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

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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

World Health Organization (2017).

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

World Health Organization (2014).

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

Average Positive Responses	
Composites	**Percent**
Management Support for Patient Safety	52.0%
Teamwork Across Units	39.5%
Handoffs & Transitions	33.7%

Results-Unit Level

Average Positive Responses	
Composites	**Percent**
Teamwork Within Units	76.5%
Supervisor/Manager Expectations & Actions Promoting Patient Safety	39.8%
Organizational Learning/Continuous Improvement	65.7%

Results-Unit Level

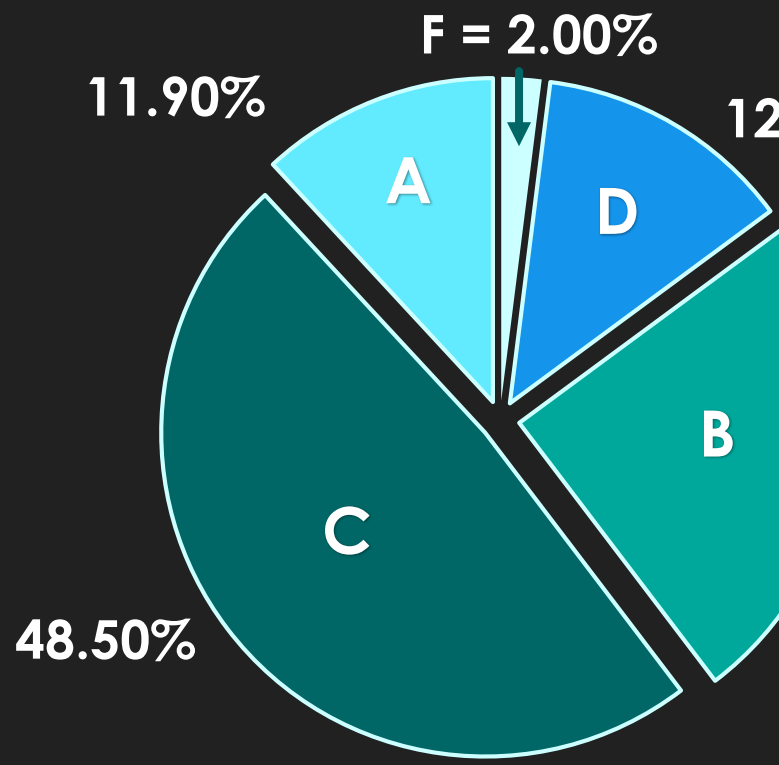
Average Positive Responses	
Composites	**Percent**
Feedback & Communication About an Error	51.0%
Communication Openness	39.7%
Staffing	37.5%
Nonpunitive Response to Errors	25.5%

Patient Safety Outcomes

Overall Perceptions of Safety 46% Average Percent Positive Responses		
Item	**N**	**Percent**
Patient safety is never sacrificed to get more work done.	107	49%
Our procedures and systems are good at preventing errors from happening.	108	69%
It is just by chance that more serious mistakes don't happen around here (R).	108	29%
We have patient safety problems in this unit (R).	107	37%

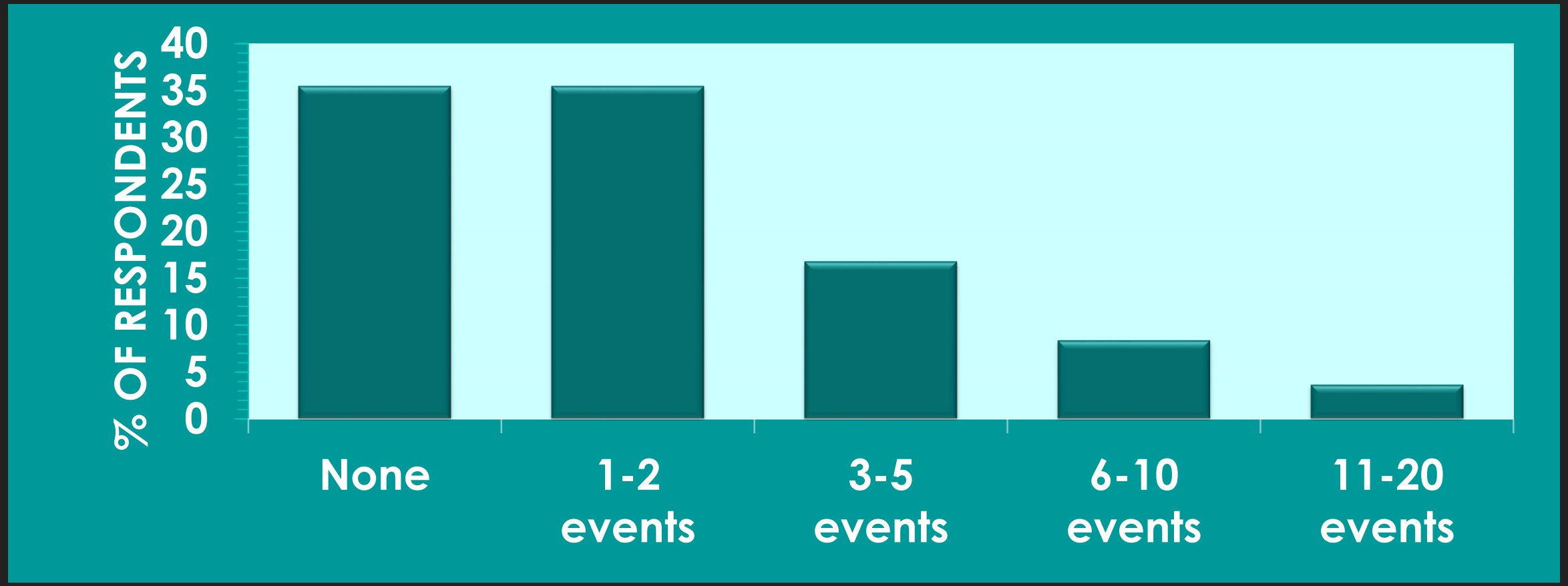
Patient Safety Outcomes

Unit Grade



F-Failing D-Poor C-Acceptable B-Very Good A-Excellent

Patient Safety Outcomes
Results-Events Reported in Past 12 Months



Patient Safety Outcomes

Events Reported in Last 12 Months – Near Misses

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

Relationships Between Composite Items and Safety Outcomes

Communication and Openness	Frequency of Events (Near Misses)		
	When a mistake is made but is caught and corrected before affecting the patient, how often is it reported?	When a mistake is made but has not potential to harm the patient, how often is this reported?	When a mistake is made that could harm the patient, but does not, how often is this reported?
Staff will freely speak up if they see something that may negatively affect patient care.	.285**	.351**	.401**
Staff feel free to question the decisions or actions of those with more authority.	.312**	.318**	.339**
Staff are afraid to ask questions when something does not seem right (R).	.130	.199*	.180

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

Relationships Between Composite Items and Safety Outcomes

Supervisor/Manager Expectations	Patient Safety Grade	Events Reported in 12 Months
My supervisor/manager says a good word when he/she sees a job done according to established patient safety procedures.	.588**	-.023
My supervisor/manager seriously considers staff suggestions for improving patient safety.	.622**	.051
Whenever pressure builds up, my supervisor/manager wants us to work faster, even if it means taking shortcuts (R).	.608**	.051
My supervisor/manager overlooks patient safety problems that happen over and over (R).	.511**	-.202*
*P=0.05 **P=0.01 R=negatively worded item		

Relationships Between Composite Items and Safety Outcomes

Staffing	Patient Safety Grade	Events Reported in 12 Months
We have enough staff to handle the workload.	.474**	-.326**
Staff in this unit work longer hours than is best for patient care (R).	.174**	-.165
We use more agency/temporary staff than is best for patient care (R).	.348**	-.086
We work in "crisis mode" trying to do too much, too quickly (R).	.574**	-.053
*P=0.05 **P=0.01 R=negatively worded item		

Discussion

- **Organizational Level**
  - Management support highest while handoffs & transitions lowest
  - Similar findings Saleh et al., (2015); Khater, et al., (2015); Wagner et al., (2013)
  - 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

Agency for Healthcare Research and Quality Patient Safety Network (2012). *Patient Safety Primer.* Retrieved from http://psnet.ahrq.gov/printviewPrimer.aspx?primerID=5

Agency for Healthcare Research and Quality. (2013). *Surveys on patient safety culture.* Retrieved from http://www.ahrq.gov/professionals/quality-patient safety/patientsafetyculture/index.html

Baker, D.P., Gustafson, S., Beaubien, J., Salas, E., & Barach, P. (2005). *Medical teamwork and patient safety: The evidence-based relation.* Agency for Healthcare Research and Quality, Rockville, MD. Retrieved from http://www.ahrq.gov/research/findings/final-reports/medteam/index.html

Ballangrud, R., Hedelin, B., Hall-Lord, M.L. (2012). Nurses' perceptions of patient safety climate in intensive care units: A cross-sectional study. *Intensive and Critical Care Journal of Nursing, 28,* 344-354.

Dillman, D.A. (2000). *Mail and internet surveys.* New York: John Wiley Company.

References

Hannah,K.L., Schade, C.P., Lomely, D.R., Ruddick, P., & Bellamy, G.R. (2008). Hospital administrative staff vs. nursing staff repsonses to the AHRQ hospital survey on patient safety culture. Retrieved from http://www.ncbi.nlm.nih.gov/books/NBK43704.

Institute of Medicine (2004). *Keeping patients safe: Transforming the work environment of nurses*. Washington, DC: National Academies Press.

Institute of Medicine (2000). *To err is human: Building a safer health system*. Washington, DC: National Academies Press.

James, J.T. (2013). A new, evidence-based estimate of patient harms associated with hospital care. *Journal of Patient Safety,* 9(3), 122-128.

Khater, W.A., Akhu-Zaheya, L.M., Al-Mahasneh, S.I., & Khater, R. (2015). Nurses' perceptions of patient safety culture in Jordanian hospitals. *International Nursing Review,* 62, 82-91.

References

Saleh, A.M., Darawad, M., & Al-Hussami, M. (2015). The perception of hospital safety culture and selected outcomes among nurses: An exploratory study. Nursing and Health Sciences, 17, 339- 346.

Singer, S.J., Gaba, D.M., Geppert, J.J., Sinaiko, A.D., Howard, S.K., & Park, K.C. (2003). The culture of safety: Results of an organization-wide survey in 15 California hospitals. *Quality and Safety in Healthcare, 12*(2), 112-118.

Singer, S.J., Falwell, A., Gaba, D.M., Meterko, M., Rosen, A., Hartmann, C.W., & Baker, L. (2009). Identifying organizational cultures that promote patient safety. *Health Care Management Review, 34*(4), 300-311.

Sorra, J.S., & Nieva, V.F. (2004). *Hospital survey on patient safety culture.* (Prepared by Westat, under contract No. 290-96-0004). AHRQ Publication No. 04-0041. Rockville, MD: Agency for Healthcare Research and Quality.

References

Wagner, C., Smits, M., Sorra, J., & Huang, C.C. (2013). Assessing patient safety culture in hospitals across countries. International Journal for Quality in Health Care, 1-9.

World Health Organization. (2014). *10 facts on patient safety*. Retrieved from http://www.who.int/features/factfiles/patieint_safety/en/

World Health Organization. (2017). *Patient safety: Making health care safer*. Retrieved from http://www.who.int/patientsafety/publications/patient-safety-making-health-care-safer/en/

Yu, A., Flott, K., Chainani, N. Fontana, G., & Darzi, A. (2016). Patient safety 2030. London, UK: NIHR Imperial Patient Safety Translational Research Centre. Retrieved from www.Imperial.ac.uk/patient-safety-translational-research-centre