospital.

**Objectives**

To determine the strengths and limitations of the team-nursing delivery model of care through nurses’ perceptions of the:

- factors that influence the continuity and communication of care;
- overall division of roles, responsibilities and tasks; and
- organisational and contextual factors that impact on the delivery of care.

**Method**

This study employed a descriptive evaluative design (Beanland et al 1999) and was conducted in a private teaching hospital. Both qualitative and quantitative data were collected to obtain in-depth information from a number of perspectives (Minichiello et al 1999). Data were collected from three sources, using the Staff Continuity of Care Questionnaire, focus groups and individual interviews with nursing staff. Emphasis was placed on the data obtained from the focus group and individual interviews as the information gathered from staff members’ perspectives would provide the basis for implementing effective delivery models of care in other hospital ward settings. The study commenced once the protocol was approved by the hospital ethics committee. All staff participating in the study were assured of confidentiality and only consenting staff participated. Focus groups were conducted by the first two listed research team members and did not involve either of the nurse unit managers.
Recruitment of nursing and ancillary staff

All nursing and ancillary staff on the two wards (Ward C and Ward S) were approached in groups by the chief investigator or a research assistant at ward meetings or handover times. All staff members were informed about the nature and purpose of the study and were invited to participate in the focus group or individual interviews and to complete the questionnaire. Both wards had similar staffing levels at the time of the study, with approximately 24 RNs (eight employed full-time), 10 ENs (four employed full-time), five ward assistants and two unit receptionists.

The study questionnaire was completed by 20 nursing and ancillary ward staff from Ward C, including eight RNs, five ENs, five ward assistants and two unit receptionists. In addition, 18 nursing and ancillary ward staff from Ward S completed the study questionnaire, including seven ENs, six RNs, four ward assistants and one unit receptionist. Table 1 provides further demographic information.

Focus group and individual interviews

In consultation with the Nurse Manager, focus groups and interviews were scheduled at times deemed most suitable for ward staff. RNs and ENs were interviewed at different times to promote greater freedom of speech. All focus groups and interviews were tape recorded and lasted for approximately 25-30 minutes.

Seven focus groups and one individual interview were conducted with staff on Ward C; a total of 19 nursing and ancillary ward staff participated. This sample comprised nine RNs, five ENs, three ward assistants and two unit receptionists. Additionally, six focus groups and three individual interviews were conducted with staff on Ward S; a total of 16 nursing and ancillary ward staff participated. This sample comprised nine RNs, four ENs, two ward assistants and one unit receptionist.

Staff Continuity of Care Questionnaire

Nurses were asked to complete the Staff Continuity of Care Questionnaire, which reviewed issues on nursing documentation and timely delivery of patient care. The questionnaire was developed for the study by the research team and project officer. It contained questions designed to elicit information for the ongoing development and implementation of the project. Not all questions in the questionnaire were related to this study; some questions addressed hospital related issues and are not reported in this article. The face validity of the questionnaire was established using a panel of three expert nurses and two researchers. The clarity and user-friendliness of the instrument was piloted with nursing and ward staff (N = 10) on a different ward, and their feedback was incorporated into the questionnaire prior to implementation. Staff were asked to rate their opinions according to a Likert-type scale with response options ranging from 1 (Never) to 5 (Always). Staff were also asked to answer several open-ended questions in relation to documentation and timely delivery of patient care.

Data analysis

Descriptive statistics were used to summarise all quantitative data using SPSS (version 11.0). Focus group and individual interviews were transcribed verbatim along with the open-ended questions from the questionnaire. Qualitative data were managed using the computer software package NUD*IST, and were analysed using content analyses procedures (Grbich 1999). Major themes related to factors that enhance or hinder the delivery of patient care using a team-nursing approach were identified. Qualitative analysis was conducted by the chief investigator in conjunction with a research assistant to identify major themes.

Findings

Findings from the focus group and individual interviews, and relevant findings from the questionnaire are reported in this section.

Delivery of patient care

Findings from the focus groups and individual interviews on both wards illustrated that delivering patient care was a complex task, influenced by a number of staff, patient and organisational factors that were constantly changing and difficult to control. Staff described a work environment that was often destabilised by unexpected events and therefore difficult to control and disruptive to the smooth delivery of patient care.

Well sometimes a patient may be self-care and be able to shower himself and doesn't need any help, and then he goes out to the bathroom and falls so everything goes wrong, especially early in the morning and half of the day has gone past. (Ward C P16)
Another factor that created an uncertain work environment and disrupted the smooth planning and delivery of patient care was a lack of discharge planning. While the majority of nurses on both wards reported that most patient care needs were delivered in a timely manner, they were divided on the issue of timely patient discharge where 49% of nurses (n = 18) stated that due to a lack of planning, timely discharge occurred only sometimes or rarely. Problems that were frequently identified were obtaining patients' discharge medications on time and patients and/or their families requesting or expecting a longer hospital stay.

Teamwork

The team-nursing delivery model of care included four groups of ward staff: RNs, ENs, ward assistants and unit receptionists. In the study hospital doctors and allied health professionals worked on a consultancy basis, and therefore were not considered part of the direct team.

With regard to teamwork, staff from both wards identified a number of benefits using a team-nursing approach. The perceived advantages were varied and fell into two main categories: benefits for the nurses, and perceived benefits for the patients. The nurses appreciated the interpersonal gains that flowed from building good working relationships with other nurses and the professional development opportunities that emerged from being able to discuss specific patient care issues and exchange knowledge with other nurses. These aspects were particularly appreciated by part-time staff who felt they were not always well informed of the patients' needs. Other benefits that emanated from a team approach included the ability to share the burden of a heavy workload and being able to relieve each other for breaks, which provided continuity of patient care thus improving patient satisfaction. The differing levels of staff were also seen to make a diverse and valuable contribution to patient care.

You got allocated with a partner, usually an EN, and you would go and do the medications and the EN would start the showers and then you would come along and pick up, it's a bit more fun I suppose ... when it is heavy you know that there is someone that you can rely on ... You have your own little team already so you are there to work together. I kind of like the teamwork better in that sense. (Ward S P2)

Nurses identified a 'good shift' in a team model as being dependent upon a number of factors including having someone lead the shift, good time allocation and communication, and having someone help get the work done. However, nurses often felt that maintaining smooth teamwork and good communication was a challenging task, as it was affected by a number of factors. These were:
- the type of nurse they were working with (i.e. agency, graduate nurses), and their level of experience, personality and work ethic;
- their level of familiarity with each other's work routines;
- their understanding of each other's scope of practice and appreciation of the knowledge and skills of different team members; and
- their level of familiarity with the ward and the patients they had been assigned.

Data from the focus groups indicated that these positive factors were more prevalent on Ward C and consequently the nurses on this ward appraised team-nursing more favourably. While the nurses on both wards identified many positive aspects of team-nursing, there were some who favoured the patient allocation model with which they were more familiar, i.e. they preferred to be individually assigned their own patient group. Some of these nurses queried the manner in which tasks were divided in the team approach and felt that the model led to a fragmented approach to patient care.

... the issue I have with team-nursing is ... we are taught to approach patients in a holistic manner, so as a whole person, but two people are going in there and I am addressing certain issues and the RN is addressing certain issues and I find it hard to correlate ... I'm only dealing with hygiene and elimination and nutrition and I have no idea what's happening to them medically. (Ward S P10)

The use of the team approach was particularly problematic on Ward S, due to the unstructured nature of the implementation strategy, which resulted in inconsistent engagement in team-nursing. The model was used on most morning shifts, but rarely on the afternoon shift. This erratic approach allowed staff to revert to more familiar ways of managing patient care delivery and seemed to encourage a more task-oriented approach and hierarchical structure. As a result, staff indicated there was confusion about the specific roles and responsibilities of each team member across shifts.

Role clarity and allocation of tasks

On both wards, RNs and ENs indicated that at times they were unclear of their allocated responsibilities. This lack of clarity sometimes impacted on patient care as no one took responsibility for specific care tasks, which occasionally became overlooked. It was evident that RNs had differing expectations of the role and capabilities of the ENs. On one ward some ENs felt their contribution was not appreciated or respected.

...some days I feel like a ward assistant and some days I feel like I'm expected to know a hell of a lot, and I find my definition as an EN, especially in an acute setting, is really grey around the edges. (Ward S P12)

Both RNs and ENs felt that the team-nursing model sometimes involved an uneven and unfair division of tasks that overburdened some nurses. The medication responsibilities of RNs within the team-nursing model imposed excessive demands on ENs as they were left with meeting the hygiene needs for the patients in their group without assistance. On both wards this was onerous as many of the patients required considerable assistance and their care needs were 'heavy'. Similarly, RNs felt exhausted by the demands and responsibility of administering all the medications.

Finding another RN to double-check medications added to the problem, as it was time consuming, delayed the delivery of patient medications and meant the team workload was inequitable.

The checking [referring to double checking medications] is a problem as there are not enough people to check because you have less RNs on. This affects the patients too, if they have pain, and they need a lot of morphine ... and their pain relief is delayed because you have to find someone to check [the medications]. (Ward C P4)

Other staff roles

Ward assistants were a relatively new addition to the skill mix on both wards. Overall, the ward assistants were responsible for specific tasks such as cleaning and courier duties; however, in regard to patient care, they functioned under the direct supervision of the
RN. As nurses varied and ward situations changed, the role of the ward assistant remained flexible. On Ward C they were praised for the supportive, flexible and valuable role they played in assisting nurses with the timely delivery of patient care, particularly in showering patients. On the other hand, the ward assistants on Ward S were less flexible about their roles and the types of tasks they were willing to perform, which seemed to impact on the delivery of care.

**Team communication**

Although communication was viewed as a positive aspect of team-nursing, the nurses felt effective communication was compromised when team members were busy and under pressure. Communication between health professionals, particularly nurses and medical staff, was also thought to impact on the efficiency of the team-nursing model. Nurses felt that doctors understood their frustrations and supported them, but at the same time they added to the nurses workloads by not always communicating directly.

... they [referring to doctors] come in, if we are doing something else they will just write a note and leave it on the desk, and then you find all this and you have to sort it out and you haven't actually been able to have that communication, but if you are there and you do have that communication they are very good. (Ward S P5)

Nurses acknowledged that the levels of communication varied between doctors, with some doctors only wishing to communicate with nurse managers. The variable quality of the interactions between health professionals occasionally led to a breakdown in communication that subsequently impacted on patient care.

... most of the doctors here are great ... and the channels of communication are completely open and that's what enhances patient care. But when they don't speak to you like you are on their level, you don't want to ring them up because ... they don't like to be called. We have one doctor who won't speak to anyone but the nurse in charge and hangs up on other RNs ... so people don't want to communicate with [this doctor], and patient care suffers. (Ward C P1)

**Documentation**

Nurses in this study were asked their views on the documentation used as a medium to communicate patient care needs across teams and shifts. Specifically, nurses were asked to rate whether the forms used for documentation were up-to-date, informative and easy to use. The majority of nurses on both wards rated patient admission assessment forms as informative always and often, however, responses related to other documents indicated that opinions varied between nurses and between the two wards. Table 2 provides further information on nurses' views.
Discussion

This study reviewed nurses’ perceptions of the strengths and limitations associated with team-nursing. The findings support Bradley (1999) and O’Connell’s (2000) findings, indicating that achieving functionally sound teamwork is a complex task that is affected by the interplay of a number of organisational, patient and staff factors. Its smooth application is further affected by the uncertain and changing conditions on the wards, which are difficult to control and impact on the delivery of patient care. In order to reduce some uncertainty surrounding the delivery of patient care, attention should be given to routine care, such as the process of discharge planning which needs to be conducted in a less impromptu manner. Also, expected patient length of stay needs to be communicated to patients and families on admission so they can better plan their transition to their homes.

Staff identified a number of benefits in using a team-nursing approach to care, including the fact that it provided the framework for a supportive and collegial environment. These findings support those of Hyams-Franklin et al 1993), who reported similar views, that under a team-nursing model of care the availability of human resources increased and staff felt less isolated working in groups. Given the current shortage of nurses and the need to enhance nurses’ job satisfaction and support new graduates, these factors take on new importance, therefore the use of team-nursing that increases nurses’ job satisfaction should be considered. Nurses identified a ‘good team’ as one that allowed an exchange of knowledge and skill and involved trusting the expertise of each member. Although these attributes were recognised as important, they were not always apparent on both wards. The issue of ENs feeling that their contributions were not valued deserves some attention as its prevalence undermined good teamwork.

The need to develop strong and fair leadership skills among RNs who lead the team should not be ignored as these leadership skills are pivotal to team cohesion and the smooth delivery of patient care. Nurses require lifelong learning, educational preparation and professional development (Jones & Cheek 2003). National reviews of nursing and nursing education (Heath 2002, Senate Community Affairs Committee 2002 cited in Borbasi 2003) have recommended that the development of future nurse leaders should be recognised and supported. Therefore, it may be necessary to consider reviewing nursing curricula to include training on nursing leadership and teamwork, as these attributes are fundamental to practising as an RN.

Findings of the current study support McGillis et al (2004), who argue the need for clearly defined roles and responsibilities for each staff member. While the findings of this study in part support Gibbs et al’s (1991) findings that a team-nursing delivery model of care maximises staff members’ skill and experience and contributes to effective and efficient delivery of care, the study also identified a number of factors, such as standardised roles and clearly defined and understood responsibilities for each staff member, that need to be present to ensure sound teamwork. The latter factors were not evident on the wards in the current study. The nurses in this study voiced strong opinions about the need to be familiar with each others’ scope of practice and to maintain a strong work ethic. According to Boni (2001), team approaches to care also raise questions about accountability for care. The findings of the current study support Boni’s thesis as some nurses queried whether the division of tasks led to an uneven distribution of workload and a fragmented approach to patient care.

Another issue that deserves attention is the role of the ward assistant. The findings of this study revealed that the nurses appreciated working with ward assistants who were flexible about the types of tasks they performed. It is important to develop these roles with clear parameters to ensure that the nurses are supported and allowed to use their professional discretion in delegating tasks. The absence of a clearly defined role for this group of staff members leaves both patients and nurses vulnerable, as ward assistants may continue to perform tasks within their own frame of reference that may not suit organisational requirements or patient needs.

The RN’s role regarding medication administration created some uneasiness within the team-nursing model. The conduct of this activity was perceived to be time consuming, and as it remained the sole responsibility of the RNs, their time was largely spent delivering medication. The ENs were required to undertake the majority of hygiene activities, creating a seemingly uneven workload and causing dissatisfaction. In order to address this issue, it is important to consider drug administration strategies that streamline the process. One type of strategy worth considering is the implementation of single nurse checking. This would relieve the burden of RNs spending time looking for another RN to check medications. The changing legislation in some states (e.g. Victoria) that will allow ENs to administer some medications may also assist in relieving this problem. However, in ward areas where the administration of medication is time consuming and is the sole responsibility of the RN, other solutions should be sought. It may be important to consider the role of the ward assistant to assist with patients hygiene needs as appropriate. This would alleviate some of the heavy workload on ENs.

The findings of this study revealed that the documentation used on the two wards were not always informative and up-to-date. Nurses varied in their opinions as to how useful they found the records. This finding has been consistently reported in the literature (O’Connell 1998, 2000). This issue of documentation not always being useful for the delivery of care needs to be addressed. Firstly, as it is a time consuming activity that should add value to communicating patient care across teams and shifts and secondly, sound documentation is an important legal requirement. There may be some merit in abandoning currently used documentation procedures and re-developing them from a zero base, adding items about specifics of care that are evidence based. It is also important to re-evaluate any newly developed documentation strategies in terms of its usefulness in improving the communication of patient care.

Due to the nature of this research and an inability to control all variables some limitations have occurred. The unstructured nature of the implementation strategy on Ward S resulted in
inconsistent engagement in team-nursing. The model was used on most morning shifts, but rarely on the afternoon shift. This may have impacted on the study findings and is acknowledged.

Conclusions
The findings of this study identified a number of factors that assisted and hindered the implementation of the team-nursing delivery model of care. The major findings of this study highlight a need to work towards minimising the barriers and enhancing the most favourable factors of nursing practice to optimise the delivery of patient care. Any health care agency implementing team-nursing approaches to the delivery of patient care should consider using a well planned and structured approach. This approach should incorporate clearly defined job descriptions and individual roles that take into account the levels of expertise among staff members, the time-consuming nature of particular tasks and a fair division of workload across staff levels. Defining team roles is a challenging task due to the changing and uncertain context of practice that requires flexibility and adaptability; nevertheless without guidelines some patient care needs can be missed. It is important to ensure that RNs who are given team leader roles have the necessary managerial skills to perform their roles, alter and further delegate tasks as required. Developing a standard role for ward assistants that incorporates assisting with patient hygiene needs and other suitable tasks that relieve the burden of care on RNs and ENs should be considered.

It is clear that in the future there will be greater demands on the nursing profession to use different skill mixes and teamwork for efficiency. Promoting teamwork is a complex task that requires effort and commitment. The issues raised in this paper should be considered as a way of understanding the complexity of teamwork and the issues that need to be addressed in order to achieve a delivery model of care that produces high-quality patient care and professional fulfilment.

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