



# Implementation of a Modified Bedside Handoff for a Postpartum Unit

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The most frequent cause of sentinel events is poor communication during the nurse-to-nurse handoff process. Standardized methods of handoff do not fit in every patient care setting. The aims of this quality improvement project were to successfully implement a modified bedside handoff model, with some report outside and some inside the patient's room, in a postpartum unit. A structured educational module and champion nurses were used. The new model was evaluated based on the change in compliance, patient satisfaction, and nursing satisfaction. Two months after implementation, there was an increase in nursing compliance in completing all aspects of the model as well as an increase in both patient and staff satisfactions of the process. Replicating this project may help other specialty units adhere to safety recommendations for handoff report.

Many adverse events are the product of poor communication during nursing handoff.<sup>1</sup> The Institute of Medicine has determined that poor communication between healthcare providers can compromise patient safety.<sup>2</sup> Approximately 200 000 people die annually in US hospitals because of medical errors, of which poor communication between the healthcare team is a significant factor.<sup>3</sup> Consequently, The Joint Commission designated standardized handoff communication as one of its national patient safety goals in 2006.<sup>4</sup> Bedside handoff between nurses has

become essential in a clinical environment, particularly as the healthcare model embraces a more patient- and family-centered care approach.<sup>5</sup> Standardization of information covered in nursing handoff is important because not all essential information is included in the medical record.<sup>6</sup> However, the effectiveness of nursing handoff can only be achieved by including the patients, family, and other caregivers in the report process.<sup>7</sup>

Despite the need to have a bedside reporting structure in place, sustainability of bedside reporting after implementation is often compromised.<sup>8</sup> There are many reasons that can undermine the sustainability of bedside reporting. Nurses have traditionally used centralized report that occurs at the nurses station,<sup>9</sup> and while data supports that this report should occur at the bedside, contributing reasons why this is not happening include nursing anxiety,<sup>10</sup> concern for<sup>11</sup> lack of nursing engagement,<sup>12</sup> and patient's sleep routine.<sup>13</sup> As a consequence, the intended structure and consistency of handoff are lost that can result in a suboptimal exchange of critical information, which can have a direct effect on patient safety and satisfaction.<sup>13</sup>

Postpartum reporting processes have confidential aspects that may require an adaptation to a standardized bedside report model. Patients may not be aware of the extent of information discussed in the report, which should include previous pregnancies and sexually transmitted infections that may not have been previously disclosed to partners. Postpartum units could benefit from a hybrid model of report, which could include a small portion of the report occurring privately between the nurses and the remainder being done at the bedside.<sup>14</sup> The nurses can potentially discuss sensitive information before entering the patient room and then conduct the remainder of the report

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at the bedside.<sup>15</sup> The patient and family (if patient consents) should be included in the bedside report and the creation of patient goals for that shift.<sup>16</sup> This encourages active participation of the patient and family in their care. The patient and family should also be given the opportunity to ask questions related to the handoff discussion and the plan of care.<sup>17</sup>

This quality improvement project (QIP) used components of the Situation, Background, Assessment, and Recommendation (SBAR) method of report because it is the adapted policy in the other patient care settings within the project facility. Bedside reporting structure was in place in the postpartum unit in which the QIP was implemented; however, audits of the process revealed that the staff was only using selected components of the handoff and the partial reporting outside of the room was not part of the approved process before the QIP.

Once implemented, the QIP structure included handoff being conducted both outside of the room and at the bedside. The following components were included: review of electronic medical record (computer), SBAR, and development of goals.<sup>18</sup> The situation and background components occurred privately between the 2 nurses, and the remainder of the report occurred at the bedside. Upon entering the patient room, the offgoing nurse introduced the oncoming nurse and encouraged the patient to participate in report. If the patient consented to family members being present during handoff, they were permitted to stay in the room and were included in the reporting process. After the determination of the patient's goal for the shift and discussion of the discharge goal, the final component of report was allowing the patient and family to ask questions.<sup>18</sup> A Modified Bedside Handoff Tool (Figure 1) was created as a guideline for the staff to ensure that all components were included.

The primary aim of this QIP was to increase the compliance of all 7 components of the modified bedside handoff as indicated on the Modified Bedside Handoff Tool (Figure 1). The secondary aim was to improve patient and nurse satisfaction with bedside reporting through developing, implementing, and evaluating the use of an SBAR structure of hybrid bedside handoff between nurses on a postpartum unit.

Target outcomes for implementation including the following:

1. Measure nursing compliance of the 7 components of the modified bedside handoff using the Modified Bedside Handoff Tool (Table 1) before implementation and observe an increase to 95% compliance 2 months after implementation.

2. Observe an increased patient satisfaction with bedside reporting by 20% as measured with the Patient Satisfaction Questionnaire (Figure 2) before the innovation and within 2 months postimplementation.
3. Observe an increased nurses' satisfaction with bedside reporting by 10% as measured with the Nursing Satisfaction Questionnaire (Figure 3) before the innovation and within 2 months postimplementation.

## Project Methods

### Design

The setting was a 13-bed postpartum unit in a 110-bed rural hospital. At the beginning of the project, all nurses (N = 28) were eligible to participate in the training for the modified bedside format and assessment of satisfaction in bedside reporting. The QIP used quantitative data collection to ascertain if target outcomes were met. A preimplementation/postimplementation design measured frequency of nursing compliance using the modified bedside shift report as well as levels of patient and staff satisfaction with bedside reporting. A convenience sample (N = 50) of postpartum patients was used to assess patient satisfaction with bedside reporting. Inclusion criteria included being a female patient of childbearing age, in the first few days postpartum before discharge from the postpartum unit, and having delivered a viable infant during the current hospital stay. The project excluded mothers with babies in the special care nursery and patients requiring an interpreter for communication.

### Project Champions

Project champions were developed to support nursing staff after the educational phase and through the implementation of the project. The champions were essential to engaging staff in best practices because staff prefer education from their peers over other methods of education.<sup>19</sup> The project leader trained 2 champions from both day and night shifts who were full-time employees of the hospital. The champions were educated on use of the tool (Figure 1) for the reporting process. The champions provided guidance and support to the staff during implementation and continuation of bedside shift handoff.

### Education

Because bedside reporting had previously been implemented on this unit without success, the QIP was implemented using Lewin's Theory of Change.<sup>20</sup> The first step was unfreezing the current process. The changes were implemented, and the refreezing process began.

At the Nurses Station:

**Background:**

Name, Age, Pregnancy History (Gravid, Term, Preterm, Abortions, Living, Multiples)  
Prenatal History (Blood Type, RPR, Rubella, GBS, HIV, Chlamydia, Gonorrhea, etc.)  
Surgical/Medical History

At the Bedside: \*\*utilize a computer at bedside (only exception is if patient is on isolation)

Off-going nurse introduces on-coming nurse to patient \*\*write name/# on white board.

*"This is \_\_\_\_\_ he/she will be your nurse now. He/she will take excellent care of you."*

**Situation:** Time and type of delivery.

Vaginal Delivery

- Pain control methods (natural, local, epidural, spinal)
- Assistive devices (forceps or vacuum)
- Episiotomy/Laceration

Cesarean Delivery

- Type of anesthetic (general, epidural, spinal)
- Medications given (Duramorph, Zofran, Reglan, Pepcid)
- Type of incision (classical, low transverse)
- Type of closure (staples, suture, steri-strips)
- Type of dressing (ABD, pressure dressing, Telfa) \*\*view dressing for drainage
- SCD orders/usage \*view pump and SCD's for function and setting

**Assessment:** Inspect wounds, incisions, drains, IV sites, tubings, catheters, SCD's, etc.

Computer:

- Orders (ensure that the patient has the proper admit order and active PowerPlan)
- Allergies
- Tasks
- MAR
- Labs (review labs drawn and schedule for future lab draws)

**Recommendation:** Goals for the shift and discharge goal \*engage patient and write goals on white board

Questions: ask patient and family if they have any questions or additional information that they would like to add. "Is there anything that you would like to add?" "Do you have any questions?"

Figure 1. Modified bedside handoff tool.

One of the challenges of sustainability of postpartum bedside reporting had been lack of support by staff to fully understand the significance of the practice. To create sustainability of bedside handoff, the implementation began with a formal education program for the nurses to cover the benefits derived from including patients and families in the reporting process. The education sessions were conducted over 2 weeks to teach the staff the expected structure of handoff and the benefits reported in the literature. The current hospitalwide bedside model being used was adapted to be specific for the postpartum unit and included

partial reporting of sensitive health information outside of the room, thus creating the hybrid SBAR model previously described. The bedside handoff guidelines (Figure 1) were added to the mobile computer workstations that the nurses used during report. This provided a ready reference for the nurses when conducting report. During the project, the lead author (C.A.W.) and the champions were available daily during the report time to assist staff with questions and coach them through challenges. Weekly discussions were held with the postpartum nurses to elicit feedback on the progress of the modified handoff and offer support to the staff.

**Table 1.** Frequency and Percent of Checklist Items completed by Preimplementation and Postimplementation

Checklist Item	Pre n (%)	Post n (%)	Fisher's exact P value
Background	50 (100)	50 (100)	no change
Introduction	45 (90)	49 (98)	.20
Situation	50 (100)	50 (100)	no change
Assessment	43 (86)	48 (96)	.16
Computer	39 (78)	50 (100)	<.001
Recommendations	40 (80)	47 (94)	.07
Questions	29 (58)	48 (96)	<.001
All 7 items complete	13 (26)	42 (84)	<.001

### Data Collection and Measures

Initial data with bedside handoff requirements were collected on the 7 components indicated in the Modified Bedside Handoff Tool (Figure 1). The tool divides the necessary components of report into 7 areas. The lead author (C.A.W.) and the champions completed audits of the handoff process and used the tool to record compliance. Collectively, they observed 50 bedside handoffs and documented whether each of the 7 necessary components was completed. Compliance was measured by calculating the number of times each of the 7 major components was completed during the handoff process, which was reflected as a percentage of the total number of audits. Two months postimplementation of the QIP, an additional 50 nursing handoffs were audited in the same manner to determine if there was a change in the usage of bedside reporting.

The patient and staff satisfactions with bedside shift handoff were measured by 2 different questionnaires: a Patient Satisfaction Questionnaire (Figure 2) and a Staff Satisfaction Questionnaire (Figure 3). The ques-

tionnaires were developed by the lead author based on information collected during the literature review. The data collection was conducted by the lead author and the champions. A 5-item Patient Satisfaction Questionnaire (Figure 2) was collected from 50 patients before the implementation of the QIP, and additional 50 patients were surveyed 2 months postimplementation to determine if there was a change in patient satisfaction with the handoff process. The questions were answered via a 7-point Likert scale,<sup>21</sup> (1, low level of satisfaction and 7, high level of satisfaction), with a total possible score of 35, and higher total scores indicating greater levels of satisfaction. The survey was conducted verbally by the department director during intentional leadership rounding that occurs once each day on the postpartum unit and captured on a paper questionnaire. The Staff Satisfaction Questionnaire (Figure 3) was used to assess staff satisfaction with the modified structure of handoff. Before any of the training sessions, questions were answered by staff via a 7-point Likert scale,<sup>21</sup> (1, low level of satisfaction and 7, high level of satisfaction) with a total possible score of 35, and higher total scores indicating greater levels of satisfaction. The anonymous paper-and-pencil questionnaire was distributed to the staff members before implementation of the innovation and collected on their completion. The paper-and-pencil questionnaire was given to staff again 2 months postimplementation.

### Data Analysis

All data were entered by the lead author into IBM SPSS (Armonk, New York) and analyzed using SPSS version 21 software. To evaluate the percentage of completed checklist items at preimplementation and

1.	How often do you feel that you are included in your plan of care?						
	never			sometimes			always
	1	2	3	4	5	6	7
2.	How often were you asked about your goal for the day/shift?						
	never			sometimes			always
	1	2	3	4	5	6	7
3.	How often did the nurses discuss your discharge goal with you at change of shift?						
	never			sometimes			always
	1	2	3	4	5	6	7
4.	How often did you feel comfortable to ask questions about your care?						
	never			sometimes			always
	1	2	3	4	5	6	7
5.	We change shifts twice a day. How often is the staff including you in the report?						
	never			sometimes			always
	1	2	3	4	5	6	7

Figure 2. Patient satisfaction questionnaire.

**Instructions:** Answer each question by choosing the number that best reflects your answer as indicated by the scale below each question.

- How comfortable do you feel engaging patients and families to participate in bedside shift report?  
 Uncomfortable 1 2 3 4 5 6 7 Very Comfortable
- How often do you include the patients and families in the reporting process?  
 Never 1 2 3 4 5 6 7 Always
- How would you rate the value of bedside shift report?  
 Not Useful 1 2 3 4 5 6 7 Extremely Useful
- How often do the patients and families participate in the bedside reporting process?  
 Never 1 2 3 4 5 6 7 Always
- How often do you leave work on or before the end of the shift (7:30)?  
 Never 1 2 3 4 5 6 7 Always

Figure 3. Nursing satisfaction questionnaire.

postimplementation, a series of Fisher’s exact tests were conducted for each individual item and for the percentage of handoffs that completed all 7 items. A test of change was not conducted for the *background* or *situation* components of handoff because these items were completed for all handoffs at both preimplementation and postimplementation.

Preimplementation and postimplementation patient and nurse satisfaction scores were compared using a series of independent sample *t* tests conducted for each individual item and for the total of all 5 questions to determine the overall satisfaction score for both patient and nurse satisfactions. The percentage change was calculated based on the predata/postdata scores and *t* test *P* value.

## Results

The first target outcome of this QIP was to increase nursing compliance of the 7 components of the modified bedside shift handoff to 95%. There was a statistically significant increase in compliance of all 7 items

of the handoff being complete (pre = 26%, post = 84%,  $P = <.001$ ), which indicating an increased compliance by the nurses in incorporating all of the identified components of handoff into their report (Table 1). The background and situation components had 100% compliance before and after the innovation.

Additional target outcomes were to increase patient satisfaction with bedside handoff by 20% and nurses’ satisfaction with bedside handoff by 10% within 2 months postimplementation. There were significant increases in reported satisfaction for all items evaluated for both patients and nurses (Tables 2 and 3). Patient satisfaction scores increased by 28.01%, with *P* of less than .001. Staff satisfaction scores increased by 40.34%, with *P* value of less than .001. Both patient and staff satisfaction increased after the project implementation with statistical significance.

## Discussion

Compliance of nurses in completing all necessary components of bedside handoff increased as a result

Table 2. Independent *t* Test Results for Patient Satisfaction Survey Items (N = 100)

Item	Pre (n = 50), M (SD)	Post (n = 50), M (SD)	<i>t</i> Test <i>P</i> value	% Change
How often do you feel that you are included in your plan of care?	5.04 (1.71)	6.42 (.81)	<.001	
How often were you asked about your goal for the day/shift?	5.08 (1.10)	6.86 (.40)	<.001	
How often did the nurses discuss your discharge goal with you at change of shift?	4.62 (1.66)	6.22 (.86)	<.001	
How often did you feel comfortable to ask questions about your care?	5.64 (1.12)	6.72 (.70)	<.001	
We change shifts twice a day. How often is the staff including you in the report?	6.08 (1.21)	6.86 (.50)	<.001	
Total	4.58 (.58)	5.85 (.29)	<.001	28.01



**Table 3.** Independent *t* test Results for Nurse Satisfaction Survey Items (N = 56)

Item	Pre (n = 28), M (SD)	Post (n = 28), M (SD)	<i>t</i> Test <i>P</i> value	% Change
How comfortable do you feel engaging patients and families to participate in bedside shift report?	4.68 (1.66)	6.25 (.80)	<.001	
How often do you include the patients and families in the reporting process?	4.36 (1.59)	6.07 (.94)	<.001	
How would you rate the value of bedside shift report?	4.29 (1.38)	5.82 (1.28)	<.001	
How often do the patients and families participate in the bedside reporting process?	3.46 (1.07)	5.64 (1.16)	<.001	
How often do you leave work on or before the end of the shift (7:30)?	3.68 (1.47)	4.93 (1.86)	<.01	
Total	4.09 (1.38)	5.74 (.81)	<.001	40.34

of the modified structure of handoff. The predata indicated that there was only a 26% compliance of completing all of the identified components of the modified bedside handoff. Providing a structured educational approach to support the use of the modified bedside handoff increased engagement in the process. It also has the potential to create a safer patient environment by decreasing communication errors.<sup>8</sup> This approach is 1 strategy to implement new initiatives in patient care units.<sup>13</sup> In addition, the incorporation of champions was used to be a resource for staff and audit the compliance with the modified handoff. The champions are beneficial because staff prefer to learn from colleagues than from other methods.<sup>19</sup> Using champions for education and support may have contributed to nursing engagement in the QIP and increased compliance with the process. Postdata collection revealed nursing compliance in completing all 7 components of bedside handoff at 84%. Although the project aim of 95% was not achieved, there was significant increase in the compliance. Continued observation and reinforcement of the process will further help to increase the compliance of completing all necessary components of the modified handoff.<sup>17</sup>

An additional aim of the project was to increase the patient satisfaction scores by 20%, which was exceeded, with postimplementation scores increasing by 28.01%. Increased patient satisfaction scores are a typical result of the introduction of bedside handoff because the patients feel more involved with their care.<sup>17</sup> Patient satisfaction also increased because the nurses included them in their daily and discharge goals.

The final aim was to increase staff satisfaction with bedside handoff by 10%, which resulted in an increase of 40.3%, far exceeding the project goals. Literature review during education sessions reinforced the benefits of conducting handoff at the bedside, which supported staff buy-in to the process.<sup>8</sup> In addition, the Modified Bedside Handoff

Tool gave staff a structured format to follow for handoff and helped to eliminate unnecessary and time-consuming discussions that would lead to longer reporting times.<sup>22</sup>

### Limitations

There are limitations that may affect the results of this project. The primary author's (C.A.W.) place of employment was self-selected as the project site, and a convenience sample of patients and staff was used. This can limit the project based on the socioeconomic and ethnic characteristics of the patients and nurses in this population. In addition, there may be some differences in the outcomes due to the atmosphere and workflow of a small hospital environment. These same steps should be trialed in other unique care settings and larger facilities for application.

### Conclusion

Literature reflects that using a bedside handoff process results in better patient outcomes. Educating staff, using champions, and creating a modified bedside handoff tool during implementation resulted in an increased compliance by nurses of inclusion of all necessary components of handoff. The QIP incorporated a modified handoff model in a postpartum unit allowed the nurses to use a SBAR structure while protecting potentially sensitive information yet still supporting family-centered care. The data from this project support a successful implementation of this nursing handoff structure that also increased both patient satisfaction and staff satisfaction. A modified nursing handoff that allowed for private discussion of sensitive information before conducting the remainder of handoff at the bedside resulted in increased satisfaction of both patients and staff but requires continued monitoring and support to sustain this process.<sup>22</sup>

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