Registered Nurses’ Perceptions of Patient Safety Culture and Safety Outcomes in the Workplace

Elizabeth J. Murray, PhD, RN, CNE
Florida Gulf Coast University School of Nursing
Fort Myers, Florida, USA
Patient Safety: A Serious Global Public Health Issue

Learning Objectives

- Summarize the patient safety composites and safety outcomes measured using the AHRQ Hospital Survey on Patient Safety Culture.

- Describe common perceptions of registered nurses related to patient safety culture and safety outcomes.
A Global Concern

- **United States:**
  - 98,000 – 100,000 deaths each year (IOM, 2000)
  - 200,000 – 400,000 deaths each year (James, 2013)
  - 3rd leading cause of death (WHO, 2017)

- **United Kingdom:**
  - 3.6% of all hospital deaths each year (Yu, et al., 2016)
  - One incident of harm reported every 35 seconds (WHO, 2017)
A Global Concern

**Worldwide:**

- 421 million patients hospitalized annually world-wide and 42.7 million adverse events (errors) occur annually
- 2/3 of all adverse events occur in low or middle income countries

What is the Risk?

- **Airline Flight:**
  - 1 in 100,000 chance of harm while on an aircraft

- **Hospital:**
  - 1 in 300 chance of harm while hospitalized

Patient Safety Goals

Goals worldwide:
• Reduce errors
• Identify and analyze near misses
• Foster a patient safety culture

Registered nurses are “inseparably linked to patient safety” (Institute of Medicine, 2004, p. 23)
Aim of this Study

To explore registered nurses’ perceptions of patient safety culture and safety outcomes in their workplace using the Agency for Healthcare Research and Quality (AHRQ) Survey on Patient Safety Culture.
Methods

- Descriptive correlational design

- AHRQ Survey on Patient Safety Culture
  - 42-item survey
  - 12 safety culture dimensions - reliability coefficients 0.63-0.84.
  - Number of event reports submitted in the past 12 months
  - Overall patient safety grade of A, B, C, D, F
Methods

- Surveys mailed to a randomized sample of 500 Registered Nurses
- Data collected November 2014 – February 2015
- 108 valid surveys were received (24% response rate)
- Data analysis completed using SPSS software for Windows, Version 23
## Results - Organizational Level

<table>
<thead>
<tr>
<th>Average Positive Responses</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management Support for Patient Safety</td>
<td>52.0%</td>
</tr>
<tr>
<td>Teamwork Across Units</td>
<td>39.5%</td>
</tr>
<tr>
<td>Handoffs &amp; Transitions</td>
<td>33.7%</td>
</tr>
</tbody>
</table>
# Results - Unit Level

## Average Positive Responses

<table>
<thead>
<tr>
<th>Composites</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teamwork Within Units</td>
<td>76.5%</td>
</tr>
<tr>
<td>Supervisor/Manager Expectations &amp; Actions Promoting Patient Safety</td>
<td>39.8%</td>
</tr>
<tr>
<td>Organizational Learning/Continuous Improvement</td>
<td>65.7%</td>
</tr>
</tbody>
</table>
## Results - Unit Level

### Average Positive Responses

<table>
<thead>
<tr>
<th>Composites</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feedback &amp; Communication About an Error</td>
<td>51.0%</td>
</tr>
<tr>
<td>Communication Openness</td>
<td>39.7%</td>
</tr>
<tr>
<td>Staffing</td>
<td>37.5%</td>
</tr>
<tr>
<td>Nonpunitive Response to Errors</td>
<td>25.5%</td>
</tr>
</tbody>
</table>
# Patient Safety Outcomes

## Overall Perceptions of Safety
46% Average Percent Positive Responses

<table>
<thead>
<tr>
<th>Item</th>
<th>N</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient safety is never sacrificed to get more work done.</td>
<td>107</td>
<td>49%</td>
</tr>
<tr>
<td>Our procedures and systems are good at preventing errors from happening.</td>
<td>108</td>
<td>69%</td>
</tr>
<tr>
<td>It is just by chance that more serious mistakes don’t happen around here (R).</td>
<td>108</td>
<td>29%</td>
</tr>
<tr>
<td>We have patient safety problems in this unit (R).</td>
<td>107</td>
<td>37%</td>
</tr>
</tbody>
</table>
Patient Safety Outcomes

Unit Grade

- **A** - Excellent: 24.80%
- **B** - Very Good: 11.90%
- **C** - Acceptable: 12.90%
- **D** - Poor: 48.50%
- **F** - Failing: 2.00%
Patient Safety Outcomes
Results - Events Reported in Past 12 Months

<table>
<thead>
<tr>
<th>Events Reported in Past 12 Months</th>
<th>% of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>40</td>
</tr>
<tr>
<td>1-2 events</td>
<td>35</td>
</tr>
<tr>
<td>3-5 events</td>
<td>30</td>
</tr>
<tr>
<td>6-10 events</td>
<td>25</td>
</tr>
<tr>
<td>11-20 events</td>
<td>20</td>
</tr>
</tbody>
</table>
## Patient Safety Outcomes
### Events Reported in Last 12 Months – Near Misses

<table>
<thead>
<tr>
<th>Item</th>
<th>N</th>
<th>1-2 Never/Rarely</th>
<th>3 Sometimes</th>
<th>4-5 Most of the Time/Always</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>When a mistake is made, but is caught and corrected before affecting the patient, how often is this reported?</td>
<td>101</td>
<td>37 (36.6%)</td>
<td>23 (22.8%)</td>
<td>41 (40.6%)</td>
<td>3.15</td>
<td>1.25</td>
</tr>
<tr>
<td>When a mistake is made, but has no potential to harm the patient, how often is this reported?</td>
<td>102</td>
<td>30 (29.4%)</td>
<td>24 (23.5%)</td>
<td>48 (47.1%)</td>
<td>3.31</td>
<td>1.20</td>
</tr>
<tr>
<td>When a mistake is made that could harm the patient, but does not, how often is this reported?</td>
<td>101</td>
<td>14 (13.9%)</td>
<td>23 (22.8%)</td>
<td>64 (83.4%)</td>
<td>2.80</td>
<td>1.13</td>
</tr>
</tbody>
</table>
## Relationships Between Composite Items and Safety Outcomes

<table>
<thead>
<tr>
<th>Communication and Openness</th>
<th>Frequency of Events (Near Misses)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>When a mistake is made but is caught and corrected before affecting the patient, how often is it reported?</td>
<td>When a mistake is made but has not potential to harm the patient, how often is this reported?</td>
</tr>
<tr>
<td>Staff will freely speak up if they see something that may negatively affect patient care.</td>
<td>.285**</td>
<td>.351**</td>
</tr>
<tr>
<td>Staff feel free to question the decisions or actions of those with more authority.</td>
<td>.312**</td>
<td>.318**</td>
</tr>
<tr>
<td>Staff are afraid to ask questions when something does not seem right (R).</td>
<td>.130</td>
<td>.199*</td>
</tr>
</tbody>
</table>

*P=0.05  
**P=0.01  
R=negatively worded item
## Relationships Between Composite Items and Safety Outcomes

<table>
<thead>
<tr>
<th>Supervisor/Manager Expectations</th>
<th>Patient Safety Grade</th>
<th>Events Reported in 12 Months</th>
</tr>
</thead>
<tbody>
<tr>
<td>My supervisor/manager says a good word when he/she sees a job done according to established patient safety procedures.</td>
<td>.588**</td>
<td>-.023</td>
</tr>
<tr>
<td>My supervisor/manager seriously considers staff suggestions for improving patient safety.</td>
<td>.622**</td>
<td>.051</td>
</tr>
<tr>
<td>Whenever pressure builds up, my supervisor/manager wants us to work faster, even if it means taking shortcuts (R).</td>
<td>.608**</td>
<td>.051</td>
</tr>
<tr>
<td>My supervisor/manager overlooks patient safety problems that happen over and over (R).</td>
<td>.511**</td>
<td>-.202*</td>
</tr>
</tbody>
</table>

*P=0.05
**P=0.01
R=negatively worded item
### Relationships Between Composite Items and Safety Outcomes

<table>
<thead>
<tr>
<th>Staffing</th>
<th>Patient Safety Grade</th>
<th>Events Reported in 12 Months</th>
</tr>
</thead>
<tbody>
<tr>
<td>We have enough staff to handle the workload.</td>
<td>.474**</td>
<td>-.326**</td>
</tr>
<tr>
<td>Staff in this unit work longer hours than is best for patient care (R).</td>
<td>.174**</td>
<td>-.165</td>
</tr>
<tr>
<td>We use more agency/temporary staff than is best for patient care (R).</td>
<td>.348**</td>
<td>-.086</td>
</tr>
<tr>
<td>We work in “crisis mode” trying to do too much, too quickly (R).</td>
<td>.574**</td>
<td>-.053</td>
</tr>
</tbody>
</table>

*P=0.05
**P=0.01
R=negatively worded item
Discussion

Organizational Level

- Management support highest while handoffs & transitions lowest
- Ballangrud et al., (2012) found higher percent positive handoffs & transitions and lowest management support
Discussion

Unit Level

• Teamwork within units highest and Nonpunitive response to errors lowest

• Similar findings Saleh et al., (2015); Kahter, et al., (2015); Wagner et al., (2013)

• Ballangrud et al., (2012) found teamwork within units highest and feedback & communication about error as lowest
Limitations

- Low response rate
- Survey one state in southeastern USA
- Self-administered questionnaires
- Period of data collection not optimal
Implications – Nursing Practice

- Patient safety must be a priority for everyone
- Team training to improve:
  - Communication
  - Teamwork
  - Handoffs
Implications – Nursing Leadership

- Patient safety top priority
- Effective leadership critical to foster safety
- Communication
- Nonpunitive environment
Implications – Future Research

- Study on larger scale
  - Regional
  - National
  - International

- Consider comparison of perceptions nurse leaders/managers and frontline staff
References


References


