Bedside Nursing Handover: A Case Study

Running Title: Bedside Nursing Handover

Authors:

Wendy Chaboyer, PhD, RN

Director, Research Centre for Clinical and Community Practice Innovation, Griffith University, Gold Coast Campus, Queensland, Australia, 4222

Anne McMurray, PhD, RN, FRCNA

Professor and Research Chair in Nursing, Murdoch University, Mandurah, Western Australia Adjunct Professor, Research Centre for Clinical and Community Practice Innovation, Griffith University, Gold Coast, Queensland, Australia

Marianne Wallis, PhD, RN

Professor, Research Centre for Clinical and Community Practice Innovation, Griffith University, Gold Coast, Queensland, Australia

Corresponding author: Professor Wendy Chaboyer

Research Centre for Clinical and Community Practice Innovation,

Griffith University Gold Coast Campus,

Griffith University, Queensland 4222, Australia Telephone:617-55528518, Fax: 617-55529144

Email: W.Chaboyer@griffith.edu.au,

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Abstract

A case study of six wards in two hospitals was undertaken to describe the structures, processes and perceptions of outcomes of bedside handover in nursing. A total of 532 bedside handovers were observed and 34 interviews with nurses conducted. Important structural elements related to the staff, patients, the handover sheet and the bedside chart. A number of processes prior to, during, and after the handover were implemented. They included processes for managing patients and their visitors, sensitive information, and the flow of communication for variable shift starting times. Other key processes identified were the implementation of a safety scan and medication check. The situation, background, assessment, recommendations (SBAR) approach was used only in specific circumstances. Perceived outcomes were categorised as improving accuracy and service delivery, and promoting patient centred care. While the move to bedside handover is not the norm, it demonstrates a patient centred approach.

Keywords: nursing handover, clinical handover, bedside handover, clinical nursing research

Bedside Nursing Handover; A Case Study Introduction

Effective communication amongst health professionals is key to ensuring quality care in clinical practice^{1,2}. One form of communication, clinical handover, has received increasing international attention.¹⁻³ Clinical handover has been defined as the transfer of responsibility and/or accountability for patient care from one provider or team of providers to another.⁴ Nursing handover at the bedside has been identified as an important strategy to improve patient-centered care, ⁵ one aspect in the Institute for Healthcare Improvement's Transforming Care at the Bedside (TCAB) program.^{5,6} We report here on a case study of six wards in two hospitals investigating the structural elements, processes used to transfer knowledge, and perceived outcomes of bedside nursing handovers.

Bedside Handover in Nursing

The body of research on nursing handover has focused on comparing various types of handovers such as face to face verbal (office or bedside), and audio-taped, 7-10 and on the functions and problems in maintaining accurate communication in handovers. 7,11,12 Some believe verbal handovers to be unreasonably lengthy, often including non-essential and irrelevant information instead of reliable, accurate information based on patient documentation. 1,13 Like some verbal handovers, audiotaped handovers can also be confined to ritualistic, retrospective, treatment oriented information rather than providing focus and direction for forward planning, 14 although these are less time consuming because of fewer interruptions. 15 Researchers have examined nurses' views of the difference between verbal, recorded and bedside handovers or combinations of these. 16 Handover can be an opportunity for mentoring junior staff members, to socialize newcomers into the culture of nursing, helping them learn professional goals and values and provide a forum for developing group

cohesion. ^{10,12} One of the purported advantages of bedside handovers is the opportunity for student teaching. In this style of handover students begin to see nursing as something done *with* rather than *for* patients. ¹⁶

Some researchers believe bedside handovers are more accurate and time-effective 16-18 but a number of contentious issues have also been highlighted. Criticisms of bedside handover include a perception that bedside handovers are too time⁹ and resource intensive.¹⁹ that there are difficulties associated with staff members having little awareness, knowledge and/or skills in 'partnering' with patients, and that patient involvement will undermine the clinician-patient relationship. 19 Others argue that the jargon of handover might promote anxiety or confusion among patients, ^{16,20} or that careless conversations at the bedside that may disturb patient confidence. ¹⁶ Over 15 years ago, Parker et al's ²¹ Australian study concluded that bedside handover was less efficient as it was often simply a recitation of fact rather than interpretation of the patient's condition, but Watkins²² countered this with the argument that it reduces the amount of time spent in the office chatting. Cahill¹⁶ adds support for bedside handover in terms of student learning, where role models are seen to be providing patient centred, collaborative care. Beneficial effects such as patients gaining a better understanding of their care plans, better discharge planning and more supportive team leaders were also identified in a recent description of how bedside nursing handover was implemented in one hospital. ³

Although bedside handover is favoured by a patient-centred approach and provides patients with an opportunity to discuss their own care⁹, there is limited information about its implementation and evaluation, thus, this research aimed to better understand the structures processes and perceived outcomes of bedside nursing handover as a beginning step to facilitate its implementation.

Methods

We used a descriptive case study²³ of bedside nursing handover in three wards in each of two relatively large Australian hospitals (six wards total). Case study was chosen as appropriate to the intention of the study. It is a methodological approach that often uses mixed methods to conduct an instrumental investigation bounded by place and time. ^{23,24} Case study research asks questions of 'what', 'why' and 'how' in a non-controlled or artificial environment to analyse existing, real-life situations with all their complexity. ²⁵ Through iterative review, the analysis yields a detailed, descriptive, comprehensive chain of evidence explaining the findings in terms of the conceptual framework chosen to guide the analysis.²³ Donabedian's ²⁶ framework for the evaluation of quality of performance in delivering health care services was used to conceptualise the study. It is comprised of three elements; structure, process and outcome. Assessing quality is undertaken by appraising structures and processes and linking these to outcomes, with the assumption that structures influence processes, which, in turn, influence outcomes. Structures include the physical and organisational properties, processes are what is actually done, and the outcome is what is accomplished. Evaluating an aspect of quality or a system is aimed at causal relationships between the three elements; that is, the structures and processes are responsible for outcomes. In this study, outcomes as perceived by participants were identified. The study took place on medical, surgical and rehabilitation wards that had predominantly six beds per room, with a few single and double rooms. In one hospital, team nursing was used and bedside handover had been used for over a year. In the other, a variety of nursing models were used and bedside handover had just been instituted, superseding verbal handover in a staff room. Bedside nursing staff, team leaders (i.e. those responsible for a subgroup of patients and nursing staff), shift coordinators (who took overall responsibility for ward functioning, often concurrently with team leadership

duties), nursing managers and educators, were the focus of this study. All participants consented to participate in the study.

Data Collection

Two forms of data collection were used, semi-structured observation and interviews. These were confined to nursing staff because of the non-attendance at handover of medical and allied health staff; although optimally, all disciplines would have been included for a multi-disciplinary approach. Including patient perspectives was also beyond the scope of the study but is the subject of another current investigation. Because of the reduced staff during other handovers, only the afternoon shift-to-shift handover was included, but interview data included participants' views about the other handovers. Clinical research assistants conducted the bedside observations guided by a data collection form recording the numbers and classifications of oncoming and outgoing staff, content of the information handed over including the use of situation, background, assessment and recommendations (SBAR), ^{27,28} the time spent at the bedside and the patients' input. When patients asked questions, or made statements about their conditions they were judged to be actively participating in the handover. If they simply nodded or made short, superficial comments such as 'hello' they were considered to be passive participants. When there was no form of patient input, patients were deemed to have not been involved in the handover.

Audio-taped in-depth interviews were conducted with a purposive sample of nursing staff involved in the handovers. Questions sought to explore both structure and process issues related to communicating patient information during the handover in addition to their perceived outcomes. Examples of questions are listed below.

 How do you prepare for handover, both when you are handing over and receiving handover?

- How do you ensure the accuracy of the handover information?
- To what extent do you include the patient's input or opinions in handover?
- How do you deal with the presence of family members?
- What strategies do you have for maintaining patient privacy in multiple bed rooms?
- Can you describe night, morning and afternoon shift variations?

Data Analysis

Observational data were analysed through iterative review by all members of the research team. Interviews were analysed using content analysis where data were grouped around central, recurrent ideas. This analysis was also iterative, with all members of the research team examining theinterview data in a recursive manner, searching for similarities in the views of respondents and across the six cases using constant comparison. Similar ideas were then organised into categories of structures, processes and perceived outcomes

Results

A total of 532 bedside handovers were observed on three medical, one surgical, one combined medical surgical and one rehabilitation ward, with slightly more than half on the medical wards (Table 1). At one hospital SBAR^{27,28} was used in varying degrees, from 45% to 65% of the handovers, in three situations when: 1) patients were new or their conditions had changed; 2) patients were unfamiliar to staff such as when staff had been off for a few days; or 3) casual/agency staff were part of the team. Patients were actively involved in about a third to slightly over half of handovers. Approximately four people were present at the bedside handover; generally the team leader of the outgoing shift and all three team members of the oncoming shift. On average, each bedside handover took just over a minute.

Table 1 here

Thirty-four in-depth interviews were undertaken (Table 2). As expected, the vast majority of interviewees were female, with about half 40 years or older. Most were bedside nurses. Overall, almost half worked full-time and on average had 10 or more years of experience.

Table 2 here

Structures

Table 3 illustrates that handover generally occurred between the teams; not as a 'whole of ward' handover. It contains both a description of the handover structures and participants' comments that reflect these structures. The outgoing team leader led the handover, and was generally the only outgoing staff member attending the bedside, thereby limiting bedside crowding. All of the oncoming team attended the handover. Patient non-participation is explained in Table 3. A computer generated handover sheet that included all patients on the ward was used in both hospitals (Table 3). Components of the health record, consisting of the observation record, medication record, fluid balance sheet and risk assessment forms (falls, pressure ulcer etc.) were at the bedside for use during the handover.

Table 3 here

Processes

The processes prior to, during and after the handover were identified (Figure 1). Prior to handover, patient allocation was completed and the handover sheet updated, although this update did not always occur. Just prior to the handover, patients were informed that handover

would shortly take place and were asked if they required any assistance, in order to limit disruptions during the actual handover. Visitors were requested to wait in the lounge area during handover; however, with the patient's agreement, families remained.

The content of handover varied according to nurses' familiarity with the patients. Key essential information was prompted by patients' presence. One nurse stated "You can get a lot more observation and draw a lot more information when you actually look and see for yourself." Patients and their family were invited to comment or ask questions near the end of the handover. Medical jargon was kept to a minimum. Both a safety scan and a medication review were undertaken. The scan involved checking that the call bell was in reach, that suction, oxygen and other equipment was working properly and visualisation of dressings, intravenous sites etc. Sensitive information was handed over away from the bedside or written on the handover sheet. Shift co-ordinators, who oversaw each ward, either attended one team's bedside handovers followed by a short report from the other oncoming team leaders, or they attended a separate handover from the outgoing shift co-ordinator. One nurse explained: "The[shift] coordinator normally goes to get the handover from the area that they're working in ... and then a brief handover of what's happening with the rest of the ward." Between handovers, staff that started at variable times were assigned to particular teams. Using the handover sheet as a guide, they were assigned a number of tasks until they could attend an upcoming handover.

Outcomes

Table 4 contains the outcomes as perceived by the nurses interviewed. These nurses thought that the accuracy of the handover was improved, and that bedside handover promoted patient centred care and improvements to nursing services. Statements nurses made related to each of these outcomes are included in Table 4.

Discussion

Based on our study of over 500 bedside nursing handovers and 34 interviews, we generated a template of the structures, processes and outcomes of bedside handover. The findings can be used as a basis for the development of standard operating protocols for its implementation, something only beginning to be documented in the literature³. It was interesting that, despite being intended as a patient-centred approach, patients actively participated in less than half of observed handovers, a finding also confirmed in a survey³⁰. While our interview participants explained legitimate reasons for this low participation rate, it appears that nurses must work to actively involve patients.

Only one hospital adopted SBAR^{27,28} in their handovers. SBAR formalizes handover content, which may create trust within the healthcare team, as all team members are provided with objective information in a standardised format.³¹ Alternatively, such rigid structures may actually have unintended consequences.³² Patterson³² suggests that instead of using a very structured approach during handovers, transferring information according to priority, with the 'most important first,' may help oncoming staff get 'the story' more quickly. The suggestion for 'most important first,' was not identified in our study.

This study has shown that one important difference between bedside and other forms of handover is that nurses receive report on only their assigned patients, and not the other patients on the ward. This maybe problematic when nurses are called to assist with the care of other patients, however participants explained that they used the printed handover sheet to guide them, a practice also used in other organisations.³² The handover sheet played a key role both during and after handover, when variable start times were part of the roster, and meant

that some nursing staff would miss the bedside handover. Ensuring that the handover sheet contains the important patient information and is updated regularly to ensure its accuracy is clearly crucial.

In this study, sensitive information was discussed away from the patient bedside so that no patients or visitors could hear this conversation. While the nurses used common sense to identify what was sensitive, the extent to which their perceptions were shared by patients was not explored. Further, as both of the study sites were relatively large, it was unlikely that patients knew each other in their everyday lives. However, in smaller, regional hospitals, it may be more likely that patients are known to each other. The extent to which bedside handover is appropriate in these situations remains unknown. A previous survey showed that almost 30% of 74 patients perceived the presence of other patients in the room during bedside handover as somewhat disturbing.³⁰ It appears that nurses need to carefully consider how sensitive information is shared during bedside handover.

Nurses perceived bedside handover in a positive light, believing it improved the accuracy of the information they handed over, however no comparison was done with other handover types, so this perception may not be accurate. Our participants said that patients' presence not only prompted outgoing nurses to remember information that should be passed on, it also prompted oncoming nurses to ask questions and seek clarification, which may account for the perceived accuracy of bedside handover.

In conclusion, this case study of bedside handover used by nursing staff in six wards in two hospitals provides a description of its structures, processes and perceived outcomes. This information may be used as the basis for standard operating protocols for more widespread implementation. Importantly, to date, measurable benefits of bedside handover for nurses and patients are yet to be firmly established.

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Table 1: Observational Findings

Observations	Hospital A	Hospital B	Total
	n = 263	n = 269	n = 532
	Frequency (%)	Frequency (%)	Frequency (%)
Type of Ward			_
Medical	186 (71%)	103 (38%)	289 (54%)
Surgical	N/A	93 (35%)	93 (17%)
Combined medical surgical	N/A	73 (27%)	73 (14%)
Rehabilitation	77 (29%)	N/A	77 (14%)
SBAR		Not used	N/A
Situation	171 (65%)		
Background	148 (56%)		
Assessment	118 (45%)		
Recommendations	156 (59%)		
Active patient involvement	85 (32%)	154 (57%)	239 (45%)
	Mean (SD)	Mean (SD)	Mean (SD)
Number of staff at the	4.0 (±1.23)	3.7 (±1.17)	3.8 (±1.2)
bedside			
Time for handover	78 (±45) sec	74 (±57) sec	76 (±51) sec

Table 2: Characteristics of the Participants Interviewed

Characteristic	Hospital A	Hospital B	Total
	n = 15	n = 19	n = 34
	Frequency	Frequency	Frequency
	(%)	(%)	(%)
Female	15 (100%)	17 (89.5%)	32 (94.1%)
Age group (years)			
< 30	6 (40.0%)	1 (5.3%)	7 (20.6%)
30 - < 40	1 (6.7%)	9 (47.4%)	10 (29.4%)
40 - < 50	3 (20.0%)	8 (42.1%)	11 (32.3%)
≥ 50	5 (33.3%)	1 (5.3%)	6 (17.6%)
Nursing Classification			
Enrolled Nurse (practical)	4 (26.7%)	3 (15.8%)	7 (20.6%)
Level 1 RN (bedside)	8 (53.3%)	7 (36.8%)	15 (44.1%)
Level 2 RN (team leader)	3 (20.0%)	4 (21.1%)	7 (20.6%)
Level 3 RN (manager, educator)	0	5 (26.3)	5 (14.7)
Full-Time	10 (66.7%)	6 (31.6%)	16 (47.1%)
	Mean (SD)	Mean (SD)	Mean (SD)
Years of experience	10.9 (10.8)	14.7 (8.5)	13.1 (9.6)

Table 3: Overview of Bedside Handover Structures

Structure	Description	Participants' Comments
Staff	 Team nursing used to deliver care. Handover attended by team leader of the outgoing staff and all members of the receiving staff. Shift co-ordinator's attendance at bedside handovers varied according to whether they have a patient load. 	"If you speak to them [patients] during the process they feel like they're involvedthey know straight away who's looking after them, they can put a name to the faces"
Patients	 Patients who generally did not participate in the handover included those that were: asleep, hard of hearing, confused, comatose, in isolation and those who did not want handover to occur at their bedside. 	"If they're [patients] uncomfortable obviously you don't have to do theirs at the bedside, you can do theirs outside the room or in the nurses station."
Handover sheet	 Computer generated handover sheet was updated regularly, and contained information about all patients on the ward. Individual patient information included: age, gender, admitting diagnosis and medical history, social history, discharge planning, changes in clinical condition, and sensitive or confidential information. 	"The handover sheet's normally just NFR [not for resuscitation], isolation and their historyand anything relevant um so you know if they come from a nursing home or if they normally live alone and might need some community help before they go home."
Bedside chart	• Components of the health record, consisting of the observation record, medication record, fluid balance sheet and risk assessment forms (falls, pressure ulcers) were at the bedside for use during the handover.	"Making sure that the charts are at the end of the bed so you'll be able to find them when you go round."

Table 4: Nurses' Perceptions of the Outcomes of Bedside Handover

Outcome	Description	Participants' Comments
Improving accuracy	 A visual view of the patient prompts recall of information. Reporting of observational data is more precise. Bedside handover strengthens accountability for accurate information Improves communication – staff tend to stick to relevant information in front of patients. 	 "We get more accurate information and have a better understanding of our patients." "It improves our communication as it forces you to focus on what you're supposed to be doing for the patient, and explaining it in a professional manner."
Promoting patient centred care	Patients are made to feel they are part of the process of care.	 "It is an opportunity for real patient engagement." "Bedside handover lets patients know that they're actually valued and it also gives the family an opportunity to participate as well"
Service delivery improvements	 Continuity of care is improved. Care is more holistic as it is informed by input from the patient. Clinical knowledge is more consistent and transparent, which provides a basis for teaching junior staff and students Better preparation for handover – staff try to appear prepared and efficient, which improves patient confidence in caregivers. 	 "We are happy because handover is quicker." "There are more opportunities for teaching."

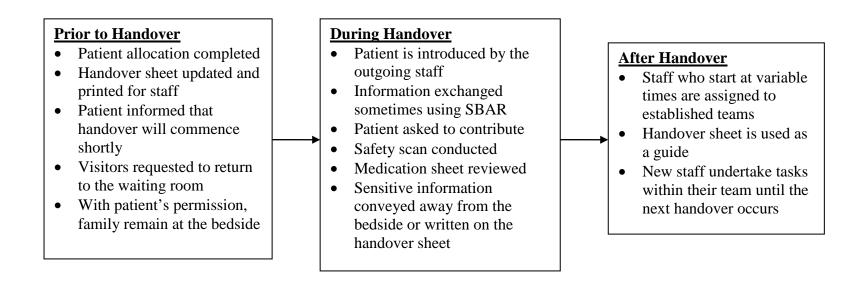


Figure 1: Summary of the Bedside Handover Process