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### Developing A Next Generation Strategic Structure For Sustainable Safety Culture: Utilizing "leading A Culture Of Safety: A Blueprint For Success"

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DEVELOPING A NEXT GENERATION STRATEGIC STRUCTURE  
FOR SUSTAINABLE SAFETY CULTURE:  
UTILIZING "LEADING A CULTURE OF SAFETY: A BLUEPRINT FOR SUCCESS"

Submitted to the Faculty  
Yale University School of Nursing

In Partial Fulfillment  
of the Requirements for the Degree  
Doctor of Nursing Practice

Kami Rapp

May 20, 2018

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Judith Kunisch

Date \_\_\_\_\_

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Kami Rapp

Developing a Next Generation Strategic Structure for Sustainable Safety Culture: Utilizing  
“Leading a Culture of Safety: A Blueprint for Success”

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Yale University

March 28, 2018

Developing a Next Generation Strategic Structure for Sustainable Safety Culture: Utilizing  
“Leading a Culture of Safety: A Blueprint for Success”

Abstract

During the first generation of patient safety, healthcare leaders began to learn about, assess, and try to improve their organization’s safety culture. However, they never developed or agreed upon an evidenced-based tool containing proven strategies to improve safety culture (NPSF, 2015). Though they were successful in making incremental steps toward improvement, safety is not currently an organizational value completely embedded within the healthcare industry (ACHE & NPSF LLI, 2017). As such, the National Patient Safety Foundation’s Lucian Leape Institute, a part of the Institute for Healthcare Improvement, partnered with the American College of Healthcare Executives to write “Leading a Culture of Safety: A Blueprint for Success”, an evidence-based guide designed with tools and strategies for healthcare leaders to improve safety culture in their organizations (ACHE & NPSF LLI, 2017). Armed with a better understanding of safety culture and its role in patient safety, and a guide to improving it, healthcare is entering into the next generation of patient safety.

Leadership in a publicly-owned and academic health system recognized the opportunity to move into the next generation of patient safety by refocusing and reenergizing its initiatives to improve safety culture. First, an analysis of the current state of safety culture was conducted. Next, areas of opportunity were identified by utilizing “Leading a Culture of Safety: A Blueprint for Success” and working with external patient safety experts. Lastly, leadership was engaged in developing a strategic structure that would support sustained safety culture improvement.

## Introduction

Safety culture, as it relates to patient safety in health care, may be defined as the “shared values, beliefs, norms, and procedures related to patient safety among members of an organization, unit, or team” (Weaver, et al., 2013, p. 369). In organizations with strong safety culture, there is a “commitment to safety at all levels, from frontline providers to managers and executives” (AHRQ PSNet, 2017). Attributes displayed are: openness, mutual trust, and lack of individual blame when discussing safety concerns; having appropriate resources to perform the job safely; creating an environment to learn from errors and proactively detect system weaknesses; and transparency and accountability (ANA, 2016). Additionally, strong safety culture is related to certain clinician behaviors, such as increased error reporting and reductions in adverse events, as shown in a systematic review of thirty-three studies (Weaver, et al., 2013).

The Institute of Medicine (IOM) report “To Err is Human: Building a Safer Health System” (1999) served as a catalyst for the patient safety movement. However, while the report called upon health systems to enhance their knowledge of safety and focus on developing safety culture, the work of doing so has progressed far slower than originally anticipated (NPSF, 2015). Improving patient safety is a complex and pervasive problem that permeates multiple layers of a complex healthcare system. Despite the best efforts of healthcare leaders, medical errors resulting in death, hospital-associated infections, or hospital-associated conditions continue to be a concern in healthcare. As such, patient safety remains an important healthcare issue (ACHE & NPSF LLI, 2017; NPSF, 2015).

The first generation of patient safety is defined in this article as the time period from 1999 to 2016. After the IOM report came out in 1999, the healthcare industry began work on multiple interventions and initiatives to make healthcare safer for patients. During this time,

healthcare thought leaders looked to other high-risk, safety conscious industries to better understand safety culture and its role in error prevention. As more was learned about the importance of developing safety culture, healthcare leaders were asked to prioritize that development as the foundation to improving patient safety (ECRI Institute, 2016; NPSF, 2015; TJC, 2017). However, they soon realized that doing so was far more complex than was appreciated when the IOM released its report in 1999 (NPSF, 2015). Though healthcare leaders were beginning to understand the important role of safety culture in preventing patient harm, a set of best practices to improve safety culture had not been developed and agreed on by national patient safety experts (NPSF, 2015). Therefore, despite improvement in specific quality outcomes, such as reduction in hospital-associated infections, systematic improvement in patient safety has been limited (NPSF, 2015).

The next generation of patient safety, as defined in this article, begins in 2017. Healthcare leaders are armed with not only knowledge about safety culture and its role in improving patient safety, but also evidence-based and proven tools and strategies to improve safety culture. In March 2017, the National Patient Safety Foundation (NPSF) and the Institute for Healthcare Improvement (IHI) announced plans to merge in order to combine their knowledge and resources to reenergize patient safety and lead healthcare organizations to build safer healthcare systems across the continuum of care (IHI, 2017). In keeping with their stated objectives, the NPSF's Lucian Leape Institute worked in collaboration with the American College of Healthcare Executives to write "Leading a Culture of Safety: A Blueprint for Success", which was released during the NPSF Annual Patient Safety Congress in May 2017 (NPSF, 2017). Armed with the knowledge, and now the tools, to improve safety culture, healthcare leaders can now enter into



the next generation of patient safety by embedding and sustaining safety as an organizational value within their institutions.

In light of the current trends in healthcare, a publicly-owned and academic health system located in South Texas began work to move its patient safety program into the next generation. Leadership recognized that it needed to refocus and reenergize efforts to improve safety culture so that sustainable improvements in patient safety could be achieved. Therefore, the Patient Safety Officer initiated a project to evaluate the current patient safety culture using four Agency for Healthcare Research and Quality (AHRQ) patient safety culture survey results and patient safety initiatives conducted over a ten-year period. Based on this evaluation, the Patient Safety Officer developed next generation strategic recommendations to further the development and sustainability of safety culture. The aims of the project were (1) to evaluate the current state of safety culture by comparing the results of all patient safety culture surveys administered and inventory efforts and initiatives to improve safety culture; (2) to identify areas of opportunity by utilizing the tools in “Leading a Culture of Safety: A Blueprint for Success” and working with external patient safety experts; and (3) to engage key leadership in the development of next generation patient safety initiatives that would build a strategic structure for sustainable improvement. This project will continue to evolve after the completion of its aims as the strategic recommendations are implemented and improvements in safety culture are monitored.

### **Evaluating the Current State of First Generation Patient Safety**

First generation patient safety work includes taking assessment of an organization’s safety culture. A safety culture assessment survey provides healthcare leaders with a basic understanding of their organization’s perceptions and attitudes toward patient safety and safety

culture. Leaders can use a safety culture assessment in a variety of ways: to help establish a baseline of safety culture; to measure safety culture changes as interventions are performed; to identify areas needing improvement; to raise awareness of patient safety issues; or to benchmark the organization against others (Nieva & Sorra, 2003).

Leaders in nursing services conducted the first survey on safety culture in 2006 as part of their efforts to have the system designated as an American Nurses Credentialing Center (ANCC) Magnet-designated health system. They conducted the safety culture survey using the AHRQ Hospital Survey on Patient Safety Culture. Since then, the survey has been conducted three more times - in 2013 by nursing services, and in 2015 and 2017 by the Patient Safety Officer. In 2017, three different versions of the AHRQ patient safety culture survey were offered: hospital, medical office, and ambulatory surgical center. Employees taking the survey chose which of these three environments they conducted most of their work in, and the correct version of the patient safety culture survey was then administered. This was done to capture the nuances in work environment that are particular to these three different healthcare settings. In order for employees to feel comfortable taking the survey and answering the questions as honestly and candidly as possible, the surveys were all completed anonymously and on a volunteer basis. Health system leadership supported the administration of the survey and used various communication methods to increase participation in the survey, including newsletters, intranet flash ads, emails, health system town halls, weekly departmental information huddles, and daily leadership huddles.

In order to better understand trends in patient safety culture over time, the Patient Safety Officer compiled the results of the surveys into one database and conducted analysis. As part of the analysis, the results were benchmarked internally and externally. Internally, the surveys were

compared year-to-year for all the years they were administered and measured the variance among the survey domains. Externally, the surveys were benchmarked against the AHRQ Comparative Database of patient safety culture surveys. AHRQ maintains a database for the hospital and medical office patient safety culture surveys, and the 2017 surveys were compared to the 2016 AHRQ comparative database. The results of the 2017 survey, along with comparison to historical surveys and the AHRQ comparative database, were disseminated to senior and departmental leadership.

The health system continues to assess patient safety culture and takes steps to improve it. During the first generation of patient safety work, the guiding strategic intent of the organization was to implement patient safety practices so that safety culture would then be built and strengthened. However, the results of the health system's patient safety culture surveys remained largely stagnant. When the Patient Safety Officer compared the results to the AHRQ comparative database, they showed that the health system was below the benchmark in every domain.

In order to understand and appreciate the scope of work being conducted, and its impact on safety culture, the Patient Safety Officer compiled an inventory of efforts and initiatives to improve safety outcomes. To do this, the Patient Safety Officer reviewed the work of several departments and individuals responsible for patient safety, risk management, quality outcomes, and leadership development. In addition, the Patient Safety Officer conducted interviews with key leaders in order to better understand why initiatives were started and what their impact was. The inventory helped improve understanding of the first generation patient safety work being done within the health system; allowed past success to be highlighted; and was used to determine areas of opportunity within the health system as leaders looked to build next generation patient safety strategies.

Table 1 shows the list of current initiatives that have an impact on safety culture. Initiatives are organized by the leadership domains outlined in “Leading a Culture of Safety: A Blueprint for Success” (ACHE & NPSF LLI, 2017). In order to maintain focus on safety culture development during this project, the authors did not include efforts to improve patient safety through process improvement or quality improvement on this list.

### **Identifying Areas of Opportunity for Next Generation Patient Safety**

Patient safety entered into its next generation with the strategic merger of IHI and NPSF in March of 2017. Soon after the merger, the NPSF Lucian Leape Institute (LLI) partnered with the American College of Healthcare Executives (ACHE) to create a guide for healthcare leaders titled “Leading a Culture of Safety: A Blueprint for Success” (ACHE & NPSF LLI, 2017). The following statement is made in its opening letter:

It is our hope that this guide will inspire and motivate, while providing approaches and tactics leaders can implement in driving cultural change, with the goal of elevating healthcare into the realm of recognized industries that have succeeded in reducing error and harm. (ACHE & NPSF LLI, 2017, i)

The guide is organized into six leadership domains. Each provides examples of impactful strategies, broken down into “foundational” and “sustaining” categories (ACHE & NPSF LLI, 2017). In addition, the guide contains an organizational self-assessment tool and proven strategies to improve safety culture.

Spearheaded by the Patient Safety Officer, the guide was used as a tool to conduct a thorough assessment of the health system’s behaviors, practices, and initiatives that contribute to the development of safety culture. The authors found this guide useful because, beyond just describing the domains, it provided self-assessment tools for organizational evaluation. The self-

assessment was performed by the Patient Safety Officer and results were used to identify the leadership domains that the health system was performing well in and those that had to improve. Next, the Patient Safety Officer compared the inventory of current initiatives to improve safety culture, taken during the first phase of the project, against those identified within the guide. Domains in which the health system scored higher on the self-assessment were evaluated against both the foundational and sustaining categories, while domains with lower scores were evaluated using primarily the foundational category. Using the guide in this way ensured a focus on building a strong foundation of safety culture, and not jumping ahead to the sustainment activities in domains that were not yet fully developed.

During this phase of the project, external patient safety experts from the Institute for Healthcare Improvement and the Connecticut Hospital Association were consulted and used as sounding boards to discuss their experience with improving safety culture in healthcare. Their thoughts and perspectives on what success looked like and how to initiate next generation patient safety strategies were considered while developing the areas of opportunity to improve patient safety culture. Table 2 shows the main areas of opportunity to improve patient safety culture identified during this phase of the project.

### **Engaging Leadership in Developing Next Generation Patient Safety Strategies**

The results of the patient safety culture surveys, current initiatives to improve safety culture, and identified areas of opportunity to improve were shared with key senior leadership during a safety culture improvement planning session. During the session, leadership members were engaged and reenergized in their efforts to embed safety as a primary organizational value and expressed their vision for improved safety culture. Which domains within the patient safety culture survey had shown improvement and which domains remained stagnant or declined were

discussed. Leadership asked for a structure to be developed that facilitated better information sharing about patient safety events throughout the leadership team and across the organization, along with a systematic method for categorizing and trending serious safety events. In addition, leadership members suggested that improvements be made in the availability and transparency of data on quality and patient safety metrics so that teams across the organization could use the data to make improvements in the safety and quality of care provided.

Upon completion of the safety culture improvement planning session, a strategic plan to improve patient safety culture was developed. The strategic plan outlined the results of patient safety culture surveys, areas of opportunity identified to improve patient safety culture, a vision statement for safety culture improvement, strategic goals, and strategic actions. Based upon the recognition that a strong foundation is critical for sustained success, the strategic actions were broken down into two categories: immediate and future. Immediate actions were foundational initiatives that would contribute to building a strategic structure into the patient safety program (Table 3) and were implemented between the fourth quarter of 2017 and the first quarter of 2018. Future actions were incorporated into the plan so that leadership had a road map for continued improvement and sustainment of safety culture (Table 4). Future actions will undergo further evaluation and plans for their implementation will be made over the next year. The finalized plan was disseminated to key leadership within the organization and implementation of the immediate strategic actions began.

### **Next Steps**

The work conducted in this project will continue to evolve as strategic actions are carried out and a sustainable structure for improved safety culture is built. Assessments of patient safety

culture and analysis of initiatives to improve it will continue to be conducted and analyzed as leadership works to embed safety as a core value within the organization.

### **Conclusion**

The work of improving safety culture is a relevant healthcare initiative that has the potential to improve the quality and safety of care delivered to patients. It serves as the basis of this project. In order to catapult healthcare into the next generation of patient safety, evidence-based strategic recommendations must be developed and carried forward. However, the development of these recommendations must be done with knowledge, understanding, and assessment of safety culture within one's own organization. Understanding and knowledge of safety culture come from the first generation of patient safety, and are the foundation on which to build the next generation. The guide, "Leading a Culture of Safety: A Blueprint for Success", offers up strategies to healthcare leaders looking to move their organizations into the next generation of patient safety (ACHE & NPSF LLI, 2017). By working with external patient safety experts, and using the ACHE and NPSF LLI guide, a thorough and evidence-based set of next generation strategic recommendations was developed at a publicly-owned and academic health system in South Texas. The work conducted to further develop safety culture in this setting, and the recommendations derived from it, can serve as a resource to other health systems looking to improve safety culture and the safety of care delivered to patients.

## Tables

Table 1.

Current Initiatives Impacting Safety Culture Organized by Leadership Domains from “Leading a Culture of Safety: A Blueprint for Success”

<p>Establish a Compelling Vision for Safety</p>	<ul style="list-style-type: none"> <li>• Vision statement communicates a commitment to continuously improve the health and well-being of all people, and leadership verbalizes the connection between safety, health, and well-being.</li> <li>• Patient safety culture surveys are regularly performed, reviewed by leadership, and steps are taken to improve.</li> </ul>
<p>Value Trust, Respect, and Inclusion</p>	<ul style="list-style-type: none"> <li>• New hire orientation includes a training programs focused on employee behavior standards, diversity, and internal and external customer service.</li> <li>• Patient experience strategy meetings held twice monthly to review patient experience surveys and develop action plans to improve the patient experience.</li> <li>• Most patient education and medical documents available in English and Spanish.</li> <li>• Nurse residency program for new nurse graduates provides quality and safety training and completion of a quality improvement project.</li> <li>• A shared governance model provides nurses with an active voice in their practice and participation in quality</li> </ul>



	<p>and safety improvement projects.</p> <ul style="list-style-type: none"> <li>• Partnership with the health system’s affiliated medical school to send staff through a Clinical Safety and Effectiveness course and completion of a quality improvement project.</li> <li>• Collaborative care model brings a multidisciplinary team together with the patient and family to form care plans and best meet patient needs.</li> <li>• Leaders round on units and departments to learn about their quality and safety improvement projects which are publicly displayed on performance boards.</li> <li>• Employee engagement is evaluated annually and action plans developed to continuously improve.</li> </ul>
<p>Select, Develop, and Engage Your Board</p>	<ul style="list-style-type: none"> <li>• Quality and Patient Safety performance is an agenda item at all Board of Managers meetings.</li> <li>• A Board of Managers member sits on the Quality and Risk Management Committee.</li> </ul>
<p>Prioritize Safety in Selection and Development of Leaders</p>	<ul style="list-style-type: none"> <li>• Leadership development courses focused on critical leadership skills are continuously offered.</li> <li>• Nurse Manager training course includes Safety Culture as a course module.</li> </ul>
<p>Lead and Reward a Just Culture</p>	<ul style="list-style-type: none"> <li>• Nurse Manager training course includes Just Culture as a course module.</li> </ul>

	<ul style="list-style-type: none"> <li>• Daily leadership huddle to discuss immediate safety concerns and to publicly recognize employees performing safe, high-quality work.</li> </ul>
<p>Establish Organizational Behavior Expectations</p>	<ul style="list-style-type: none"> <li>• Employee handbook outlines behavior standards and expectations.</li> <li>• Annual employee evaluation is focused on behavior standards and expectations.</li> <li>• Formal employee recognition program to submit and send recognition for outstanding work performed.</li> <li>• Policies in place defining disruptive behavior or unprofessional behavior; how to report such behavior; and how it is dealt with.</li> <li>• Internal incident reporting system that allows employees to report disruptive behavior.</li> </ul>

Table 2.

Identified Areas of Opportunity to Improve Safety Culture Organized by Leadership Domains from “Leading a Culture of Safety: A Blueprint for Success”

<p>Value Trust, Respect, and Inclusion</p>	<ul style="list-style-type: none"> <li>• Inconsistent communication about improvements resulting from reported safety events leads to a lack of staff awareness about the ongoing efforts to prioritize safety.</li> </ul>
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<p>Prioritize Safety in Selection and Development of Leaders</p>	<ul style="list-style-type: none"> <li>• Lack of a standardized safety event scoring system makes it difficult for leaders to understand the impact safety events have on patients.</li> <li>• Unable to trend a serious safety event rate due to lack of a standardized safety event scoring system, making it difficult for leaders to assess and prioritize efforts to improve patient safety.</li> <li>• Quality and patient safety performance data is housed in multiple information systems which makes it difficult for all leaders to access the data and variability on the data reported.</li> <li>• Action plans from safety event investigations are not completed and closed-out in a timely manner due to competing organizational priorities.</li> <li>• No established method to consistently inform and update leadership about serious safety events leads to inconsistent perceptions on the current state of patient safety.</li> </ul>
<p>Lead and Reward a Just Culture</p>	<ul style="list-style-type: none"> <li>• A perceived punitive response to errors and inconsistent error reporting, as shown in the culture of patient safety surveys.</li> <li>• No defined just culture policy and inconsistent understanding of just culture principles among</li> </ul>

	leadership.
Establish Organizational Behavior Expectations	<ul style="list-style-type: none"> <li>• Lack of a formal recognition program for units/departments that perform well in quality and patient safety categories.</li> </ul>

Table 3.

Immediate Strategic Actions to Improve Safety Culture Organized by Leadership Domains from “Leading a Culture of Safety: A Blueprint for Success”

Value Trust, Respect, and Inclusion	<ul style="list-style-type: none"> <li>• Improve availability of the quality and patient safety dashboard by regularly pushing out the dashboard to leadership throughout the health system and affiliated medical school.</li> </ul>
Prioritize Safety in Selection and Development of Leaders	<ul style="list-style-type: none"> <li>• Develop a safety event notification algorithm to determine when and how to notify senior leadership about safety events as soon as possible.</li> <li>• Implement a standardized safety event scoring system so that leaders and staff may begin to understand the effect that safety events have on patients.</li> <li>• Further develop the quality and patient safety dashboard to include definitions of quality and patient safety metrics and context behind the numbers so that leaders may learn about and better understand patient safety and</li> </ul>

	<p>safety events.</p> <ul style="list-style-type: none"> <li>• Establish a serious safety event rate and track the rate over time on the quality and patient safety dashboard so that leadership will be regularly informed about safety performance.</li> <li>• Develop a leadership safety event review committee comprised of senior leadership that will review safety events and have oversight and input on action plans to prevent similar events in the future.</li> <li>• Develop a daily report on the previous twenty-four hours of reported safety events for key leadership so that they may stay informed and be able to action on safety incidents.</li> </ul>
<p>Establish Organizational Behavior Expectations</p>	<ul style="list-style-type: none"> <li>• Develop and implement an awards program for quality and patient safety achievements so that recognition may be given to units/departments that are excelling in their performance.</li> </ul>

Table 4.

Future Strategic Actions to Improve Safety Culture Organized by Leadership Domains from  
 “Leading a Culture of Safety: A Blueprint for Success”

<p>Select, Develop, and Engage Your Board</p>	<ul style="list-style-type: none"> <li>• Continue to find ways to further engage the Board of Managers in the work of improving patient safety and safety culture should remain a top priority. Ideas for how to do so may be found in the guide “Leading a Culture of Safety: A Blueprint for Success”.</li> </ul>
<p>Lead and Reward a Just Culture</p>	<ul style="list-style-type: none"> <li>• Expand just culture classes beyond nursing leadership to include leadership in all clinical and non-clinical areas.</li> <li>• Establish a corporate just culture policy and use a just culture algorithm when reviewing events and making decisions on employee discipline.</li> </ul>

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