

Title:

Practical Application of High Reliability Principles in Healthcare to Promote Clinical Quality and Safety Outcomes

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Session Title:

High Reliability: Practical Application and Tips for the Journey

Slot:

F 08: Friday, 28 July 2017: 2:30 PM-3:45 PM

Scheduled Time:

3:10 PM

Keywords:

Evidence-based practice, High reliability organization and Promoting clinical outcomes

References:

Chassin, M.R. (2012). Health care and high reliability: a cautionary tale. 2012 5th International HRO conference. Chicago, IL.

Chassin, M.R. & Loeb, J.M. (2013). High-reliability health care: Getting there from here. *The Joint Commission*. Retrieved from <http://www.jointcommission.org>.

James, J. T. (2014). A new, evidence-based estimate of patient harms associated with hospital care. *Journal of Patient Safety*, 9(3), 122-128.

Shabot, M. M. (2015). New tools for high reliability healthcare. *BMJ Quality and Safety*, 24(7), 423-424.

Weick K, & Sutcliffe K. (2007). *Managing the unexpected: Resilient performance in an age of uncertainty*. San Francisco, CA: Jossey Bass.

Abstract Summary:

Learn how application of High Reliability Organization (HRO) principles into daily healthcare work processes can successfully drive and promote improved quality clinical outcomes, safety, and culture change.

Learning Activity:

LEARNING OBJECTIVES	EXPANDED CONTENT OUTLINE
The learner will be able to describe how to apply HRO principles into daily healthcare work processes.	I. Introduction A. Objectives i. The learner will be able to describe how to apply HRO principles into daily healthcare work processes. ii. The learner will be able to discuss how HRO principles promote clinical quality outcomes, safety, and culture. II.

	Background A. High reliability science B. Culture of safety III. Purpose IV. Scope A. Description of the organization i. Size ii. History B. Description of nursing within the organization i. Educational preparation ii. Specialty certification iii. Care settings V. Methodology A. Practical Workflow Application of High Reliability Principles i. Preoccupation with Failure ii. Reluctance to Simplify iii. Sensitivity to Operations iv. Deference to Expertise v. Commitment to Resilience
The learner will be able to discuss how HRO principles promote clinical quality outcomes, safety, and culture.	VI. Outcomes A. Preventable Harm i. Preventable Harm Incidents ii. Patient Volume iii. Case Mix Index B. Nurse Sensitive Indicators – Clinical Quality Outcomes i. Falls ii. HAPUs iii. CLABSI iv. CAUTI VII. Practice Implications A. HRO principles translate to the point of care and can be utilized effectively in every patient encounter driving nursing practice and positive clinical quality outcomes in a culture of safety. B. Nursing value is the confluence of quality, service and cost. C. Sustaining a culture of high reliability and safety mandates everyone be accountable for outcomes. VIII. Questions and Answers

Abstract Text:

Background/Significance: It is estimated 400,000 people die each year due to healthcare error (James, 2014). One strategy to reducing harm has been to institute high reliability into healthcare. High reliability (HR) has long been used in aviation and nuclear energy to reduce variation and improve safety. High reliability science is the study of organizations in industries “that operate under hazardous conditions while maintaining safety levels that are better than in healthcare” (Chassin and Loeb, 2013). High reliability organizations (HROs) are organizations that are high-risk, dynamic, turbulent, and potentially hazardous, yet operate nearly error-free (Weick and Sutcliffe, 2007). HROs stay error-free by recognizing that small things that go wrong are often early warning signs of trouble (preoccupation with failure); recognizing that these warning signs are red flags that provide insight into the health of the whole system (reluctance to simplify); valuing near misses as indicators of early trouble and acting on them to prevent future failure (sensitivity to operations); being innovative and creative and valuing input from all corners of the organization (deference to expertise); and recognizing the value of preparing for the unexpected and the unknown, as failures rarely occur if they are expected (commitment to resilience). HROs have demonstrated success in minimizing errors by creating mindful environments where employees are trained to look for and report small problems that could lead to big ones. HROs view small errors and close calls as learning opportunities; correct them and share details about them across the organization (Chassin, 2012; Shabot, 2015). Healthcare application of HR principles is complicated by the complex adaptive nature of care delivery systems. Healthcare is moving from a reactive to a proactive paradigm. Near misses are influential in evaluating healthcare structures and processes prior to experiencing

negative outcomes. HRO principle integration supports proactive identification of potential adverse events.

Purpose: The purpose of this presentation is to describe how application of High Reliability Organization (HRO) principles into daily healthcare work processes can successfully drive improved quality outcomes, safety, and culture change.

Scope: The scope of this project is one 350 bed acute care quaternary hospital with specialty service lines. It includes 500 clinical nurses, advanced practice nurses and nursing leadership across the spectrum inpatient care settings.

Methods: The five principles of HROs served as a guiding framework or methodology to embed safety practices into the organization. HRO principles (Deference to expertise, Preoccupation with failure, Sensitivity to operations, Reluctance to simplify, and Commitment to resilience) are woven into the fabric the moderate-sized healthcare organization through distinctive intervention strategies. Implementation of HRO principles into 15-minute daily safety huddles enhanced an existing Just Culture environment. Partnerships translated HRO principles into clinical practice and evaluated operationalization. Resource investment led to real-time data, analysis, feedback, technology supporting low-variation practice, and rewards/recognition promoting transparency. Leaders role model their commitment to a culture of quality and safety. HRO principle integration: Deference to expertise correctly migrated responsibility from formal executive authority to experiential competency-based decision-making; Preoccupation with failure sensitized associates to be alert to small indicators before crisis situations developed and increased near miss reporting; Sensitivity to operations cultivated situational awareness; Reluctance to simplify drove drill-down enhancing learning and practice; Commitment to resilience was strengthened through TeamSTEPPS applications which led to heightened individual and organizational resilience.

Outcomes: Between 2013 and 2016, preventable harm incidents decreased 33% while patient volume and case mix index increased. Nurse sensitive indicator outcomes consistently meet or exceed national benchmarks. The 350-bed hospital reports 30% reduction in falls with injury; HAPUs stage 2+ below benchmark the majority of the time in all units; CLABSI-free in all units for greater than 3 years; and CAUTI 70% reduction in the last four fiscal years. Nursing value is \$1.7 M estimated direct cost avoidance FY12 to FY16.

Implications for Nursing Practice: HRO principles translate to the point of care and can be utilized effectively in every patient encounter driving nursing practice and positive clinical quality outcomes in a culture of safety. Comprehensive integration of HRO principles results in exemplification of nursing staff understanding that their actions contribute to nursing value and organizational quality and safety. Making this cultural shift is crucial to proactive adverse event management.