

IMPROVING PATIENT SAFETY
THROUGH STRUCTURAL EMPOWERMENT

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DEDICATION

I dedicate this DNP project to my late father, John Atmospera, who has motivated and instilled in me the value of education. He will not be able to see me receiving my doctorate because he passed away in 1999. I will always remember his wisdom, warm voice, and his daily mantra, “Study hard because your education is the only inheritance I can provide you that no one could take away from you. If I give you money, and you would spend it, you would become penniless. If I give you a home, and you would sell it, you would become homeless. If I will pay for your education, and you have an asset forever that you could use to survive when I am gone.” My heart is filled with love and some of the fondest memories as I am writing these words.

Lastly but not the least, The Just Culture Education program is also dedicated to the Just Culture Team and all stakeholders of the Shriners Hospital for Children in Honolulu, but most especially to my External Advisor, Andrea Kubota. Therefore, through my DNP project, it is with optimism and hopes that the community of the Shriners Hospital organization-wide will be able to benefit from this Just Culture Education pilot program in implementing it in every Shriners Hospital in the nation and international for the sake of improving patient safety.

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ABSTRACT

In November 1999, the Institute of Medicine (IOM) issued the Report, “To err is human, building a safer health system” (Kohn, Corrigan, & Donaldson, 2000). The report revealed evidence that doctors and other health care professionals can make mistakes. The report also stated a lesser known the fact that the US health care system was not doing enough to prevent these mistakes, and preventable medical errors killed as many as 98,000 people a year (Kohn, Corrigan, & Donaldson, 2002). Deaths from medical errors to was compared to that from three fully loaded jumbo jets crashing every other day (Consumer Reports Health, 2009, p.2).

To address and improve patient safety, healthcare organizations have looked to the Just Culture Model. Just Culture is an environment where errors are readily disclosed, an essential element for patient safety to become a reality (Vogelsmeier, A., & Scott-Cawiezell. 2007). Examples of human factor issues are a lack of communication or miscommunication, fatigue, fear of speaking up, a culture of blame, and shame (Gorini, A., Miglioretti, M., & Pravettoni, G. 2012). The American Nurses Association published a Position Statement on Just Culture in 2010. “The American Nurses Association (ANA) supports the Just Culture concept and its use in healthcare to improve patient safety (ANA, 2010). The ANA supports the collaboration of state boards of nursing, professional nursing associations, hospital associations, patient safety centers, and individual health care organizations in developing regional and statewide Just Culture initiatives” (p. 1).

The primary objective of this DNP project is to implement an Evidence-Based strategy that creates a Just Culture at Shriners Hospital for Children in Honolulu. The interventions to support the innovation, the characteristics of the plan, sampling information, data collection procedures, and program evaluation plan were organized using two Models: a) the American Nurses Credentialing Center (ANCC) Magnet Model, and b) the ACE Star Model of Knowledge.

The two models were merged to show how the content and process models could be combined and was used as the guiding model for the DNP.

Twenty-two staff participated in the Just Culture Education program. All the staff participants worked in the inpatient pilot unit. Participants were RNs, HR (Human Resources) personnel, PI (Performance Improvement) PCA (Patient Care Assistant) and staff, with no reported title designation. This project evaluated the changes in employee perception of the patient safety culture before and after having gone through to a Just Culture education delivered as an interactive workshop. Overall the training results are positive with participant gains in knowledge and confidence in Just Culture competencies. Results on the training content indicated satisfaction while the format, i.e., a mix of lecture and discussion, though viewed favorably could be further examined for areas of improvement. The promising results will help support full implementation at Shriners' Hospital for Children in Honolulu, and other Shriners' Hospitals nationwide. The staff has taken the first step as evidenced by increased candor in their responses to 2016 AHRQ survey. With these results, SHCH has now a foundation to move toward the culture of safety.

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LIST OF ABBREVIATIONS

ACE.....	Academic Center for Evidence-Based Practice
AER.....	Adverse Event Report
AHRQ.....	Agency for Healthcare Research
ANA.....	American Nurses Association
ANCC	American Nurses Credentialing Center (an ANA Program)
AORN	Association of periOperating Registered Nurses
CINHAL	Cumulative Index to Nursing and Allied Health Literature
CNO	Chief Nursing Officer
CDC	Centers for Disease Control
CUS.....	Concerns, Uncomfortable, Safety (an AHRQ Program)
CUSP.....	Comprehensive Unit-based Safety Program (an AHRQ Program)
DNP.....	Doctor of Nursing Practice
EBP	Evidence-Based Practice
HR.....	Human Resources
HRO	High Reliable Organization
IOM.....	Institute of Medicine
JC	Just Culture
JCO	Joint Commission Organization
OVID.....	Search Engine linking Medline of Ovid Technologies
PDCA.....	Plan, Do, Check, Act
PDC/SA.....	Plan, Do, Check/Study, Act
PCA.....	Patient Care Assistant
PI.....	Performance Improvement

PICPerformance Improvement Committee
PICOProblem/Population, Intervention, Comparison, Outcome
PubMed..... National Library of Medicine
QI Quality Improvement
QO..... Quality Outcome
QI/EBP Quality Improvement / Evidence-Based Practice
RN.....Registered Nurse
SBAR Situation, Background, Assessment, Recommendation
SH Shriners Hospitals
SHCH.....Shriners Hospital for Children Honolulu
STAR Point..... Conceptual Model
TeamSTEPPS..... Team Strategies to Enhance Performance and Patient Safety
UCLA..... University of California Los Angeles
VA..... Veterans Administration

CHAPTER 1. EXECUTIVE SUMMARY

Introduction

Background of the project

In November 1999, the Institute of Medicine (IOM) issued the Report, “To err is human, building a safer health system” (Kohn, Corrigan, & Donaldson, 2000). The report revealed evidence that doctors and other health care professionals can make mistakes. The report also stated a lesser known the fact that the US health care system was not doing enough to prevent these mistakes, and preventable medical errors killed as many as 98,000 people a year (Kohn, Corrigan, & Donaldson, 2002). Deaths from medical errors was compared to that from three fully loaded jumbo jets crashing every other day (Consumer Reports Health, 2009).

To address and improve patient safety, healthcare organizations have looked to the Just Culture Model. Just Culture is an environment where errors are readily disclosed, an essential element for patient safety to become a reality (Vogelsmeier, A., & Scott-Cawiezell, 2007). Examples of human factor issues are a lack of communication or miscommunication, fatigue, fear of speaking up, a culture of blame, and shame (Gorini, Miglioretti, & Pravettoni, 2012). The American Nurses Association published a Position Statement on Just Culture in 2010, which states: “The American Nurses Association (ANA) supports the Just Culture concept and its use in healthcare to improve patient safety (ANA, 2010). The ANA supports the collaboration of state boards of nursing, professional nursing associations, hospital associations, patient safety centers, and individual health care organizations in developing regional and statewide Just Culture initiatives” (p. 1).

Conceptual Framework

A conceptual nursing practice model was used as a framework for implementing the Just Culture program into nursing practice. The interventions, the characteristics of the plan,

sampling information, data collection procedures, and program evaluation plan will be organized using two Models: a) the American Nurses Credentialing Center (ANCC) Magnet Model and b) the ACE Star Model of Knowledge. The two models were merged to show how the content and process models could be combined and will be used as the guiding model for the Doctorate of Nursing Practice (DNP).

Literature Review and Synthesis

In the current literature, there is limited research on the effect or impact of a just culture model on improving employee perceptions on patient safety culture. The 43 articles selected for the literature synthesis were based on Mosby's tool, and they were sorted into four main sub-concepts: (1) patient safety and medical errors, (2) patient safety and Just Culture, (3) patient safety and structural empowerment, and (4) patient safety and Magnet Recognition.

Innovation/Objectives

The purpose of the Just Culture program is to educate the staff about the principles, concepts, and elements of Just Culture to improve or eliminate the punitive culture that has been perceived by the staff. The Just Culture Education program consisted of a two-hour education session for staff. This project highlighted the changes in perception of patient safety culture before and after having received a Just Culture education delivered as an interactive workshop.

Methods

Design

This evidence-based practice project will use quality improvement design to evaluate the effectiveness of a Just Culture program on patient safety, staff's communication openness, non-punitive culture, and staff's feeling of empowerment by speaking up without fearing punishment. Follow-up evaluation will be conducted by administering the 2017 AHRQ Patient Safety and Culture Survey to the clinician and non-clinician staff at SHCH.

Practice change description

The Improving Patient Safety with Just Culture Education is an innovative project which involved all the staff and leadership of the Shriners Hospital for Children in Honolulu. This DNP project implemented a pilot project in the inpatient nursing unit only. As there is not a single Just Culture program that can be immediately implemented, the Change Team will be utilizing EBP strategies and tools in developing the Just Culture Education program. The AHRQ Comprehensive Unit-based Safety program (CUSP) (AHRQ, 2015), the TeamSTEPPS (Strategies and Tools to Enhance Performance and Patient Safety) System (AHRQ, 2013) and the Just Culture Champion program of David Marx will be utilized in implementing the Just Culture program.

Setting and sample

Setting. The Just Culture program was implemented at the Shriner's Hospital for Children in Honolulu (SHCH) a pilot program at the in-patient unit. SHCH is a licensed 24-bed pediatric orthopedic hospital dedicated to providing patients with the finest hospital and medical care possible, is the setting of the DNP project. The hospital serves children up to the age of 18. Children are accepted for care from birth until their 18th birthday without regard to their ability to pay, race, nationality, color, creed, sex or religion. Care can extend to a patient age of 21 provided the patient's condition is treatable by SHCH. Since the opening in 1923, over 43,000 children from around the world, as far as Afghanistan, all of the Pacific Rim Nations such as Korea, Philippines, Malaysia, Samoa, Micronesia, and the Hawaiian Islands have been treated at SHCH for orthopedic injuries, diseases, and birth defects. Currently, SHCH has 190 employees.

Sample. The Just Culture program was implemented at SHCH as a pilot program at the in-patient unit, and all the data collection also took place at SHCH. Twenty-two staff participated in the Just Culture Education program. All the staff participants worked in the inpatient pilot

unit. Participants were Registered Nurses (RNs), Human Resources (HR) personnel, Performance Improvement (PI), Patient Care Assistant (PCA) and staff, with no reported title designation.

Data Collection

Pre-post education data were collected from the staff of the pilot unit who participated in the Just Culture education program. A pre-and post-evaluation after each class was administered, and on-line survey questions were sent to the participants one week after the completion of the last Just Culture education class. Participants were given two weeks to do their responses to the online survey.

Results

Description of Participants

Twenty-two staff participated in the Just Culture Education program. All the staff participants worked in the inpatient pilot unit. Participants were RNs, HR personnel, PI staff, PCAs, and staff, with no reported title designation. Nine (9) Just Culture Education sessions were given at different times. Nineteen (n=19) evaluations were completed.

Data Analyses Findings

Process evaluation results. The process evaluation was conducted to determine whether the planned activities of the project were implemented (CDC, 2011b). Qualitative and quantitative data were collected. The process evaluation instruments used included (1) Activity Tracking Checklist, (2) Continuous Activity Improvement Monitoring, (3) Attendance sheets and (4) Before and after Just Culture Class evaluation.

Training Results. Training was conducted from July to December 2016, and 19 employees who were primarily nursing staff completed the pre-post training surveys. Over 58%

of staff that participated rated the overall training as “very good or excellent” with an average rating of the training as 3.7 (sd=0.93) on a 1 to 5-point scale.

Discussion

Interpretation of Results

The trainees’ Knowledge and Confidence had a statistically significant increase in both measures ($p=0.000$). Knowledge measures from a mean of 3.1 to 4.2 and Confidence measures increase from 3.4 to 4.3 for Confidence on a 5-point scale. Results on a total of six of the nine on Communication Openness, Handoffs and Transitions, Non-Punitive Response to Error were somewhat mixed in increases in positive responses on question items before Just Culture implementation in 2015, and after implementation of Just Culture in 2016. Results on a total of six of the nine questions showed positive improvements. For Communication Openness and Handoffs and Transitions, one and two items decreased respectively in positive responses and while all items for Nonpunitive Responses increased.

Implications

The Just Culture education program was implemented as a pilot for possible future implementation organization-wide at the Shriners Hospital for Children in Honolulu. Results will also be shared with the twenty-three Shriners Hospital nationwide.

Limitations

Barrier to implementation was assessed and identified before, during and after the Just Culture education workshop. Lack of Time to attending or fully attending the education was a barrier in participation. Providing training time to staff away from the demands of their daily work environment is a primary recommendation for implementing of Just Culture.

CHAPTER 2. PROBLEM

Introduction

The DNP site for this project will be at the Shriner's Hospital for Children in Honolulu (SHCH). The national network of Shriners Hospitals (SH) is focused on improving patient safety through culture change at their individual facilities. Each facility is surveyed biannually using the Agency for Healthcare Research and Quality (AHRQ) Patient Safety and Culture Survey.

Responses are analyzed centrally, and the national composite and individual score shared with individual facilities. The target individual hospital score is 70% or greater.

SHCH completed the survey in 2013 and 2015 and results showed a patient safety grade score less than the 70% mean target score with little progress between 2013 and 2015. SHCH leaders are concerned and committed to improving patient safety.

Shriners International, (commonly known as "The Shriners"), is a society established in 1870 and headquartered in Tampa, Florida, USA. It is an appendant body of the Fraternity of Freemasonry. The Shriners describe themselves as a fraternity based on fun, fellowship, and the Masonic principles of brotherly love, relief, and truth. There are approximately 350,000 members, known as Nobles or The Shriners, from 195 temples (chapters) in the U.S., Canada, Brazil, Mexico, the Republic of Panama, the Philippines, Puerto Rico, Europe, and Australia. Two of the Nobles, Walter M. Fleming, MD, and William J. Florence developed the idea for SH and are considered the founders. In 1920, at The Shriners - Imperial Council Session the Nobles voted to establish "Shriners Hospital for Crippled Children." The first hospital opened in 1922 in Shreveport, Louisiana, and the second hospital in 1923 in Honolulu, Hawaii.

Today, The Shriners charitable arm is SH with twenty-three hospitals in the United States, Mexico, and Canada. The per-capita fees from its members, donations, contributions, and bequests from individuals, gifts, and grants from foundations, and fundraising activities by the

Shriners' fraternal organization, combined with the income from The Shriners Endowment Fund, provide the working capital and capital improvement budget to build and to operate SH. Each of SH receives its operational and capital improvement funding from SH Endowment Fund.

The primary objective of this DNP project is to create a plan for implementing culture change using the structural empowerment model to improve patient safety. This chapter will provide a brief background of the project, the extent of the problem, results of literature synthesis, the innovation, and the proposed outcome.

Background

In November 1999, the Institute of Medicine (IOM) issued the Report, "To err is human, building a safer health system" (Kohn, et.al., 2000). The report revealed evidence that doctors and other health care professionals can make mistakes. The report also stated a lesser known fact, that the US health care system was not doing enough to prevent these mistakes, and preventable medical errors killed as many as 98,000 people a year (Kohn, et al., 2000). The IOM report co-author, Dr. Lucian Leape compared deaths from medical errors to three fully loaded jumbo jets crashing every other day (Consumer Reports Health, 2009, p.2).

One of the IOM key recommendations was for greater attention to incident reporting in healthcare, similar to the role it has played in aviation and other high-risk industries (Kohn, et al., 2000). Sixteen years later, patient safety has not improved. The 2014 National Healthcare Quality and Health Disparities Report documented improvement in some areas while concluding that performance on many measures of quality remains "far from optimal." According to (Landrigan, C. P., Parry, G. J., Bones, C. B., Hackbarth, A. D., Goldmann, D. A., & Sharek, P. J., 2010). Study of 10 hospitals, there has been little change in patient safety, and the rate of patients suffering harm during hospital stays from errors or inadvertent problems which showed no improvement over six years.

In 2015, (Mitchell, I., Schuster, A., Smith, K., Pronovost, P., & Wu, A., 2015) interviewed 111 international patient safety experts, and found that patient safety and the rate of medical errors have not substantially improved. Their interviews revealed five key challenges as to why incident reporting has not reached its potential. (1) Poor processing of incident reports, (2) Inadequate engagement of doctors, (3) Insufficient subsequent visible action, (4) Inadequate funding and institutional support of incident reporting system, and (5) Inadequate usage of evolving health information technology.

Studies have shown that organizational efforts to address errors by changing policies, scrutinizing staff for adverse events, or forming governance councils have not improved patient safety. To reduce the rate of medical errors, an organization must acknowledge and deal with the human factors (Sirota, R.L., 2005). The reality is that errors will inevitably occur sooner or later so long as humans are involved (Porter-O'Grady, T., & Malloch, K., 2015).

To address and improve patient safety, healthcare organizations have looked to the Just Culture Model. A Just Culture is an environment where errors are readily disclosed, an important element for patient safety to become a reality (Vogelsmeier, 2007). Examples of human factor issues are a lack of communication or miscommunication, fatigue, fear of speaking up, a culture of blame, and shame (Gorini, A., Miglioretti, M., & Pravettoni, G., 2012).

The American Nurses Association published a Position Statement on Just Culture in 2010, and it reads as follows: "The American Nurses Association (ANA) supports the Just Culture concept and its use in healthcare to improve patient safety. The ANA supports the collaboration of state boards of nursing, professional nursing associations, hospital associations, patient safety centers, and individual health care organizations in developing regional and statewide Just Culture initiatives" (p. 1).

Marx stated “a just culture balances the need for an open and honest reporting environment with the end of a quality learning environment and culture. While the organization has a duty and responsibility to employees, all employees are held responsible for the quality of their choices. Just culture requires a change in focus from errors and outcomes to system design and management of behavioral choices of all employees” (Marx D.A. 2015).

Problem/Population, Comparison, Outcomes (PICO) Statement

The hallmarks of the mission of the Shriners Hospitals for Children (SHC) are patient safety and high-quality care. To evaluate where they are on patient safety, all the twenty-two (22) SHC completes the AHRQ Patient Safety Culture Survey every two years. The Shriners Hospital for Children in Honolulu (SHCH) completed the AHRQ Patient Safety and Culture Survey in 2013 and in April 2015. The 2015 AHRQ Patient Safety and Culture Survey assessed the entire staff (nursing & ancillary support) on twelve different dimensions. The 2013 – 2015 Composite AHRQ Patient Safety and Culture Survey Summary of 22 US Shriners Hospitals found that many of the Shriners Hospitals failed to meet the 70% target score, with less than a 60% positive response, which included SHCH. Subsequently, the national office of Shriners Hospitals identified three focus areas for national action and the most opportunity for improvement, and the core of the DNP project is to improve SHCH score on these three focus areas, and they are as follows:

1. Communication Openness
2. Handoffs & Transitions
3. Nonpunitive Response to Error

Refer to Table 1 below for the problem and purpose statement.

Table 1

PICO and Purpose Statement

P	I	C	O
Problem / Population	Intervention	Comparison	Outcome
Punitive Culture and or Perceived Unhealthy Work Environment among Nursing and other Staff at SHCH	Just Culture Education Program	Current Culture, 2015 AHRQ Patient Safety Culture Survey Results on 3 Focus Areas 1. Nonpunitive Response to Error 2. Handoffs and Transitions 3. Communication Openness	Reduction or Elimination of Perception of Punitive Culture Change in Staff Attitude in Adverse Events Reporting

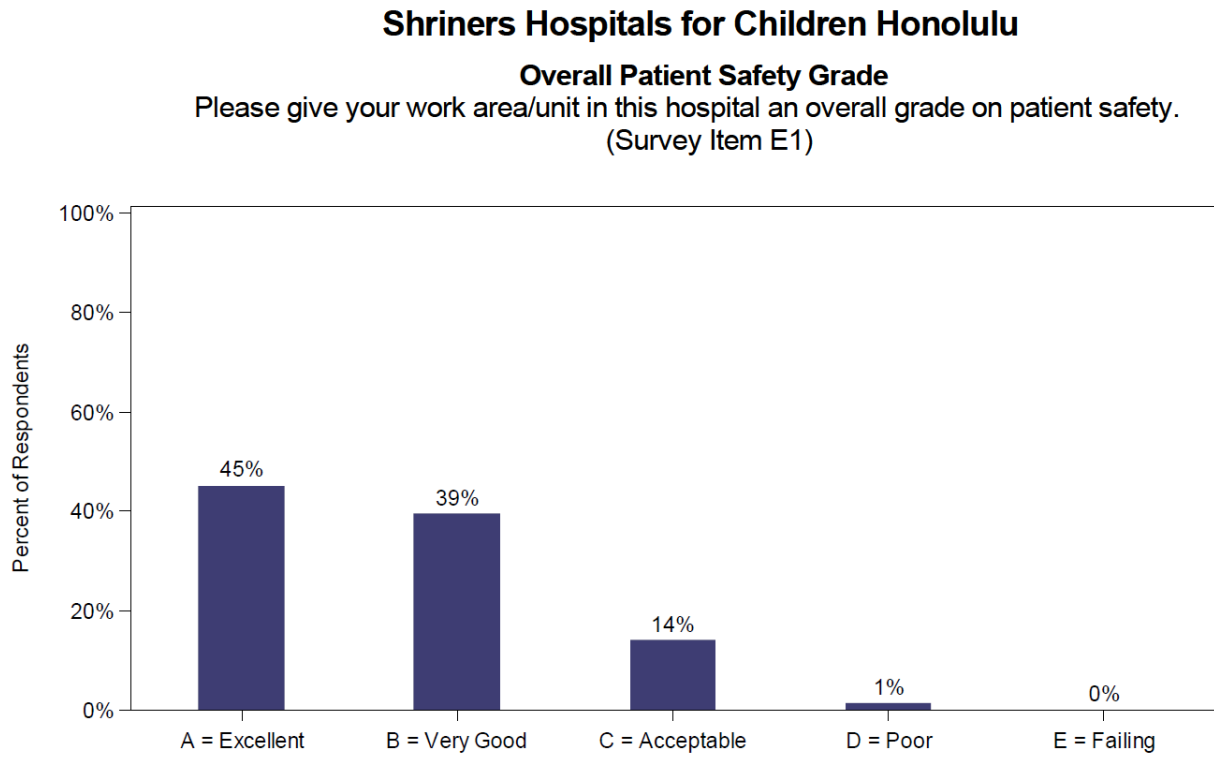
Purpose statement

The purpose of the Just Culture program is to educate the staff in the pilot unit, which is the in-patient unit, about the principles, concepts, and elements of Just Culture to improve or eliminate the punitive culture that has been perceived by the staff.

Leadership was not surveyed. 73 participants rated results on 2015 Overall Patient Safety Grade, by the degree of positive response and were as follows: 45% graded for Excellent, 39% for Very Good, 14% for Acceptable, and 1% for Poor. The SHCH findings are like the scores at other SH and are less than the minimum targeted of 70%. More importantly, the 2015 score did not vary significantly from the 2013 score.

The results of the overall patient safety grade and each of the three dimensions of the 2015 AHRQ Patient Safety and Culture Survey, in which this project will focus and evaluate are illustrated in the following graphs:

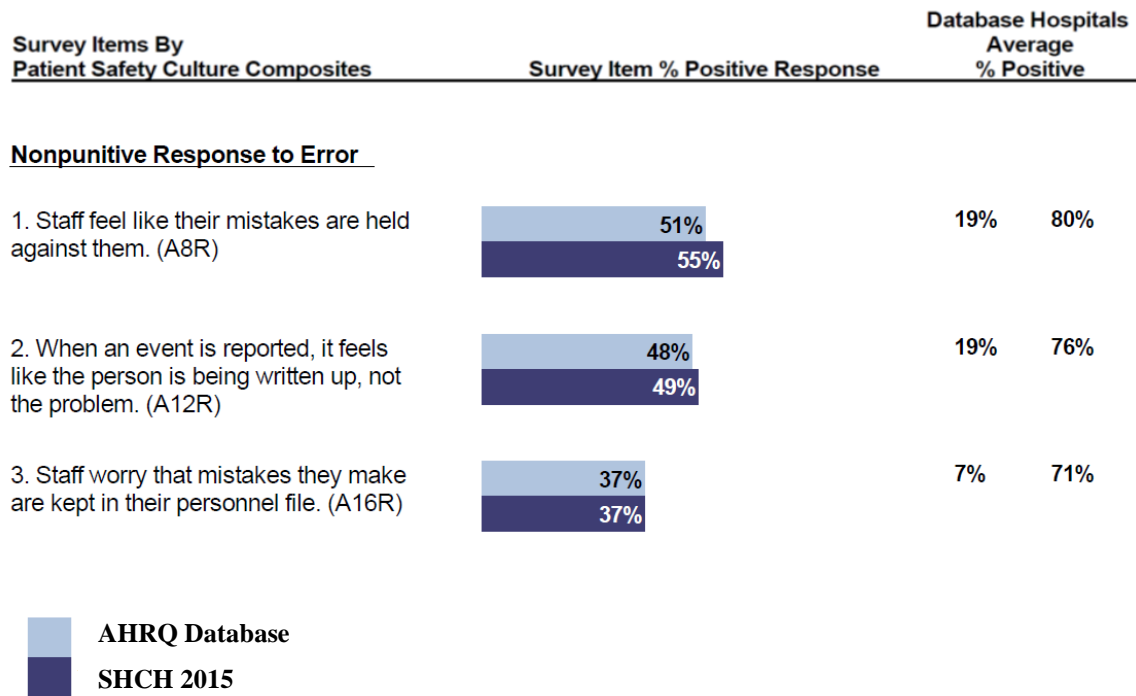
Figure 1.



Notes: 1) Item level data does not display for fewer than 3 respondents; 2) Percentages may not add to 100 due to rounding.

Overall Patient Safety Grade

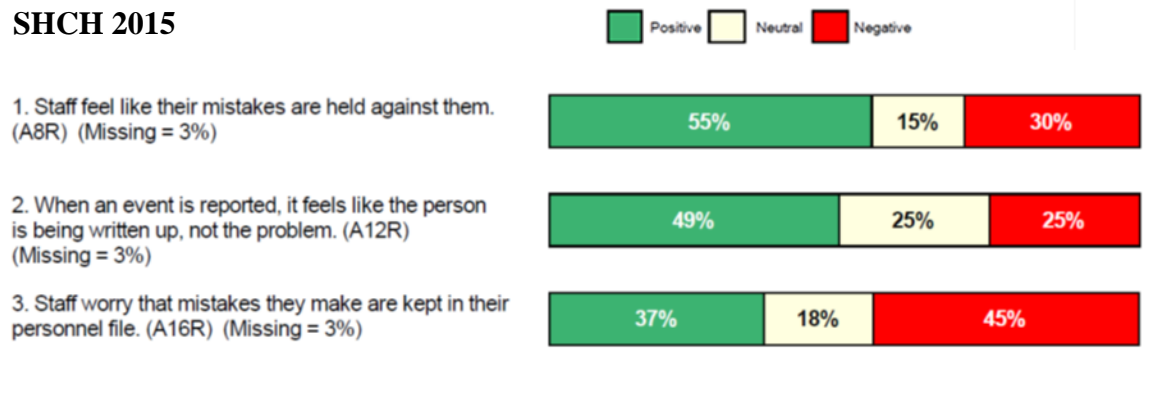
Figure 2.



Notes: 1) Comparative results are based on data from 680 hospitals included in the Hospital Survey on Patient Safety Culture 2016 Comparative Database Report; 2) "R" = a negatively worded item; 3) Item data are not displayed for fewer than 3 respondents.

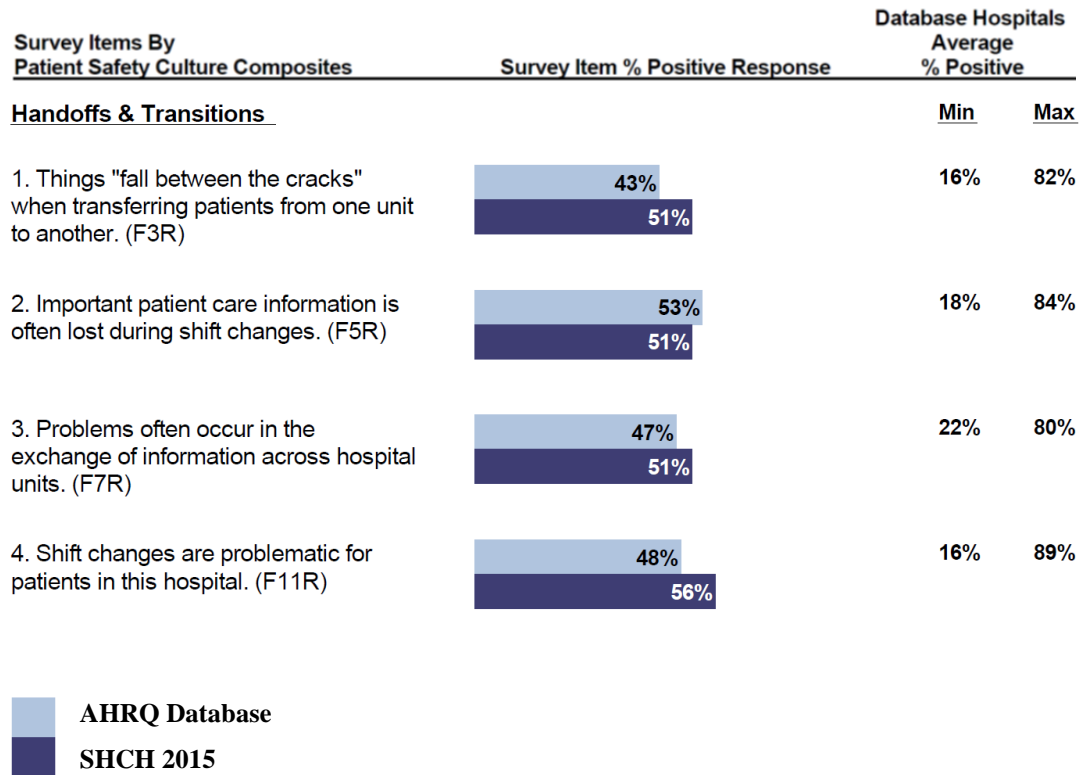
Nonpunitive Response to Error, SHCH Compared to AHRQ Database

Figure 3.



Patient Safety Survey Results in SHCH 2015 Survey, Nonpunitive Response to Error.

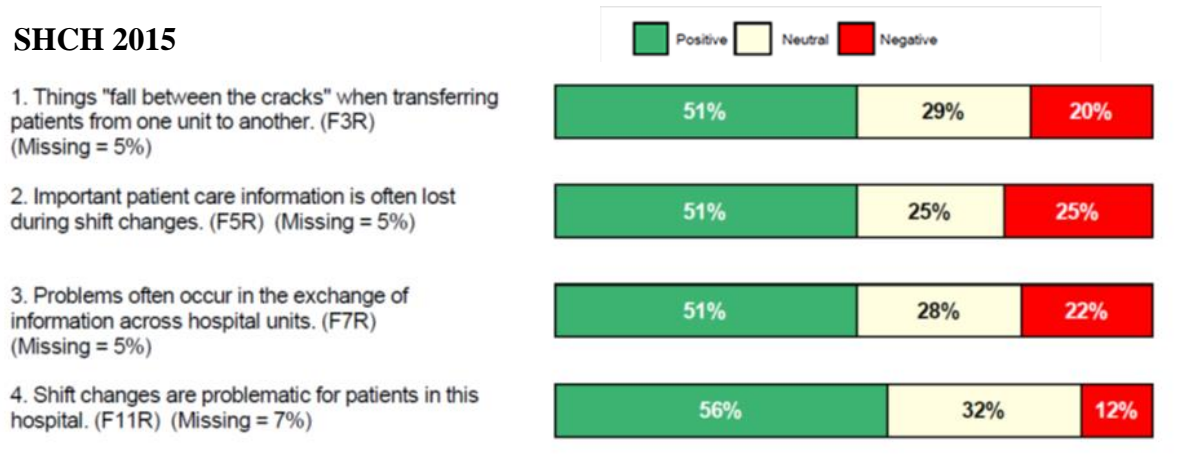
Figure 4.



Notes: 1) Comparative results are based on data from 680 hospitals included in the Hospital Survey on Patient Safety Culture 2016 Comparative Database Report; 2) "R" = a negatively worded item; 3) Item data are not displayed for fewer than 3 respondents.

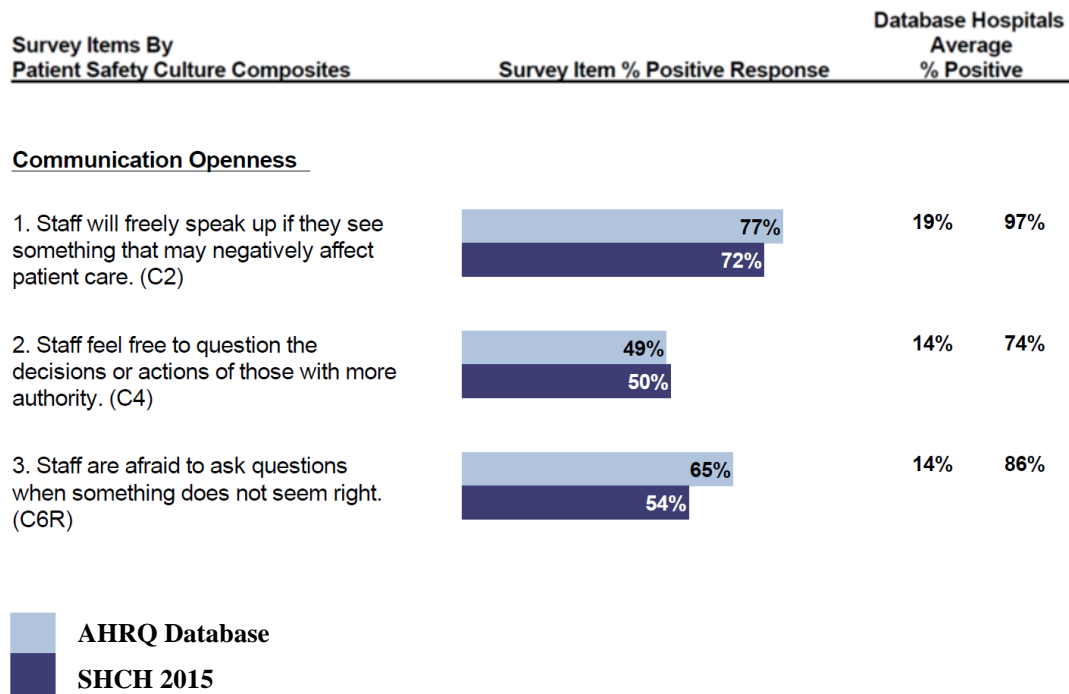
Handoffs & Transitions, SHCH Compared to AHRQ Database

Figure 5.



Patient Safety Survey Results in SHCH 2015 Survey, Handoffs & Transitions.

Figure 6.

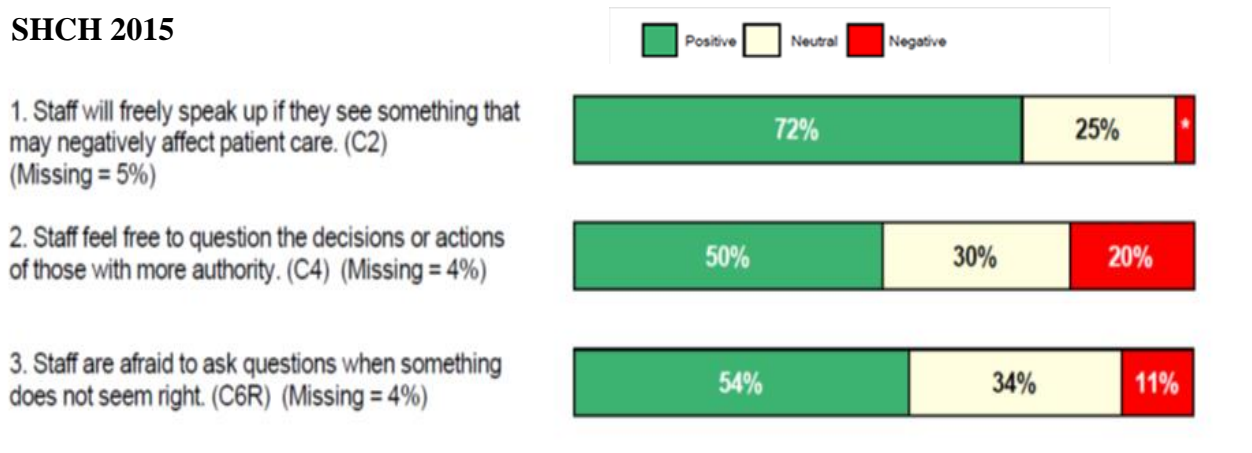


Notes: 1) Comparative results are based on data from 680 hospitals included in the Hospital Survey on Patient Safety Culture 2016 Comparative Database Report; 2) "R" = a negatively worded item; 3) Item data are not displayed for fewer than 3 respondents.

Communication Openness

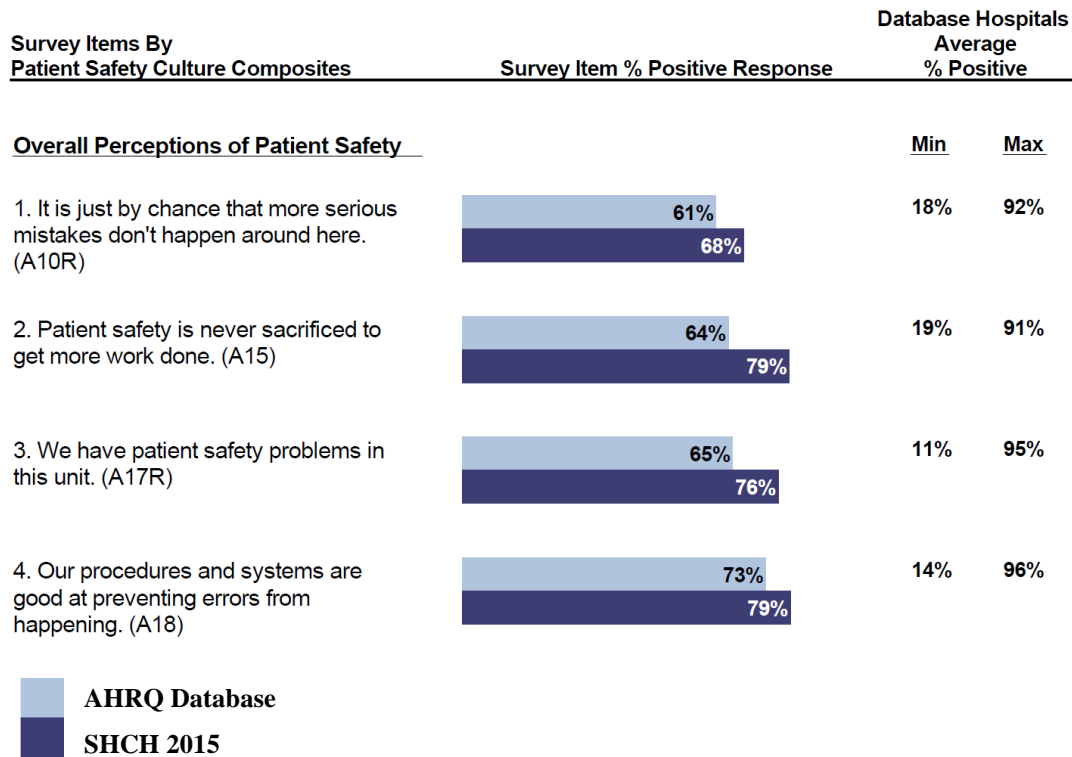
Figure 7.

SHCH 2015



Patient Safety Survey Results in SHCH 2015 Survey, Communication Openness.

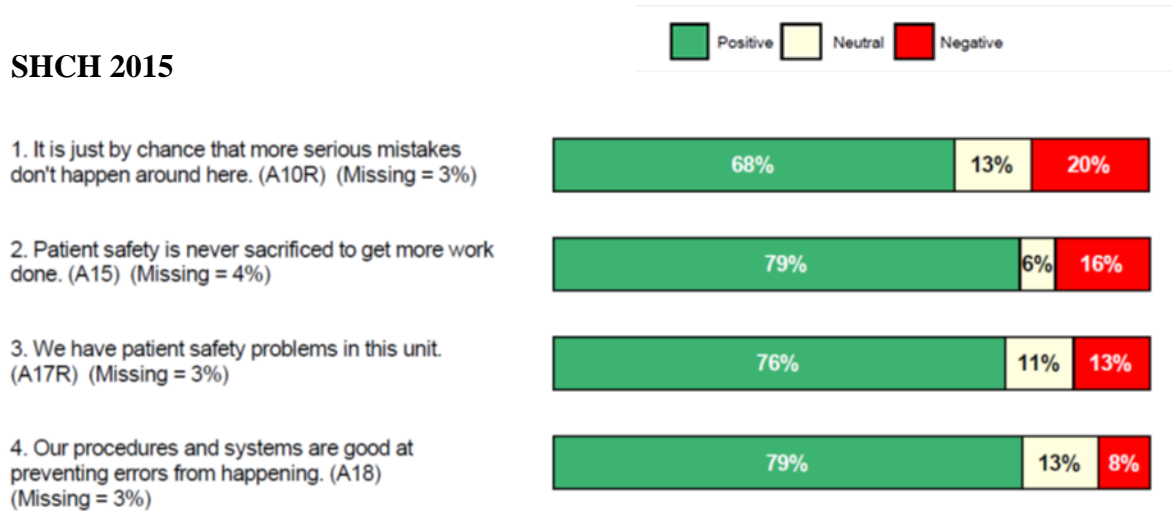
Figure 8.



Notes: 1) Comparative results are based on data from 680 hospitals included in the Hospital Survey on Patient Safety Culture 2016 Comparative Database Report; 2) "R" = a negatively worded item; 3) Item data are not displayed for fewer than 3 respondents.

Overall Perception of Patient Safety

Figure 9.



Patient Safety Survey Results in SHCH 2015 Survey of Overall Perception of Patient Safety

Based on the results of the 2013 and 2015 surveys, SHCH administration believes that a “Punitive Culture” exists and is affecting the quality of care. SHCH understands the benefit of using evidence-based strategies to promote quality care and practice change and seeks to improve their ratings of a Just Culture.

Triggers at the DNP Site

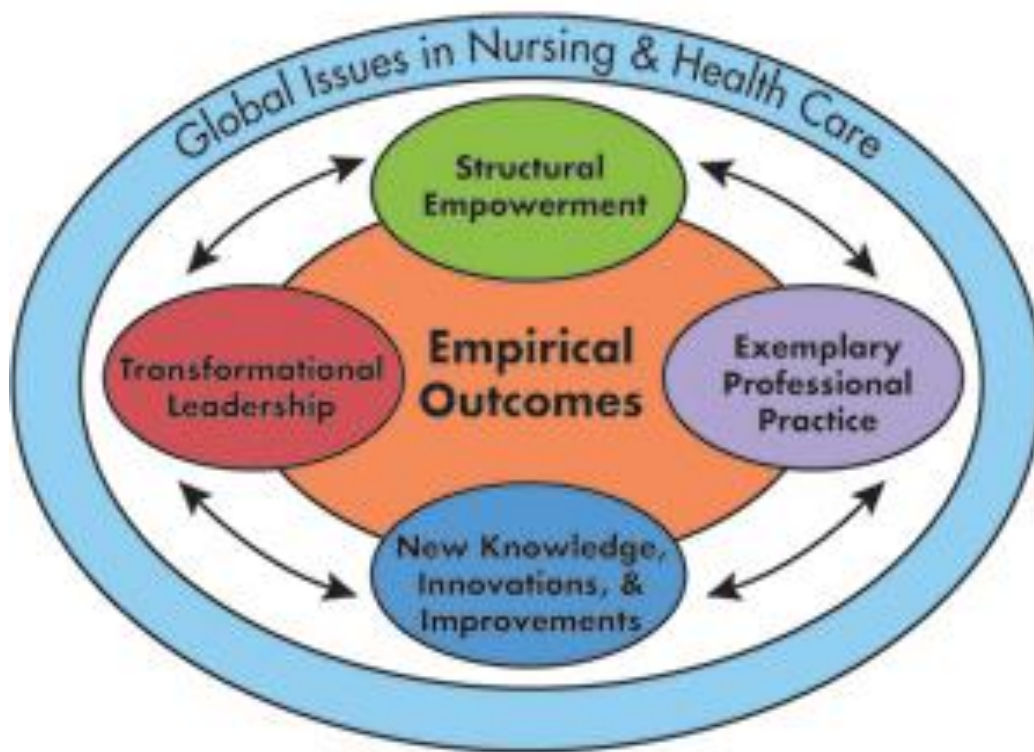
In a Just Culture program, the triggers are knowledge-focused (Titler, M. G., Kleiber, C., Steelman, V.J., Rakel, B. A., Budreau, G., Everett, L.Q. Goode, C. J., 2001), to encourage the staff to cooperate or accept the “Just Culture Program.” This first trigger is balanced by the supportive attitude of the SHCH Administration. The other trigger is workload, and consistent with Green who indicated that at the practice level, providers contend with high caseloads, meeting the needs of a variety of clients and their families, and relationships with peers and supervisors, while consumers bring their needs, preferences, and expectations (Green, A., & Aarons, G., 2011., p.2). This is considered a trigger at SHCH as higher workload with not enough staff, increases the risk of carelessness, which contributes to making errors. In addition to wanting to change the perceived “Punitive Culture,” and to improve patient safety and quality of care, SHCH also desires to become the second of twenty-three Shriners Hospitals in the nation to be a Magnet Recognized hospital and is preparing to undertake the Magnet designation. Anticipation of the Magnet application in the future, SHCH wants to start with creating the Just Culture transition using the structural empowerment component of the Magnet Model.

The primary objective of this DNP project is to create a plan for implementing Culture Change using the structural empowerment model to improve patient safety. The pilot area identified by leadership will be the SHCH inpatient unit.

Conceptual Framework

A conceptual model for DNP practice is used as a foundation for implementing the Just Culture program into nursing practice. One of the models that will be utilized is the ANCC Magnet Model. The ANCC Magnet program has five Model Components with the 14 Forces of Magnetism as the foundation of the program (ANCC, 2008).

Figure 10.



ANCC Magnet Model.

The five components of the ANCC Magnet Model are transformational leadership, structural empowerment, exemplary professional practice, and new knowledge, innovations, & improvements.

“Structural Empowerment,” is a solid structure and process for Just Culture and creative environment for employees – Clinical Ladder, Continuing Education, Community Involvement,

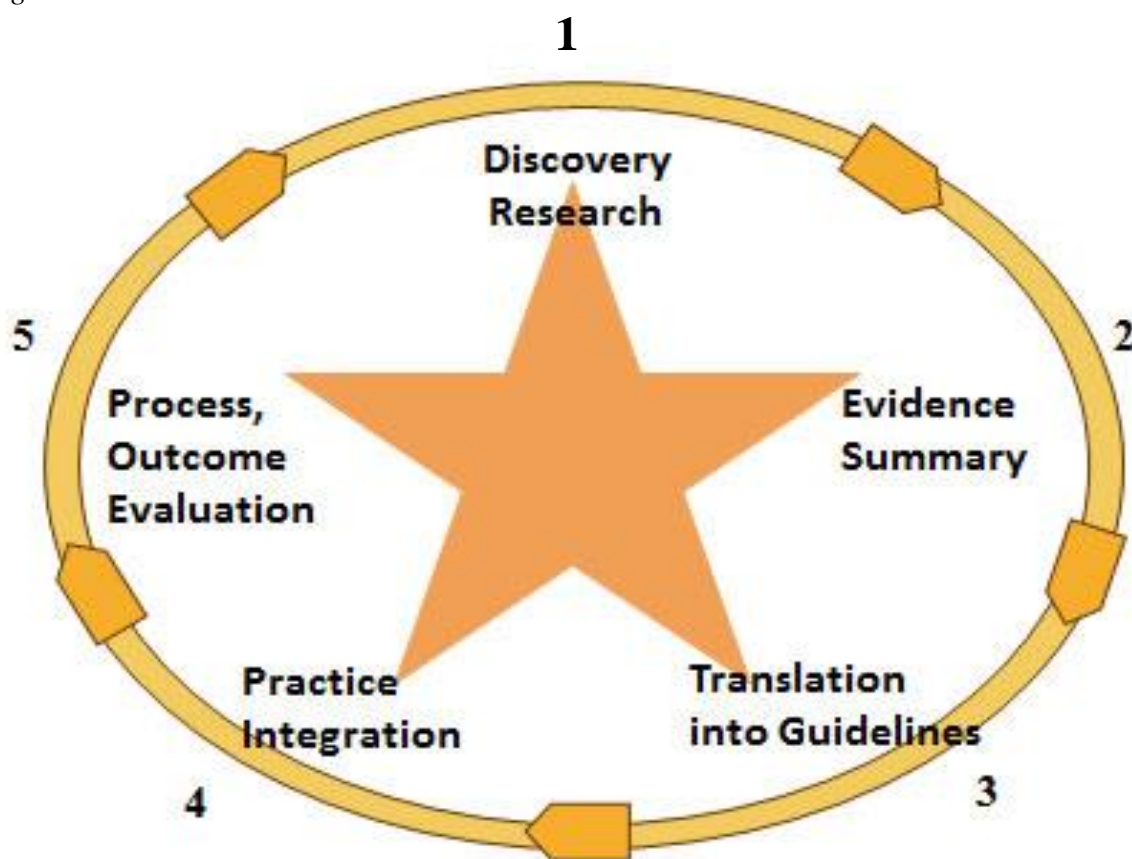
Shared Decision Making, and Recognition of Nursing and has five of the 14 Forces of Magnetism:

- (a) Organizational Structure – Force No. 2
- (b) Personnel Policies and Programs – Force No. 4
- (c) Community and the Healthcare Organization – Force No. 10
- (d) Image of Nursing – Force No. 12
- (e) Professional Development – Force No. 14

The Executive Director of SHCH is a nurse leader who believes that to foster patient safety a structurally empowering work environment must be created. The ANCC Magnet Recognition Model may improve the perceived punitive culture environment at SHCH. SHCH agreed to implement Structural Empowerment, one of the five ANCC Magnet Components, which provides a solid structure and process for Just Culture. Education must start with the leadership and administration to garner their support and acknowledgment of leadership accountability to the process (Panten & Torrance, A., 2014). The Structured Just Culture Education for leaders and administrators is addressed under the Transformational Leadership component of the ANCC Magnet Model. According to the ANCC Magnet model, the fluidity of the process is transparent as indicated by the arrows pointing in both directions.

Since the ANCC Magnet Model addresses content, another conceptual model is needed to integrate the Evidence into Practice. The ACE Star Model of Knowledge Transformation, Figure 11, was developed by Kathleen Stevens as a simple yet comprehensive framework and approach for the systematic integration of evidence into practice. The literature also described that hospitals preparing for Magnet Recognition utilized the ACE Star Model. The ACE Star Model is similar to the ANCC Magnet model in that it has five stages.

Figure 11.



ACE Star Model.

Stages of the five-point ACE Star Model

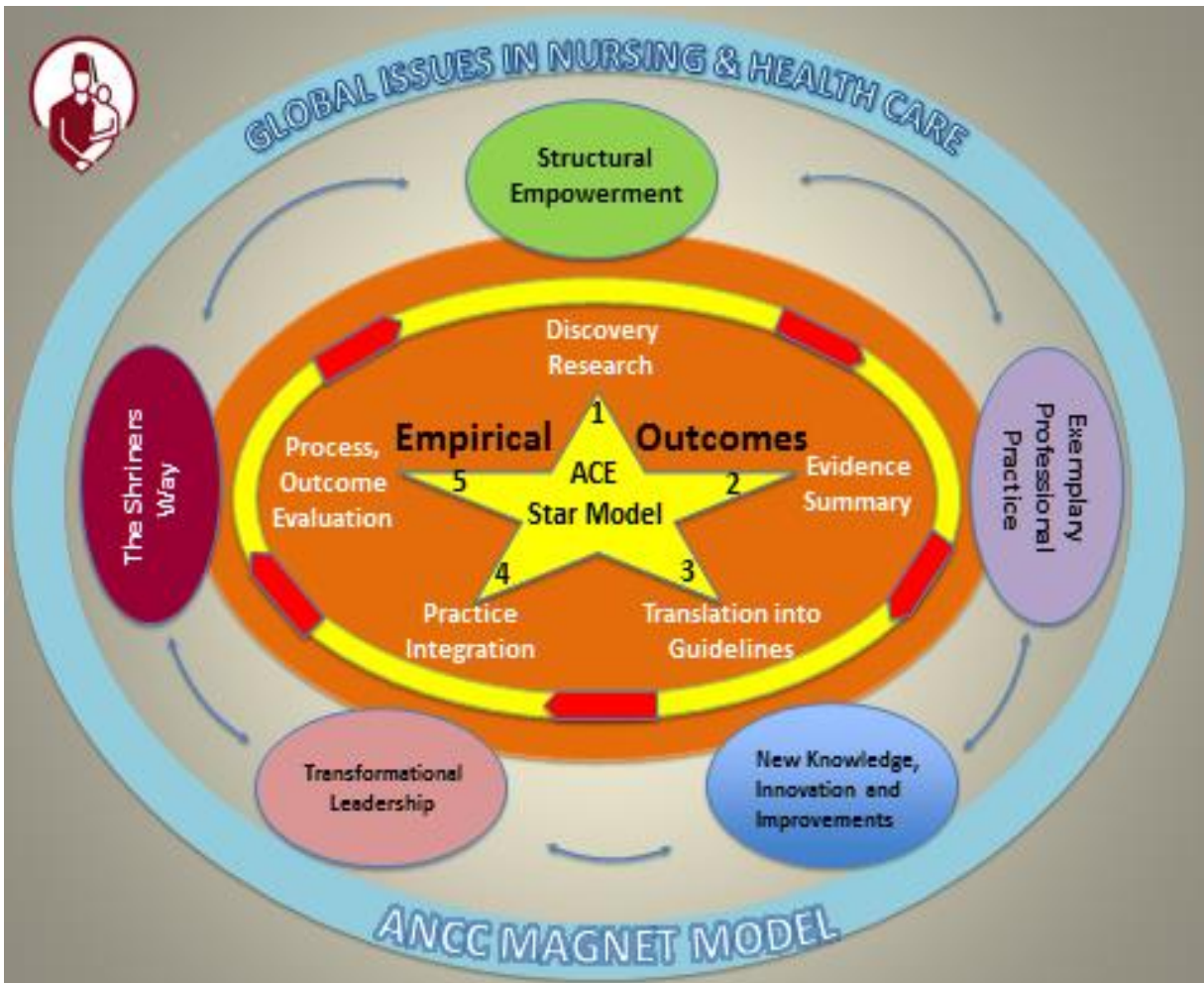
1. STAR Point 1, Discovery Research: This is the knowledge-generating stage that represents the primary research studies. Resources are from Bibliographic Databases such as CINAHL - providing single research reports, in most cases, multiple reports;
2. STAR Point 2, Evidence Summary: It is synthesizing of all the available knowledge compiled into a single harmonious and meaningful statement, such as systematic review. Resources for this stage can come from Cochrane Collaboration Database of Systematic Reviews, which provides reports of rigorous systematic reviews on clinical topics;

3. STAR Point 3, Translation into Action / Guidelines: This is often referred to as evidence-based clinical practice guidelines, combining the evidence base and expertise to extend recommendations. Resources for this point are the National Guidelines Clearinghouse, sponsored by the Agency for Healthcare Resource Quality (AHRQ) providing online access to evidence-based clinical practice guidelines. There are two stages at this point - translation of evidence into practice recommendation and integration into practice;
4. STAR Point 4, Practice Integration: This is the evidence in action stage, in which the practice is aligned to reflect the best evidence. Resources for this point is the AHRQ Health Care Innovation Exchange, sponsored by AHRQ that provides profiles of innovations, and tools for improving care processes, including adoption guidelines and information to contact the innovator. It is the most common stage, which involves changing both the individual and organizational practices through formal and informal channels;
5. STAR Point 5, Process, Outcome Evaluation: This is the comprehensive view of the impact that the evidence-based practice has on patient health outcomes, provider, and patient satisfaction; satisfaction; efficacy and efficiency of care; health policy, economic analysis, and health status impact. The resources for the final point come from National Quality Measures Clearinghouse, sponsored by AHRQ, providing detailed information on quality measures and measure sets (Stevens, K., 2013).

According to Bashaw (2011), the fusion of Magnet principles and the Just Culture can produce a global healthcare culture focused on creating safer healthcare systems through disclosure, transparency, and public reporting (Bashaw, E. S., 2011). Therefore, to illustrate this fusion, the two models have been blended and to reflect the mission of the Shriners Hospitals, we

added one more component, titled “Shriners Way.” The ACE Star has been placed inside the Empirical Component since empirical outcomes are the factual evidence and the ACE Star is the tool to integrate the evidence into practice, as shown in Figure 12.

Figure 12.



Merged ANCC & ACE Star Model.

The Proposed Conceptual Model (created by blending the ANCC Magnet Model and ACE Star Model for Practice Change).

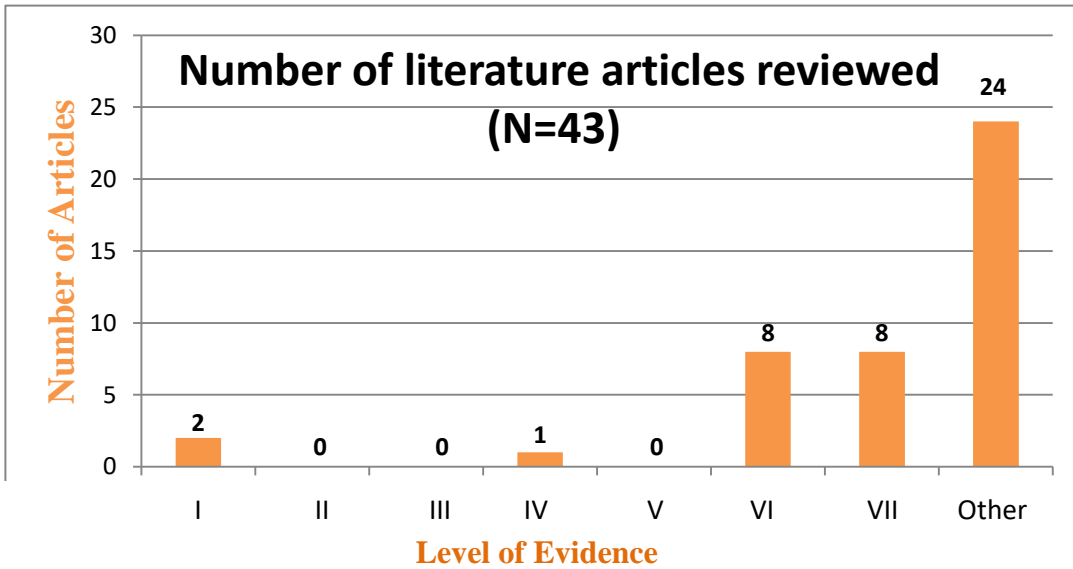
Literature Review & Synthesis

STAR Point 1, Discovery Research

Search Strategy. Research studies and articles were retrieved using electronic searches from the National Library of Medicine’s PubMed database and the Cumulative Index to Nursing and Allied Health Literature (CINAHL) database, Cochrane, Google Scholar, and OVID. The Agency for Healthcare Research and Quality (AHRQ) Evidenced Based Handbook on Magnet environments was also reviewed for this synthesis. Search terms and phrases were used included “Medical Errors,” “Magnet,” “Magnet Recognition,” “Structural Empowerment,” “Just Culture,” “Punitive Culture,” “Safety Culture,” “Patient Safety,” “Staff Satisfaction,” and “Shared Governance.”

Number of Studies. Over two hundred articles were found using the term “Magnet Recognition,” but the majority of these articles fell into editorial, white paper, interpretive, or narrative categories. The narratives mainly described how an individual organization prepared for or achieved ANCC Magnet recognition. However, the two search terms that yielded the most articles were “structural empowerment” yielding 167 articles while the search term “Just Culture” produced 137 articles. A total of 108 articles that supported Magnet Recognition, Patient Safety, Structural Empowerment, Medical Errors, and Punitive Culture were retrieved, and 43 were critiqued and graded for this review and consisted mostly of literature reviews (see Figure 13).

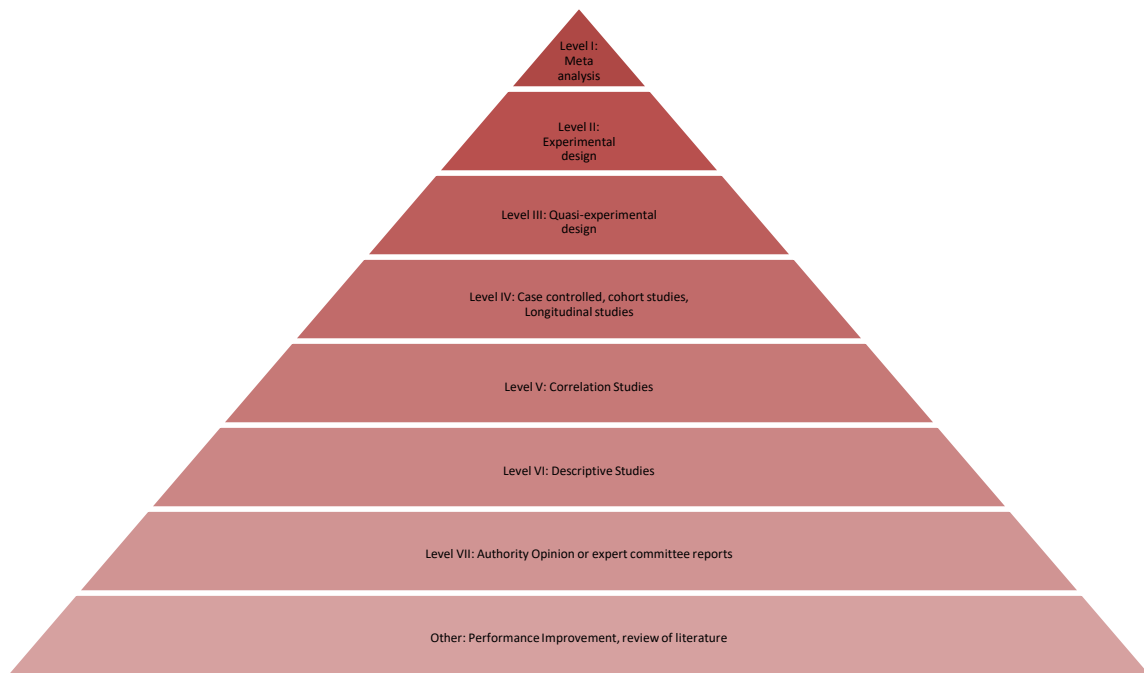
Figure 13.



Number of Literature Articles Reviewed and Critiqued.

Grading Tool Used. The 43 articles selected for the literature synthesis were based on Mosby’s tool, with two articles reviewed meeting the highest level, Meta-analysis. There were no randomized controlled trials in any of the articles reviewed. Level VI, descriptive studies and level VII, authority opinion reports, yielded the most with eight articles each, and 24 articles are classified as Other. The majority of the literature is comprised primarily of descriptive reports from the field and national policy setting groups.

Figure 14.



Mosby's Literature Review Tool.

STAR Point 2, Evidence Summary and Synthesis

Patient Safety and Medical Errors. The landmark report in the field is the Institute of Medicine (IOM) report, “To Err is Human: Building a Safer Health System” (Kohn, et al., 2000). The report revealed evidence that doctors and other health care professionals can make mistakes. The report also stated a lesser known fact that the US health care system was not doing enough to prevent these mistakes, and preventable medical errors killed as many as 98,000 people a year (Kohn, et al., 2000, Level V1). The IOM report co-author, Dr. Lucian Leape, compared deaths from medical errors to three fully loaded jumbo jets crashing every other day, killing everyone on board (Consumer Reports Health, 2009, p.2).

In the IOM report, it was highlighted that medical harm was mainly due to systemic problems and the IOM laid out a clear plan for the nation to address medical errors such as: (1)

setting national goals for patient safety, (2) developing evidence-based knowledge and understanding of errors in healthcare, (3) calling for voluntary and mandatory reporting efforts, (4) calling on healthcare organizations and providers to commit to patient safety improvement by providing leadership, implementing nonpunitive systems for reporting and fixing errors in their organizations, incorporating proven safety principles, and establishing interdisciplinary team efforts, and (5) reducing medical errors by 50% within 5 years (Clancy, C.M., 2009).

Healthcare organizations, governmental agencies, professional associations, and others have tried to work extensively to meet IOM's recommendations on patient safety and yet over ten years after the report was released, individuals are not any safer, and in some instances, medical errors became worse. In 2009, the Consumer Union's Safe Patient Project evaluated the nation's Patient Safety Status to assess if the IOM recommendations resulted in improved patient safety. The project team found that medical harm still accounts for 100,000 deaths each year or over a million in the last ten years after the IOM report was published (Consumer Union Report, 2009). The project gave the country a failing grade on progress on selected recommendations from the IOM, i.e., a national system for transparency was not created.

These findings are similar to Clark's (2009) report that more than 20 years after the IOM groundbreaking report, medical errors are a still widespread problem. He estimated that more than 1.5 million people have been sickened, injured, or killed by medication errors each year since the report was issued and approximately 1.7 million people have battled illnesses due to hospital-acquired infections, with tens of thousands dying (Clark, C., 2009).

Patient Safety and Just Culture. For nurses to be able to prevent errors, they must feel empowered to speak up in front of others, can detect errors early, and intervene immediately. Organizations must be proactive and supportive in developing efficient and EBP educational programs and tools that address the critical thinking skills that are necessary for decision-making

to execute a timely intervention to prevent harm when risks are identified (Henneman, et. al., 2012, Level V1). Providing adequate resources and support for nurses at the point of care is emphasized to increase their situational awareness or ability to discover errors before harm reaches the patient. Therefore, healthcare organizations have begun adopting a Just Culture as a critical framework for improving the safety and quality of patient care (Khatri, N., Brown, G. D., & Hicks, L. L., 2009, Level V1; Marx, 2001, Level V11).

Creating an open, fair, and Just Culture relies on developing administrative and managerial competencies that appropriately hold individuals accountable for their behaviors and investigates the behavior that led to the error (Marx, 2001). Behaviors that healthcare providers should be accountable for include human error or reckless behavior. Human errors are defined as an inadvertent action like a slip, lapse, or mistake. For this type of error, managers console the staff and implement changes to the process, procedures, training, and design. The manager becomes a coach and removes incentives for At-Risk behaviors, creates incentives for healthy behaviors, and increases situational awareness. For reckless behavior, the remedial or punitive action is recommended (Marx, 2001).

Organizations that adopt the Just Culture model accept errors will occur with and without negative outcomes (Bashaw, 2011, Level V1). “Approaches that focus on punishing individuals instead of changing systems provide strong incentives for people to report only those errors they cannot hide. Thus, a punitive approach shuts off the information that is needed to identify faulty systems and create safer ones. In a punitive system, no one learns from their mistakes,” (Leape, 1999, p. 1). He further stated that the greatest impediment to error prevention is that we punish people for making mistakes.

If you are human, you are going to make an error as people make errors (Porter O’Grady, 2015, Level V11). Errors can have devastating results. In health care, morbidity and sometimes

mortality are followed by identifying who made the error and identified punishment to follow. The culture of individual blame is still dominant in traditional healthcare and impairs the advancement of a safety culture. However, the punitive approach does not solve the problem. People function within systems designed by the organization. Therefore punishing the people without changing the systems only perpetuates the problem rather than solving it. Having a blame-free environment is not the answer either as some errors warrant disciplinary action (Boysen, P., 2013, Level V1).

Therefore, the goal is finding a balance between the extreme of punishment and blamelessness. Hence, the model of Just Culture has been introduced in the healthcare sector (Dekker, & Nyce, 2013, Level V1). A Just Culture balances the need for an open and honest reporting environment with employees ultimately learning from their experience. The organization has a duty and responsibility to their employees and their patients, but employees are held responsible for the quality of their choices. Marx (2001) stated that a Just Culture requires a change in focus from errors and outcomes to system design and management of the behavioral choices of all employees. A Just Culture focuses on identifying and addressing systems issues that lead individuals to engage in unsafe behaviors while maintaining personal accountability with zero tolerance for reckless behavior.

The Just Culture environment differentiates between human error (i.e. slips), and at-risk behavior (i.e. taking shortcuts) and reckless behavior (i.e. ignoring required safety steps, in comparison to an overarching “no-blame” approach (Marx, 2001). The Institute for Safe Medication Practice (ISMP) stated in their report that a wholly blame free culture is neither feasible nor desirable, and they recommended that organizations and leaders prioritize three actions to improve quality and safety: (1) changing punitive environment, (2) ending incentives for unsafe behaviors, and (3) changing systems once problems were identified (ISMP, 2006 &

2007). Dr. Leape also stated in his address to the Congress that the problem with “Blameless Culture” is the lack of individual accountability, which undercuts the motivation to improve (Leape, L., 2000).

The Just Culture concept arose out of the recognition that accountability must be coupled with fairness (Marx, 2001). The two key concepts are: (1) Humans inevitably makes mistakes and (2) Accountability is shared at all levels of the organization. Given the premise of human error, adverse events should be considered outcomes to be measured and monitored with the goal of reducing errors and improving system design; while the staff is accountable for the quality of their choices, health care organizations are accountable for the systems that they have designed. Caregivers should be held blameless when systems or processes allowed the error to happen (Panten & Torrance, 2014).

Safety minded Just Culture has advantages over punitive and non-punitive cultures. Until the 1900’s, many healthcare organizations responded to errors with punitive measures, then to increase error reporting, an attempt was made to implement non-punitive cultures and replace punitive ones (ISMP, 2006). Also, in 2006, Hader recommended substituting the concept of non-punitive with Just Culture (Hader, R., 2006). In non-punitive environments, staff members are not disciplined for honest mistakes, and if staff members are not held accountable for any mistakes, non-punitive cultures may perpetuate the reckless behavior (JCAHO, 2008; Hader, 2006).

In a Just Culture, incidents are reviewed, and it is determined if the error resulted from a system process, negligent, or reckless behavior. The ISMP identified reckless behavior as rare but blameworthy (JCAHO, 2008). Reckless workers perceive the risk, understand the substantial risk, and make a conscious decision to disregard the risks. Healthcare workers engaging in reckless behavior should be counseled or disciplined according to an accountability model that is

fair to all employees. When staff members know, the organization will investigate systems that lead to errors and respond fairly to reckless behavior, there is more willingness to identify other problem-prone systems (Marx, 2005).

A qualitative meta-analysis review of safety culture literature generated a conceptual culture of safety that is composed of seven elements; (1) leadership, (2) teamwork, (3) evidence-based, (4) communication, (5) learning, (6) just, and (7) patient-centered (Samner, et al., 2010, Level1). Safety culture is a complex phenomenon that is not clearly understood by hospital leaders, thus making it difficult to operationalize. These authors found that senior leadership accountability is the key to an organization-wide culture of safety (Sammer, C. E., Lykens, K., Singh, K. P., Mains, D. A., & Lackan, N. A., 2010).

In the National Safety Foundation review, many case studies of exemplary organizations demonstrated that to correct problems regarding respect, civility, engagement, and worker safety, hospitals, and other health care organizations need to have strong policies and provide training on the conduct, reporting, and responses to problems (Institute for Healthcare Improvement, 2005). Governing boards need to take responsibility to review timely postings of data and stories, set objectives, and monitor progress.

Patient Safety and Structural Empowerment. Kanter's Structural Empowerment Theory is the most popular empowerment theory discussed in the literature (Castro, C.B., Perinan, M.M.V., & Bueno, J.C.C., 2008; Hauck, A., Quinn Griffin, M. T., & Fitzpatrick, J. J. 2011; Wong & Laschinger, H.K.S., 2013). It involves focusing on the organization and the work environment instead of the individual. This supports the Just Culture principle of an emphasis on the system as opposed to the individual that committed the error.

Rosabeth Moss Kanter's (1977) empowering strategies have been used as the theoretical framework for some studies changing the nursing environment (Lashinger, et al., 2001 & 2003;

Mangold, K. L., Pearson, K. K., Schmitz, J. R., Scherb, C. A., Specht, J. P., & Loes, J. L., 2006; McCartan & Hargie, 2004). Kanter's structural empowerment theory provides the foundation for encouraging managers and leaders to create high-quality work environments that foster trust and enhance work effectiveness. Nurse managers need to share information and authority for empowerment to occur at the staff level (Kanter, R.M., 1977).

Empowerment helps staff gain confidence to share systems problems when they identify them, but education strategies need to be provided to nurses to increase empowerment (Kanter, 1993). There are four components contributing to creating a healthy work relationship among employees: (1) access to support, (2) access to resources), (3) access to information, and (4) opportunity with formal and informal power (Cowden, T.L., & Cummings, G.G., 2012; Laschinger et al., 2012; Laschinger, et al., 2009; McDonald et al., 2010; Stein & Kanter, 1980).

Structural Empowerment is one of the five components of the Magnet Recognition Model. Magnet is a designation that the ANCC has provided to healthcare organizations that have elected to put excellence into patient care. Accompanying this designation is the feeling of superiority in patient care outcomes (Kooker & Kamikawa, 2009). Magnet believes that quality outcomes can be achieved in hospitals that practice the four domains – structural empowerment, exemplary professional practice, transformational leadership, and new knowledge, innovation, and improvements (Grant, B., Colello, S., Riehle, M., & Dende, D. (2010).

In Armstrong & Laschinger's (2006) nonexperimental exploratory study, preliminary evidence suggests the significant relationships between workplace empowerment, professional practice environment conditions, and a culture of patient safety. Their results are consistent with suggestions made by IOM's (2004) "Keeping Patients Safe: Transforming the Work Environment of Nurses." Armstrong & Laschinger further stated that the combination of structural empowerment and Magnet hospital characteristics was a significant predictor of staff

nurses' perceptions of a patient safety climate. Structural Empowerment provides an environment where teamwork can bloom by encouraging staff to become accountable for their behavior (Tinkham, M. R., 2014).

Patient Safety and Magnet Recognition. The Magnet Recognition Program has become the apex of achievement for nursing practice. A Magnet designation has become the pinnacle of nursing achievement, and organizational nursing success, denoting the organization has attained excellence in both nursing practice and practice standards. Exploring the relationship between Magnet components and Just Culture helps to understand the timely necessity of the shift to Just Culture innovations in health care (Bashaw, 2011). Just Culture and the Magnet Model share a crucial element: Structural Empowerment. Research on Magnet facilities has been primarily been with cross-sectional surveys using convenience samples. According to Bashaw (2011), the fusion of Magnet principles and a Just Culture can produce a global healthcare culture focused on creating safer healthcare systems through disclosure, transparency, and public reporting. Research regarding the difference between Magnet status versus not. Kelly, McHugh, & Aiken (2011) concluded that Magnet hospitals demonstrated to be a better workplace environment for more highly educated nurses on staff. The hospitals included in this study were teaching hospitals, which may have motivated the nurses to strive for higher education. Kelly, McHugh, & Aiken (2011) found these Magnet hospitals had the lower patient to nurse staff ratios. The staff nurses had fewer patients each with fewer burnouts documented, and overall higher job satisfaction was detected. This study concluded that Magnet hospital status should be considered the “best practice” moving forward for not just nurses, but physicians and hospital administrators. These findings support the push to achieve this coveted Magnet status ranking and should be a goal for all hospitals (Kelly, L. A., McHugh, M. D., & Aiken, L. H., 2011).

Weaknesses, limitations, and gaps. The most significant limitations of the body of knowledge include articles that were written and described well but may have been motivated toward financial benefits. The samples also lacked comparisons groups as most of the articles were written to report on Magnet or Just Culture experiences by individuals who have gone through Magnet Recognition or implemented a Just Culture program.

The literature also describes many differences of each organization or authors implement various components of a Just Culture program. This was evident in the available ready to implement Just Culture programs. Another gap is the varying settings on whether the Just Culture program is implemented organization-wide or in selected units only. Organization-wide implementation was seen in organizations that have Magnet Recognition designations.

In summary, the literature reviewed and analyzed consistently concluded that implementing a Just Culture program contributes to improving patient safety (Panten & Torance, 2014). Magnet Recognition is also a key to empowering staff, especially the nursing staff (Laschinger, et.al. 2003, 2006, 2008, 2009, and 2012).

Innovation/Objectives

The evidence found in the literature and SHCH results from the AHRQ Survey on Patient Culture Safety prompted the leadership decision to transition to a Just Culture environment. For the DNP project, the SHCH Just Culture initiative process has been divided into phases in which Phase I is the leadership survey, education, and building the implementation plan. Phase II is Just Culture implementation and Phase III is the Evaluation. The Structural Empowerment component of the Magnet Recognition Model appears to be the best tool to improve punitive culture environments (Lundmark, V.A. & Hickey, J.V., 2006; McClure, M., 2005).

Objectives

The objective of this DNP project is to implement strategies that create a Just Culture at SHCH. The future is to improve the SHCH score in the 2017 AHRQ Patient Safety and Culture Survey. The literature and ready-made programs that have been developed by reputable organizations, such as the AHRQ's TeamSTEPPS (Strategies and Tools to Enhance Performance and Patient Safety) program (Boysen, 2013), have outlined strategies to Just Culturing implementing. The following project steps will be utilized to help reach the intended outcomes:

Assessment of the Culture of the Organizational Leadership (Jan-March 2016). A Just Culture program begins with assessing the culture of the organization, and this has begun with SHCH participation in taking the AHRQ Patient Safety Survey (AHRQ, 2013), in 2013 and again in 2015. However, the completed survey did not include input from the Leadership. The IOM stated that to have an effective and safety culture, the commitment of leadership to safety and empowering and engaging all employees, continuously and vigilantly through nonhierarchical decision-making, training, rewards, and incentives are essential elements to success (IOM, 2004).

Instead of using the AHRQ Patient Safety Culture Survey, Leadership has decided to use the Joint Commission HRO™ 2.0, which surveys the maturity levels (beginning, developing, advancing, approaching) of organizational leadership. The components of the High-Reliability Organization (HRO) Maturity Survey are described in Table 2.

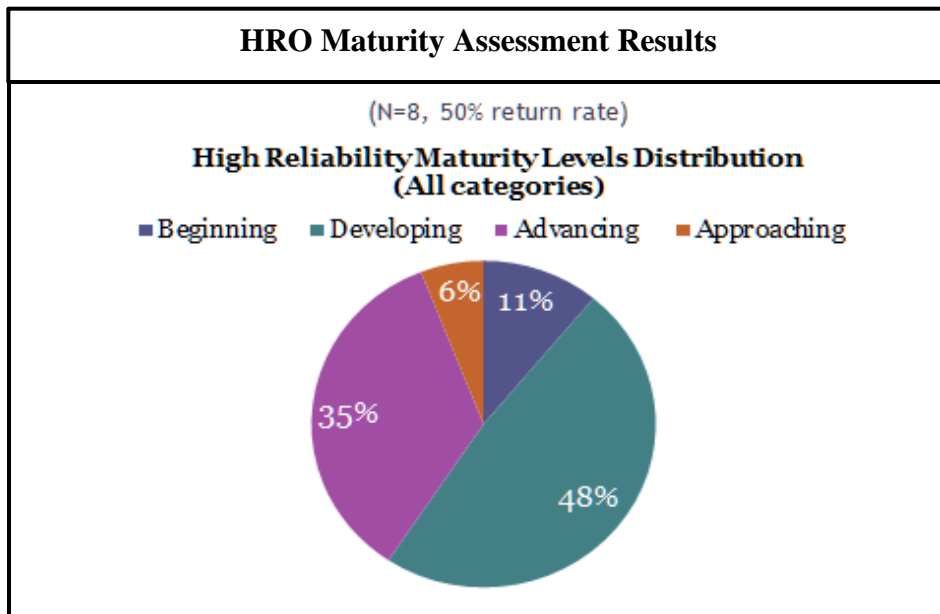
Table 2

HRO Maturity Survey

HRO Maturity Survey		
Safety Culture	Performance Improvement	Leadership
Trust Accountability Identifying Unsafe Conditions Strengthening Systems Assessment (measures of safety culture)	Methods Training Spread	Board of Directors (Board) CEO / Management Physicians Quality Strategy Quality Measures Information Technology

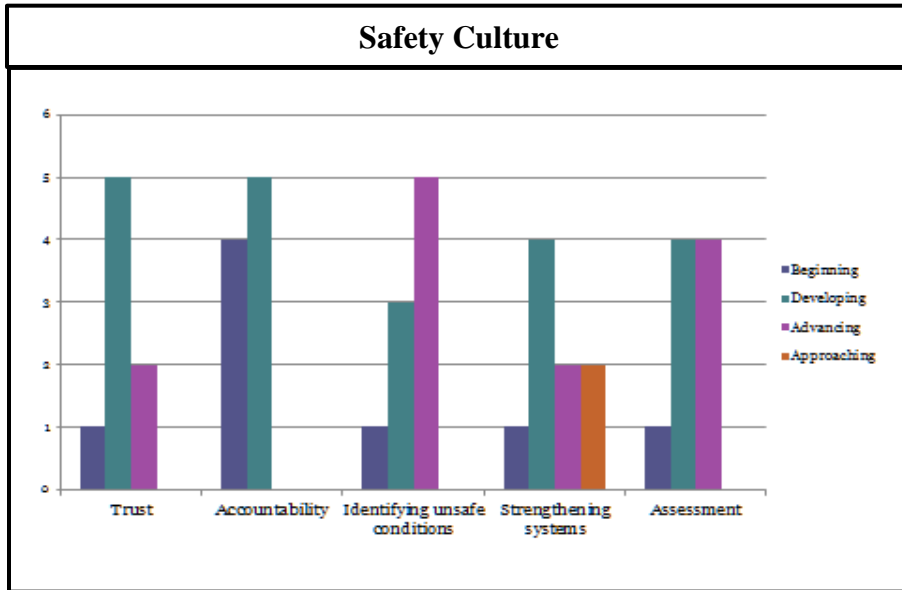
The Performance Improvement Committee (PIC) composed of leadership and board members, completed the HRO survey in February 2016 and the results are described below.

Figure 15.



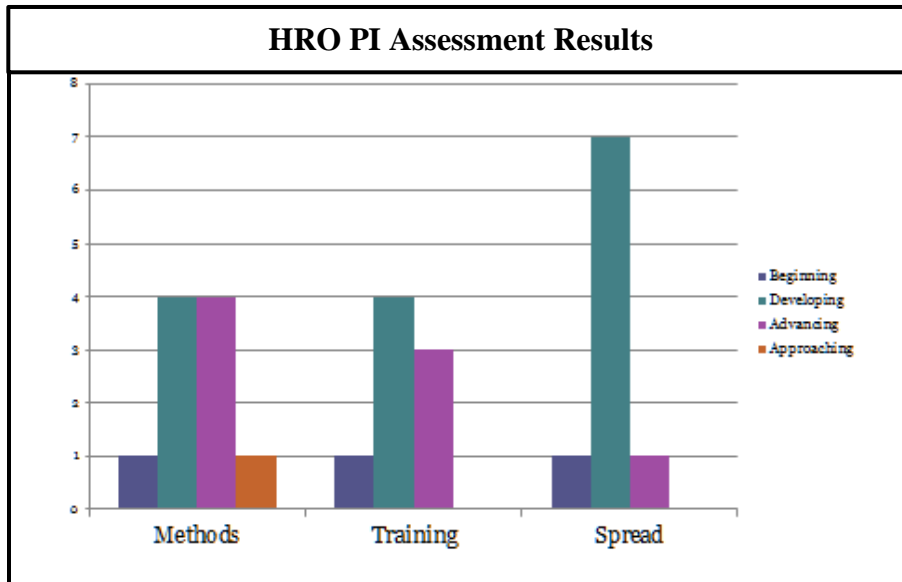
HRO Maturity Assessment Results.

Figure 16.



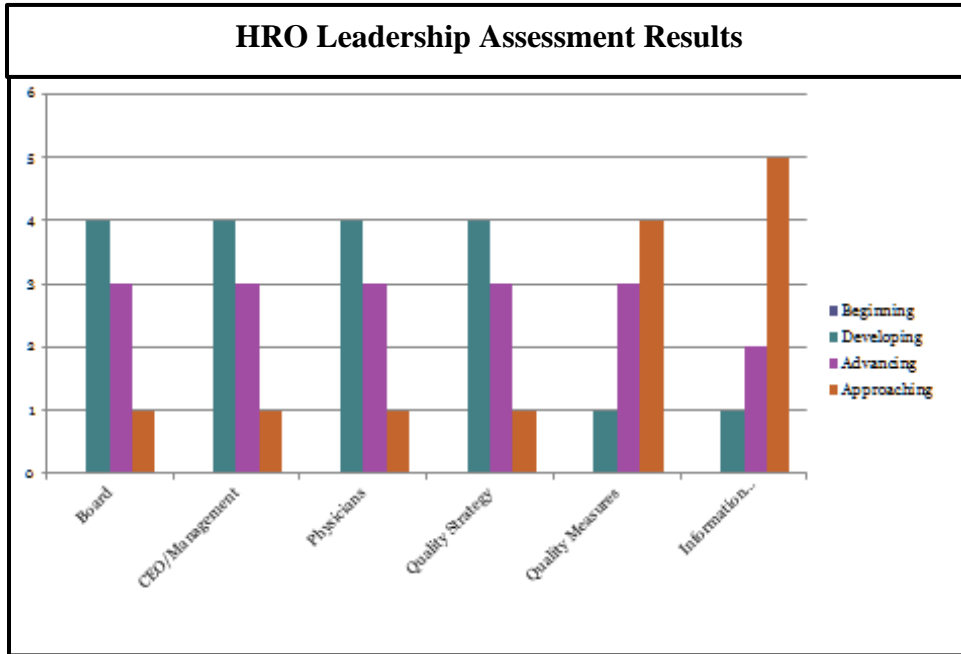
HRO Safety Culture Assessment Results.

Figure 17.



HRO PI Assessment Results.

Figure 18.



HRO Leadership Assessment Results.

Table 3

HRO Overall Analysis.

SHCH - HRO Maturity Survey		
Maturity Level		
Safety Culture	Performance Improvement	Leadership
56% in beginning / developing	66% in beginning / developing	73% in developing / advancing
Overall Maturity Level		
48% in developing/advancing		

Just Culture Education Workshop Presentation (April-December2016). A Safety Culture Workshop for all SHCH leadership and staff in the pilot unit is being planned to include the following components, strategies, and interventions:

1. Description of the concepts and principles of a Just Culture including the three types of behaviors.
2. Discussion of the relationships between patient safety and a Just Culture.
3. Discussion of the role of staff in creating a Just Culture environment.
4. Discussion of the common misunderstanding of the Fair and Just principles.
5. Creation of the approach and timeline to reach consensus on the SHCH plan.

Convening a Working Group of Key Stakeholders (June-December 2016).

Following the Leadership workshop, the nurse executive and DNP student will convene a group of key stakeholders willing to serve as project champions and work together throughout 2016 to create the plan for transition to a Just Culture.

Review and Revision of Policies and Procedures. Policies and procedures are structural and legal resources in any health care organizations. Therefore, a major component in creating a safe and Just Culture is to review and revise the organizational policies and procedures and to remove words or processes that are punitive in nature (NQF, 2006). However, this process will be performed post-DNP project. The DNP candidate will become a volunteer and will conduct a review of organizational policies and procedures and recommend revisions to Leadership.

Training of Staff on a Just Culture Algorithm Utilization. SHCH nurse leaders are expected to serve in decision-making positions that address excellence in patient care and safe, efficient operation of the SHCH. Therefore, implementing a safety-minded Just Culture will provide an environment at SHCH where their nurses will be empowered to report and resolve error-prone systems.

A Just Culture is characterized by trust (AORN, 2006) and nurses have historically topped the list, topping the list every year since they were added to the survey in 1999 - excluding 2001, when firefighters were named the most trustworthy professionals in America and that year was the 911 incident (Advisory Board Daily Briefing. 2015). Lucian Leape and his colleague said in 2009, 10 years after the publication of the landmark IOM, To Err is Human report that he co-authored, that progress on safety has been insufficient, and he concluded that “safety does not depend on any specific improvement method; it depends on achieving a culture of trust, reporting, transparency, and discipline” (Leape et al., 2012, p. 424).

Summary

SHCH is considering an application and preparation for Magnet designation and wishes to transition to a just patient safety culture – an environment where errors are disclosed, and processes are improved. The DNP project will implement a robust plan for transition to a Just Culture starting in the in-patient pilot unit with an expected improvement in the overall patient safety grade measured by the 2017 AHRQ Survey.

CHAPTER 3. METHODS

Introduction

Following the ACE Star Conceptual Model, Chapter 3 will be following STAR Point 3, Translation into Guidelines and followed by STAR point 4, Practice Integration. STAR Point 3 is often referred to as evidence-based clinical practice guideline, combining the evidence-based and expertise to extend recommendations. The best resources for this Star point are the National Guideline Clearinghouse, sponsored by the Agency for Healthcare Resource Quality (AHRQ), providing online access to evidence-based clinical practice guidelines. Since two conceptual models are being utilized, this DNP author merged the ANCC and Ace STAR Model to emphasize the long-term goal of SHCH of becoming a Magnet Recognized institution.

STAR Point 3, Translation into Guidelines

Objectives. The primary objective of this DNP project is to implement Evidence-Based strategies to begin the transition a Just Culture at SHCH. This chapter will describe the interventions of the innovation, the characteristics, sampling plan, data collection procedures, and program evaluation plan. It will be organized using the American Nurses Credentialing Center (ANCC) Magnet Model and the ACE Star Model of Knowledge.

Design. This evidence-based practice project will use quality improvement approach to evaluate the effectiveness of a Just Culture program on patient safety, staff's communication openness, non-punitive culture, and staff's feeling of empowerment by speaking up without fearing punishment. The follow-up evaluation will be conducted by administering the 2017 AHRQ Patient Safety and Culture Survey to the clinician and non-clinician staff at SHCH.

Innovation and Practice Change Description. The Improving Patient Safety with Just Culture Education is an innovative project which involved all the employees and leadership of the Shriners Hospital for Children in Honolulu. This DNP project will implement a pilot project

in the inpatient nursing unit only. As there is not a single Just Culture program that can be immediately implemented, the Change Team will be utilizing EBP strategies and tools in developing the Just Culture Education program. The AHRQ Comprehensive Unit-based Safety program (CUSP) (AHRQ, 2015), the TeamSTEPPS (Strategies and Tools to Enhance Performance and Patient Safety) System (AHRQ, 2013) and the Just Culture Champion program of David Marx will be utilized in implementing the Just Culture program. The CUSP program consists of six modules which are:

1. Learn about CUSP
2. Assemble the Team
3. Engage the Senior Executive
4. Understand the Science of Safety
5. Identify Defects through Sensemaking
6. Implement Teamwork & Communication

Each module comes with a Facilitator's/Trainer's notes, slide presentations, videos, and handouts. The TeamSTEPPS program was developed by AHRQ and the Department of Defense as a teamwork system that offers a powerful solution to improving collaboration and communication within an organization. Teamwork has been found to be one of the key initiatives within patient safety that can transform the culture within health care; patient safety experts agree that communication and other teamwork skills are essential to the provision of quality health care and for the prevention and mitigation of medical errors and patient injury and harm. CUSP and TeamSTEPPS are evidence-based programs aimed at optimizing performance among teams of healthcare professionals, enabling them to respond quickly and effectively to whatever situations arise (AHRQ, TeamSTEPPS, 2013). The Just Culture Algorithm, elements, and principles will be integrated into the entire Just Culture education program.

Practice Change Pilot Program. The program will be piloted in the in-patient unit.

1. Overview of Just Culture and the TeamSTEPPS interventions will be provided to measure knowledge as well as to garner support for the program. Each of the participants will be given a “TeamSTEPPS Pocket Guide.”
2. Patient safety scenarios and Just Culture Algorithm will be performed with the Performance Improvement Unit. Feedback will be solicited after the training as to the effectiveness and ease of use of the Algorithm in analyzing and reporting Adverse Events.

The integration of the practice change into SHCH will first be performed with the clinical nursing units, followed by other clinical departments like the pharmacy. The program is interactive as it consists of video clips and followed by discussions. The overview of TeamSTEPPS and Just Culture Training will be consolidated into one training program. The summary of the “*Just Culture Through CUSP & TeamSTEPPS Program*” at SHCH, detailing as to what, who, when and how is outlined in Table 4.

Table 4

Summary of the “Just Culture Through CUSP & TeamSTEPPS” Program at SHCH.”

What?	Who?	When?	How?
General Overview of Just Culture (<i>Using AHRQ CUSP, first component</i>)	All Leadership, Administrators, and Management	July 2016	Will be presented by the Change Team which includes the DNP Student
Implementation Overview of TeamSTEPPS (<i>a Pocket Guide TeamSTEPPS will be given to each participant</i>)	All Leadership, Administrators, Management, and Pilot Unit Staff	July 2016	Will be presented by the Change Team which includes the DNP Student
TeamSTEPPS and Leadership: <ul style="list-style-type: none"> • Effective Team Leaders • Team Events • Brief Checklist • Debrief Checklist 	All Leadership, Administrators, Management, and Pilot Unit Staff	July 2016	Will be presented by the Change Team which includes the DNP Student
SBAR It for Just Culture: <ul style="list-style-type: none"> • Two-Challenge Rule • Staff Empowerment – Stop the Line • CUS It! <ul style="list-style-type: none"> • Concerned • Uncomfortable • Safety Issue 	All Leadership, Administrators, Management, and Pilot Unit Staff	August 2016	Will be presented by the Change Team which includes the DNP Student
SBAR It for Just Culture: Introduction of Just Culture Algorithm.	All Leadership, Administrators, Management, and Pilot Unit Staff	August 2016	Will be presented by the Change Team including the DNP Student

In selecting the tools to implement the Innovation, the five characteristics of innovation were utilized in evaluating the program.

Characteristics of the Innovation. The rate of adoptions of innovations is dependent on many variables. One of these variables are characteristics of the innovation. The “Diffusion of Innovations” theory of communication expert and sociologist, Everett Rogers (2003), identified the factors that lead people and groups to adopt innovations are the relative advantage, compatibility, complexity, trialability, and observability of the innovation (Rogers E.M., 2003).

Relative Advantage. Rogers (2003) defines *relative advantage* as the “degree to which an innovation is perceived as being better than the idea it supersedes” (p. 229). It is often expressed regarding economic profitability, as conveying social prestige, or in other ways. It is an observation of the advantages and benefits of adopting a specific innovation, and according to Rogers any potential adopter of the innovation must first calculate its relative strength (2003).

The benefits that can be gained from the creation and implementation of Just Culture in an organization include measurable patient safety such as increased event reporting and corrective action taken, as well as, intangible organizational and material benefits. Just Culture can lead not only to increase event reporting, particularly unreported events, but also the identification of trends that will provide opportunities to address underlying safety problems. A Just Culture environment provides a process that clearly establishes acceptable versus unacceptable behavior if properly done in a collaborative environment. Such collaboration also brings together different members of the organization that often have an infrequent contact in policy decision making; thus, resulting in trust building.

Just Culture enhances the organization’s effectiveness by defining job performance expectations, establishing clear guidelines for the consequences of deviance from procedures, and promoting the continuous review of policies and procedures. In organizations with a Just Culture program, the traditional “Blame Culture” shifts to the more constructive Just Culture which can be expected to have tangible benefits that will contribute positively to the overall

safety culture of organizations like SHCH by emphasizing two crucial, yet not mutually-exclusive, concepts:

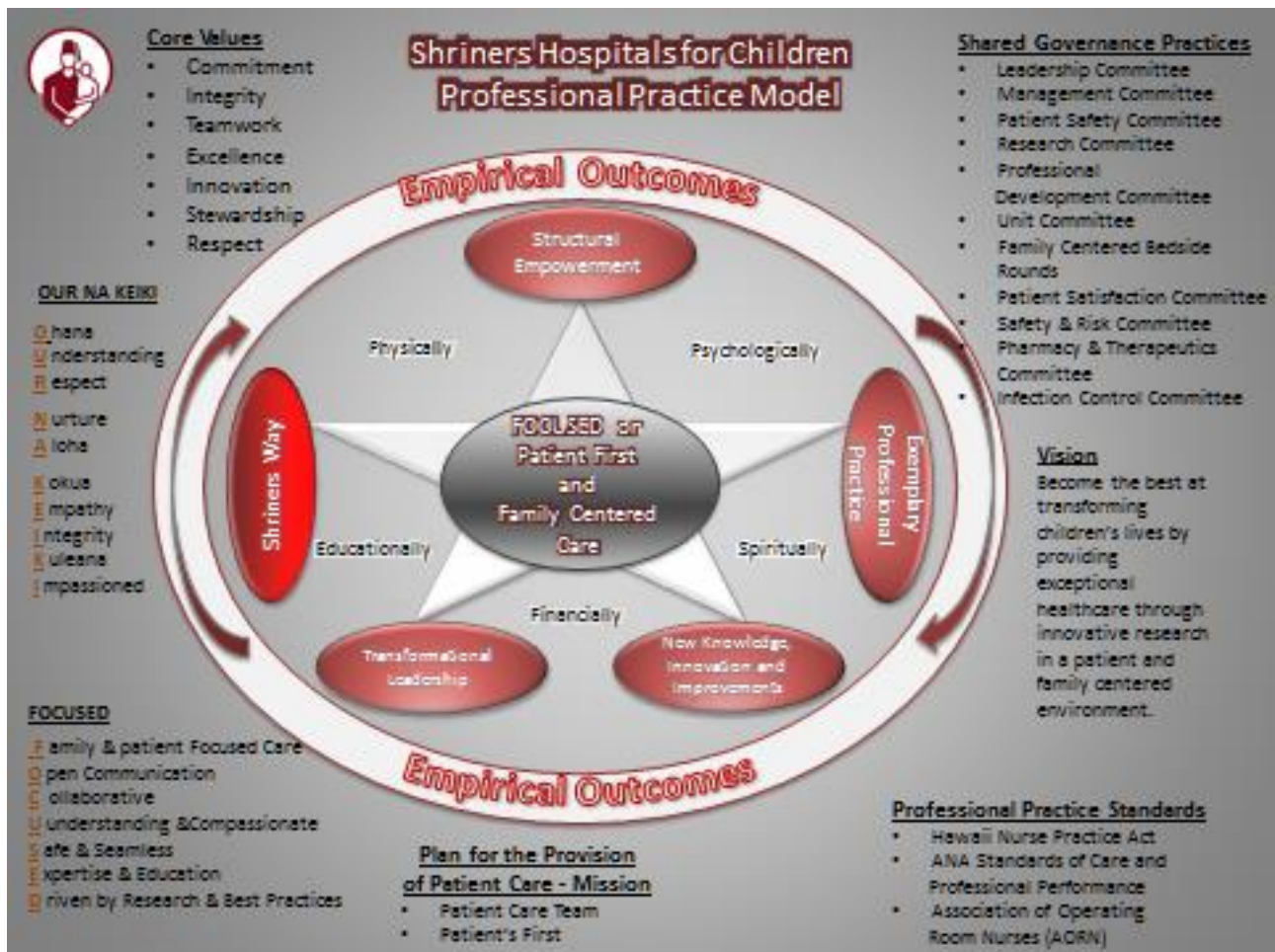
- a) Human error is inevitable, and the system needs to be continually monitored and improved to accommodate those errors.
- b) Individuals are accountable for their actions if they knowingly violate safety procedures or policies (Marx, 2001).

Yocco stated that *relative advantage* measures how improved an innovation is over a competing option or the previous generation of a product (Yocco, V. S., Bruskotter, J., Wilson, R., & Heimlich, J. E., 2015). Individuals do not automatically adopt an innovation, and potential users need to see how the innovation improves their current situation. Some of the areas he has mentioned that would show improvements by implementing a Just Culture are:

- Better service
- Consolidation of multiple functions into one tool (i.e. the Just Culture Algorithm)
- Empowerment of users/staff
- Improved interface (different units, different department, and the community)
- Increased customizability
- Increased productivity
- Reduced user effort
- Reduced environmental impact
- Saving money (i.e. from legal actions)
- Saving of time

In implementing a Just Culture at SHCH, it is necessary to be explicit in marketing the Just Culture product. The staff must realize how Just Culture addresses the current problem of punitive environment and how are they going to benefit from it. In marketing the Just Culture program to leadership, management, and staff, the newly developed Practice Model (Figure 20), was utilized in making them realize and see at a glance the interconnectedness of the many tools that SHCH has prepared and support to create a Just Culture environment.

Figure 20.



SHCH Professional Practice Model.

Compatibility. Rogers (2003) defined *compatibility* as “the degree to which an innovation is perceived as consistent with the existing values, past experiences, and needs of potential adopters” (p. 240). Potential adopters need to know that the innovation will be compatible with their life and lifestyle. Innovations meet with the greatest success when users can adopt them seamlessly and when they replace an existing product or idea for the better. This innovation is compatible with SHCH and national SH as evidenced by the announcement from the Shriners Corporate Office of planning to implement the Just Culture program, not only nationally but internationally. SH sent three educators, trainers, facilitators to the AHRQ TeamSTEPPS Master Trainer program, a program which emphasizes the Just Culture phenomenon and its advantages in improving patient safety (AHRQ, 2013).

The AHRQ Team STEPPS System consist of training tools and materials for inpatient, outpatient, and long-term care settings with a support network and access to webinars. The US Congress commissioned the Department of Defense and the AHRQ to translate the principles of a Just Culture into a format applicable to the delivery of healthcare (Kirch, D.G. & Boysen, P.G., 2010). The result of the collaboration was the TeamSTEPPS approach to safety. The innovation is also compatible with the ACE Star Model of Knowledge Transformation recommendation of utilizing the AHRQ evidence-based clinical practice guidelines programs as resources during this stage (Stevens, 2013).

Complexity. Rogers (2003) described *complexity* as “the degree to which innovation is perceived as relatively difficult to understand and use” (p. 257). The implementation of the Just Culture program is highly complex, as it involves everyone in the organization to make the Just Culture sustainable. A Just Culture is a product that you cannot see or touch, but its results after implementation can be observed, and the result of the practice change would be visible at that time. Therefore, when Rogers described *complexity* as the degree

to which an innovation is perceived as relatively difficult to understand and use is on target. He further stated that the complexity of innovation, as perceived by members of a social system, is negatively related to its rate of adoption (2003).

Although it is a complex process, working with an expert, like Dr. Cole Edmonson, who has implemented the program in a non-profit hospital and in a for-profit hospital provides expert guidance in the process of implementation. Dr. Cole Edmonson is the Chief Nursing Officer of Texas Health Presbyterian Hospital in Dallas, Texas, and an RWJF Executive Nurse Fellow. Utilizing existing and evidence-based Just Culture products, such as the Agency for Healthcare Research and Quality (AHRQ 2013), TeamSTEPPS program and David Marx's (known as the Father of Just Culture) Just Culture Algorithm, makes the implementation of the Just Culture program feasible. The AHRQ CUSP and AHRQ TeamSTEPPS programs also offer comprehensive training for Train the Trainer leaders, in which three (3) of the selected trainers of the AHRQ TeamSTEPPS program recently attended a three-day training as trainers and facilitators at Washington State. This DNP student also went to UCLA to obtain the Team STEPPS Master Trainer Certification program to ensure consistency of process, lessons being delivered.

The team is aware that if the process is complex or not easy to understand and follow, it is less likely to be adopted, and its diffusion will occur more slowly. Therefore, the goal is to make it easy and simple, but thorough and comprehensive. Tools that will help staff to remember the process of reporting, such as posting a Poster of the Algorithm in each nursing unit will be a part of the program. With these available resources and a very supportive leadership, a complex process of Just Culture implementation has been simplified.

Trialability. Rogers (2003) defined *trialability* as “the degree to which an innovation may be experimented with on a limited basis” (p. 258). How easily can the potential

adopters explore the Just Culture innovation? Trialability is critical to facilitating the adoption of the innovation. Therefore, the Just Culture program via the AHRQ TeamSTEPPS program will be implemented first in two units, one outpatient, and one in-patient, before a house-wide implementation will occur to gain feedback from staff and adjust the program content and implementation process accordingly, as needed.

Observability. Finally, Rogers (2003) defined *observability* as “the degree to which the results of innovation are visible to others” (p. 258). As stated earlier under *complexity*, a Just Culture product cannot be seen or touched, but its results after implementation could be observed. Demonstration of the positive results of the practice change would be visible after long-term efforts have been invested. One demonstration of success is increased numbers of Adverse Event Reported or observing empowered staff being not afraid to speak up when an error has occurred.

Sustainability Plan. The commitment made by the Shriners Corporate office to implement the Just Culture program nationally and internationally indicates the program will be sustainable. Sending three management employees to Washington State to get trained from AHRQ TeamSTEPPS Master Training program is another indicator from the leadership of their commitment and support. Most importantly the local SHCH leadership was involved from the onset. The leadership agreed to be a part of the Leadership Survey to assess their level of support via the Joint Commission High-Reliability Organization Survey, is a strong indicator of their commitment to the success of the program.

Sustainability will be measured by the extent outcomes are positive on the AHRQ Patient Safety Culture Survey, which will be administered in Summer 2017. The desired outcome is that the 2017 score would improve from the 2013 and 2015 scores, after the implementation of the Just Culture program.

The Performance Improvement Committee also expressed their commitment to ensuring the continuity of the program, as they are aware that it is their starting point for becoming a High Reliable Organization (HRO) as well as for attaining the ANCC Magnet Recognition accreditation. The following strategies have been recommended to Administration to help ensure the program's sustainability:

1. To include the Just Culture topic during the monthly departmental head/leadership meeting (review of some Just Culture Principles).
2. To develop procedures for training new leaders on Just Culture.
3. To have all new leaders to receive Just Culture training at leadership orientation.
4. To discuss Just Culture principles with each Medical Executive Committee and include a peer review process use of the principles reviewed.
5. To include Just Culture principles in new employee handbooks for distribution to new employees.
6. To include Just Culture principles in revised employee standards of behavior.
7. To reinforce Just Culture principles during the Performance Improvement Committee monthly meetings.
8. To revise current root cause analysis process to include Just Culture principles and change the form to include the "three behaviors."

In summary, the Just Culture program at SHCH has a likely to be sustainable based on the early commitment from the Corporate Leadership and Local Leadership. However, the improvement of results on the Patient Safety Culture Survey in 2017 help determine the further long-term sustainability of the program.

Definitions. There are several key terms and concepts to understand when studying or trying to understand Just Culture. The Following Conceptual and Operational Definitions will be used in this DNP project.

Conceptual Definitions. ANCC Magnet Recognition. Magnet Recognition[®] from the ANCC is the highest and most prestigious distinction a healthcare organization can receive for nursing excellence and high-quality patient care. With only 8% of U.S. hospitals earning the Magnet designation, it is clearly a prestigious designation. Magnet status is earned. It is a performance-driven recognition. Achieving it brings public prestige but with internal benefits. The evidence is mounting that taking the Journey to Magnet Excellence[™] has a dramatic impact on quality, service, cost, and human resource measures (Drenkard, 2010).

Just Culture. Just Culture is in which the front-line operators and others are not punished for actions, omissions, or decisions taken by them which are commensurate with their experience and training, but where gross negligence, willful violations, and destructive acts are not tolerated.

Organizational culture. A “complex mixture of different elements that influence the way things are done as well as the way things are understood, judged and valued” (Kaufman & McCaughan, 2013, p.52).

Structural Empowerment. Structural empowerment in the organization is characterized by access to support, resources, information, and opportunity with formal and informal power also being included. Structural empowerment is linked to one of the foundational premises of Magnet facilities. Nurses who demonstrated structural empowerment are linked with improved productivity, strengthened motivation and job satisfaction as employees identify workplace problems, enhance decision-making skills, and increase organizational learning. Empowerment is defined as conditions in the workplace that enable optimal job performance (Laschinger, 2008, 2012).

Operational Definitions. Adverse Event. Incident or injury associated with health care services provided. This term is interchangeable with the term incident. These events may or may not have resulted in patient harm.

AHRQ Comprehensive Unit-based Safety Program (CUPS) Toolkit. One of the toolkits under the TeamSTEPPS System, which SHCH will use to introduce the Just Culture concept.

AHRQ TeamSTEPPS. Another AHRQ EBP tool that will be utilized in implementing the Just Culture program, especially in teaching the staff proper and open communication to attain a Just Culture environment.

Human Error. The unintended action or an omission of an action that caused an adverse outcome. “When there is general agreement that the individual should have done other than what they did, and during that conduct inadvertently causes or could cause an undesirable outcome, the person is labeled as having committed an error.” Intervention = Console (Marx, 2011, p. 6).

Just Culture. It is a culture of safety where all employees feel that there is fairness, not afraid or talk about errors, but also to take accountability for choices. It is creating a learning culture, designing safe systems and managing behavioral choices.

Sampling Plan

Setting. Shriner’s Hospital for Children in Honolulu (SHCH) is a licensed 24-bed pediatric orthopedic hospital dedicated to providing patients with the finest hospital and medical care possible. The hospital serves children up to the age of 18. Children are accepted for care from birth until their 18th birthday without regard to their ability to pay, race, nationality, color, creed, sex or religion. Care can extend to a patient age of 21 provided the patient’s condition is treatable by SHCH. Since the opening in 1923, over 43,000 children from around the world, as far as Afghanistan, all of the Pacific Rim Nations such as Korea, Philippines, Malaysia, Samoa,

Micronesia, and the Hawaiian Islands have been treated at SHCH for orthopedic injuries, diseases, and birth defects. Currently, SHCH has 190 employees.

Social Systems. Shriners International, (commonly known as “The Shriners”), is a society established in 1870 and headquartered in Tampa, Florida, USA. It is an appendant body of the Fraternity of Freemasonry. The Shriners describe themselves as a fraternity based on fun, fellowship, and the Masonic principles of brotherly love, relief, and truth. There are approximately 350,000 members, known as Nobles or Shriners, from 195 temples (chapters) in the U.S., Canada, Brazil, Mexico, the Republic of Panama, the Philippines, Puerto Rico, Europe, and Australia. Two of the Nobles, Walter M. Flemming, MD, and William J. Florence developed the idea for the Shriners Hospitals for Children and are considered the founders. In 1920, at The Shriners - Imperial Council Session the Nobles voted to establish “Shriners Hospital for Crippled Children.” The first hospital opened in 1922 in Shreveport, Louisiana, and the second hospital in 1923 in Honolulu, Hawaii.

Today, The Shriners charitable arm is Shriners Hospitals for Children with twenty-three hospitals in the United States, Mexico, and Canada. The per-capita fees from its members, donations, contributions, and bequests from individuals, gifts, and grants from foundations, and fundraising activities by the Shriners’ fraternal organization, combined with the income from The Shriners Endowment Fund, provide the working capital and capital improvement budget to build and to operate the Shriners Hospitals. Each of the Shriners Hospitals receives its operational and capital improvement funding from the Shriners Hospitals for Children Endowment Fund.

Leadership. The International Corporate President or Chief Executive Officer (CEO) is called *Imperial Potentate*, and the local hospitals CEOs are called *Illustrious Potentates*. The Board of Directors consists of members of the local Chapter/Shrine Temple.

SHCH is the only Shriners Hospital that has 501 (c)3 non-profit status, and this is one reason SHCH could raise money locally to build the new hospital, which was matched by the International Foundation. The administration has the same titles as any other healthcare organization – Chief of Medical Staff and Chief Nursing Officer (CNO). Middle Management are directors and managers.

Sample, Sample Size, Inclusion / Exclusion Criteria. The pilot unit is an in-patient unit where the Just Culture program will be implemented has 40 employees. These are full time, part-timers, and PRN staff and the safety culture program called, “*Improving Patient Safety through Just Culture*” is available and offered to all of them. Exclusion criteria for employees will include those who did not complete the entire program (Pre-Hospital Survey on Patient Culture of Safety, the training program and the post-training program survey on patient safety).

Although leadership did not participate in the AHRQ Patient Survey in 2013 and 2015, the team felt it was imperative that they are involved from the onset. Evidence indicates that the success and sustainability of implementing a Just Culture program involves leadership from the start. Panten & Torrance said that implementing safety tools is important, but it is just the first step in increasing patient safety. Hospital executives need to foster a professional environment in which everyone is committed to using safety tools consistently and conscientiously (2014).

Identifying the exact components of a safe healthcare organization is very difficult, but common element found in the literature is the critical role of senior leadership in designing, fostering and nurturing a culture of safety (Sammer, et al., 2010). Frankel stated that in a Just Culture environment, engaging leadership especially in oversight ensures that every individual involved in the organization feels safe to voice his or her concerns, knows how to do so and is able to do so easily (2006). This is supported by the National Quality Forum (NQF) that adopted “Improving Patient Safety by Creating a Culture of Safety” with a focus on leadership structures

and systems (NQF, 2006). A leadership survey was performed to engage Leadership, as well as to find out their knowledge of Just Culture and the maturity of their decision making to ensure and secure their support for the project for the project's sustainability. The Joint Commission (JC) stated that leadership is a critical function of promoting high quality, safe health care. In health care organizations, leadership is provided by the governing body, the chief executive officer, senior managers, and the clinical leaders. When a sentinel event occurs in a health care organization, inadequate or ineffective leadership is often one of the contributing causes. In fact, inadequate leadership was a contributing factor in 50 percent of the sentinel events reported to The Joint Commission in 2006 (JC, 2009). The Leadership survey was administered to fifteen members of SHCH Leadership and Management in the third week of February 2016.

Recruitment/Marketing Plan. One of the key determinants of a successful Just Culture program implementation is communicating it to the target audience. Since this DNP project will involve one inpatient nursing unit, a comprehensive marketing plan is not necessary. If all the employees of SHCH are included, a comprehensive marketing plan will be needed to communicate the program, to increase awareness, and to motivate the users of the program. The Public Relation Department would develop a communication plan utilizing the current SHCH publications as well as the mass media e-mails communication. Each nurse manager is also in-charge to ensure that her or his staffs are aware of the program and the training schedule. Table 5 is a summary of the marketing/communication plan when the program will be implemented hospital-wide.

Table 5

Summary of Marketing/Communication Plan

Communication Method	Frequency & Audience
Performance Improvement Committee (PIC) Meeting	PIC Quarterly Meeting
Chief Nursing Officer's Management Meeting	CNO's Monthly Meeting with her Nurse Managers
CNO's Aloha	PRN Communication to Nursing Staff in the pilot unit
Workshop E-mail Just Culture Algorithm	Will be sent out to pilot unit staff at least 30 days before the training and followed up by another e-mail one week before the class Big Posters will be posted in the Pilot Unit and Staff Bathrooms
TeamSTEPPS & Just Culture Classes	Variable until everyone in the pilot unit has been educated

Summary.

As the project leader, clear communication of roles and expectations to each member of the team is the DNP Student's most important job. Since SHCH administration has selected this project for the DNP student to address the leadership team and staff members, all were highly collaborative and cooperation. To effectively lead the team, the DNP student completed AHRQ TeamSTEPPS Master Trainer Course at UCLA during the last week of March. The Opinion Leader is the Director of PI has been very helpful in providing feedback to the survey design for the leadership survey and in analyzing the data. The Opinion Leader is a member of the Change Team who went to Seattle, Washington in early March to receive the AHRQ Team STEPPS Master Trainer Course. The Change Champion is an external Committee member and the

Executive Director at SHCH. Since the Change Champion has been at SHCH for years and has worked with both, the staff and leadership, she has been helpful and valuable in sharing how things tips on how to get things implemented faster at SH. The Change Team, besides the DNP student, is composed of the three staff members who went to Washington for the AHRQ TeamSTEPPS Master Trainer Course. Each Master Trainer will lead the Change Team in implementing the training program, and each department or unit will assign one staff member to the Change Team. The Pilot Project will be the SHCH in-patient unit. This arrangement will help to sustain the program since there is a sense of ownership. Each member of the Change Team is aware that they will remain resources even after the training.

Star Point 4, Practice Integration

Data Collection Procedures

The Chronological Order of Data Collection Points. The areas in which data will be collected from different points and are as follows:

Change Team Orientation and Education to Just Culture. An invitation to the Change Team was sent out to the Chief Nursing Officer (CNO) for this education by an expert in Just Culture implementation. The DNP student collected names and departments of participants. A verbal questionnaire was administered after the education to assess if they felt the session has increased their knowledge on Just Culture. Participants were also asked if they would support the implementation of the Just Culture pilot program at SHCH.

Just Culture Education of the Pilot Unit Staff. A survey will be administered after the class to evaluate knowledge gain, interest in becoming a Just Culture Champion for the unit, the satisfaction of the education presentation, quality of the delivery of the Just Culture pilot program, achievement of the objectives, knowledge level of the speaker, and engagement level of the participants. The questions will be answered based on a 5-point Likert Scale.

Review and assessment of AERs weekly for 30 days post program. The DNP student will be working with the PI Department in reviewing the AERs starting one week after the implementation of the Just Culture pilot program. The number of AERs submitted will be counted, and the Change Team is expecting an increase in reporting if the staff believes that SHCH is indeed supporting a Just Culture environment. The Team will also analyze how many of the AERS are completed accurately based on the Algorithm process.

Weekly Face to Face visit in the Pilot Unit. This DNP student will visit the Pilot Unit twice a week for one month after the implementation of the Just Culture education program to assess the staff compliance or engagement in applying the principles of Just Culture during their work time such as speaking up if they saw a safety violation was happening.

AHRQ Patient Safety Culture Survey. A survey representing each of the three focus areas from the AHRQ Patient Safety Culture will be administered 30 and 90 days after the Just Culture pilot program. The change Team is expecting a 10% improvement in comparison to the 2015 AHRQ Survey Results. The Collection Points are summarized in Table 6.

Quantitative Measures. The design that was selected is a non-experimental design with no control group; Quantitative data collect to evaluate the participant's knowledge, attitudes, and performance are questionnaires, interviews, job samples (AERs), and rating forms. To measure participant's knowledge, confidence, and training, a questionnaire will be distributed after each Just Culture education workshop.

Qualitative Measures. Qualitative measures will be used for the in-person interview, and the staff will be asked open-ended questions on how they are utilizing the Just Culture elements and strategies to prevent errors from happening. The staff interviews were completed by the DNP student during her weekly visit to the Pilot Unit. To ensure consistency of the interview process, the Change Team plans to develop a simple questionnaire to ask during

the in-person visits with the staff. Qualitative analysis will consist of finding the common theme of answers to a Just Culture question during the weekly in-person communication with staff for 30 days from the implementation of the Just Culture pilot program.

Table 6

Collection Points

Implementation of collection Session	Evaluation Question	Evaluation Method	Type of Data Collected
Just Culture Education of the Pilot Unit	<ol style="list-style-type: none"> 1. Did the class increase understanding of Just Culture? 2. How satisfied are the staff of the quality of delivery of trainer facilitator? 3. To what extent did the training achieve the objectives of this session? 4. How well did the participants engage in the simulation exercises? 5. Was the speaker knowledgeable, organized, & effective in his/her presentation? 6. Culture Survey of the three focus areas reveal 10% improvement? 	Questionnaire Survey Form	<p>Knowledge of participants</p> <p>Confidence level of Participants</p>
Review and assessment of AERs	<ol style="list-style-type: none"> 1. Is the number of AERs post program increased? 2. Are the AERs submitted completed correctly based on the Just Culture Algorithm? 	<p>Manual count of AERS submitted</p> <p>Analysis of AERS</p>	<p>compliance</p> <p>compliance</p>
Weekly Face-to-Face visit in the pilot unit.	Variable	Face to Face interview	Attitude, support and compliance
Survey Monkey	Questions from the AHRQ Patient Safety Culture Survey in 2015	Survey administered via Survey Monkey	Perception and attitude

Required Resources.

Budgetary. The SHCH Nursing Department, Performance Improvement Department, Education Department, and the Human Resources Department are sharing the cost of the implementing a Just Culture program. For example, expenses of the three staff members who went to Washington State in February 2016, to be trained as TeamSTEPPS Master Trainers were paid from Nursing, Performance Improvement (PI), and Education Departments. The Training itself was free as TeamSTEPPS is a program developed by AHRQ and the Department of Defense. The curriculum was also provided to each trainer for free by AHRQ. The Pocket Guide Books that will be given to each participant are also free.

Capital. There will be no required investment or budget for training curriculum, and handouts as the supplies will be free.

Human. The time of the employee spent in attending the training will be charged to the Education and the PI Departments. For purposes of showing the cost of education for each employee, the following formula and numbers are used. Three-hour class times 190 employees (\$35/hour) = \$19,950.00.

Physical. SHCH has an Auditorium, Board Room, and small conference rooms that shortage of physical place to hold the training will never be one of the barriers to the implementation.

Process & Outcome Variables. The Just Culture is a QI/EBP Project that measures processes and outcomes related to the strategies, interventions implemented by the change team.

Process measures. Process measures evaluate whether the activities and strategies of the Just Culture program are implemented as planned. These results help to identify the causes of or barriers to implementation or poor program performance (CDC, 2011b). Quantitative and

qualitative data will be collected. Observations of staff participants’ interactions with each other, reports, and attendance sheets will be used to collect data to evaluate whether the planned activities and strategies of the program are implemented.

Outcome measures. Outcome measures determine whether the outcome of the program made a difference or changes in the practice (CDC, 2011b). Outcome measures answer the question. Did the program make a difference in the practice? The outcome measures determine if the outcomes of the program are related to the program’s specific activity. Quantitative and qualitative data will be collected. Numerous data collection points will be conducted to identify clinical significance and trends through survey, analysis of reports, pre-and post-tests for Just Culture knowledge. The results from these evaluation tools will provide the short-term outcome measures of the Just Culture program. The process and outcome are outlined in Table 7.

Table 7

Process and Outcome Variables for the Evaluation

Who? Responsibility	What?	Data Collection Point When?	Instruments How?
Process Measures			
PIC and the Change Team	Compliance with Practice Change	Whenever PI Department receives an Incident Report	Review of Incident Reports
Outcome Measures			
PIC	Number of Incident Reports Submitted	Quarterly	Audits of Incident Reports
DNP	Number of staff educated in the pilot unit	End of the Education session	Registration List
PIC	Improvement of AHRQ Patient Safety Culture Survey to 70%, at least in the three Focus Areas: (1) Non-Punitive Response to Error (2) Handoffs & Transition (3) Communication Openness	30 days’ post program 2017 June	Survey Monkey AHRQ Survey Results

Measurements (Tools, Instruments). The measurement tools and instruments that will be used to measure the program’s process and outcome variables will be a combination of published instruments and those designed by the Change team and the DNP student.

Published Measurement tools. The AHRQ Patient Safety Culture Survey is a 12-item tool; however, for this project, only the three focus areas will be utilized. After the program, the Change Team expected a minimum of 10% improvement from the 2015 AHRQ survey results. The Just Culture Algorithm will be used to measure the AER reports.

Developed Measurement Tools. Some of the AHRQ TeamSTEPPS Measurement Tools will be used, but it will be modified by the DNP student based on items covered in the Just Culture Education program. The evaluation measurements are described in Table 8.

Table 8

Measurements for the Evaluation the Just Culture Program

Instruments	References	Number of Items	Psychometrics
Process Measure			
1:1 meeting Group Meeting	Tuckman Model	Variable	Unknown validity / reliability
Survey (Revised)	Joint Commission	14	Unknown validity / reliability
Evaluation Questionnaire	Pre- Post-Just Culture Education Questionnaire	9	Unknown validity / reliability
Demonstration	Just Culture Algorithm – David Marx	Variable	Unknown validity / reliability
Review of Incident Reports	Just Culture Algorithm – David Marx	Variable	Unknown validity / reliability
Audits of Incident Reports	SHCH Incident Reports	Monthly	Unknown validity / reliability
Outcome Measures			
Survey Monkey	AHRQ	30 days’ post program 2017 September	Known validity and reliability

Timeline

The project is on time with its planned activities. The timeline for the Just Culture Program Implementation is explained in Figure 21.

Figure 21

TASKS & TIMELINE	2016												2017				
	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	
Successful Proposal Defense																	
Brief Key Leaders & Staff																	
Develop Marketing Products																	
Prepare Instruments for Distribution																	
Educate Staff																	
In Progress Review																	
Develop Data Base																	
Implement Practice Change																	
Collect Data																	
Enter Data																	
Analyze Data																	
Interpret Data																	
Written and Oral Defense																	
Graduation																	
Prepare & Submit Dissemination Products																	

Broad Timeline for TeamSTEPPS & Just Culture Program Implementation

Program Evaluation Plan

Outcome evaluations, also known as effect evaluation is an evaluation process, which focused on the most immediate effects of the program (Issel, L.M., 2014, p. 20). The purpose of this evaluation is to determine the effects of the Just Culture program in improving the behavior of staff in reporting adverse events, to improve the staff punitive perception of the unit. In the end, the program evaluation should answer the question, “Did the Just Culture education program make a difference in staff’s punitive perception?” The Logic Model illustrating the short-term, midterm, and the long-term outcomes of the program is attached as (Appendix B.)

Monitor Process.

Expected short-term outcomes

In the short-term, staff participants will increase their Just Culture and patient safety knowledge and confidence level, and selection of Just Culture Champions in the pilot.

Expected intermediate outcomes

In the intermediate term, SHCH staff participants will increase reporting of adverse events; learn how to use the Just Culture Algorithm in Adverse Event Investigation, learn on how to identify AER correctly; learn to always incorporate the Just Culture Algorithm in adverse event reporting; learn how to identify the type of errors and human behaviors that contribute to near misses or adverse events; and learn how to use one TeamSTEPPS strategy that support Just Culture.

Expected long-term outcomes.

The long-term outcomes of the project is the comprise of implementation of the program institution-wide. All responses to the AHRQ Patient Safety Culture Survey will have positive increases, especially the three focus areas; SHCH will be able to start their Magnet recognition journey; SHCH will become a High Reliable Organization HRO.

The results of the evaluation will provide support that the program and its interventions can be used to create the Just Culture change. This will in turn support SHCH obtaining ANCC Magnet recognition and begin to move to the path of a High Reliable Organization. The evaluation results will inform whether the Just Culture education program contributed to improvements in the behavior of the staff in reporting adverse events and being able to communicate openly like stopping the line when they notice staff is committing a risk behavior.

Evaluation, Measures, and Data Analysis

The following strategies will guide the outcome evaluation:

Objective 1. Just Culture pilot program is planned and developed.

Evaluation for this Objective: How engaged were the staff volunteers throughout the planning process and how many of the participants will volunteer to be trained as mentors and coaches to sustain the Just Culture pilot program.

Measurement. The achievement of this objective will be measured with the following tools:

1. The self-report engagement (5-point Likert Scale)
2. The willingness of participants to be a part of the Sustainability Plan of the Innovation (5-point Likert scale).
3. The number of participants volunteering (counts).

Data Analysis. Descriptive analysis will be conducted on data collected on all measurement tools with mean and standard deviation for the first two and frequencies for the last measure.

Objective 2. Knowledge and confidence on Just Culture and patient safety show statistically significant increases post program.

Evaluation for this Objective: Pre-post scores on knowledge and confidence of staff on Just Culture will show statistically significant increases their Knowledge and Confidence on Just Culture. A 10% improvement will be shown in all three focus areas from baseline 30 days after implementation of the Just Culture pilot program.

Measurement. The achievement of this objective will be measured with the following tools:

1. Self-report on Knowledge Scale (5-point Likert Scale).
2. Self-report Confidence Scale (5-point Likert Scale).
3. Open-ended survey questions about Perception of Participants.
4. AHRQ follow-up survey.

Data Analysis. Descriptive analysis will be used on data from the first two measurement tools with percent correct on number one and with a mean and standard deviation of number two. Content analysis with feedback grouped according to major themes will be conducted for data from measurement tools number three and four.

Objective 3. 80% of the staff will report that they are using the Just Culture Algorithm when doing an investigation of Adverse Event.

Evaluation for this Objective is: The number of staff reported they are using the Just Culture Algorithm in the Adverse Event Investigations.

Measurement. The achievement of this objective will be measured by participant's reports utilizing the Just Culture Algorithm (open-ended question).

Data Analysis. Content Analysis with feedback grouped according to major themes and descriptive analysis (counts) will be used to analyze the data for this objective.

Objective 4. 80% of the staff will report that they can identify and analyze AER correctly.

Evaluation for this Objective: The frequency of participants who rated competent in reporting AERs based on the output of the Just Culture Algorithm.

Measurement. The achievement of this objective will be measured with Self-Reports of AER submission (5-point Likert scale), 30 and 90 days' post program.

Data Analysis. Descriptive Analysis with the mean self-rating score and standard deviation will be used to analyze the data for this objective.

Objective 5. At least “ONE” of the staff in the Pilot Unit will agree to be the Just Culture Champion.

Evaluation for this Objective: The number of staff decided to be a Just Culture Champions in the Pilot Unit.

Measurement. The achievement of this objective will be measured by the number of staff who agree to be Just Culture Champions.

Data Analysis. Statistics with counts will be used to analyze the data for this objective.

Objective 6. Just Culture pilot project is implemented in the pilot unit.

Evaluation for this Objective: The barriers encountered in the implementation process and the degree the participants intended to utilize the TeamSTEPPS Strategies to improve transparency reporting and communication openness.

Measurement. The achievement of this objective will be measured with the following tools:

1. Self-reports on barriers with an open-ended question.
2. Self-rating of intention to use TeamSTEPPS on a 5-point Likert Scale, which will be, administered monthly post implementation.

Data Analysis. Content analysis with feedback grouped according to major themes will be used to analyze data to address this objective. Data analysis will include an evaluation of all objectives.

Interpretation of Results.

In the interpretation of information, the CNO, the PI Department, the Pilot Unit Nurse Manager, and the Just Culture Champions will assist in obtaining data and analyzing the results of the project. The results of the project will be shared among staff and stakeholder through formal and informal meetings and written reports. Descriptive statistics will be used to analyze the data, including the knowledge, and competency of staff in using the Just Culture Algorithm in identifying the type of errors and human behavior involved in the incident. The participant pre-and post-test scores will be compared to the percentage of participants answering questions correctly and incorrectly. The participants will receive a score of at least 80%, immediately after the Just Culture education class indicating sufficient acquisition and improvement in knowledge.

Sharing of results. What will be reported? Results will be compiled communicated to leadership and staff. Results that inform on the question, “Did the Just Culture education program make a difference in staff’s punitive perception?” will be reported.

How will the results be shared? Data obtained from this project will be communicated to the stakeholders at the monthly PIC meeting as well as the CNO’s Leadership meeting both locally and nationally. Outcome data will be presented based on the individual objective, and the author in collaboration with the stakeholders will decide if the objectives were met or not. The Just Culture pilot program evaluation findings will be used to assess if it will be implemented institution-wide.

Results shared with leadership including the Performance Improvement Committee (PIC) will be conducted at a meeting using a PowerPoint presentation and a printed handout of the

presentation. A formal report will be provided to the CNO. A Power Point Presentation will also be the method that will be used to sharing the results in the Pilot Unit.

During the interpretation and information sharing, the PI Department, the Inpatient Nurse Manager, and the Just Culture Champions will assist in disseminating and sharing the results of the project. The results of the project will be shared among staff and stakeholders through formal and informal meetings and written reports. Descriptive statistics will be used to present knowledge and competency of staff in using the Just Culture Algorithm and determine the type of errors and human behavior involved in the incident. Participant pre-and post-test knowledge scores will be evaluated on the percentage of participants answering correctly. Participants will receive a score of 80% correctly immediately after the Just Culture education class indicating acquisition and improvement of knowledge. To evaluate the change in participants' behavior and perception about punitive culture, a survey of the three focus areas will be administered 30 days after the Just Culture program has been implemented.

Human Subjects' Considerations

The Just Culture program was designed to protect the rights of the human subjects involved with the project. This project is also intended as a PI/QI program and not as a research study; therefore, participants freely choose their level of engagement in the education workshop, viewing the video, participating in the algorithm training and ongoing activities. There will be no randomization of subjects to different interventions with this project, and no vulnerable populations were identified. Standard evidence-based interventions and strategies like the AHRQ CUSP, AHRQ TeamSTEPPS, and Just Culture Algorithm will be implemented. Person-identifiable information will not be collected.

Ethical principles in research with humans' subjects are autonomy, non-maleficence, beneficence, and justice (Frey, Veeatch & Taylor, 2011). This project utilizes these principles,

and there are no additional risks beyond the standard risks described in the Just Culture program. Since this is a Performance Improvement project, it has the potential to benefit staff through empowerment and ultimately helping patients by improving patient safety.

This Just Culture program is a pilot project in the in-patient unit; therefore, all in-patient staff can participate, with no consequences by leadership. The workshop evaluation will serve as a method to receive feedback for modification as participants provide their suggestions.

A committee consisting of faculty, Shriner's leadership, and clinical experts will review this project to ensure that there is sufficient human subject protection. The DNP student completed the University of Hawaii required Collaborative Institutional Initiative (CITI) Course in Human Subjects Protection.

Limitations

High-Level evidence that provides exact methodologies for impacting Just Culture long term is limited. There are videos, books, and an AHRQ PowerPoint presentations, but there are no structured programs or curriculum like a diabetes program or asthma program or stress management program in which the DNP Student could have bought and ready for implementation. Three staff members from SHCH went to Washington State to be certified as Master Trainers for the AHRQ TeamSTEPPS Master Training program from the University of Washington. However, the interventions in this program are generic, and they were not developed solely for Just Culture programs. The DNP Student also went to California and attended the University of California at Los Angeles (UCLA) TeamSTEPPS Master's Trainer program. After attending the presentation from the Shriner's team who received their certification from the University of Washington, the two programs were slightly different. The University of Washington trained their participants on implementing TeamSTEPPS in academia while the UCLA Team focused on implementing the program in healthcare business

organizations. If the DNP Student trains some staff as trainers and the other group of Master Trainers also trains other staff, there is program variability. Results from the project are also not generalizable.

Summary

This Chapter (Chapter 3) explained the methodology of the Just Culture education program including its implementation and the plan to evaluate outcomes. Chapter 3 included the objectives and purpose statement, the description of the innovation or practice change, definitions, the sampling plan, data collection procedures, considerations and protection of human rights, and program evaluation plan.

CHAPTER 4. RESULTS

STAR Point 5 Process, Outcomes, and Evaluation

Process, Outcome, and Evaluation. The purpose of the Just Culture program is to educate the staff about the principles, concepts, and elements of Just Culture to improve or eliminate the punitive culture that has been perceived by the staff. The Just Culture Education program consisted of a two-hour education session for staff.

Introduction. Chapter 4 presents the Point 5, Process, Outcome and Evaluation of the ACE Star Model. The concept and background of a Just Culture program were first introduced to the Leadership of The Shriners Hospital in Honolulu in August 2016. Following their approval, the Just Culture Education program was implemented as a pilot in the in-patient unit. The Just Culture Education program for the pilot unit was started in September of 2016 and ended in December of 2016. This chapter provides evaluation results for the project's objectives, description of the evaluation sample, and results on the Just Culture Education program.

Description of sample. Twenty-two staff participated in the Just Culture Education program. All the staff participants worked in the inpatient pilot unit. Participants were RNs, HR personnel, PI staff, PCA, and staff, with no reported title designation. A total of ten (10) Just Culture Education sessions were delivered between June to December 2016. Nineteen (n=19) evaluations were completed, and two were not included in the analysis as they did not complete the post education evaluation.

Trend analysis for process and outcome variables. The primary objective of the project was to determine whether a Just Culture Education presentation could improve the existing punitive culture at the Shriners Hospital for Children in Honolulu as identified in the 2015 AHRQ Patient Safety Culture Survey results.

Process results. The process evaluation was conducted to determine whether the planned activities of the project were implemented (CDC, 2011b). Qualitative and quantitative data were collected. The process evaluation that was used was (1) Activity Tracking Checklist, (2) Continuous Activity Improvement Monitoring, (3) Attendance sheets and (4) Before and after Just Culture Class evaluation.

Overall, the project proceeded according to the timeline. A one-week delay occurred in the launch of the survey because the Joint Commission visited the Shriner's Hospital during the first week of January. As a result, the collection of the response was also delayed for about ten days. The program activities were comprised of curriculum development, a power point presentation, development of handouts, implementation of the classes, team meetings, and the recruitment of Just Culture Champions. These program activities were executed based on the plan. The timeline was used to track and document the process evaluation toward the completion of these activities. The posting of the Just Culture Algorithm on the floor was not done as the DNP student discovered that the Performance Improvement Department conducts the analysis of an Adverse Event. Therefore, the Team decided to delay the implementation of the Just Culture Algorithm training.

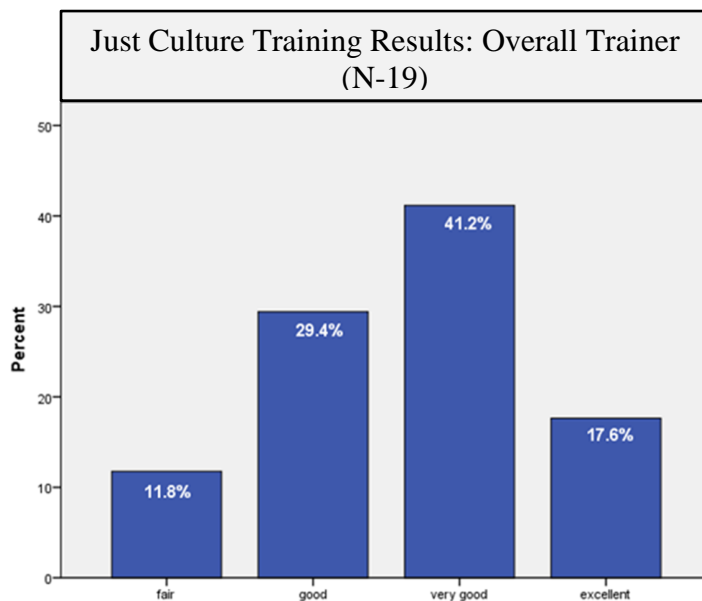
The majority of the communication with the Pilot Unit staff was through the Nurse Manager because the schedule of the staff was the key to planning the Just Culture Education class. A total of 9 educational sessions were implemented during day and evening shifts. An attendance sheet recorded participants for each education session. Handouts were prepared for each session. The length of the session was initially planned for four hours to incorporate case scenarios. However, the Nurse Manager noted there were budget and staff coverage issues that limited participation time for the education session. Thus, the education was shortened to two or fewer hours. The length of time for each session ranged from one hour to three and one-half

hours because the education was given during the work hours of the staff where the time available to be trained depended on the activities of the unit. There were times when the education was stopped in the middle of the session due to patients needing help. The length of time for each education session was not documented because the DNP student did not expect that the times allotted would vary so considerably.

Outcome Evaluation - Just Culture Training Results. A pre-and post-evaluation survey was administered in each class. Due to time constraints, many the participants had to bring the evaluation with them and completed it after the class, and submitting it to their Nurse Manager upon completion.

Training was conducted from June to December 2016, out of the 22 employees that participated in the Just Culture Education program, 19 employees who were primarily nursing staff completed the pre-post training surveys. Over 58% rated the overall training as “very good or excellent” with an average rating of the training as 3.7 (sd=0.93) on a 1 to 5-point scale Figure.

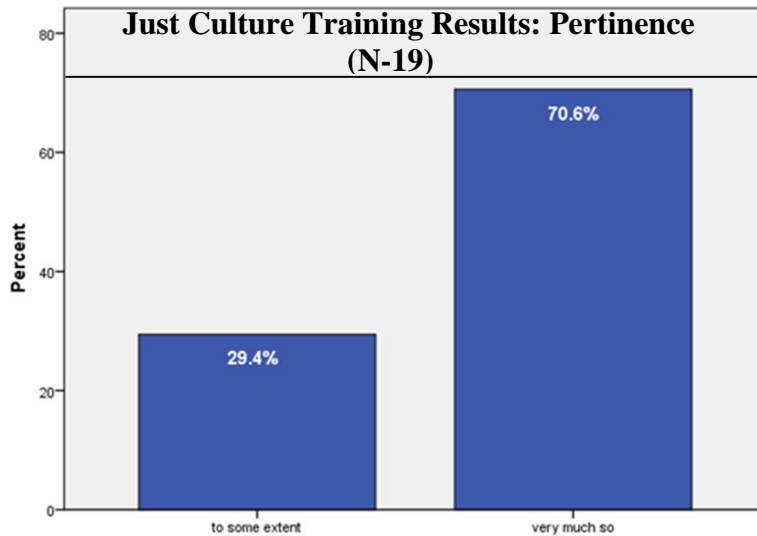
Figure 22



Just Culture Training Results: Overall Trainer.

Pertinence. Figure 23 describes the trainee's perception of the pertinence of the Just Culture education. While 70.6% of trainees responded that the subject was “very much so” pertinent, none of the trainees replied that the training was not pertinent.

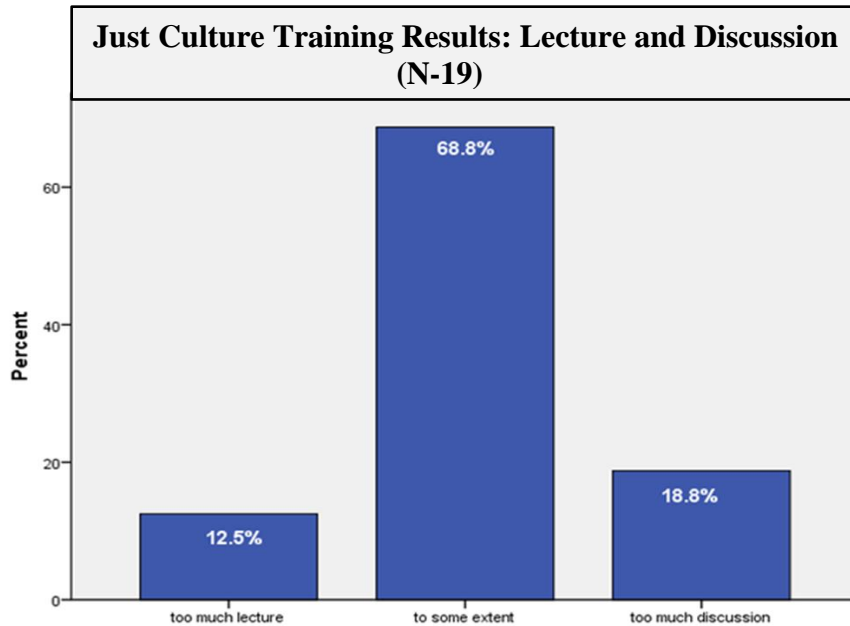
Figure 23



Just Culture Training Results: Pertinence.

Training Format. How the trainees like the format of the Just Culture education is described in Figure 24. Over 68% indicated that the ratio of a lecture to the discussion was “to some extent.” The percent of trainees who stated that there was too much lecture (12.5%) or discussion (18.8%) were about even.

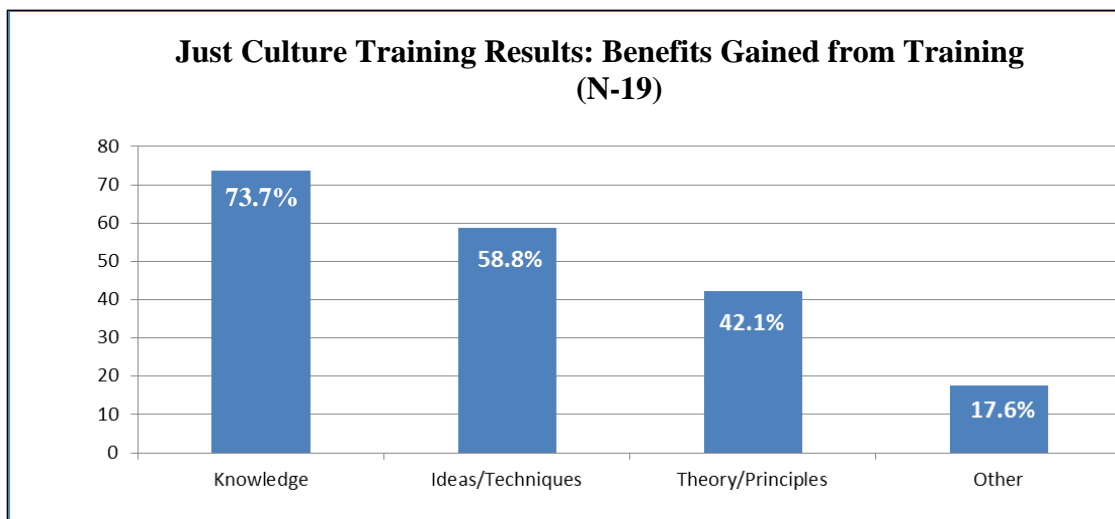
Figure 24



Just Culture Training Results: Lecture to Discussion.

Benefits. Figure 25 describes what the trainees perceived as the best benefit of Just Culture. The most common benefit noted of Just Culture was “knowledge” with 73.7% of trainees indicating this benefit. Over 52% reported “ideas/techniques” as a benefit.

Figure 25

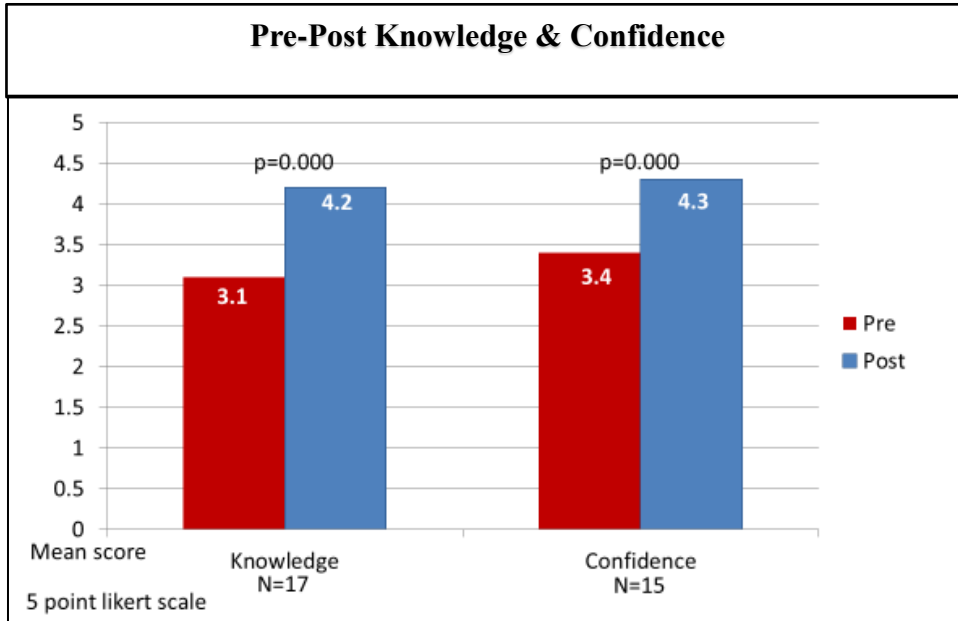


Just Culture Training Results: Benefits.

Outcome results: Increase Knowledge and Confidence.

Knowledge and Confidence. Table 9 describes the improvement of the knowledge and confidence level of the trainees before and after the Just Culture education. Trainees were asked to self-rate their knowledge/understanding of and confidence on nine items each in implementing Just Culture. (Examples: “Knowledge of open communication skills to speak up when you notice that something may negatively affect the patient or to question decisions of people with authority.” “How confident are you that you will use the ‘Stop the Line’ intervention to improve patient safety?”) Trainees’ ratings increased pre-post with an average rating on a 5 point scale from 3.1 to 4.2 for knowledge and from 3.4 to 4.3 for confidence. This increase in improvement on knowledge and confidence of Just Culture was statistically significant ($p=0.000$).

Figure 26



Just Culture Training Results: Pre- and Post Knowledge and Confidence.

The trainees were asked to answer open-ended questions about the impact of the training and were also requested to provide recommendations as to how the training could be improved in the future. The questions that were used have high reliability.

Impact. Three trainees wrote that they learned about empathetic or caring feedback communication. Two each wrote that they learned about “stop the line” and patient safety. Two trainees stated that were not able to identify an impact.

Improvement Recommendation. Three trainees indicated that the presentation was too long. However, one stated it was very thorough. Two said to ensure that the video presentation works before the starting the presentation, so there is a smooth transition from lecture to video. Two of trainees wanted more practical examples of how errors were handled, particularly severe/serious ones. The handouts on acronyms, brochure, and the table of communication strategies were added as a recommendation from the trainees but were not a part of the original plan of activities.

Outcome Evaluation - Intended Outcome.

Methods. The primary objective of the DNP project is to create a plan for implementing culture change using the structural empowerment model to improve patient safety. The three focus areas identified by the national office of Shriners Hospitals for national action are:

1. Communication Openness
2. Handoff and Transitions
3. Nonpunitive Response to Error

The results of the 2015 AHRQ Patient Safety Culture Survey were used as the baseline data for this DNP Project. A monkey survey was developed using the same questions from the 2015 AHRQ Patient Safety Culture Survey questions for the top three focus area dimensions.

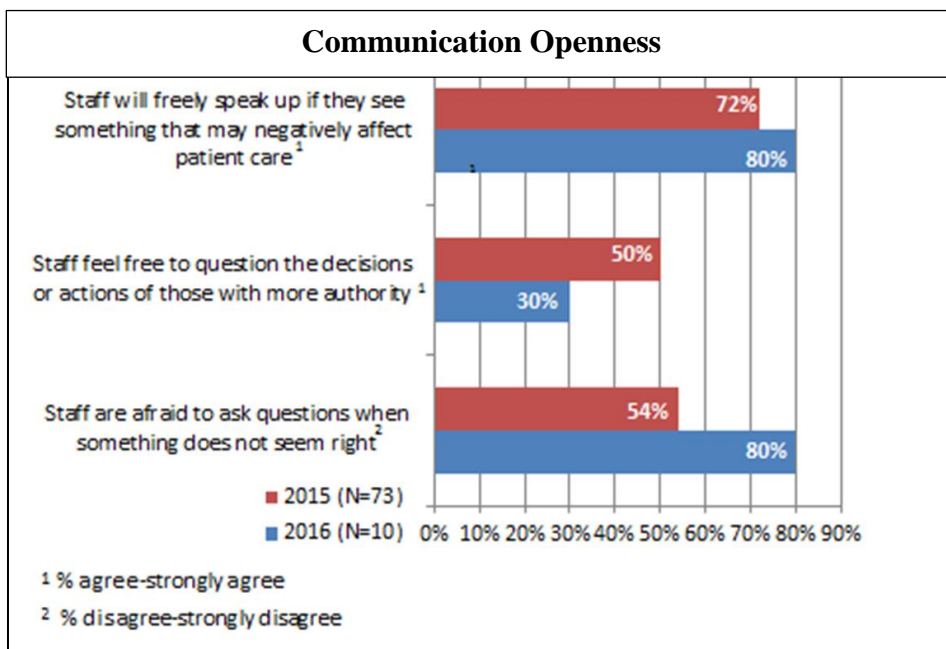
The monkey survey was administered through the Department of Performance Improvement at Shriners. The monkey survey was sent out one week after the last Just Culture class, and they were given two weeks to respond originally. There was no pre-test or post-test given, but there was a pre and post level of knowledge and confidence competencies that were asked. Also, due to the Joint Commission visit at Shriners, in the first week of January, the participants were given another week to respond. The project did not include any demographic data to maintain the anonymity of respondents. The results allow for formulating implications and conclusions as well as suggestions for housewide implementation and further research needs on this topic.

An evaluation of the three focus areas was conducted on December 19, 2016, to January 13, 2017, following the Just Culture Education training. We used the same survey questions that addressed the three focus areas from the 2015 AHRQ Patient Safety Survey. Of the twenty-two that participated in Just Culture, ten responded to the online survey. During the Just Culture Education, the participants said that they had difficulty understanding the questions when they took the AHRQ survey in 2015. Some survey items were worded negatively (e.g., “Staff feel like their mistakes are held against them”) while some were worded positively.

AHRQ provided guidance in analyzing questionnaire items because some are worded positively, and some are worded negatively. For positively worded items, positive responses are calculated as the percentage who answered “strongly agree/agree.” For negatively worded items, positive responses are the percentages who answered, “strongly disagree/disagree.” For both positive and negatively worded questions, therefore, the higher the percent, the better the results.

Results. The first and third Communication Openness questions indicated a 20 and 26 percentage point improvement respectively from 2015 and 2016. The second question indicated a reduction of positive responses by 52 percentage points. Communication Openness questions one and three have 8 to Communication Openness 26 points improvement, while question number two got worse by twenty percent.

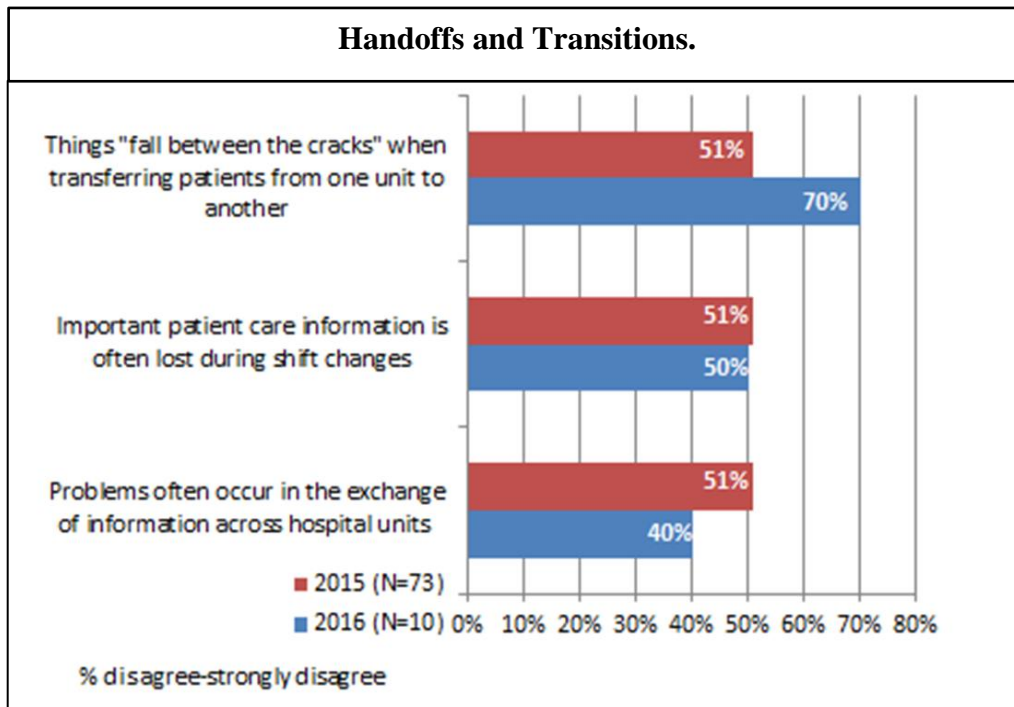
Figure 27



Just Culture Training Results: Communication Openness.

The DNP student feels is that staff may have felt that they could now be more candid in answering survey questions because of the implementation of Just Culture education program.

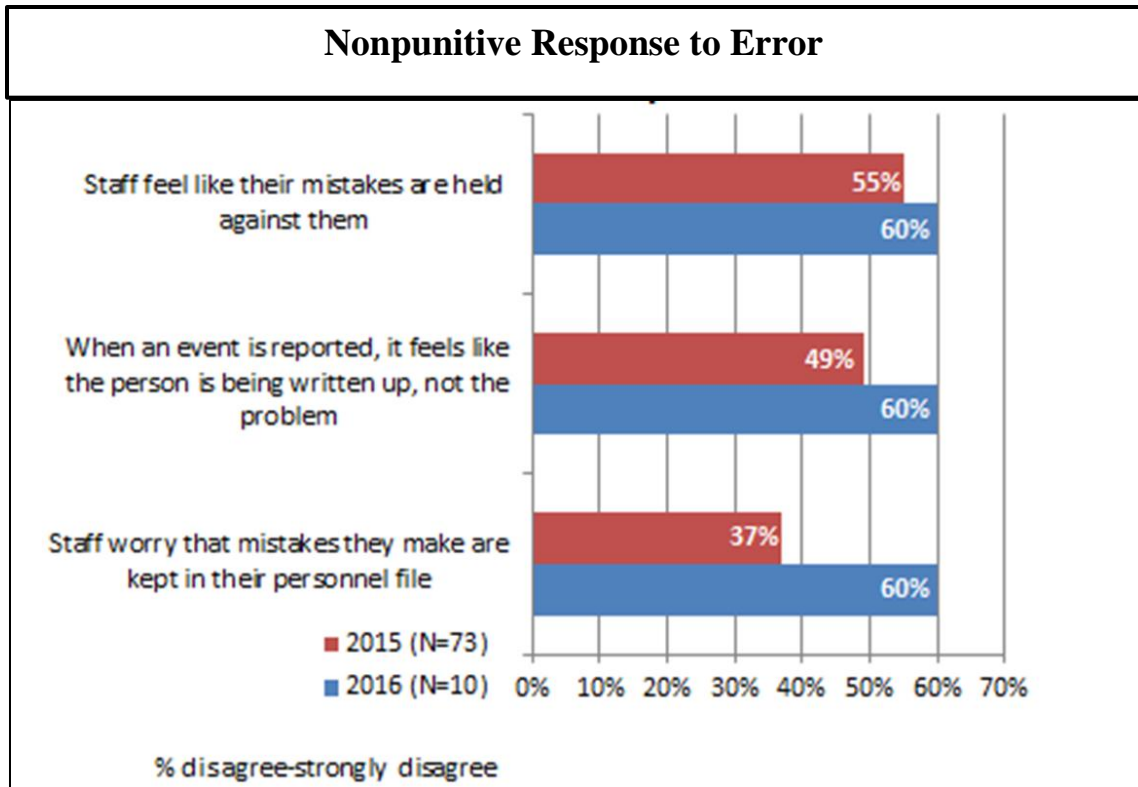
Figure 28.



Just Culture Training Results: Handoffs and Transitions.

In Handoffs and Transitions, positive responses on the first question improved by 19 percentage points from 2015 and 2016. The second and third questions indicated a decrease in positive responses of 1 and 21 percentage point respectively.

Figure 29



Just Culture Training Results: Nonpunitive response to error.

Responses on the Nonpunitive Response to Error questions indicated improvements between 2015 and 2016 ranging from five to 23 percentage points. In the Nonpunitive Response to Error, all the three questions were negatively worded. However, the instrument that was used for 2016 was a Monkey Survey, which did not follow the AHRQ instructions on how to score the negatively worded questions. Therefore, the results had to be manually re-calculated using the AHRQ instructions, so the actual appropriate score was given.

Evolution of the Project

Expected versus Actual Outcomes. The trainees' Knowledge and Confidence Level had a statistically significant increase in both measures ($p=0.000$). The increase was from a mean of 3.1 to 4.2 for Knowledge and 3.4 to 4.3 for Confidence on a 5-point scale.

Figures 26, 27, and 28 describe trainees' survey responses on items for, and Communication Openness, Handoffs and Transitions, Non-Punitive Response to Error respectively. Results are somewhat mixed in increases or decreases in positive responses on question items before Just Culture, and in 2016 after implementation of Just Culture. Results on a total of six of the nine questions showed improvements. For Communication Openness and Handoffs and Transitions, one and two items decreased respectively in positive responses from 2015 and 2016 while items for Nonpunitive Responses all increased.

These results are nonetheless promising indicating improvements for six of the nine AHRQ questions. Five reasons would explain why for the three questions, positive responses decreased. The first and second reasons are the response samples and sizes. Some of the respondents in 2016 were not the same respondents from 2015 while some were. The 2016 respondent sample size was also small ($N=10$) and certainly much smaller than in 2015 ($N=73$). This may also produce less reliable results for comparison between the two years.

Another reason is respondent confusion with answering questions that were worded positively and negatively. For example, two of the three questions for Communication openness were worded negatively, and respondents may have become confused in answering positively or negatively.

The fourth and fifth reasons that explain decreases in positive responses between 2015 and 2016 pertain to program effectiveness itself. Respondents in 2016 may have felt that they could now be more candid in answering survey questions because of the implementation of Just

Culture while responses in 2015 may still reflect some fear of a punitive culture. For example, the question “Staff will freely speak up if they see something that may negatively affect patient care” resulted in decreased positive responses. This may reflect that staff may indeed be more willing to admit that another staff is not speaking up perhaps from having participated in Just Culture. Alternatively, survey results that decreased on the three items may reflect that the change did not improve in these areas. At the same time, the length of training was variable thus affecting the dosage of the training received by participants and thereby not reflecting positive results.

The expected short-term outcomes are: that the trainees/participants would increase their Just Culture and patient safety confidence and knowledge, learn how to use the Just Culture Algorithm in Adverse Event Investigation, learn how to identify AE correctly and select a Just Culture champions in the pilot unit. Two out four of these outcomes were completed. The outcome of increasing confidence and awareness was met. Two staff members volunteered to be the Just Culture Champions in the pilot unit. The other two short-term outcomes were not completed, and it was determined that they are not applicable to be implemented with current stakeholders.

Facilitators. The project’s activities were implemented as planned by the DNP student and the other members of the team. The development of the Just Culture education program, marketing, handouts, recruitment of trainees, and collection of data were conducted as planned. The timeline for the data collection was extended due to the Joint Commission visit to Shriners Hospital.

Barriers. Barriers to training implementation were assessed and identified during and after the Just Culture education workshop with Lack of Time was a primary obstacle to full implementation and training. There were times when the DNP student was scheduled to provide

the Just Culture education but had to leave due to the assigned trainee calling in sick, staffing was short, or the patients' acuity level became higher; thus, scheduled trainees were needed to provide direct patient care.

Summary

This DNP project was guided by the combination of the Ace Star Model and the ANCC Magnet Model. Twenty-two staff participated in the Just Culture Education interactive workshop conducted from June 2016 to December 2016. Two participants did not complete the post evaluation portion, and therefore, significant data was missing, thus, the respondent size was 17. The on-line survey focused on the three Patient Safety Culture areas. Only ten staff members responded to this on-line survey.

The purpose of the just culture model is to guide the healthcare organizations, its leaders, and its employees in responding to medical errors appropriately by creating a culture of safety characterized by having trust and the feeling of psychological safety to prevent patient harm.

The core of the Just Culture Model is that errors could be reduced or even eliminated in the healthcare organization through actions such as:

- The System always anticipating Risk and Errors,
- The System holding itself accountable;
- The System holding the staff members accountable;
- The System has staff members who hold themselves accountable;
- The System has a learning and proactive Culture;
- The System is a High Reliable Organization (HRO), and
- The System incorporates systems that monitor drifts in practices (Marx, 2001).

The interventions that were emphasized to the staff to create a culture of safety at the Shriners Hospitals are:

- Let us Communicate our Concerns: TeamSTEPPS – CUS
- Let us be a HeRO: One Minute “VA Stop the Line”
- Let us have Empathy for One Another: Caring Feedback
- Let us Support Each Other: Peer to Peer Coaching
- Let there be Trust Among Us: Transparent Communication and be Accountable
- Let us Document Clearly: SBAR

The objective of the DNP project to implement an evidence-based strategy to improve or eliminate the punitive culture was achieved. However, there are areas for improvement before implementing the Just Culture education program organization-wide. The primary recommendation is to conduct training away from the demands of their daily work environment to eliminate work interruptions. Staff would not only receive the full training as planned, but this better ensures consistency of dosage in training.

CHAPTER 5. DISCUSSION

This DNP project measured perceptions of patient safety culture for the top three focus areas that were identified by the National Office of the Shriners Hospital, non-punitive response to error, handoffs and transition, and communication openness.

The project results address implications, conclusions, and suggestions for organization-wide implementation and further research needs on Just Culture. Publications are currently limited or nonexistent on the results of a just culture model on improving employee perceptions on patient safety culture.

This project evaluated the changes in employee perception of the patient safety culture before and after having gone through to a just culture education which provided as an interactive workshop. The project was piloted in the acute care nursing unit. The Nurse Manager of the unit selected the employees who attended the Just Culture workshop. Twenty-two staff members participated in the workshop, with nineteen post-class evaluations were returned. Written comments were examined for considerations in conducting future classes. The only identifying data collected was job profession to increase anonymity of an expected small sample size.

Interpretation of Findings

Just Culture Education – Process Evaluation

The pre and post evaluation results of the Just Culture Education showed that the majority of the staff who participated improved their knowledge and confidence level on just culture competencies. The mean score of the knowledge competency pre-Just Culture education implementation was 3.1, and it was 4.2 after the education on a 5 points scale. For the confidence level competency, the mean score pre-education implementation was 3.4, and it was 4.3 post-program implementation. The increase in improvement on knowledge and confidence level of just Culture was highly statistically significant ($p=0.000$).

More than half of the respondents (58.8%) rated the overall training as “very good or excellent” with an average rating as 3.7 (sd=0.93) on a 1-5 point scale. The trainees perceived that the best benefit of Just Culture was knowledge (73.7%) followed by “ideas/techniques” (52.0%). Almost three quarters (70.6%) of the trainees indicated that was “very much so” pertinent, and none of the trainees responded that the training was not pertinent. Over two-thirds (68%) of the trainees thought that the ratio of a lecture to discussion during the training was adequate, i.e. “to some extent” while those who thought that there was too much lecture (12.5%) or too much discussion were about even (18.0%).

The most common impact described in open-ended questions about the impact of the training was learning about empathetic or caring feedback communication (N=3). Other impacts noted were “stop the line” (N=2) and “patient safety” (N=2) not being able to identify an impact was also commented upon (N=2).

Overall the training results are positive with participant gains in knowledge and confidence in Just Culture competencies. Results on the training content indicated satisfaction while the format, i.e., a mix of lecture and discussion, though viewed favorably could be further examined for areas of improvement.

Just Culture Education – Outcome Evaluation

The primary and ultimate objective of the DNP project is to improve the perception of the Shriners Staff about patient safety culture in the top three focus areas, nonpunitive response to error, handoffs, and transition, and communication openness. This was executed by creating a plan for implementing culture change using the structural empowerment model via Just Culture education.

Evaluation Survey Instrument. A survey was developed using the same questions from the 2015 AHRQ Patient Safety Culture Survey questionnaire, which served as the baseline data for the top three focus area dimensions. The Overall Patient perception questions inadvertently were not included. Also, the fourth question in Handsoff and Transition was also not included in the 2016 evaluation.

The online survey was administered through the Department of Performance Improvement at Shriners. The survey was conducted one week after the last Just Culture class with two weeks to respond. Due to the Joint Commission visiting in January 2017, the survey completion was extended for another two weeks.

The “Nonpunitive Response to Error” survey contained three negatively worded questions. Question 1) “Staff feels that their mistakes are held against them” (2015 - 55% and 2016 – 60%). Question 2) “When an event is reported it feels like the person is being written up and not the problem” (2015 – 49% and 2016 – 60%). Question 3) “Staff worry that their mistakes they make are kept in their personnel file” (2015 – 37% and 2016 – 60%). Studies have shown that there is a significant relationship between willingness to report and non-punitive response to error and the number of reported events (Smith, 2012).

The “Handoffs and Transitions” survey contained three negatively worded questions. Question 1) “Things “fall between the cracks” when transferring patients from one unit to the another” (2015 – 51% and 2016 – 70%). Question 2) “Important patient care information is often lost during shift changes” (2015 – 51% and 2016 – 50%). 3) “Problems often occur in the exchange of information across hospital units” (2015 – 51% and 2016 – 40%).

The “Communication Openness” survey contained one negative and two positively worded questions. Question 1) “Staff will speak freely up if they see something that may negatively affect patient care” (2015 – 72% and 2016 – 80%). Question 2) “Staff feels free to

question the decisions or actions of those with more authority” (2015 – 50% and 2016 30%). Question 3) “Staff is afraid to ask questions when something does not seem right” (2015 – 54% and 2016 – 80%). Communication Openness is an important dimension to ensure it has positive results for many studies including the Joint Commission, which stated, “Communication failure is the third most commonly identified cause of all sentinel events (2015). Steinbinder said that in “A 2005 study title “Silence Kills: The Seven Crucial Conversations in Healthcare” reported that more than half of 1,700 nurses, physicians, clinical care staff, and administrators witnessed coworkers ”break rules, make mistakes, fail to support others, demonstrate incompetence, show poor teamwork, act disrespectfully, or micromanage.” Yet, the study states, “despite the risks to patients, less than 10% of physicians, nurses, and other clinical staff directly confronted their colleague about their concerns” (2016). According to Garon (2012) studies have also shown that empowerment from managers and supervisors promoting open communication positively affect employee perception of feeling safe to speak.

AHRQ guidelines for analysis directed that for negatively worded questions, the percentage who responded “strongly disagree/disagree” were positive responses. The AHRQ benchmark on all items was 70% or better positive responses.

Evaluation Results. Six of the nine questions showed increases in positive responses from 2015 and 2016. The three questions that did not show increases indicate that there may be needs to further address Handoffs and Transitions and Communication Openness dimensions. Alternatively, methodological limitations concerning respondent confusion in answering a combination of positive and negatively worded questions, different response samples, and small sample size may also explain the negative results.

Program Practice Results. The expected medium and long-term outcomes were not evaluated because implementing the pilot program was the only scope of the DNP project. There is a plan to implement the Just Culture program organization-wide, and the DNP student has promised to help SHCH in the implementation.

On January 4, 2017, the National Office of all Shriners Hospitals issued a policy that Just Culture Education will be implemented system-wide. Just Culture Education will be provided as part of the hiring process at the time of orientation for all new hires, evaluated in annual competency review, and to determine appointment and re-appointment of all SHC workforce members. Therefore, the implication related to the sustainability of the project is no longer hypothetical but assured.

Implication and Recommendations

DiNapoli stated, “Implementation Science is the study of methods that promote the integration of research findings and evidence into healthcare policy and practice. It addresses the challenge of moving health research innovations to practice more quickly, helping to bridge the service-to-science gap (2016). This DNP student utilized the eight DNP Essentials during the assessment, planning, development, implementation, and evaluation of the DNP Project, using evidence-based practice in integrating the best evidence with clinical expertise for the Just Culture education project. These essentials are the foundational competencies for advanced nurses when graduating from any DNP program (American Association of College of Nursing, 2006). The DNP Essentials are the foundational competencies for advanced nurses when graduating from any DNP program (American Association of College of Nursing, 2006). This DNP student utilized and demonstrated acquisition of the eight DNP Essentials through her experience in assessing, planning, developing, implementing and evaluating the DNP Project.

The DNP student integrated evidence-based practice with clinical expertise for the Just Culture education project.

Essential I: Scientific Underpinnings for Practice

The DNP project developed is an approach based on scientific evidence to transform the system of Punitive Culture into a system of Just Culture to improve the patient safety of all patients admitted to the SHCH. The theoretical ACE Model and the ANCC Magnet Model were fused and along with scientific and educational approaches were used to plan the design, development, implementation, and evaluation of the project. The project's results can be used to develop Just Culture Education program for the 23 Shriners Hospitals nationally and internationally.

Essential II: Organizational and Systems Leadership for Quality Improvements and Systems Thinking

The DNP Project provided this DNP student opportunities to apply advanced leadership skills through the DNP course works at the practicum site at Shriners. It further enhanced and developed the skills and expertise in assessing organizations, identifying system's issues and facilitated organization-wide changes at the SHCH. Leadership, management, communication, and collaboration skills were developed successfully resulting in the implementation of the Just Culture Education training program. Through this experience, the DNP student learned the characteristics of an effective leader, particularly, for the transformational leader. According to Thompson, "Transformational leaders are influential through their ability to aspire willing followers; create synergy between the leaders and followers where both parties uplift the other's motivation, ethics, and human conduct (Thomson, J., 2012). The principles of economics, marketing, organizational development, and business were used to obtain the support of leadership, management, and staff for the implementation of the DNP project.

The economic implication of creating a Just Culture environment cannot be quantified because according to the Institute of Medicine report *To Err is Human*, an estimated 7,000 deaths in the U.S. each year are due to preventable medication errors. According to the National Priorities Partnership of the National Quality Forum, the inpatient preventable medication errors cost approximately \$16.4 billion annually and 4.2 billion in the outpatient area (IOM, 1999; NQF, 2010). Economic analysis and research are needed to measure the savings at the Shriners Hospital for Children in Honolulu.

Essential III. Clinical Scholarship and Analytical Methods for Evidence-Based Practice

In creating this DNP project, this DNP student developed strategies to analyze evidence-based literature such as using Mosby's tool in reviewing and synthesizing articles. The project was designed, implemented, and evaluated according to process outcomes towards participants gaining knowledge and confidence in Just Culture by using the PDCA model of performance and improvement. The Just Culture program processes and impact outcomes were evaluated to examine the quality of the program and short-term effectiveness in improving the perception of staff about patient safety culture. The overall goal is that the program will be implemented organization-wide and that the results of the survey findings will be disseminated nationally throughout the Shriners Corporate office to help develop a Just Culture program for the Shriners community.

During the planning and implementation phase, this DNP student took the initiative to attend evidence-based training on Just Culture to validate chosen strategies, gain credibility of the staff and to increase DNP Student's confidence. In the winter of 2016 (February 2016), the DNP student traveled to California and attended the two-day "AHRQ TeamSTEPPS Train the Trainer" program at the University of California (UCLA). Three of the Shriners Hospital Just

Culture Education team members attended the same program at the University of Washington in Seattle. Thereafter, in spring of 2016, the DNP student traveled to Bellevue, Washington and attended the three-day “Medication Safety Focused Just Culture Champion” Certification Course at Overlake Hospital, offered by Outcome Engenuity, which is owned by David Marx, the Father of Just Culture.

Essential IV: Information Systems/Technology and Patient Care Technology for the Improvement and Transformation of Health Care

The DNP project is an applied informatics by the DNP student becoming proficient in using databases for literature research, and utilization of computer applications in designing and implementing the project education and activities. Identifying and keeping current on evidence-based practice is maintained by acquiring knowledge and skills to access published healthcare literature and nursing journals and knowledge of credible websites

Computer applications that were used to develop, implement, and evaluate the program were Survey Monkey for online administration of the 2016 intervention survey. Analysis of the 2016 survey results using Survey Monkey was also conducted including comparing the results from the AHRQ 2015 baseline.

The computerized Just Culture Algorithm to analyze Adverse Events was conducted to demonstrate the importance of informatics in the healthcare system. We planned to integrate the current SHCH computerized Adverse Event Reporting to the Just Culture Algorithm and to track safe nursing practice behaviors of the employee when an incident occurs. This computerized system will better support implementing the proper action instead of the previous practice of just writing up the employee that she/he experience an adverse event. This computerized algorithm is a primary tool to support changing the punitive environment to a culture of safety.

Essential V: Health Care Policy for Advocacy in Health Care

The DNP project was an excellent opportunity to analyze the ethics, and policies that may have been related to lack of transparency, fraud, waste, other abuses and the financial consequences of medical errors. A punitive environment might have contributed to these nursing practice consequences serving as risk factors for patient safety. Teaching the Just Culture education to the staff gave the DNP student the opportunity to talk individually with participants about their fear of being punished or fired if they committed an adverse event. The DNP student could then advocate for policies to the Shriners leadership and recommend a culture change mission. Policies would work to eliminate a perceived punitive culture and for employees to take more confidently adopt Just Culture and to trust their employer. The project also allowed the DNP student to be able to practice professionalism, e.g., neutrality, to ensure the confidence of the employee, administration, and other stakeholders.

Essential VI: Interprofessional Collaboration for Improving Patient and Population Health Outcomes

The Just Culture project provided this DNP student to use collaboration skills with the Board members, physicians, interdepartmental managers, secretaries, and diverse staff. This project needed continuous negotiating skills with the nurse manager and staff to gain constant support especially for the project implementation, and when a unit was too busy to participate. This DNP student actively addressed organizational conflict, promoted and respected cultural diversity, practiced motivational interventions while promoting autonomy, and respected and protected the privacy of each SHCH employee through collaboration and effective communication strategies. This project enhanced the DNP student's skills in team building, essential to implementing this new nursing practice organizational change program.

Essential VII: Clinical Prevention and Population Health for Improving the Nation's Health

The Just Culture Education project provided opportunities for the DNP student to practice advocating the staff the importance of preventing medical errors, its consequences and how they are integral in the prevention process. The DNP student also had the opportunity to advocate on to staff on how they can contribute to the health of a vulnerable population, the disabled children.

Essential VIII: Advanced Nursing Practice

The DNP student's practicum experience, allowed her to apply advanced nursing practice skills by providing leadership in translating knowledge into practice, lead practice inquiry, disseminate evidence from inquiry and analyze evidence-based practice guidelines. The DNP student assumed a leadership role in implementing the DNP project practice change. The Nursing Essentials have guided this DNP student to develop an evidence-based Just Culture program and to implement it as a pilot in the in-patient unit at the Shriners Hospital for Children in Honolulu. The DNP student intends to create the program into an on-line course for the SHCH employees to provide flexibility of dissemination and diffusion. With these essential skills acquired, the DNP student was able to practice the Triple Aim principles, which are: 1) Improving the patient experience of care including quality and satisfaction, 2) Improving the health of the population, and 3) Reducing the per capita cost of health care, by improving the knowledge and confidence of the employees in promoting transparent communication and accountability, which are the core of creating a culture of safety.

Plans for Dissemination

The final paper and the results of the project will be submitted to the University of Hawaii graduate division in April 2017. The final defense will be presented on March 23, 2017. The results of the project will be shared with the Shriners Hospital administration. This DNP student will advocate to leadership and management to share the results with the Shriners Hospital's corporate office for dissemination to its entire twenty-three (23) Shriners Hospital nationally and internationally. This DNP student also plans to present poster sessions and serve in speaker roles in conferences, and meetings and to publish the different sections of the paper in peer-reviewed nursing practice journals.

Future Expansion

The Just Culture program will be implemented throughout the organization and results will be shared with the corporate office of Shriners Hospital to help in implementing the Just Culture Policy that went into effect on January 4, 2017.

Summary

The Shriners Hospital for Children in Honolulu decided to create a culture of safety throughout the Shriners Hospital community, based on results from the AHRQ Patient Safety Culture Survey administered in 2013 and 2015. The 2015 results were used in this project for planning and evaluation. The decision of the Shriners leadership to adopt and pilot the project was consistent with the Institute of Medicine recommendations with the 1999 published report, "To Err is Human: Building a Safer Health System." Shriners' commitment to safety fosters an environment of trust, open communication, continuous improvement, accepting accountability, and reporting errors without fear of punishment.

The three top focus areas from the AHRQ Patient Safety Culture - Communication Openness, Handoffs and Transitions Hand, and Nonpunitive Response to Error showed

improvement in 2016, Questions for Nonpunitive Response to Error all showed positive increases in the three top focus areas of Safety Culture. However, three of the nine questions that may need to be further addressed are in the Handoffs and Transitions and Communication Openness dimensions.

The eight DNP Essentials guided and taught this DNP student about increasing her knowledge and confidence in implementing and integrating the relevant evidence-based practice with clinical practice to ultimately attain best possible patient outcomes. Results from this project indicate that a nursing practice culture change program such as the Just Culture Education is feasible and realistic. Such a program will empower nurses to create or revise policies and protocols related to patient safety best practices and for Shriners Hospital to achieve Magnet recognition, a goal of the administration.

APPENDIX A

Brochure, Understanding the Just Culture System

Interventions for a Just Culture Environment:

- Let us Communicate Our Concerns: TeamSTEPS-CUS
- Let us be a HeRO: One Minute Stop the Line
- Let us have Empathy for One Another. Caring Feedback
- Let us Support Each Other. Peer to Peer Coaching
- Let there be Trust Among us: Be Transparent and Accountable
- Let us Document Clearly: SBAR

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JUST CULTURE PROGRAM
at Shriners Hospital
for Children Honolulu

Just Culture is a System that:

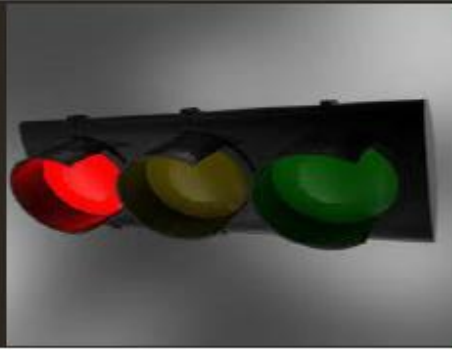
- Holds itself accountable
- Holds staff members accountable
- Has staff members who hold themselves accountable

Understanding Risk and Human Behavior

HUMAN ERROR

Inadvertently completing the wrong action; slip, lapse, mistake

Human Error



Console

AT-RISK BEHAVIOR

Choosing to behave in a way that increases risk where risk is not recognized, or is mistakenly believed to be justified

At-Risk Behavior



Coach

RECKLESS BEHAVIOR

Choosing to consciously disregard a substantial and unjustifiable risk

Reckless Behavior



Punish

APPENDIX B

Just Culture Class Registration Form



JUST CULTURE CLASS REGISTRATION

In-Service Meeting

Date:

Presenter: Nancy Atmospera-Walch, RN, BSN, MPH, MCHES, NHA, CMC, DNP(c)

Print All Info Last Name	First	Phone No. – Cell	E-Mail Address

APPENDIX C

Just Culture Power Point Presentation

Improving Patient Safety through Structural Empowerment



SHRINERS HOSPITALS FOR CHILDREN
 Agency for Healthcare Research and Quality (AHRQ)
 Patient Safety / Culture Survey

2017 National Patient Safety Awards **November** **Final 10, 2017**

Survey History 2014-15 **Survey Dates** 8/20/16-8/22/16 **Survey Period** 8/23/16-8/24/16

Survey Dates 8/20/16-8/22/16 **Survey Period** 8/23/16-8/24/16

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Background / Rationale for Project

SHRINERS HOSPITALS FOR CHILDREN
 Agency for Healthcare Research and Quality (AHRQ)
 Patient Safety / Culture Survey

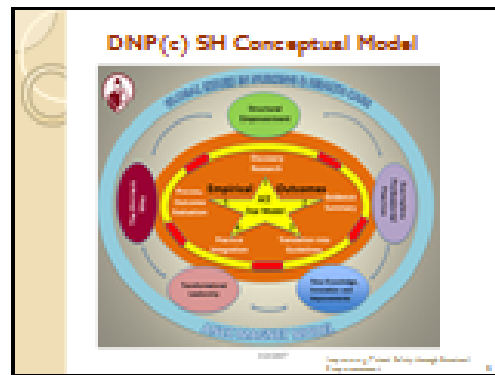
- > Shriners Hospital for Children Hospitals (SHCH)
- > Survey results indicated three areas for improvement (2014)
- > Comparative Data by Survey Questions (First Opportunity for Improvement)
 - Communication Openness
 - Harassment and Transience
 - Responsive Response to Error

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Background / Rationale for Project The Burden of Harm

- > **THEIR:**
 - Up to 78,000 deaths occur annually from avoidable medical errors.
 - US Institute of Medicine (IOM), 1999
- > **TODAY:**
 - Up to 400,000 deaths annually from preventable medical errors.
 - David Colquhoun on Primary Health and Aging (2014)

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Background / Rationale for Project The Burden of Harm

- > **TODAY:**
 - Preventing Medical Errors a \$2.1 Billion Opportunity
 - The High Cost of Preventable Medication Errors
 - \$1.4 billion annually – Inpatient preventable medication errors
 - \$4.2 billion annually – Outpatient preventable medication errors

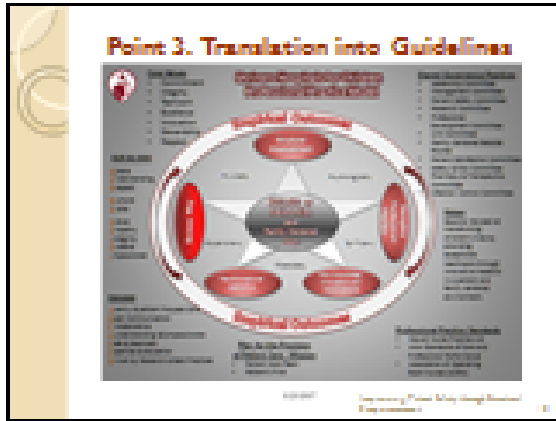
National Priorities Partnership – Coordinated by the National Quality Forum supported by a grant from the National Health Foundation (2012)

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Point I. Discovery Research PICOP/Purpose Statement

P	I	C	O
Problem / Population	Intervention	Comparison	Outcomes
Patient Culture and/or Perceived Usability Work Environment among Nursing and other Staff at SHCH	Jan Culture Baseline Program	Current Culture (2016 AHRQ Patient Safety Culture Survey Results at three Points in time)	Improvement of Patient Safety Perception at Patient Culture
		Points in time: <ol style="list-style-type: none"> Communication Openness Harassment & Transience Responsive Response to Error 	Change in Staff Attitude in Culture from Reporting

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- ### Point 3. Translation into Guidelines Project Design and Description
- Design: BPM/ QI (PDCA)
 - Just Culture: QI Education Program
 - Pilot Unit – In-patient
 - Evaluate the program
 - ☐ Process
 - ☐ Outcomes
-

- ### Point 2. Evidence Summary Literature Synthesis
- The Patient Safety Literature Analyzed and divided into 4 Evidence Sub-chapters:
 - ☐ Patient Safety and Medical Errors
 - ☐ Patient Safety and Just Culture
 - ☐ Patient Safety and Organizational Engagement
 - ☐ Patient Safety and Program Reorganization
 - DNP Project Focused: Patient Safety and Medical Errors in Relation to Just Culture

Short, Medium and Long-Term Outcomes

Short-Term (DNP Action)	Medium-Term	Long-Term
Expected short-term outcomes: Process 1. Knowledge Level 2. Confidence Level 3. Just Culture Compliance Outcomes 1. Communication System 2. Monthly J. Transition 3. Narrative Response to Errors	Expected medium-term outcomes: 1. Change in Self-Blame in Reporting JI 2. Incorporation of Just Culture Principles JIR 3. Progress of all behaviors meeting the JI 4. Collaborative team response to errors 5. Narrative Response to Errors 6. Narrative Response to Errors	Expected long-term outcomes: 1. Implementation of Just Culture Narrative program organization wide 2. 100% of Positive Response to the survey J-IRQ 3. Repeat J-IRQ 4. DNP in collaboration with the Hospital Reorganization journey 5. DNP will be single Narrative Response (NRS)

Point 4. Practice Integration Project Implementation

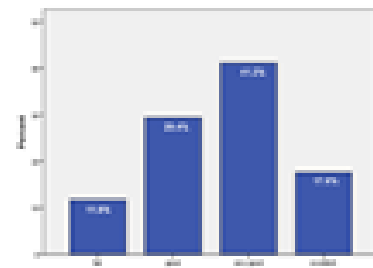
- Provided 2 hour Just Culture Education Training to 22 staff members (100% from June to Dec.)
 - ❑ AHRQ Agency OUPP for Just Culture
 - ❑ AHRQ Benchmark Strategies
 - ❑ VA's NCPS 2/16 Day Two Link
 - ❑ David Harbo's Just Culture Program
- Identified & trained 2 staff "Just Culture Champions"
- Provided weekly booster via visits the Pilot Unit
- Provided phone consultation

Workshop Evaluation Results

Point 5. Evaluation

- Workshop
 - ❑ Pre- and post-test conducted with participants
- 2 weeks post-workshop
 - ❑ Administered AHRQ questions related to communication openness, hand offs and transitions, and non-punitive response to error

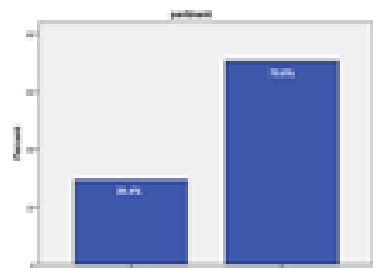
Point 5. Process, Outcome, Evaluation Overall Trainer Rating (n=17)

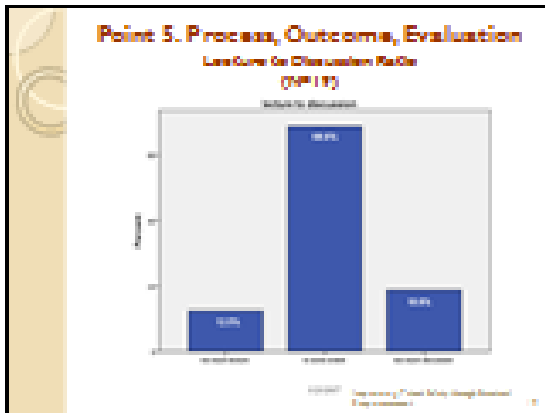


Point 5. Results

- 22 people completed the workshop
- 19 evaluations analyzed (2 participants did not complete the post-test)
- 10 completed the AHRQ Patient Safety tool questions 30 days post-workshop

Point 5. Process, Outcome, Evaluation Performance of Budget (n=17)



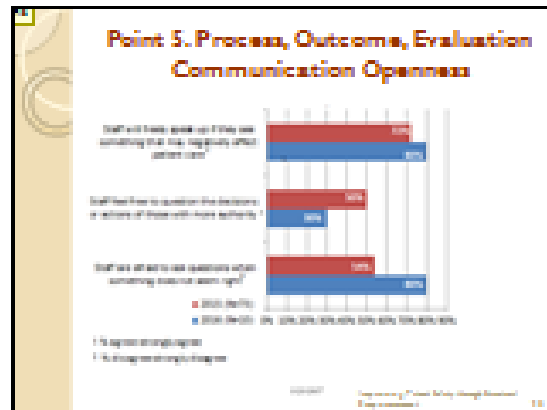
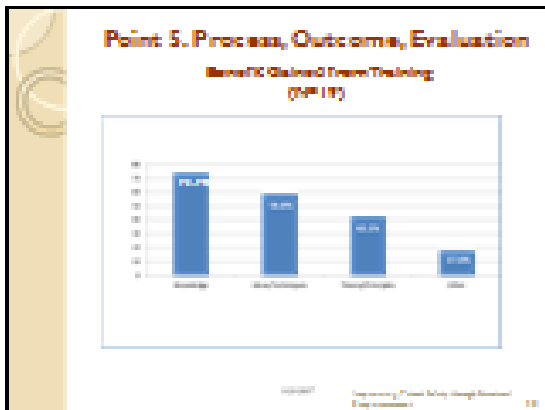


Patient Safety Culture Survey

AHRQ

AHRQ Institute (CI) utilized with a 70% or greater response by staff or team

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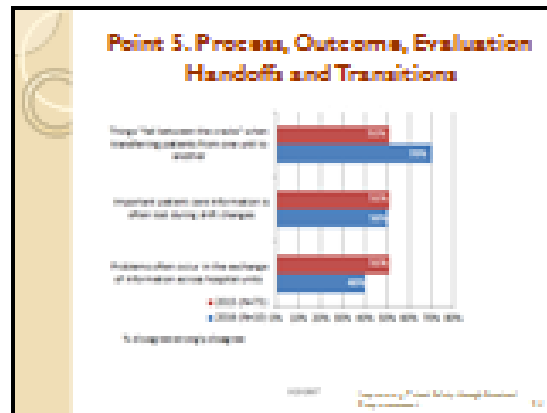


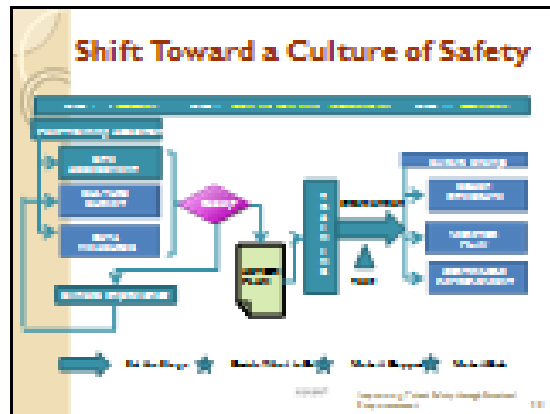
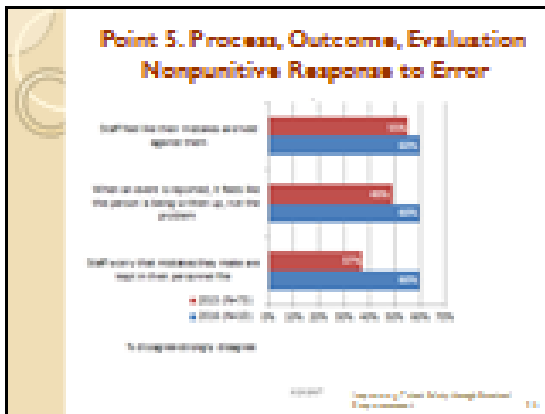
Point 5. Process, Outcome, Evaluation

Pre- and Post-Test Knowledge & Confidence

Domain	Mean	SD	Cronbach's Alpha	N
Knowledge Pre	2.1	0.8	0.9	7
Knowledge Post	4.2	0.4	0.9	7
Confidence Pre	2.1	0.8	0.9	7
Confidence Post	4.0	0.4	0.9	7

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- ### Limitations
- High level initiatives and strategies for improving JACOUs are limited
 - Time constraints for staff participation
 - Small Sample Size
 - Sample collected in years 2016 and 2018
 - Varying levels of employee motivation
 - Varying levels of understanding of JACOUs
 - Varying levels of understanding of JACOUs evaluation system
 - Class Leader (Having UNC versus Classroom)
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- ### DNP Student Plans for Disseminations and Sustainability
- Advocate to share the DNP Project with the entire master-class (22) Shriners Hospital system
 - Poster Sessions and Speaker Roles in Conferences
 - Publish the paper in peer-reviewed nursing practice journals
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- ### Findings
- Staff openness to moving toward a JC requires increasing trust across the organization
 - Staff have taken the first step as evidenced by increased candor in their responses to 2016 ANIQ survey
 - Time constraints due to patient acuity and volume impact staff development
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Mahalo

Shriners Hospital for Children in Honolulu

Your embrace of this project and student was extraordinary

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APPENDIX D

Pre- and Post-Just Culture Education Program Evaluation Form



PRE & POST JUST CULTURE EDUCATION PROGRAM EVALUATION FORM

Trainer: <u>Nancy Atmospera-Welch, RN, MPH, DNP(c)</u> Subject: <u>Improving Patient Safety Through Just Culture</u>											
Date <input type="text"/>		Time <input type="text"/>		Facility: <u>Shriners Hospital for Children in Honolulu</u>							
DISCIPLINE (Circle only the BEST answer with 1 as Low and 3 as High)											
1	Nurse Practitioner	4	Therapy, specify:								
2	Nurse	5	Pharmacy								
3	Social Worker	6	Other, specify:								
Instructions: Please complete the yellow highlighted areas before the class start.											
A. Please rate your level of knowledge. X only the BEST answer with 1 as Poor and 5 as Excellent.											
Level of Knowledge Competencies:		Before this Class					After this Class				
		1	2	3	4	5	1	2	3	4	5
1	Knowledge of issues that should be addressed when patient safety is compromised.										
2	Knowledge of interventions/resources you can use to facilitate discussion with peers to stop the Adverse Event (AE) from fully happening.										
3	Knowledge of the harm, risk, and behavior contributing to AE incidents.										
4	Knowledge on how to correctly report to the next shift or during transfer of the patient to another department.										
5	Knowledge of open communication skills to speak up when you notice that something may negatively affect the patient or to question decisions of people with authority.										
6	Knowledge about Just Culture interventions to change Punitive Culture, which contributes to increasing medical errors.										
7	Knowledge about the relationship of Systems and Behaviors in improving outcomes.										
8	Knowledge of the differences of Punitive Culture, Blame Free Culture, and Just Culture in relation to patient safety.										
9	Knowledge of the Just Culture Principles or Concepts.										
B. Please rate your level of confidence. X only the BEST answer with 1 as Poor and 5 as Excellent.											
Level of Confidence Competencies:		Before this Class					After this Class				
		1	2	3	4	5	1	2	3	4	5
1	How confident are you in analyzing your behavior if you have an AE incident?										
2	How confident are you that you will report AEs transparently at all times?										
3	How confident are you in using AHQ TeamSTEPPS CUS (Concerns, Uncomfortable, Safety) when communicating your concerns?										
Continue to next or reverse page											



PRE & POST JUST CULTURE EDUCATION PROGRAM EVALUATION FORM

B. (Continued) Please rate your level of confidence. X only the BEST answer with 1 as Poor and 5 as Excellent.											
Level of Confidence Competencies:		Before this Class					After this Class				
		1	2	3	4	5	1	2	3	4	5
4	How confident are you in incorporating "Caring Feedback," method when using CUS?										
5	How confident are you that you will use the "Stop the Line" intervention to improve patient safety?										
6	How confident are you in supporting your peers during AE incidents through peer to peer coaching?										
7	How confident are you in using SBAR for your documentation?										
8	How confident are you that you will hold yourself accountable for your actions?										
9.	How confident are you that you will apply the Just Culture principles at all times to prevent AE from happening, thus improving patient safety?										
C. Please answer questions below regarding your overall experience with the JUST CULTURE Class today:											
1	Were you satisfied with the format of the Class?										
2	What could be improved or what would have made the class more effective?										
3	Describe the most important impact the Just Culture Education had on you?										
4.	What benefits do you feel have you gained relating to Just Culture & Patient Safety?	<input type="checkbox"/> Knowledge <input type="checkbox"/> Theory/Principles <input type="checkbox"/> Ideas/Techniques <input type="checkbox"/> Other ____									
5.	Was the Subject Pertinent to your Needs and Interests?	<input type="checkbox"/> No <input type="checkbox"/> To some Extent <input type="checkbox"/> Very Much So									
6.	How was the Ratio of the Lecture to Discussion?	<input type="checkbox"/> Too Much Lecture <input type="checkbox"/> To some extent <input type="checkbox"/> Too Much Discussion									
7.	What is Your Overall Rating of the Trainer?	<input type="checkbox"/> Excellent (5) <input type="checkbox"/> Very Good (4) <input type="checkbox"/> Good (3) <input type="checkbox"/> Fair (2) <input type="checkbox"/> Poor (1)									

Print Name and Signature: (for Nurses Only for Competencies' Follow-up for their Learning Needs).

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