Perioperative Culture, Organizational Behavior and Patient Outcomes

Lindsay A Bliss, MD; Cynthia B Ross-Richardson, MS, BSN, CNOR; Laura J Sanzari, MS, BSN, RN; David S Shapiro, MD, FCCM, FACS; Scott J Ellner, DO, MPH, MHCM, FACS

Saint Francis Hospital and Medical Center

Background

The perioperative period requires complex interactions to coordinate safe, efficient patient care. Although explicit organizational structure and human resource allocation decisions impact care delivery, informal organizational behaviors color each interaction. We hypothesized these cultural factors influence staff perceptions and patient outcomes.

Methods

This study was conducted at a 600-bed tertiary, teaching hospital in the Northeast between 2007 and 2013.

In 2009, hospital and perioperative services leadership engaged in a concerted effort to improve the institutional culture of safety through multiple interventions, all targeted to modify organizational behavior: leadership changes within the surgical service line, educational sessions, and quality improvement initiatives. These efforts spanned four years; staff perceptions of safety culture were assessed at the start and end of the study period, and patient outcomes were tracked across the five years.

Organizational Behavior Interventions

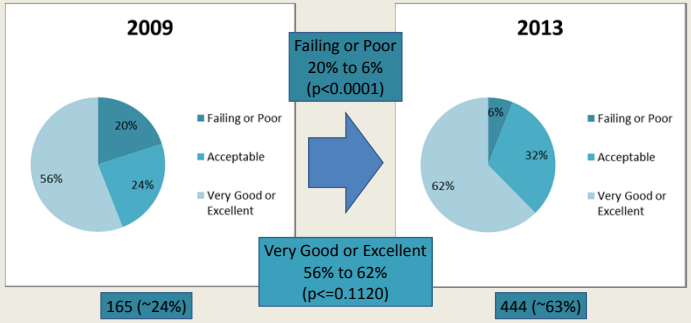
- *Leadership*. A combination of internal and external candidates were newly appointed to the roles of OR nurse manager, chairman of the department of surgery, and vice chairman of the department of surgery. In addition, the position of director of surgical quality was created to provide a surgeon champion for patient safety and quality improvement efforts.
- *Communication Education*. In 2010, all perioperative staff members were invited to participate in educational sessions held during protected staff development time. The three session topics were composed of progressive skills necessary for effective communication across the OR power gradient: (1) Crucial Conversations; (2) Getting What You Want: Communication Strategies That Help You Get What You Need; and (3) When the Going Gets Tough: Achieving a Positive Outcome.
- *Checklist*. Also in 2010, and woven into the communication education sessions, the World Health Organization (WHO) Association of periOperative Registered Nurses (AORN) Surgical Safety Checklist was introduced to staff. Subsequently, the checklist, which is freely and publically available online, was adopted for all surgery cases at the medical center.
- *SUSP Committees*. In 2012, further surgical safety initiatives were initiated. Surgical site infections were the primary focus, using a structured approach based on the Johns Hopkins Comprehensive Unit-Based Safety Program (CUSP) for Safe Surgery Program (SUSP).

Results

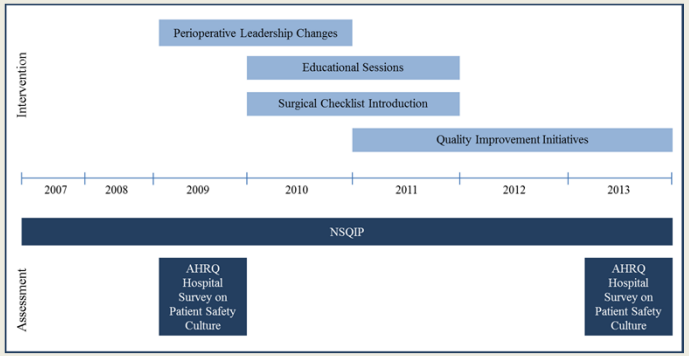
Safety Culture

AHRQ Hospital Survey on Patient Safety Culture

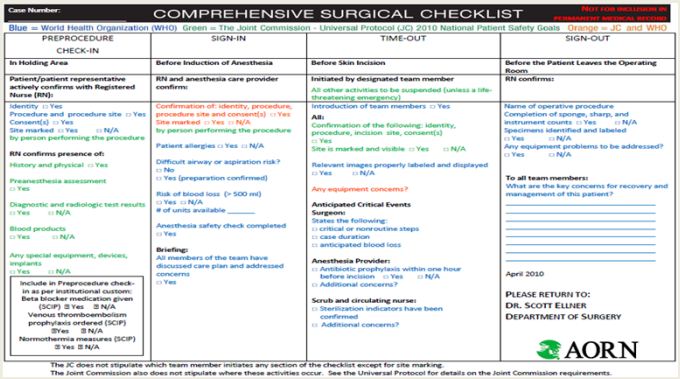
Institution-specific data regarding perioperative culture was collected using the Agency for Healthcare Research and Quality (AHRQ) Hospital Survey on Patient Safety Culture.(29) The survey was administered to health center personnel in 2009 and 2013.



Timeline



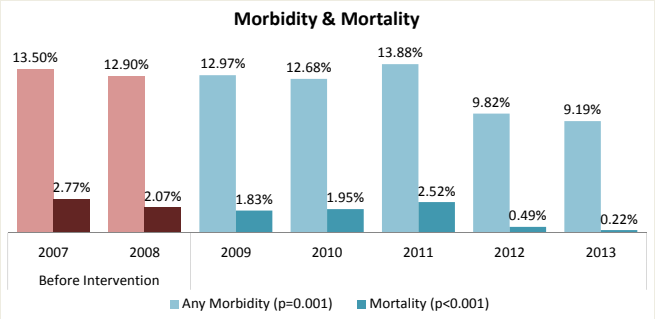
WHO Comprehensive Surgical Checklist

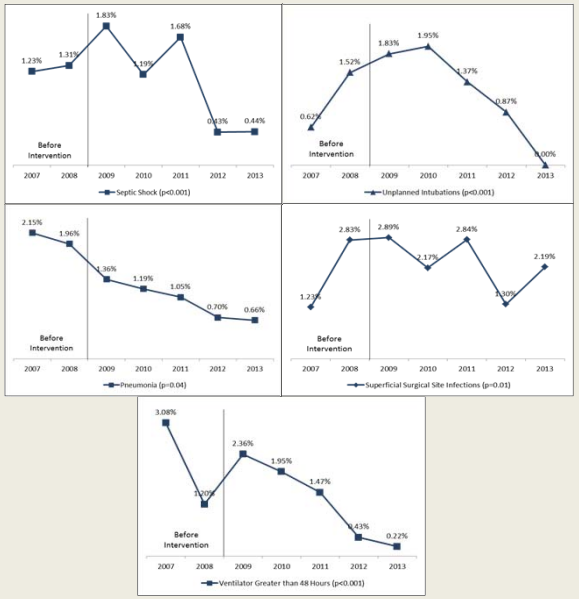


Patient Outcomes

NSQIP 30-day Morbidity & Mortality

Patient outcomes were evaluated using 30-day morbidity and mortality included in the National Surgical Quality Improvement Program (NSQIP) database. The hospital-specific NSQIP database included 1,244 general surgery patients from 2007 to 2008, prior to the intervention, and 5,871 patients from 2009 through 2013, after initiation of the intervention.





Conclusions

This study indicates the effectiveness of a multifaceted, organizational behavior-based approach to perioperative patient safety. Results illustrate that through leadership changes, educational offerings, and targeted communication-based interventions, significant changes in safety culture and, ultimately, patient outcomes can be achieved.