Bedside Nurse-to-Nurse Handoff Promotes Patient Safety

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Historically, nurses have provided patient information to the oncoming nursing staff to ensure continuity of care (Chaboyer et al., 2009). Pertinent information in the shift handoff often includes patient diagnosis, procedures performed, hemodynamic stability, the plan of care, and any topics for discussion during physician rounds (Caruso, 2007). Over time, the practice of performing change of shift nursing handoff has varied. In most cases, the patient and family were not present or part of the handoff practice. Most nursing handoffs occur in a conference room or at the nursing station away from the patient’s bedside in a process that does not allow the patient and family to be active participants in the information exchange. Moving the change-of-shift handoff to the patient’s bedside allows the oncoming nurse to visualize the patient as well as ask questions of the previous nurse and the patient. It encourages patients to be involved actively in their care and implements a standardized handoff communication between nursing shifts (Anderson & Mangino, 2006).

Literature Review

Both CINAHL and Medline were searched for articles pertaining to nursing handoffs. Search terms used were handoff, handover, bedside, communication, report, nursing, shift, and change. Results were limited to English language journals published from 1998 to 2010. Abstracts for the 243 identified articles were reviewed and eight articles appropriate to the topic of bedside nursing handoff were selected. In addition, information from the Joint Commission National Patient Safety Goals (2012)

Background

Patient handoff between nurses at shift change has been an important process in clinical nursing practice, allowing nurses to exchange necessary patient information to ensure continuity of care and patient safety. Bedside handoff allows the patient the ability to contribute to his or her plan of care. It also allows the oncoming nurse an opportunity to visualize the patient and ask questions. This is critical in meeting the Joint Commission’s 2009 National Patient Safety Goals. It encourages patients to be involved actively in their care and it implements standardized handoff communication between nursing shifts. Bedside handoff promotes patient safety and allows an opportunity for patients to correct misconceptions.

Methods

A convenience sample of 60 patients was enrolled, 30 before the practice change and 30 after the change. All nursing staff were invited to participate. Both patients and staff were given self-designed surveys before and after the practice change.

Results

Fifteen nurses with a mean of 2 years in the profession completed the pre- and post-survey. A majority of staff were not satisfied with the current shift change report, but statistical improvement was achieved after the practice change. Also, statistical improvement was achieved with patients’ satisfaction with involvement in their plan of care.

Conclusions

Use of bedside nursing handoff promotes staff accountability, two-person IV medication reconciliation, and patient satisfaction.
was also included. The practice of patient handoffs between nurses at the change of shift has been an important process in clinical nursing practice. It allows nurses to exchange necessary patient information, ensures continuity of care, and promotes patient safety. Most handoffs occur outside patients’ rooms, without their involvement or input (Timonen & Sihvonen, 2000).

The Joint Commission’s 2009 and 2010 National Patient Safety Goals (Joint Commission, 2012) included a requirement to encourage patients to be involved actively in their care and to implement a standardized handoff communication process when a change of care providers occurs. Developing a standardized process for bedside nurse-to-nurse handoff is one way to address these two patient safety standards. Patients who have experienced bedside handoffs report feeling safer. They also appreciate knowing their plans of care and being introduced to the oncoming nurse (Anderson & Mangino, 2006; Caruso, 2007).

Patients who actively participate in bedside nurse-to-nurse handoffs are more likely to provide input to their plans of care. Timonen and Sihvonen (2000) found patients often did not participate actively in handoff sessions. Most patients perceived the information was for the nursing staff only; use of jargon also was confusing, so they did not contribute to handoff. Other patients indicated they were simply too tired. Chaboyer and colleagues (2009) found patients perceived participation in bedside handoff if they were encouraged explicitly to ask questions and make comments during the handoff. The author described an Australian hospital that started bedside handoff in 2006 and now has the patient leading the handoff on the rehabilitation ward, with nurses adding information as needed.

Historically, nurses have been hesitant to implement bedside shift change handoff because they believed it would require a significant time commitment. However, Anderson and Mangino (2006) found the implementation of bedside handoff decreased overtime by 100 hours in the first two pay periods. The handoff process only takes 2-5 minutes per patient (Anderson & Mangino, 2006; Athwal, Fields, & Wagnell, 2009; Cahill, 1998; Caruso, 2007; Timonen & Sihvonen; 2000). According to Anderson and Mangino (2006), staff nurses found bedside handoff a better way to prioritize their shift work because they had visualized all their patients. This study also found staff nurses had increased satisfaction in accountability, interpersonal relationships, and information receipt. An unanticipated finding was increased physician satisfaction because nurses were more prepared to respond to questions shortly after change of shift.

In summary, identified benefits of bedside nurse-to-nurse handoff include improved communication between caregivers, increased accountability, and a feeling of greater safety for patients (Chaboyer, 2009). The potential also exists for reduced overtime (Anderson & Mangino, 2006). Bedside nurse-to-nurse handoff can provide an opportunity for patients to contribute to their plans of care (Chaboyer, 2009). All these benefits enhance quality and safety at the bedside.

**Purpose**

The purpose of this study was to:

1. Determine if bedside nurse-to-nurse handoff increases patient satisfaction with the plan of care and increases patient perception of teamwork.
2. Determine if bedside nurse-to-nurse handoff increases staff satisfaction with communication and accountability.

**Method**

After approval was granted by the institutional review board, data were collected through surveys to patients and staff nurses. Staff members were invited to participate in the study through a letter of invitation sent to their work mailboxes. Signing the letter of invitation was considered consent to participate. All 18 staff members who received invitations consented to be included. Two staff members on medical leave were not invited to participate in the study. Patients’ consent was obtained verbally during their hospitalization on the surgical unit. Inclusion criteria included age 18 or older, no cognitive impairment, and the ability to understand and speak English. No patients declined to participate in the study. An investigator-developed survey was used to collect data for 30 patients before implementing bedside nursing handoff, and another 30 patients 1 month after bedside nursing handoff was implemented (see Figure 1). Patients were asked if they believed they were informed about their plans of care for the day. Questions also addressed their perception of open communication between members of the health care team about their plans of care, their satisfaction with the amount of input they had in their plans of care, and their perception of the professionalism and confidential manner used in report between care providers (see Figure 1).

Staff nurses were surveyed using an investigator-developed survey before and after implementation of bedside nurse-to-nurse handoff. Questions were used to measure changes in accountability, adequacy of communication at change of shift, prioritization of workload, performance of medication reconciliation, and ability to communicate with other health care providers immediately after handoff (see Figure 2). Additional space was included for narrative comments.

**Findings**

Data were obtained before and after the practice change. Patients (N=60) were surveyed, 30 before and 30 after the practice change. Demographic information was collected concerning patient sex, diagnosis of benign or malignant disease, type of surgery, and length of hospital stay (see Figure 3). The majority of patients had colorectal surgeries with a benign diagnosis (pre-practice change 67%, n=20; post-practice change 60%, n=18) and an average length of stay of 5.5 days. The sex distribution was similar in the two
groups of patients (female pre-practice change 50%, n=15; female post-practice change 53%, n=16). No statistical difference was found between the two groups of patients using chi-squared analysis.

The patient survey had five questions. Each question was answered using a five-point Likert scale (1=best, 5=worst) (see Figure 4). Mean scores before the practice change ranged from 1.5 to 2; all scores after the practice change had a mean of 1. Significance was noted in the question referring to the patient being informed of his or her plan of care for the day (p=0.02). The results for the patient survey were analyzed using the Wilcoxon rank-sum test.

Due to the small size of this unit, 20 nurses were invited to participate in the study. Eighteen gave informed consent, and 15 completed surveys before and after practice change were used in the data analysis. Most respondents (93%) were females with an average of 2 years nursing experience.

Scores on the pre-practice change survey included means of 2-4, with nurse-to-nurse accountability, medication reconciliation, and ability to communicate immediately with physicians regarding patient care after shift handoff receiving the lower rankings (see Figure 5). The post-practice change survey resulted in all questions receiving a mean score of 1 (best). Every question in the survey had statistical significance (p<0.05) with the exception of one: nurse-to-nurse shift report helps me prioritize my workload (p=0.06).

Discussion

Findings of this study indicated bedside nurse-to-nurse shift handoff had a positive impact on patients and nursing staff. Patients noted a significant increase (p=0.02) in their perception of being informed of the plan of care for the day. Nurses’ perception improved significantly regarding nurse-to-nurse accountability (p=0.0005), medication reconciliation (p=0.0003), and ability to communicate immediately with physicians regarding patient care after shift handoff (p=0.008). These find-

FIGURE 1.
Patient Survey

1. I was informed of my plan of care for the day.
   1 Strongly agree 2 Agree 3 Neither agree nor disagree 4 Disagree 5 Strongly disagree

2. There was open communication between members of the health care team about my plan of care.
   1 Strongly agree 2 Agree 3 Neither agree nor disagree 4 Disagree 5 Strongly disagree

3. I was satisfied with the amount of input I was able to give about my plan of care.
   1 Strongly agree 2 Agree 3 Neither agree nor disagree 4 Disagree 5 Strongly disagree

4. My care providers worked together as a team.
   1 Strongly agree 2 Agree 3 Neither agree nor disagree 4 Disagree 5 Strongly disagree

5. The report given between care providers was given in a professional and confidential manner.
   1 Strongly agree 2 Agree 3 Neither agree nor disagree 4 Disagree 5 Strongly disagree

Comments:
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________

FIGURE 2.
Staff Nurse Survey

Sex: □ Male □ Female
Years of registered nursing experience: ____________________

1. Nurse-to-nurse shift report makes people accountable.
   1 Strongly agree 2 Agree 3 Neither agree nor disagree 4 Disagree 5 Strongly disagree

2. Nurse-to-nurse shift report provides adequate communication between nursing staff at the change of shift.
   1 Strongly agree 2 Agree 3 Neither agree nor disagree 4 Disagree 5 Strongly disagree

3. Nurse-to-nurse shift report helps me prioritize my workload.
   1 Strongly agree 2 Agree 3 Neither agree nor disagree 4 Disagree 5 Strongly disagree

4. Nurse-to-nurse shift report allows me to perform shift change medication reconciliation.
   1 Strongly agree 2 Agree 3 Neither agree nor disagree 4 Disagree 5 Strongly disagree

5. Immediately after nurse-to-nurse shift report, I am able to communicate with physicians regarding patient care.
   1 Strongly agree 2 Agree 3 Neither agree nor disagree 4 Disagree 5 Strongly disagree

Comments:
_________________________________________________________________
_________________________________________________________________
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**FIGURE 3.**
**Patient Demographics (N=60)**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Pre-Practice Change (n=30)</th>
<th>Post-Practice Change (n=30)</th>
<th>p Value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex = 1 (female)</td>
<td>15 (50%)</td>
<td>16 (53%)</td>
<td>1.0</td>
</tr>
<tr>
<td>Diagnosis</td>
<td></td>
<td></td>
<td>0.59</td>
</tr>
<tr>
<td>Benign</td>
<td>20 (67%)</td>
<td>18 (60%)</td>
<td></td>
</tr>
<tr>
<td>Malignant</td>
<td>10 (33%)</td>
<td>12 (40%)</td>
<td></td>
</tr>
<tr>
<td>Operations</td>
<td></td>
<td></td>
<td>1.0</td>
</tr>
<tr>
<td>Colorectal</td>
<td>26 (87%)</td>
<td>27 (90%)</td>
<td></td>
</tr>
<tr>
<td>Hepatobiliary</td>
<td>4 (13%)</td>
<td>3 (10%)</td>
<td></td>
</tr>
<tr>
<td>Length of stay (days)</td>
<td>5.5 (4-6.75)</td>
<td>5.5 (4-8.75)</td>
<td>0.48</td>
</tr>
</tbody>
</table>

Numbers represent frequency (proportion) or median (interquartile range).
* Chi-squared analysis

**FIGURE 4.**
**Patient Survey**
(1 = best, 5 = worst)

<table>
<thead>
<tr>
<th>#</th>
<th>Item</th>
<th>Pre</th>
<th>Post</th>
<th>p Value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I was informed of my plan of care for the day.</td>
<td>2 (1-2.25)</td>
<td>1 (1-2)</td>
<td>0.02</td>
</tr>
<tr>
<td>2</td>
<td>There was open communication between members of the health care team about my plan of care.</td>
<td>2 (1-2)</td>
<td>1 (1-2)</td>
<td>0.06</td>
</tr>
<tr>
<td>3</td>
<td>I was satisfied with the amount of input I was able to give about my plan of care.</td>
<td>2 (1-2)</td>
<td>1 (1-2)</td>
<td>0.37</td>
</tr>
<tr>
<td>4</td>
<td>My care providers worked together as a team.</td>
<td>1.5 (1-2)</td>
<td>1 (1-2)</td>
<td>0.14</td>
</tr>
<tr>
<td>5</td>
<td>The report given between care providers was given in a professional and confidential manner.</td>
<td>2 (1 – 2)</td>
<td>1 (1-2)</td>
<td>0.1</td>
</tr>
</tbody>
</table>

* Wilcoxon rank-sum test

**FIGURE 5.**
**Staff Survey**

<table>
<thead>
<tr>
<th>#</th>
<th>Item</th>
<th>Pre</th>
<th>Post</th>
<th>p Value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Nurse-to-nurse shift report makes people accountable.</td>
<td>3 (2-4)</td>
<td>1 (1-2)</td>
<td>0.0005</td>
</tr>
<tr>
<td>2</td>
<td>Nurse-to-nurse shift report provides adequate communication between nursing staff at the change of shift.</td>
<td>2 (2-3.5)</td>
<td>1 (1-2)</td>
<td>0.02</td>
</tr>
<tr>
<td>3</td>
<td>Nurse-to-nurse shift report helps me prioritize my workload.</td>
<td>2 (2-3)</td>
<td>1 (1-2)</td>
<td>0.06</td>
</tr>
<tr>
<td>4</td>
<td>Nurse-to-nurse shift report allows me to perform shift change medication reconciliation.</td>
<td>4 (2-4.5)</td>
<td>1 (1-1)</td>
<td>0.0003</td>
</tr>
<tr>
<td>5</td>
<td>Immediately after nurse-to-nurse shift report, I am able to communicate with physicians regarding patient care.</td>
<td>3 (2-4)</td>
<td>2 (1-2)</td>
<td>0.008</td>
</tr>
</tbody>
</table>

* Paired t-test

ings are consistent with the literature (Anderson & Mangino, 2006; Caruso, 2007; Trossman, 2009).

According to Anderson and Mangino (2006), staff nurses found bedside handoff a better way for them to prioritize their shift work because they could visualize all their patients. Researchers also found staff nurses had increased satisfaction in accountability, interpersonal relationships, and receipt of information. This study showed nurses found satisfaction in bedside report through improved awareness of immediate patient needs and concerns. Results also indicated nurses felt more prepared immediately after the change-of-shift handoff to discuss patient care issues with physicians.

Patients added comments to their surveys that articulated the importance of this practice change. “I would strongly encourage you to continue the practice of coordinating the shift change in front of the patient. It gave me a sense of involvement in the process and confidence that the incoming staff knew of the concerns that I had.”

“Excellent procedure – it was nice to witness the handoff and it minimized confusions and/or conflicting messages that may otherwise have come my way.” Comments such as these reinforced the importance of bedside handoffs in which patients are viewed as partners and active participants with the health care team to enhance patient safety.

Greaves (1999) also found patients wanted to be involved in the handoff and desired access to their health care information.

Nursing staff comments included, “Call lights have decreased during shift change” and “It allows them (patients) to feel they have an active voice in their care and recovery and reinforces nurses’ commitment to patient safety.” Although changes in nursing practice can be viewed negatively, the implementation of bedside handoffs has had a positive impact on both patients and nurses in the study institution.
Implications for Nursing

Patients value being active participants in their plans of care. The Joint Commission determined patient safety and communication need to be nursing priorities (Joint Commission, 2012). Bedside handoff is one avenue to promote patient safety by allowing patients and families to be active participants in the nursing shift handoff procedure. Patients and family members have the opportunity to clarify and correct inaccuracies. Performing the shift change handoff at the bedside encourages and supports patients and families to participate in their desired level of care decision making, building on their strengths to enhance control and independence (Anderson & Mangino, 2006).

Limitations and Recommendations for Future Research

Limitations of this study include the use of a convenience sample of patients on one surgical unit. This 11-bed unit may not represent the average size of a hospital unit. Because many of the surgical patients included in the study had past surgeries, patients in the post-practice change group may have experienced nursing handoffs previously that impacted the way they completed the survey.

Findings from this study will be instrumental in sparking further interest in bedside handoff within this institution. Further research may be needed to improve the ability to generalize these research findings. Studies on other adult surgical and medical units would be beneficial to determining the impact of this practice change in other hospital settings.

Conclusion

Bedside nurse-to-nurse change-of-shift handoff increases nurses’ awareness of the impact of communication on patient safety and satisfaction (Chaboyer et al., 2009). With the public expecting more transparency regarding patient safety in healthcare, it is only logical patients participate in their plans of care. Including them in change-of-shift discussions between nurses has the potential to decrease medication errors, as well as enhance communication among nurses, physicians, patient/family, and other members of the health care team to promote and encourage an environment that emphasizes patient safety and quality.

REFERENCES


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**AMSN Member Expiration Date:** ________________

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**Credit Card #** ______________________________________

**Exp. Date** _______________________________________

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**OBJECTIVES**

This continuing nursing educational (CNE) activity is designed for nurses and other health care professionals who care for and educate patients and their families regarding bedside nurse-to-nurse handoff and patient safety. For those wishing to obtain CNE credit, an evaluation follows. After studying the information presented in this article, the nurse will be able to:

1. Explain the importance of bedside handoff and patient safety.
2. Describe a study to determine if bedside nurse-to-nurse handoff increases patient satisfaction with the plan of care, and staff satisfaction with communication.
3. Discuss the nursing implications of the study results.

**CNE Instructions**

Persons wishing to obtain CNE credit must read the article and complete the answer/evaluation form. Upon completion, a certificate for 1.3 contact hours will be awarded. Evaluations can be submitted two ways:

1. **AMSN's Online Library:** Complete your evaluation online and print your CNE certificate immediately. Simply go to www.amsn.org/library, and select MEDSURG Nursing, CNE Series, East Holly Avenue Box 56, Pitman, NJ 08071-0056. Test returns must be post-marked by June 30, 2014. A CNE certificate will be provided by mail.

   **Fee:** AMSN Member: Free  Regular: $15.00

2. **Persons without access to the Internet may photocopy and send the answer/evaluation form along with a check or credit card order** payable to AMSN to MEDSURG Nursing, CNE Series, East Holly Avenue Box 56, Pitman, NJ 08071-0056. Test returns must be post-marked by June 30, 2014. A CNE certificate will be provided by mail.

   **Fee:** AMSN Member: $10.00  Regular: $15.00

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Anthony J. Jannetti, Inc. is a provider approved by the California Board of Registered Nursing, Provider Number, CEP 5387. Licensees in the state of CA must retain this certificate for four years after the CNE activity is completed.

This article was reviewed and formatted for contact hour credit by Dottie Roberts, MSN, MACI, RN, CMSRN, OCNS-C®, CNE, MEDSURG Nursing Editor; and Rosemarie Marmion, MSN, RN-BC, NE-BC, AMSN Education Director.

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**ANSWER FORM**

1. If you applied what you have learned from this activity into your practice, what would be different?

   _______________________________________________________________________
   _______________________________________________________________________

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**Evaluation**

2. By completing this activity, I was able to meet the following objectives:

   a. Explain the importance of bedside handoff and patient safety.  
   b. Describe a study to determine if bedside nurse-to-nurse handoff increases patient satisfaction with the plan of care, and staff satisfaction with communication.  
   c. Discuss the nursing implications of the study results.  

   **Strongly disagree**  **Strongly agree**

   1 2 3 4 5  

3. The content was current and relevant.  

4. The objectives could be achieved using the content provided.  

5. This was an effective method to learn this content.  

6. I am more confident in my abilities since completing this material.  

7. The material was (check one) ___new  ____review for me  

8. Time required to complete the reading assignment: ______ minutes

I verify that I have completed this activity: ____________________________

Comments __________________________________________________________