

2016 American Nurses Association Annual Conference

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# Is Bedside Shift Report Associated with Improved Patient Satisfaction and Decreased Falls and Medication Error Rates?

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## MUSC Medical Center Charleston, South Carolina

Serves over 170,000 patients annually through four inpatient facilities:

- 709 beds (plus 66 neonatal care beds)
- 36,114 Inpatient visits
- 5,629 Observation visits
- 66,736 Emergency Department visits
- 7,000 Employees
- 2,400 Nurses
- 750 Physicians



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## Problem Statement

Despite limited empirical evidence nursing leaders advocate the implementation of bedside shift report (BSR) to promote patient safety and nursing accountability.



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## Background

- Joint Commission – communication breakdowns during care transitions leading cause of sentinel events (Blouin, 2011)
- Nursing shift report most common care transition
- Systematic reviews of literature found little empirical evidence to support specific structure, protocol, or method (Riesenberg, Leizsch, & Cunningham, 2010).

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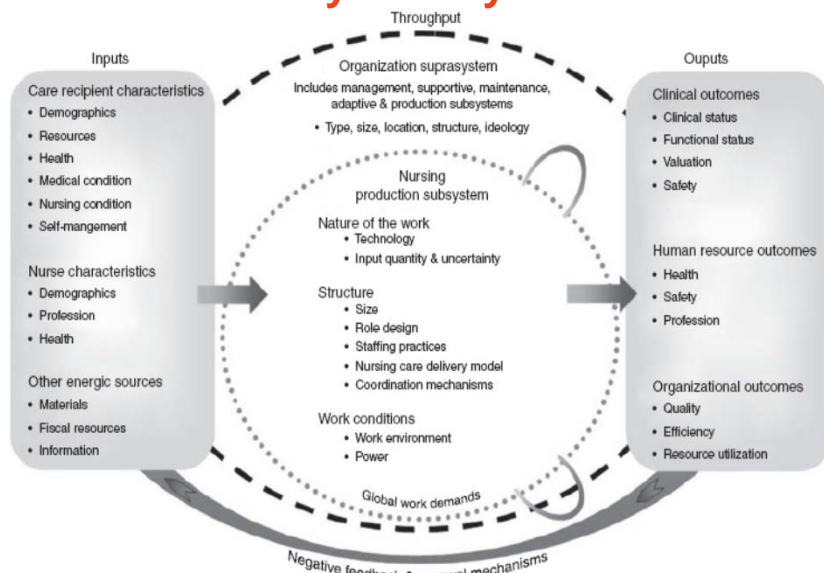
## Purpose of Research

To evaluate

- average rates of patient falls
- medication administration errors
- patient satisfaction with nurses' communication before and after the implementation of bedside shift report across multiple patient areas.




## Nursing Services Delivery Theory



Meyer & O'Brien-Pallas, 2010 – used with permission of John Wiley and Sons®.






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**Literature Review: Bedside Shift Report Findings**

- Research focuses primarily on:
  - Throughput (content and context or report)
  - Outputs (clinical outcomes, staff outcomes)
- Little exploration of inputs
  - Limited to basic demographic information






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**Literature Review: Bedside Shift Report Findings**

<b>Positive Staff Perceptions</b>	<b>Negative Staff Perceptions</b>
<ul style="list-style-type: none"><li>• Promoted patient centered care</li><li>• ↑ patient involvement</li><li>• ↑ nurse accountability</li><li>• Intercepted errors</li></ul>	<ul style="list-style-type: none"><li>• Inconsistent practice</li><li>• Lack of patient involvement</li><li>• Concerns R/T privacy and confidentiality</li></ul>





## Literature Review: Bedside Shift Report Findings

- Positive Patient Perceptions
  - Opportunity to build relationships
  - Feeling engaged, informed
  - Maintained patient safety
  - Opportunity to give feedback
- Negative Patient Perceptions
  - Maintains professional dominance



## Literature Review: Bedside Shift Report Findings

### Sand-Jecklin & Sherman, 2013

- 7 med-surg units; 1 month prior, 6 months post implementation
- Decrease in adverse events (patient falls and medication errors) not statistically significant

### Merrill & Brown, 2012

- 6 units across 3 hospitals; 12 months post implementation.
- Decrease in patient falls and communication related adverse events not statistically significant.



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## Methods

- Quasi-experimental retrospective design
- Two group, with and without bedside handoff
- 709 bed academic hospital with ADC 592
- 15 adult inpatient units located in two separate hospital buildings within a 3 block radius.
  - # beds = 304
  - # RNs = 424



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## Bedside Shift Report Protocol Implementation – IMPROVE project

- Pilot on one unit: May 2012
- Implemented across 30 units: June 2012
- Adherence measured by patient interview: 7/9/12 – 4/15/13
- Research Proposal approved: October 2013
- IRB Approval: 11/4/2013



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## Bedside Shift Report Protocol

```

    graph TD
      A([Review assignment sheet]) --> B[Get standard report sheet]
      B --> C[Get labels and clipboard]
      C --> D{RN available?}
      D -- YES --> E[Enter room with Kardex]
      E --> F[Introductions]
      F --> G[White boards explanation]
      D -- NO --> H[Look for available RN or prep for report]
      H --> I[SBAR report]
      I --> J[Check computer orders in room (if applicable)]
      G --> K[Assess patient (drips, IVs, tube feeds, groins, etc.)]
      J --> K
      K --> L[Exit room]
      L --> M([SBAR report to PCT])
    
```

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## Tools used for Implementation

- Bedside Report Packet
  - Desired outcomes
  - How To's
  - Report guide
- Bedside Shift Report Presentation
- Kardex
- Report template
- Data Collection tool



Tools available on hospital intranet

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## Bedside Shift Report Protocol Unit-based Validation Tool

Activity/Behavioral Items	Achieved (yes/no)	Opportunities for Improvement
Introduce oncoming nurse to patient		
Manage up oncoming nurse		
Used key words appropriately		
Checked equipment and supplies in room		
Visitors: Patient wants them to leave or stay?		
Report in SBAR format		
Prior to leaving, thank patient for allowing provision of care.		





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## Data collection: Unit Demographics

- Population
- Number of beds
- Accommodation codes – routine, intermediate
- Patient days – observation and inpatient
- RN worked hours
- Nurse to Patient Ratio - calculated
- RN Education & Certification
- Adherence to Bedside Shift Report

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## Data collection - Outcome Variables

- **Patient Satisfaction with Nursing Communication – Proprietary Survey**
  - The nursing staff asked me for input about my daily care.
  - When nurses changed shift, the nurse caring for me introduced me to the new nurse.
  - The nurse reviewed my daily care with me in a way that I could understand.



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## Data collection - Outcome Variables

- **Medication Administration Error Rate**
  - Deviation from physician order and/or hospital policy that reached patient and had potential to cause harm
  - Entered into the Patient Safety Net reporting system and identified as occurring during the administration phase
  - Calculated for each unit - (# errors / patient days)\*1000 = error rate.





## Data collection - Outcome Variables

- **Fall Rate**
  - Sudden, unintentional patient descent that results in the patient coming to rest on the floor, on or against some other surface, with or without injury
  - Entered into the Patient Safety Net reporting system and identified as occurring on the nursing unit
  - Calculated for each unit -  $(\# \text{ falls} / \text{patient days}) * 1000 = \text{fall rate.}$




## Unit Demographics

Characteristic per Unit	N	Mean	SD	ANOVA	
				F	Sig
# Beds Pre	15	20.6	5.33	0.068	0.80
# Beds Post	15	20.1	6.135		
Total Pt Days Pre	15	565.3	157.267	0.003	0.96
Total Pt Days Post	15	557.6	158.296		
% Routine Pre	14	36%	14.462	0.226	0.64
% Routine Post	14	40%	14.019		






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## Unit Demographics

Characteristic per Unit	N	Mean	SD	ANOVA	
				F	Sig
Mean NTPR Pre	13	3.2	0.301	3.426	0.08
Mean NTPR Post	13	3.5	0.352		
% RN ≥ BSN Pre	15	14.5%	5.402	0.015	0.90
% RN ≥ BSN Post	15	14.8%	5.136		
% RN Certified Pre	14	1%	0.980	7.527	0.01*
% RN Certified Post	14	3.4%	3.254		

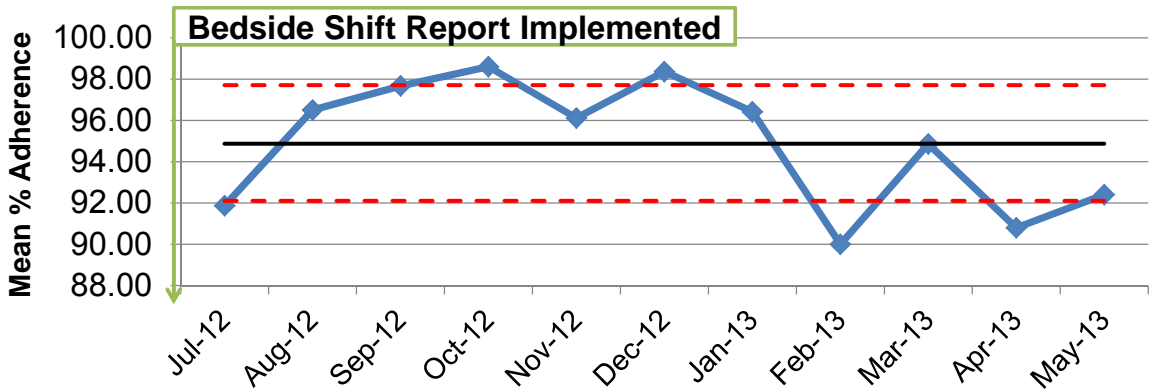




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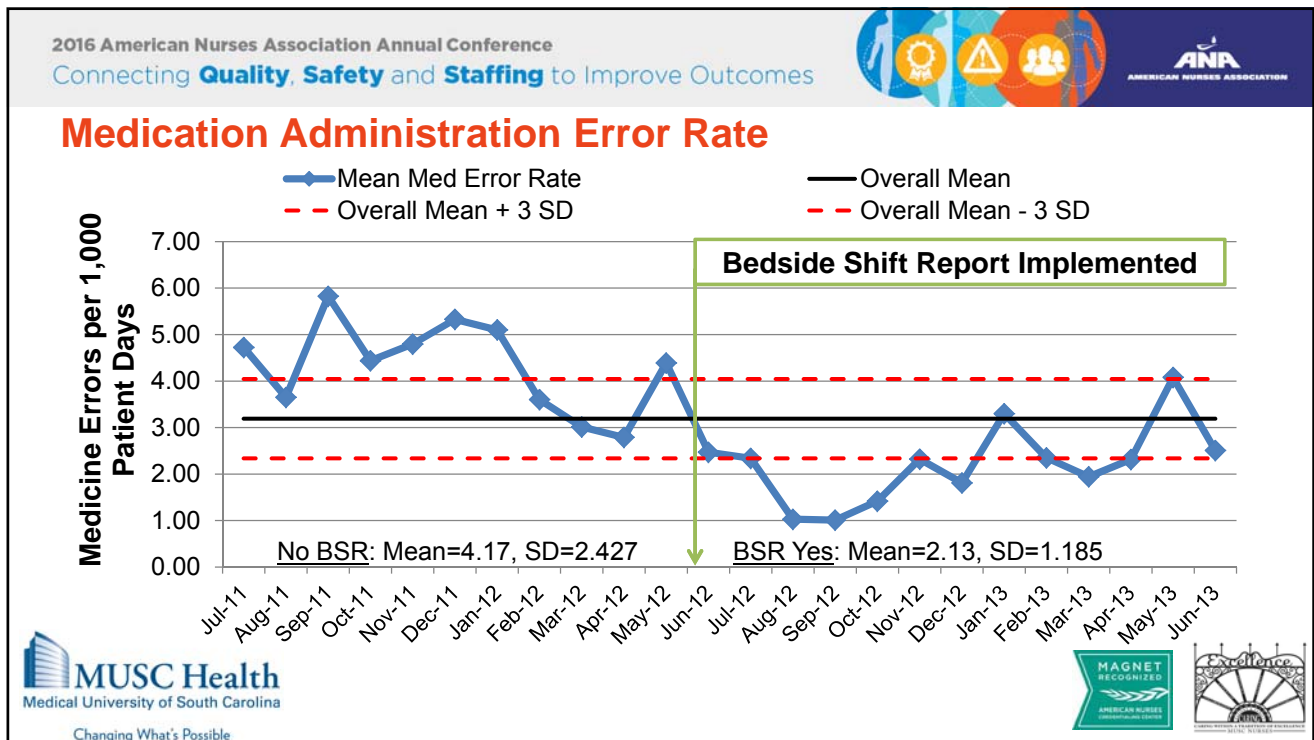
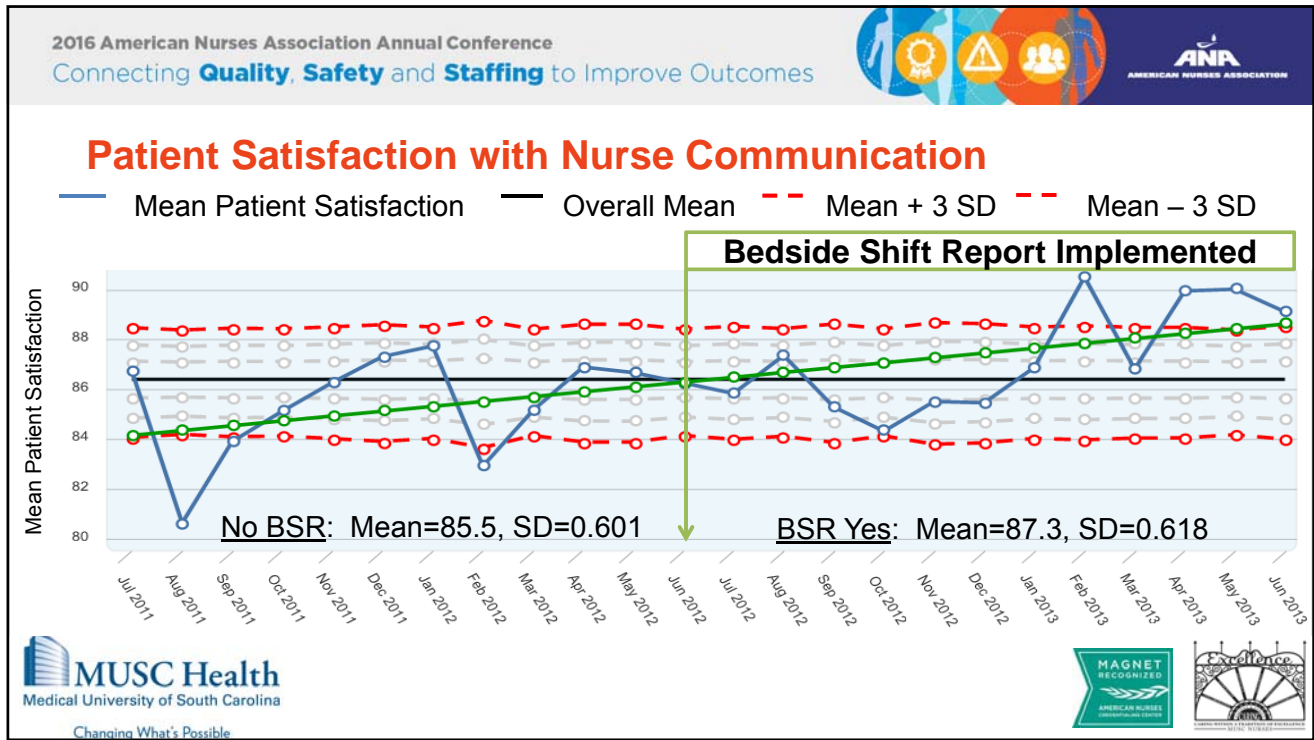
## Adherence to Protocol per Patient Interviews

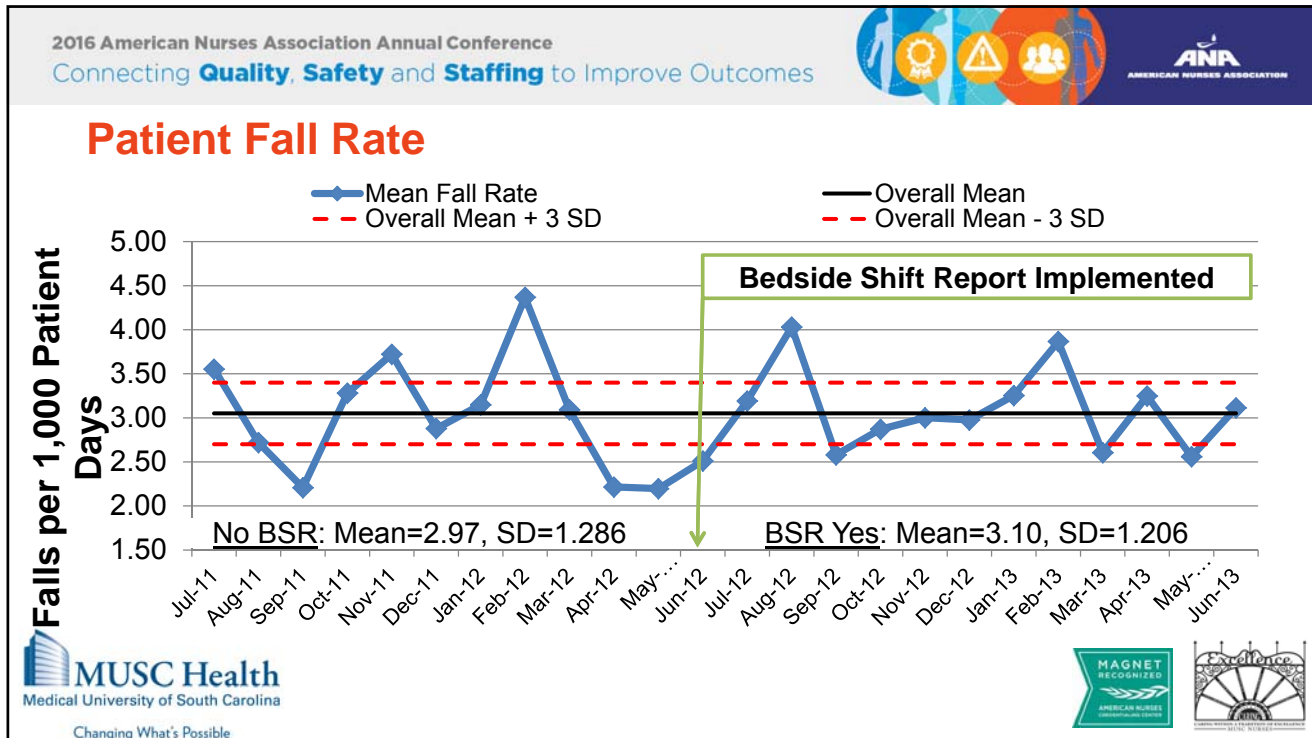
◆ Mean % Adherence BSR 
 — Overall Mean 
 - - - Overall Mean + 3 SD 
 - - - Overall Mean - 3 SD



Month	Mean % Adherence BSR
Jul-12	91.8
Aug-12	96.5
Sep-12	97.5
Oct-12	98.5
Nov-12	96.0
Dec-12	98.0
Jan-13	96.5
Feb-13	90.0
Mar-13	94.5
Apr-13	91.0
May-13	92.5





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## Discussion

- Significant improvement in two outcomes:
  - Medication Administration Errors**
    - Reduced by half with Bedside Shift Report
    - Consistent with findings of other studies
  - Patient Satisfaction with Nurse Communication**
    - Increased 2% with Bedside Shift Report
    - Consistent with findings of other studies

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## Discussion

- **Patient Fall Rate**
  - Slight increase with Bedside Shift report – not statistically significant
  - Inconsistent with other studies
  - Covariates (RN education/certification, Nurse to Patient Ratio) did not impact results.



## Limitations

- Retrospective analysis
  - Data previously collected for other purposes may have lacked rigor
  - Little to no quantitative data available on how implementation was managed and consistency of practice
- Missing data – units dropped out
- Relatively small number units

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## Implications for Practice

- Medication administration error rate decreased with bedside shift report
- Bedside shift report improves patient satisfaction with nurse communication



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