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Mentoring Nursing Leaders to Foster Frontline Accountability and Engagement in Continuous Performance/Process Improvement through the Utilization of Team Huddles and a Huddle Board

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Abstract

BACKGROUND: Establishing a connection for staff between the work being done and the associated implications and outcomes on patient safety and quality care delivery is not often a simple task for any nursing leader. Team huddles and huddle boards aim to establish and foster frontline accountability and engagement for continuous process and performance improvement. The setting of the project was a 17-bed acute care inpatient unit specializing in neurosciences within an academic medical center. Participants included nursing leaders and staff of the unit.

METHODS: Consultation and mentorship in conjunction with standard work were utilized for this project. The intervention was developed utilizing Kotter's model of change. Literature review to identify Lean management best practices in nursing/healthcare was conducted.

INTERVENTION: Team huddle/huddle board rollout nursing leader behaviors standard work was created, along with a team huddle/huddle board score card and satisfaction survey. Consultation and mentorship provided to nursing leaders and team over eight-week project period. Nursing leader ability to implement interventions/processes assessed and team huddle and huddle board components scored weekly. A post-implementation satisfaction survey was administered to the nursing leaders and team.

RESULTS: Nursing leaders implemented all interventions and processes defined in standard work within the eight-week project period. Team huddles and huddle board possessed 100% of required components by week six and were sustained through the end of the project period. Over 90% of project participants responded as 'agree' or 'strongly agree' on all six satisfaction survey items.

CONCLUSION: Results suggest that nursing leaders can successfully implement team huddles and huddle boards through consultation and mentorship and the utilization of standard work.

Team huddles and huddle boards can benefit individual and team dynamics such as information sharing, problem solving, work environment, and communication.

Keywords: Lean management, team huddles, huddle board

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McDaniel, Jordan, and Fleeman (2003) convey three statements that this author believes embody why team huddles and huddle boards are essential to seeing and moving beyond what is to what could and/or what should be with healthcare quality and safety:

> We should spend less time trying to find out what we are supposed to do and more time learning in the moment. We should spend less time making decisions and more time creating meaning through dialog, interpretation, observation, reflection on experiences, and construction of explanations. We should spend less time memorizing facts and more time exploring relationships. (p. 273)

The concepts and thoughts captured by these individuals highlights the importance of nursing leaders to empower nurses and other healthcare providers to discuss the work being done at the frontline in real-time, including what is working, what isn't working, and why. Also highlighted by these concepts and thoughts is the criticality of frontline accountability, engagement, and interaction with regards to the provision of patient care and the development of solutions to problems faced that promote success and sustainability for all stakeholders, with the patient seeking and receiving care as the center of focus.

Introduction

Problem Description

Continuous performance and process improvement initiatives and practices have swept the healthcare arena in recent years, highly inclusive of the profession of nursing. This is in direct response to the fact that quality and safety of care delivery has quickly become one of the top priorities and major focuses for healthcare systems and providers throughout the country, a

trend that is only expected to continue to grow in coming years (Baloh, Zhu, & Ward, 2017). Rationale for this is tied to the approximate 180,000 deaths that continue to occur annually as the result of adverse health events, as well as changes in healthcare delivery systems and reimbursement structures for healthcare organizations throughout (Martin & Ciurzynski, 2015). In line with continuous process and performance improvement, Melton et al. (2017) explain that, "Providing optimal patient care in acute care institutions requires a process that can resolve problems quickly, move decision-making to grassroot levels, improve accountability, enhance empowerment, and encourage collaboration among disciplines" (p. 282). Unfortunately, in today's practice, much of the change, growth, and success achieved through continuous performance and process improvement campaigns is not sustained long term. This is most often associated with the fact that these initiatives and practices are not introduced as a new way of approaching thinking and/or working, but rather are added on to existing processes and workflows with little attention or effort afforded to overall culture change (Silver et al., 2016).

The establishment of accountability and engagement among frontline nurses and support staff with regards to the quality and safety of patient care delivery is a challenge faced by nursing leaders throughout the realm of healthcare. Establishing a connection for staff between the work being done and the associated implications and outcomes is often not a simple task for any nursing leader. As a result, the actions and methods of nursing leaders around such vary, resulting in discrepancy and inconsistency in approaches and practices beginning at the leadership level and trickling down to frontline staff where the work is being carried out. These variations, in turn, jeopardize the overall perceived effectiveness of a leader with regards to the ability to drive and sustain change and improvement (Baloh, Zhu, & Ward, 2017). Not only are the effects of this realized by organizations and healthcare providers, but they are also felt by the

patients and families seeking expertise and refuge within healthcare organizations and the system as a whole. Nursing leaders must be vigilant in their quest to learn and adopt new knowledge and practices that will aid and support the mission to drive successful and sustainable change and process/performance improvement within their areas of oversight and within their healthcare organizations. Through education, immersion, and mentorship, nursing leaders can learn to deploy principles and methodologies of Lean management, such as team huddles and huddle boards, to achieve optimal patient safety and quality care delivery with the teams of nurses and healthcare providers they lead.

Available Knowledge

Team huddles and huddle boards are concepts of Lean management that are rapidly growing in popularity and utilization throughout the realm of healthcare. Various methodologies and principles of Lean management overall have been growing in influence and inclusion within the healthcare arena for almost two decades (DelliFraine, Wang, McCaughey, Langabeer, & Erwin, 2013). "There is a growing body of evidence that the tools and philosophy of Lean management improve quality, safety, cost, and delivery of care in healthcare systems" (Roszell & Lynn, 2016, p. 373). Derived from the manufacturing industry, where it was developed and refined over several decades, Lean management has been met with mixed criticism in healthcare by many industry experts due primarily to concerns related to appropriate and effective translation of concepts and practices (Koeijer, Paauwe, & Huijsman, 2014; Schonberger, 2017). It has also been called into question whether Lean management has resulted in proven positive outcomes and substantial improvements to overall quality and safety within healthcare (DelliFraine, Wang, McCaughey, Langabeer, & Erwin, 2013; Koeijer, Paauwe, & Huijsman, 2014; Schonberger, 2017).

Response to skepticism highlights that Lean management as it relates to healthcare is still young and immature in many regards, continuously evolving to meet the demands and desires of the industry as it continues to strive to meet the needs and expectations of its consumers and payors. That does not mean that it is not a suitable approach to change and improvement for healthcare. The translation of Lean management from its historical contexts is an iterative process, as experts and leaders continue to learn how to adapt and apply overarching methodologies and principles to the unique and dynamic world of healthcare (Schonberger, 2017). Molla et al. (2018) highlights that Lean management "is a set of techniques and tools for process improvement, with a focus on defects, variation reduction, and customer satisfaction, which in other sectors has been shown to better serve consumers, reduce costs, and improve safety" (p. 401). It is also emphasized that it is often difficult to discern the impact of Lean management on quality and safety outcomes and metrics because methodologies and principles are often embedded in the processes and work, making it a challenge to accurately predict or measure the degree of presence and the exact role of Lean management in the cause and effect of outcomes (Roszell & Lynn, 2016). This does not mean, however, that Lean management is a wasted energy or effort as there are growing bodies of literature and research that support its associated positive effects and outcomes (Baloh, Zhu, & Ward, 2017). Education, experience, and exposure are essential to overcome negative and opposing biases to the necessity of Lean management in healthcare (Patri & Suresh, 2018).

Lean management has also been shown to be critically conducive to an organization's achievement of high reliability status. Lean management aids with and supports the necessary culture shift within a healthcare organization with regards to the undeniable importance of patient safety and quality care delivery; the foundation of its infrastructure supports continuous

performance and process improvement, and in turn supports a pursuit of high reliability (Weaver, 2015). Lean management concepts and processes, such as team huddles and huddle boards, support the movement away from a culture of blame within healthcare organizations that has historically inhibited healthy growth and improvement in the overall culture of quality and safety among a team and within an organization. This is achieved through the creation of an effective forum for collaborative and productive communication, one that focuses on process and system failures rather than what have historically been perceived as individual failures (Martin & Ciurzynski, 2015; Weaver, 2015). Through the establishment of standardized and structured communication systems, like team huddles and huddle boards, Lean management supports the embedding of the five pillars and principles of a high-reliability organization (preoccupation with failure, reluctance to simplify, sensitivity to operations, commitment to resilience, deference to expertise) into the continuous performance and process improvement work of a team or an organization as a whole (Melton et al., 2017, Weaver, 2015).

Team huddles are deployed in healthcare as a Lean management concept and process in a variety of fashions and designs, but regardless of deployment and implementation approach, the benefits of this type of structured and standardized communication forum are often fruitful in many capacities. Team huddles are being increasingly utilized by hospitals and other healthcare organizations for these reasons (Melton et al., 2017). Huddles are one of the most simple and successful processes to have emerged in healthcare's most recent era of preoccupation with quality and safety (Donnelly, 2017). Deficiencies and issues with communication among healthcare providers and teams "have been identified as the leading cause of 60-80% of adverse events" (Baloh, Zhu, & Ward, 2018, p. 572). As a result of this fact, communication barriers and inefficiencies have been shown to have a direct impact on the pursuit of optimal patient safety,

care quality, and high reliability throughout healthcare. Melton et al. (2017) highlight that team huddles allow for "conversations important to patient care that might not occur outside the huddle process" to take place (p. 283). Team huddles allow for the establishment of a standardized communication strategy that promotes enhancement in the amount, type, and quality of communication realized (Martin & Ciurzynski, 2015). Through the implementation and utilization of team huddles, overall individual and team communication can be improved, and as a result so can quality, reliability, and safety (Baloh, Zhu, & Ward, 2018; Davis, 2015; Melton et al., 2017; Provost, Lanham, Leykum, McDaniel, & Pugh, 2015).

Leadership involvement and presence with the creation and conduction of team huddles is critical. Leaders must also relate to the work that is being done at the frontline in order to truly be effective leaders by Lean management standards. With Lean management, the leaders do not consider themselves to possess the answers or information needed to drive improvement, but rather it's the team members that do (Bell, Bohannon, Porthouse, Thompson, & Vago, 2016). Team huddles create a dedicated time and space for healthcare providers to communicate and collaborate various ideas and pieces of information to each other and to leadership. Defined structure and expectations, including time allotment, communication standards, and expected participants, are essential for the development and implementation of team huddles (Melton et al., 2017). According to Davis (2015), team huddles should have a set time in order to encourage and support attendance. Input of frontline staff should be petitioned for the identification of times that are most convenient and conducive with workflow and routines. Huddles permit the discussion of information pertinent to the work that is being done by nurses and other healthcare providers at the frontline, whether it be related directly to patients, the provision of care, or the establishment of expectations and/or plans for the team and the

individuals that comprise it (Baloh, Zhu, & Ward, 2018; Bell, Bohannon, Porthouse, Thompson, & Vago, 2016; Melton et al., 2017). Team huddles have also "been shown to help rapidly identify abnormal states and promote execution of countermeasures" (Donnelly, 2017, p. 86). Team members, as part of the process, are encouraged to disclose and share any insight or information they may have relative to the conversation, or care delivery overall, including barriers, concerns, or tips for success and sustainability (Donelly, 2017). To ensure the maximization of a captive audience and prime participation, the duration of team huddles should be limited to an amount of time that will not keep nurses and other healthcare providers from their patients and work for too long (Davis, 2015). Huddles that last too long in length result in the attention of participants returning to work that needs to be done and can result in resentment of team huddles because of the hindrance or interference it results in with regards to team members' work.

In addition to the effects on overall communication, team huddles have demonstrated the ability to have an impact on team accountability, engagement, and performance. Relationships among the team members are enhanced and the overall work environment and culture around quality and safety can be strengthened (Melton et al., 2017; Provost, Lanham, Leykum, McDaniel, & Pugh, 2015). Team members can become more astutely aware the impact that their own work and performance has on patient care, as well as the quality and safety implications of such. They can have active involvement in not only idea and information sharing, but can actively contribute and participate in the design, implementation, and evaluation of processes for improvement (Bell, Bohannon, Porthouse, Thompson, & Vago, 2016). Teams can also then recognize and celebrate individual and team successes and growth as a result (Hansell & Kirby, 2015). Team members should never be individually ostracized and/or penalized for actions or

information shared during the team huddle (Silver et al., 2016). Instead, it is important for the work and results of the work to be communicated and viewed as a product of the team. Hierarchical relationships, such as experience level or role of team members, are diffused as everyone gathers to discuss different experiences, information, and perspectives for the greater good (Melton et al., 2017). This diversity aids in the formation of a well-rounded view and understanding of the work being done, including what is working well and what is not (Davis, 2015; Hansell & Kirby, 2015).

Huddle boards, as part of Lean management, are a visual control and are tools of visual management (Donnelly, 2017; Silver et al., 2016). Visual management is a principle of quality improvement that allows for key stakeholders to differentiate between normal and abnormal, or desired versus undesired, information and results in a simple and transparent way. As a form of visual management, huddle boards should only ideally contain information that is able to be impacted by those doing the work or that can or will impact those doing the work or the work being done (Silver et al., 2016). In other words, huddle boards are intended to communicate useful and valuable information to the various members of the healthcare provider team, especially those at the frontline. In support of this, huddle boards must also be designed and constructed in a way that they are easily understood by the frontline and just as easily explainable to others (Silver et al., 2016)

As previously discussed, team huddles are ideally meant to follow a standardized format and structure to ensure that all necessary areas and components are covered as part of the discussion and collaboration. To aid in this, successful team huddles often utilize a huddle board to allow for visualization of the information sharing taking place (Donnelly, 2017). Huddle boards also allow for a visual that aids in the facilitation of the team huddles, ensuring that the

discussion and collaboration covers all necessary points and that communication is maximized. They typically contain various types of information that relate to the work that is being done with regards to patient care, quality, and safety (Davis, 2015). The information on this type of visual display can take many forms and may already be present at the start of the team huddle (prepopulated) or is added during huddle conduction based off information generated. Regardless of point of generation, the information contained within the huddle board should relate in some form or fashion to the intentions and purposes of the team huddle. Huddle boards should help to visualize performance and/or outcomes in relation to an identified metric or process determined to be important to the team and their work, including the overall aims and/or goals the team is striving to achieve. They should be able to illustrate the progress, or lack of, regarding performance and process improvement efforts of the team. Huddle boards also allow teams to visualize problems with processes and barriers to performance (Silver et al., 2016). These components of the huddle board support an active and evolving illustration of the efforts and work of the team that is being discussed, modified, and updated in conjunction with the conduction of team huddles (Donnelly, 2017; Silver et al., 2016).

Rationale

Kotter (1996) constructed a theoretical model around the process of leading change that was intended to be utilized by leaders, regardless of industry, aiming to implement successful and sustainable change for transformative purposes. The development of an intervention to serve as a consultant and a mentor for nursing leaders to develop, implement, and sustain the Lean management concepts of team huddles and huddle boards in their respective areas of responsibility utilized the ideas and principles of Kotter's work to ensure success. Kotter's model is not only applicable to the interventions developed and utilized for the consultation and

mentorship of nursing leaders, but also in the approach the nursing leaders utilized to take from lessons learned and to implement the interventions and change with frontline nurses and other healthcare providers. Kotter's model has been used to successfully implement and drive change throughout the healthcare arena for over a decade in a variety of settings and for various types of change (Baloh, Zhu, & Ward, 2017). The model consists of eight steps that change leaders should follow:

1. Establishing a sense of urgency;
2. Forming a powerful guiding coalition;
3. Creating a vision;
4. Communicating the vision;
5. Empowering others to act on the vision;
6. Planning for and creating short-term wins;
7. Consolidating improvements and producing still more change;
8. Institutionalizing new approaches (Kotter, 1996, p. 61).

One of the most important components of Kotter's model for all parties to be mindful of is the fact that change is an iterative process that builds upon itself. Therefore, a leader should not skip or rush steps for the sake of being quick or timely. By doing so, the overall integrity and strength of the intended change(s) will be jeopardized as components of the process are not afforded the opportunity to mature and interact with others as intended (Kotter, 1996). Kotter's original model was later enhanced with the assignment of phases to the steps; steps 1 through 3 made up Phase 1, steps 4 through 6 made up Phase 2, and steps 7 through 8 made up Phase 3 (Kotter & Cohen, 2002). The phases were meant to represent the transition from creating the

climate change (Phase 1), to enabling and engaging the masses (Phase 2), to implementing and sustaining change (Phase 3) (Baloh, Zhu, & Ward, 2017).

As previously stated, if it is expected that nursing leaders will utilize Kotter's model as foundational theory for leading change associated with the implementation of team huddles and huddle boards with frontline staff, the model must also be used in their consultation and mentorship. The nursing leaders themselves were led through change associated with the products of this project that were new and foreign to them, change that impacted their approach to the way they did their own work and the way in which they led others. The model was utilized in order to gain a theoretical understanding of how to achieve intended actions, behaviors, and outcomes from the targeted nursing leaders, as well as how to design and structure approach and interventions to maximize change potential and success. Throughout the course of this project, the DNP student as a consultant/mentor had to be mindful of where the nursing leaders were with regards to the Kotter model steps; this included being transparent about the use of the model and what was entailed and mentoring the nursing leaders to the model and its use during their own change implementation.

Specific Aims

The purpose for the conduction of this project was to serve as a consultant and a mentor, as a Doctor of Nursing Practice leader, in order to aid and assist other nursing leaders in facilitating the development and implementation of team huddles and huddle boards in their areas of oversight/responsibility and with their respective teams. As concepts and methodologies of Lean management, team huddles and huddle boards, paired with competent and effective leadership, have the potential to foster the accountability and engagement of frontline nurses and other healthcare providers with regards to continuous performance and process improvement

efforts. "Managers have potential to create conditions from which huddle outcomes that support high reliability are more likely to emerge" (Provost, Lanham, Leykum, McDaniel, & Pugh, 2015, p. 2). As a result, positive impacts can be made to the overall quality and safety of patient care delivery, as well as improvements to team dynamics such as communication, collaboration, and collegiality.

The primary goal of this project was to support the targeted nursing leaders through the implementation of developed interventions with the intent to produce established team huddles and a huddle board as deliverables. Expected outcomes associated with the scope of this project were primarily process focused. Nursing leaders, through consultation and mentorship, were assessed and evaluated on their ability to achieve defined interventions and milestones related to the development and implementation of team huddles and huddle boards, as well as their effectiveness in doing so. The secondary goal of this project was to assess the satisfaction of targeted nursing leaders and nursing staff with regards to the team huddles and the huddle board. Nursing leaders and nursing staff within the targeted implementation environment were surveyed post implementation of the interventions.

Methods

Context

Approval and permission were obtained for this project to be implemented on a nursing unit at an academic acute care medical center in Baltimore, Maryland. The medical center is a 450-bed academic medical center with a rich history that dates back to 1773, securing it as one of the oldest healthcare organizations in the eastern United States. One of six member entities within a large health system, the medical center offers a wide range of services and specialty programs to the communities served, as well as patients from around the world, including

bariatric surgery, burn care, geriatric medicine, primary care general internal medicine, comprehensive stroke care, total joint replacement, and trauma care. In addition to several specialty program accreditations, the medical center is a Level 2 Trauma Center and a regional Burn Center in the Northeast region and the only in the state of Maryland. The medical center has been engaged in a campaign to introduce and infuse Lean management methodologies and principles into the culture and operations of the medical center for approximately five years for the sake of continuous performance and process improvement intended to be reflected in the quality, safety, and costs associated with care provision. Over the last two years, an established institute for patient safety and quality linked with the acute care medical center has provided the support of an Assistant Director for Lean Sigma Deployment to aid in these efforts. This individual is also a Lean Sigma Black Belt. Knowledge and experience, as well as understanding and reception, in relation to Lean management varies throughout the organization at all levels.

The nursing unit is a 17-bed acute care inpatient unit that provides total care and management to adult patients with acute and/or unstable neurological and/or neurosurgical illnesses. The nursing leadership team is comprised of a Patient Care Manager and an Assistant Patient Care Manager, who are overseen and supported by the Director of Nursing for Inpatient Surgical Services and Neurosciences, and ultimately the Vice President for Patient Care Services/Chief Nursing Officer. The nursing unit employs 16 Registered Nurses, 13 Patient Care Technicians, 4 Nursing Unit Secretaries, and 1 Unit Service Assistant as direct nursing care staff of the unit. Aside from the nursing leadership team, who work 40-hour work weeks (Monday through Friday), unit staff work 12-hour shifts (7 a.m. to 7 p.m. or 7 p.m. to 7 a.m.) spanning the entire week (Sunday to Saturday). At the time of project inception, the nursing unit did not

utilize structured and standardized team huddles or a huddle board in day-to-day operations and practice.

Cost Benefit Analysis/Budget

An objective analysis of the costs and benefits associated with the implementation of these quality improvement initiatives demonstrated that costs were primarily incremental and minimal overall, especially in comparison to potential benefits and monetary savings that could be realized with benefits. Primary costs associated with the project were related to the purchase of the physical supplies necessary for the construct of the physical visual management tool itself, the huddle board. Table 1 outlines the approximate costs of the supplies required for the construction and development of the huddle board. These costs were calculated using the organization's primary office supply vendor. It is also of importance to note that the nursing unit had an existing and sufficient office supply budget within the overall operating budget to cover these costs without resulting in adverse consequences to overall operations and/or care provision.

Table 1

Huddle Board Supply Costs

Supply	**Cost**
Dry Erase Board, Magnetic, 6' x 4'	$242.99
Graphic Art Tape, Black *(min of 5 recommended)*	$7.89; 5 = $39.45
Colored Paper, Assorted *(for board headers)*	$19.99
Colored Dry Erase Markers, Assorted	$49.99
Yard Stick	$12.09
Magnetic Vinyl Envelopes	$174.00
Total	***$538.51***

Labor costs pertaining to the implementation of the initiatives were viewed as net even with current expenditures due largely in part to the fact that all actions and activities were incorporated into the existing routines, schedules, and workflows of the nursing leadership and nursing care teams. Team huddles are expected to span five to ten minutes in length overall. Restructuring of current routines and workflows with the aim of establishing efficiency through structure and purposeful actions/activities allowed for there to be minimal to no impact or time lost to job duties and/or expectations for any parties involved. Continuing education and professional development dollars were calculated as part of the annual fiscal budget for all staff members. Educational offerings and/or meetings associated with the implementation of these initiatives met this classification, especially in consideration of the organization's strategic objectives and direction in relation to Lean management. The Doctor of Nursing Practice (DNP) student oversaw and assisted with the construction of the huddle board to be utilized as part of the initiatives, with an approximate time commitment of at least five hours for the physical construction.

Literature concerning the defined and specific monetary benefits and cost savings associated with the Lean management concepts of team huddles and huddle boards are virtually nonexistent at this time. This is due largely in part to the infancy of the incorporation of these concepts into the realm of healthcare and nursing practice. This is also due to the fact, as highlighted previously, that it is challenging to identify the specific and tangible impact of Lean management on quality and safety outcomes since the methodologies and principles are disguised and embedded in the actual processes and work being carried out. This makes it a challenge to accurately predict or measure the degree of presence and the exact role of Lean management in the cause and effect of benefits and favorable outcomes in these regards (Roszell

& Lynn, 2016). Literature does support, however, that the principles and methodologies associated with Lean management can and do result in improvement in patient safety and the quality and efficiency of care delivery overall, which inevitably supports positive patient outcomes and the avoidance of adverse events and/or hospital-acquired conditions (Baloh, Zhu, & Ward, 2017; Molla et al., 2018). Through the avoidance of such conditions or events, associated costs are not experienced and are in turn saved. Though it is not feasible to calculate the actual cost reduction/savings for this particular aspect of the project, depending on the specific metrics of focus for team huddles and the huddle board within the targeted implementation environment, there is a supported assumption that monetary benefits can be realized along with quality and safety improvement as the project continues to progress and is sustained. Each avoided condition or event saves the organization the costs associated with treating the occurrence and the subsequent impact had on overall treatment course, hospitalization, and patient health/wellbeing.

Aside from improvements in quality and safety outcomes, the potential for other non-monetary benefits is plentiful. Patient care and patient satisfaction can be improved through enhanced communication and collaboration, teamwork, and purposeful and target efforts of nursing care providers and other members of the multidisciplinary team that can result from the utilization of team huddles and a huddle board. Leaders and their employees are also able to realize these benefits, along with the potential for increased accountability, engagement, empowerment, satisfaction, and retention. Additionally, leaders can more successfully guide, lead, and mentor effective and efficient teams. And finally, organizations can better pursue strategic goals and objectives through more consistent and purposeful alignment of efforts and priorities, further support overall missions, visions, and pursuit of exemplary reliability. Those

these measures prove difficult to definitively quantify, the individual and aggregate effects can prove to be invaluable when considered in the context of the lives of the patients, families, and employees served. When compared with the alternative approach of doing nothing and not changing current approaches or practices, the benefits of these initiatives appear to far outweigh the anticipated costs. With the alternative of no change also comes a definitive uncertainty with regards to whether both monetary and non-monetary benefits can be realized with current actions and approaches, and as to whether costs will remain steady, decrease, or increase.

Intervention

With the purpose of this project being to serve as a consultant and a mentor to nursing leaders for the purpose of facilitating the development and implementation of team huddles and huddle boards, it was essential to define a foundation and framework comprised of standard work for the nursing leaders to define and guide the efforts for all parties involved. Utilizing personal knowledge and experience with Lean management from a nursing/healthcare leadership perspective, in conjunction with a review of the latest relevant literature and best practices, the Doctor of Nursing Practice (DNP) student partnered with the Assistant Director for Lean Sigma Deployment at the acute care medical as a content expert for Lean management. This partnership allowed for collaboration on these efforts with the intent to produce success and sustainability with implementation of interventions through adequate planning, preparation, and reflection based on desired outcomes/results and past/present experiences.

Appendix A demonstrates the standard work developed to capture all the key components of the interventions that were part of the quality improvement project and represents the anticipated timeline of approximately six to eight weeks for implementation. Education on team huddles, huddle boards, Lean management, and change management provided on the part of the

DNP student was robust throughout the process, focused not only on the nursing leaders, but also with the nursing staff as needed to support the implementation of the interventions. Prior to beginning in the processes related to the project, the nursing leaders attended a two-hour introductory kick-off section where the purpose and processes related to the interventions was presented and discussed, allowing for commentary and questions and the establishment of a baseline understanding of the efforts to be carried out. Appendix A presents the behaviors that were expected to be accomplished by the nursing leader(s) in chronological order (although there was room for fluidity) and are broken up into four phases total that represent growth and progression of the intended initiatives throughout the implementation process. The nursing leaders were the primary target audience for the purposes of this quality improvement project because leadership engagement, experience, knowledge, and understanding are critical to the success of Lean management efforts, especially those concerning continuous performance and process improvement. Without involvement in the change management process from the start and without becoming champions of the efforts themselves, success and sustainability would not be achieved to potential (Bedgood, 2017).

The ‘Pre-Work’ phase (approximately one to two weeks) represents the introductory exposure and education for the nursing leaders to Lean management, which was comprised of a heavy focus on team huddles and huddle boards. This phase also served to demonstrate the alignment of strategic efforts that are aimed and allowed for through the use of Lean management throughout all layers and levels of the organization. The ‘Planning & Preparation’ phase (approximately two weeks) represents the period of time when the nursing leader(s) identified how the team huddles and huddle boards would be introduced into the targeted implementation environment. The nursing leaders defined components and details that were

specific to their areas of oversight/responsibility, ordered physical supplies to prepare for construction of the huddle board, and introduced a preliminary team huddle structure and process to begin the establishment of a culture of change relative to Lean management. The 'Huddle Initiation' phase (approximately 4 weeks) represents the further evolution and solidification of the team huddles, as change and culture progressed, through the utilization of standard work that guided the huddles to be conducive to discussion of daily readiness/preparedness and performance/process improvement efforts between the nursing leaders and frontline nursing staff. In this phase, final construction of the physical huddle board was completed and the huddle board was incorporated into the team huddles to facilitate visualization of the discussion and its various components. Appendix B demonstrates the standard work developed for the huddle boards and the components that were expected to be present at the time of completion of construction. The final phase was and is 'Huddle Sustainability' and does not have a defined timeframe as it meant to be ongoing as efforts and initiatives are sustained. This phase was only prematurely captured in the confines of the project timeline. In this phase, refinement and mastery of the behaviors and skills is desired. Nursing leaders begin to mentor formal and informal leaders within their own frontline nursing staff, as well as others within the organization potentially, to deploy and successfully utilize team huddles, huddle boards, and other concepts/principles of Lean management. As problems are identified and barriers overcome, nursing leaders and nursing staff learn to network and communicate challenges and needs to other members of the interdisciplinary team and within the organization who may be able to provide greater assistance. The work accomplished in team huddles and with a huddle board is iterative, ever-changing to the latest needs and demands faced by patients/families, employees,

and the organization. See Appendix A for the document that comprehensively outlines the interventions implemented during this QI project.

Study of the Intervention

As discussed previously, the primary outcomes of focus for this quality improvement project were related to the ability of the nursing leader(s), through consultation and mentorship, to implement interventions defined in the standard work (Appendix A) developed for the implementation of team huddles and a huddle board in their respective area of responsibility/oversight. Therefore, the study of the intervention for this project involved evaluating the ability of the nursing leader(s) to carry out or put into place each of the outlined interventions contained within the standard work (Appendix A) within the defined/expected timeframes. The DNP student assessed for factors that appeared to be conducive to success through direct observation and feedback received from the nursing leader(s). Barriers and/or challenges to successful implementation or achievement of an intervention or interventions were assessed through direct observation and feedback; this was inclusive of if the intervention was not successfully implemented at all or if it was not achieved within the designated timeframe. The progress, or lack thereof, of the nursing leader(s) with regards to the standard work (Appendix A) was assessed on an ongoing basis throughout the project implementation period. The study of the intervention was also facilitated through utilization of the primary and secondary outcomes measures and associated tools.

Measures

The primary outcomes of the quality improvement project were process focused; the ability of the nursing leader(s) to achieve defined interventions and milestones related to the development and implementation of team huddles and huddle boards, as well as their

effectiveness in doing so. Appendix C represents the outcome measure tool that was utilized to assess the primary outcomes. This team huddle/huddle board score card was utilized at the end of each week during the project implementation phase of eight weeks. Scores were tallied and percentages calculated to determine progress towards achievement/completion of interventions, as well as intended operationalization and/or utilization of the team huddle and huddle board components. The score card was completed by the DNP student and the results shared with the participating nursing leader(s) as a means to discuss progress, provide constructive feedback, and highlight implementation successes on the part of the nursing leader(s).

The secondary outcomes of the quality improvement project were satisfaction focused; the satisfaction of targeted nursing leaders and nursing staff with regards to the team huddles and the huddle board. Nursing leaders and nursing staff within the targeted implementation environment were surveyed post implementation of the interventions utilizing the survey tool represented by Appendix D. This survey tool was adapted from the Baptist Health Huddles Satisfaction Survey created by Melton et al. (2017). This survey tool allowed participants to rate satisfaction in relation to the six posed statements on a scale (strongly disagree, disagree, agree, strongly agree) and/or provide verbal responses and comments to the items.

Analysis

A quantitative analysis was completed on the results of the scores and percentages calculated from the weekly completion of the team huddle/huddle board score card (Appendix C) throughout the time period associated with project implementation. Additionally, qualitative data was collected by the DNP student during the implementation phase through direct observation and feedback for comparison to the quantitative analysis results and as a means to provide a qualitative explanation or perspective behind quantitatively demonstrated progress, or

lack thereof. Analysis of this qualitative data also allowed for the identification of themes or trends related to successes or challenges with intervention implementation.

For the survey results obtained through the administered survey tool (Appendix D) post-implementation, both a quantitative and qualitative analysis was completed. Quantitative analysis was conducted for the surveys with responses to the posed statements that utilized the provided scale response options. Similarly, a qualitative analysis for the identification of themes and/or trends was completed for the survey tool responses that utilized written responses and/or comments. Finally, it was recognized that some survey responses included both quantitative and qualitative responses to the survey items. Separate quantitative and qualitative analyses were completed as appropriate in these instances. Finally, upon completion of both types of analyses, correlation between quantitative and qualitative responses were examined.

Ethical Considerations

The purpose, details, and scope of this quality improvement initiative were disclosed to all members of the nursing leadership and nursing care teams on the nursing unit at the acute care medical center. Questions, concerns, and/or needs for clarification related to the comfort level and/or understanding of participants as outlined in relation to the QI initiative and interventions were acknowledged and addressed by the DNP student as made aware. There was no direct involvement of or impact on patients and/or families cared for on the nursing unit or at the medical center within the scope of the QI initiative and interventions as designed and defined.

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COMPETING INTERESTS

There were no competing interests.

ETHICS APPROVAL

Local ethics approval for this quality improvement initiative was obtained from the acute care medical center and the University of New Hampshire (UNH).

Results

The quality improvement project was implemented over a time period of approximately eight weeks. The project was implemented in the intended setting of a 17-bed acute care inpatient nursing unit that provides total care and management to adult patients with acute and/or unstable neurological and/or neurosurgical illnesses. The interventions were primarily carried out by the Patient Care Manager and Assistant Patient Care Manager of the unit as the nursing leaders under the consultation and mentorship of the DNP student. The participating team members/staff of the unit participating in the project under the supervision of the nursing leaders totaled 34 (16 Registered Nurses, 13 Patient Care Technicians, 4 Nursing Unit Secretaries, and 1 Unit Service Assistant).

Interventions associated with the quality improvement project are outlined in the standard work represented within Appendix A. This standard work outlines the essential steps in the implementation of team huddles and a huddle board in the respective area of responsibility and

oversight for the nursing leaders. The DNP student evaluated the ability of the nursing leaders to carry out and put into place each of the outlined interventions within the expected timeframes defined within the standard work. The standard work is divided into four phases total that represent the expected growth and progression of the intended initiatives throughout the implementation process.

During the 'Pre-Work' phase, the nursing leaders were able to achieve all the outlined behaviors and interventions within the expected one to two-week timeframe. Time constraints were observed to be a challenge for the nursing leaders in relation to the reading of the required book on Lean leadership and management. Visitations to example team huddles at the Director of Nursing and unit levels required follow-up discussion on the part of the DNP student to validate if the nursing leaders had any questions about the processes and/or their observations. The DNP student utilized this opportunity to gauge what the nursing leaders perceived to go well, did not go well, and what was important for incorporation or to be improved upon for incorporation in their own team huddles and huddle board. Visitation to the True North huddle at the executive leadership level assisted the nursing leaders in the establishment of a connection with regards to the alignment of strategic goals and priorities in relation to quality and patient safety at all levels within the organization. Through discussion with the DNP student, the nursing leaders were able to articulate the connection between the work of the frontline nursing and healthcare providers to the strategic goals and priorities at the senior and executive leadership levels, as well as highlight the importance and value that Lean management demonstrated at all leadership levels within the organization.

For the 'Planning & Preparation' phase, the nursing leaders were again able to achieve the defined behaviors and interventions within the expected timeframe of approximately two

weeks. In fact, the nursing leaders were able to begin some of the interventions in this phase during the 'Pre-Work' phase, demonstrating the potential for fluidity among the standard work phases. The nursing leaders were able to successfully develop unit-based standard work for the conduction of team huddles and utilization of the huddle board. Following creation, the nursing leaders disseminated this information via multiple communication forums and modalities including email, electronic newsletters, physical distribution, one-on-one discussion, and discussion in staff and other unit-based committee meetings. Appendix E depicts the unit-based standard work for team huddles and the huddle board.

With the establishment of the unit-based standard work, the nursing leaders determined that team huddles would take place at 11:00 a.m. and 11:00 p.m. with consideration to be given to real-time activity and operations of the unit. With this came recognition on the part of the nursing leaders that times may need to be adjusted accordingly during circumstances or situations that would make the conduction of a team huddle difficult and/or ineffective. During this phase the Patient Care Manager and Assistant Patient Care Manager worked together to implement team huddles in order to begin the establishment of a culture of huddling on the unit with the team members. In addition to working towards the establishment of a regular and reliable huddle culture, the nursing leaders also used this initial period of team huddle conduction to establish and solidify a consistency, format, and script that was reflective of the established standard work and met the needs of the unit and the staff. With regards to team huddle attendance, attention and effort needed to be put forth on the part of the nursing leaders to solicit and enforce attendance with staff. At times the nursing leaders had to physically seek out team members and escort them to the huddle; this required mindfulness of patient care needs and priorities that took precedence over the team huddle. Within the first week, the nursing leaders

also recognized the benefit and value of communicating reminders of the upcoming team huddles beforehand through the conveyance of verbal and/or electronic reminders.

Where challenges were truly faced by nursing leaders with regards to the establishment of a huddling culture and solidifying team member attendance was on the off-hour shifts, inclusive of both night shift and the weekend shifts. With the nursing leaders not being typically present on these days and/or times, they needed to decide how they would, as leaders, best establish and engrain these processes and interventions with informal unit leaders to mimic the actions and activities of the day shift as closely as possible on all off-hour shifts. Final decisions and courses of action to achieve this involved the nursing leaders soliciting and engaging the off-hour shift charge nurses to become champions of the initiative from the beginning in order to aid in huddle conduction in their absence. This is a requirement of the standard work in later phases; however, the nursing leaders declared the needed for fluidity once again and solicited earlier engagement of the charge nurses in order to have additional support for the hardwiring of the initiative as a whole. Aside from engaging the charge nurses, the Patient Care Manager and the Assistant Patient Care Manager collaborated on schedule adjustments and flexing during the first couple of weeks to allow for off-hour shift coverage. By doing so, the nursing leaders were able to attend and lead huddles on the night/weekend shifts on several occasions. The impact of this extended beyond the purpose of leading huddles to also setting an example for the unit staff regarding the importance of team huddles and the huddle board, as well as to demonstrate engagement, presence, and reinforcement on the part of the nursing leaders with the unit staff.

In addition to working towards the establishment of a regular and reliable huddle culture, the nursing leaders also used this initial period of team huddle conduction to establish and solidify a consistency, format, and script that was reflective of the established standard work and

met the needs of the unit and the staff. To aid in their efforts in doing so and to establish a progressive comfort level, the nursing leaders visited several other established team huddles and huddle boards on other nursing units throughout the organization. Similar to conversations had during the 'Pre-Work' phase, the DNP student utilized this opportunity to gauge what the nursing leaders perceived to go well, did not go well, and what was important for incorporation or to be improved upon for incorporation in their own team huddles and huddle board. This facilitated inspiration for their own team huddle and huddle board development, as well as assisted in the deepening of their understanding of the concepts and principles through the observation of multiple iterations in multiple settings.

With regards to the huddle board development and progress during the 'Planning and Preparation' phase, initials steps were taken by the nursing leaders to prepare for the construction of the board. Board location was determined by the nursing leaders based primarily on convenience for staff participation and proximity to the care delivery environment. This was to ensure that staff were not taken too far from the context and setting of their work, thus mitigating unnecessary risk to quality and safety for the sake of huddling. The board was located in the staff breakroom which is accessed through the nurses' station and looks out upon the nurses' station. During the mock-up of the unit-specific huddle board for their area, the nursing leaders consulted with the DNP student regarding the potential need to adapt the orientation/layout of the board due to the configuration of the room as a whole. This was ultimately approved due to the necessity of the request. All components of the huddle board as depicted in the huddle board standard work/mock-up (Appendix B) were successfully planned for inclusion. Finally necessary materials and supplies were purchased according to those outline in the standard work.

Transitioning to the ‘Huddle Initiation’ phase, the nursing leaders, per the standard work, had approximately four weeks to achieve/implement the defined interventions. This was considered to be a successful achievement for the nursing leaders as well, with most intervention initiation occurring prior to the start of the fourth week. Being that both the Patient Care Manager and the Assistant Patient Care Manager had taken the lead on leading a large majority of the team huddles in the preceding weeks, it was the expectation that they progressively engage the charge nurses during the current phase and the next phase in developing the ability and understanding to do this as well to further support continuity and enculturation of Lean management with a specific focus on team huddles and the huddle board. Each of the charge nurses were expected by the nursing leaders to attend team huddles and view huddle boards in other areas in line with how the nursing leaders themselves were expected to do so. All of the day shift charge nurses were able to accomplish this task, as were some of the night shift charge nurses. However, the nursing leaders found that some of the night shift charge nurses were challenged with getting to other team huddles/huddle boards or that there were circumstances compromising the quality of the site visits that resulted in a less than ideal learning opportunity and experience.

As another effort to fully engage and immerse the charge nurses in the conduction of team huddles with a huddle board, there was a mandatory charge nurse meeting scheduled and held at the direction of the Patient Care Manager and the Assistant Patient Care Manager. The DNP student attended and participated in this meeting as the facilitator of a seminar and training session on Lean management through team huddles and huddle boards as a means of pursuing continuous improvement of quality and patient safety. This meeting lasted approximately two hours and was attended by every unit charge nurse invited. During the meeting participants were

educated on the team huddle and huddle board concepts, principles and methodologies related to Lean management, and their role as a unit leader in the process as a whole. Graphics of other huddle boards were shared with the participants, as well as video examples of the conduction of other example team huddles from throughout the organization. The final component of the meeting was conducted in the location of the nursing unit's huddle board and where the team huddles were held. Here a mock huddle was held by each of the participants, utilizing the unit-specific standard work, to demonstrate understanding and ability. It was also an opportunity for the nursing leaders and the DNP student to talk through the various components of the huddle board, including purpose and utilization, and to answer any questions or provide any clarifying points.

Team huddles as a whole at this point in the project were demonstrative of growth and development. Huddles became progressively natural for both the nursing leaders and the team members. As familiarity increased and learning continued to take place, there was a sense, as conveyed by the nursing leaders, that the interventions and initiatives were being embraced. During huddles observed by the DNP student at this point in the project timeline demonstrated a higher level of engagement for all participants. Conversations overall were less forced and rigid with active participation present, and the nursing leaders were better versed and more comfortable with the standard work for team huddle conduction and huddle board utilization.

With regards to the physical huddle board during this phase, construction was completed in alignment with the designed mock-up and use during the team huddles was initiated. The nursing leaders decided to go live with one watch/focus metric (patient falls) at the time of initial initiation because this was the metric that had been discussed in the team huddles from inception and they expressed a desire to refrain from overwhelming staff during the transition to huddling

with the huddle board. The chosen metric held importance and relativity to the unit and the staff and the nursing leaders felt as though this would be an effective metric for staff in terms of engagement and understanding during the marriage of the team huddles and the huddle board. All other components and sections of the huddle board were in existence and live with regards to utilization and active incorporation into the team huddles.

With the achievement of all the interventions within the 'Huddle Initiation' phase, the nursing leaders progressed themselves and their team into the 'Huddle Sustainability' phase. Although this phase does contain defined interventions that should be implemented, this phase does not have a defined timeline as it intended to be ongoing. At the time of project conclusion at the eight week mark, the nursing leaders and the charge nurses were still developing and refining the delivery of individual and group feedback on performance in relation to active metrics and improvement efforts that was inoffensive in nature but effective in messaging. The charge nurses themselves continued to receive feedback and coaching from the nursing leaders to further refine team huddle conduction. Senior leadership engagement was present on the part of the Director of Nursing for the division, with intermittent team huddle attendance and pulse checks with the nursing leaders pertaining to team huddles and the huddle board. Nursing leaders and nursing staff also continued to demonstrate progressive utilization of the huddle board and its components.

As previously indicated, the primary outcomes of this quality improvement project were process focused and related to the ability of the nursing leaders to achieve defined interventions and milestones related to the development and implementation of team huddles and huddle boards, as well as associated effectiveness in doing so. The results discussed thus far are a qualitative representation of this through the DNP student's assessments and observations

pertaining to the ability of the nursing leaders' ability to carry out and/or complete the interventions and processes outlined in the standard work captured in the team huddle/huddle board rollout nursing leader behaviors document (Appendix A). These assessments and observations contain information to perceived barriers and successes of the nursing leaders as well. In order to quantitatively assess and represent the nursing leaders' progress in meeting and/or completing the outlined standard work and associated interventions, the DNP student utilized the outcome measure tool represented by Appendix C. The team huddle/huddle board score card was utilized at the end of each week (on Friday) during the eight-week project implementation and is representative of all components expected and required to be present in the team huddles and on the huddle board. Results were shared with the nursing leaders immediately following each weekly observation. Following result disclosure, the DNP student discussed progress, provided constructive feedback, and highlighted implementation successes with both the Patient Care Manager and Assistant Patient Care Manager, as well as the on-duty charge nurse in later weeks of the project implementation. Utilization of the tool represented by Appendix C allowed for demonstration of the quantitative progression of the project whereas the results discussion up to this point demonstrates more of the qualitative progression.

Appendix C shows to the total number of points possible related to team huddle interventions/processes (12), the total number of points possible related to huddle board interventions/processes (13), and the aggregate number of points for both components of the project (25). Table 2 reflects the weekly progression of interventions/ standard work achievement and completion on the part of the nursing leaders. Each week is broken down into team huddle points achieved with associated percentage, huddle board points achieved with associated percentage, and the aggregate point score achieved for both components with the

associated percentage. From week to week a progression in the total number of points and associated percentage for both components was realized, with week one representative of the lowest aggregate score (6 out of 12 points; 24%) and weeks six through eight representative of the highest scores (25 out of 25 points; 100%). The movement of the aggregate score in the first three weeks was driven by progress made with regard to the huddle board as the team huddle score did not fluctuate at all in those weeks (6 out of 12 points; 50%) due to lack of unit-specific standard work development and the fact that certain components of the team huddle were heavily dependent on or related to components of the huddle board that were not yet in existence. With the creation of unit-specific standard work for the team huddles and the huddle board, as well as progression of huddle board development consistent with the standard work/framework the nursing leaders were following, the huddle was able to progressively evolve to embody all of the expected and required components as the weeks progressed. Beginning in week six, the data reflects the transition from the 'Huddle Initiation' phase to the 'Huddle Sustainability' phase as all components of both the team huddle and the huddle board were achieved and sustained for the duration of the project implementation timeline.

Table 2

Team Huddle and Huddle Board Score Card Results

Week #	***Huddle Pts***	***Huddle %***	***Huddle Board Pts***	***Huddle Board %***	***Total Pts***	***Total %***
Week 1	6/12	50%	0/13	0%	6/25	**24%**
Week 2	6/12	50%	4/13	31%	10/25	**40%**
Week 3	6/12	50%	6/13	46%	12/25	**48%**
Week 4	8/12	67%	9/13	69%	17/25	**68%**
Week 5	11/12	92%	12/13	92%	23/25	**92%**

Week 6	12/12	100%	13/13	100%	25/25	**100%**
Week 7	12/12	100%	13/13	100%	25/25	**100%**
Week 8	12/12	100%	13/13	100%	25/25	**100%**

The final piece of data collection related to the implementation of the quality improvement project related to the identified secondary outcomes which were satisfaction focused. Nursing leaders and nursing staff involved with the implementation of the project were surveyed post implementation of the interventions utilizing the survey tool represented by Appendix D in order to assess overall satisfaction with the products and processes resulting from the project. The survey tool allowed for participants to rate satisfaction on a scale (strongly disagree, disagree, agree, strongly agree) in relation to the team huddles and huddle boards through six posed statements. The survey tool also provided participants/ respondents with the opportunity to provide verbal responses and comments to each of the six survey items as well. Participants were allowed a one-week period of time following the completion of week eight in during project implementation to participate in and complete the survey. Participation was both voluntary and anonymous with the only required demographics pertaining to unit and role.

Table 3 illustrates the quantitative data collection associated with the post-implementation team huddle and huddle board satisfaction survey. Each of the six survey items is listed in the table along with the percentage of responses associated with each of the scale rating options afforded to participants (strongly disagree, disagree, agree, strongly agree). The survey was distributed to a total of 36 participants associated with unit of project implementation; the distribution included 1 Patient Care Manager, 1 Assistant Patient Care Manager, 16 Registered Nurses, 13 Patient Care Technicians, 4 Nursing Unit Secretaries, and 1

Unit Service Assistant. 22 total responses were received; broken down by role the respondents were comprised of 2 Managers, 17 Registered Nurses, 1 Patient Care Technician, and 1 Nursing Unit Secretary. The 22 total responses collected were representative of an overall survey response rate of 61.1%.

Table 3

Team Huddle and Huddle Board Satisfaction Survey Results: Quantitative

Survey Item	***Strongly Disagree***	***Disagree***	***Agree***	***Strongly Agree***
#1 - Team Huddles and the Huddle Board provide us with relevant information.	0%	0%	38.1%	61.9%
#2 - Team Huddles and the Huddle Board help us to solve problems in a timely manner.	0%	10%	45%	45%
#3 - Team Huddles and the Huddle Board improve the work environment.	0%	5%	55%	40%
#4 - Team Huddles and the Huddle Board improve communication between unit staff.	0%	0%	50%	50%
#5 - Team Huddles include all relevant staff.	0%	10%	45%	45%

#6 - Overall, I think Team Huddles and the Huddle Board are useful.	0%	0%	45%	55%

The quantitative results of the satisfaction survey reflect that 90% or greater of the survey respondents agree or strongly agree with each of the six survey items. All six survey items demonstrated a similar distribution of participant responses. Of note, survey item #1 (team huddles and the huddle board provide us with relevant information) demonstrated the highest strongly agree response at 61.9%, followed by survey item #5 (overall, I think team huddles and the huddle board are useful), which had a strongly agree response of 55%. Survey items #2, #3, and #5 were the only survey items in which a response of disagree was indicated. The disagree responses were reflective of the views of 5-10% of the respondents for those questions. All of the disagree responses were indicated by Registered Nurse respondents. No strongly disagree responses from participants were indicated for any of the six survey items.

Table 4 illustrates the qualitative data collection associated with the post-implementation team huddle and huddle board satisfaction survey. Each of the six survey items is listed in the table along with any associated comments provided. A total of 18 comments were received between all six survey items, reflective of an average of 3 qualitative comments per item. There was an observed underreporting of qualitative information for each survey item in comparison to the amount of quantitative scale-based responses received. Neutral and negative qualitative comments were minimal and lacked defined themes and these comments were linked to Registered Nurse respondents only. For the three survey items in which a disagree response was indicated (#2, #3, and #5), no qualitative comments supporting the rating were provided on the associated survey. Overall, the qualitative comments received on the satisfaction survey were

primarily positive in nature, demonstrating congruence with the quantitative data produced. Evident themes that arose upon analysis indicated positive opinions and/or viewpoints of respondents with regards to the benefits team huddles and huddle boards had on overall communication, information sharing, and involvement of frontline staff and care providers.

Table 4

Team Huddle and Huddle Board Satisfaction Survey Results: Qualitative

Survey Item	***Survey Item Comments***
#1 - Team Huddles and the Huddle Board provide us with relevant information.	• Up to date information is provided • Team huddles provide frontline staff with real-time platforms to discuss and create solutions to everyday concerns • For patient updates, plan for the shift, and safety concerns. Feel the metrics and numbers for D/C and NEDOC score are irrelevant for nursing • Up to date with information we may have missed elsewhere • A good platform for continually being involved in the information and change that is occurring. Also helps days and nights be on the same page
#2 - Team Huddles and the Huddle Board help us to solve problems in a timely manner.	• It allows staff to hear about the problem and collaborate on ways to fix or improve the situation • It still takes time to get results from the issues we have either by logistics or by supply availability • Yes, the use of a team huddle/huddle board assist staff to speak freely about problems and provides a place for the frontline leadership to address the concerns at hand. The huddle provides an open forum and allows staff to feel they have a voice in the solution which in turn makes the process smoother to initiate and sustain • For supplies • Huddles can take way too long at times and even interfere with patient care (although this is rarely the case). I also feel that is not the safest way to huddle with everyone in a small room and semi isolated from the unit
#3 - Team Huddles and the Huddle Board improve the work environment.	• It gives everyone a chance to voice concerns and ways to solve things as a team • The team board improves morale, teamwork, and self-accountability

#4 - Team Huddles and the Huddle Board improve communication between unit staff.	• It helps everyone get a chance to express their ideas • Yes, I have noticed some staff that never speak up during meetings, develop a sense of confidence, and share their ideas more openly
#5 - Team Huddles include all relevant staff.	• Everyone is present and has an opportunity for participation • Yes, all staff are included and nursing students if they are present
#6 - Overall, I think Team Huddles and the Huddle Board are useful.	• It is a useful way of communicating about unit goals and obstacles and a team approach to improving the workflow for the day • Only for patient updates

Discussion

Summary

This QI project was conducted with the purpose to serve as a consultant and a mentor to nursing leaders in order to aid in facilitating the development and implementation of team huddles and huddle boards in their areas of oversight/responsibility and with their respective teams. This QI project has demonstrated, through the use of standard work and a framework with regards to the development and implementation of team huddles and huddle boards, that nursing leaders can successfully assist with and oversee the implementation of these methodologies and principles. Team huddles and huddle boards support the fostering of accountability and engagement among frontline nurses and other healthcare providers with regards to continuous performance and process improvement efforts. This QI project demonstrated that team huddle and huddle board implementation is an iterative and fluid process and that with consultation, support, and mentorship with a content expert, accountability and engagement of teams can be progressively evolved and a culture of continuous improvement

engrained. Through such engagement and accountability with the frontline on the part of nursing leaders, positive impacts can be realized with regards to the overall quality and safety of patient care delivery, as well as improvements to team dynamics like communication, collaboration, and collegiality. The QI project demonstrated the impact, perception, and satisfaction that team huddles and a huddle board resulted in for nursing leaders and team members with regards to overall team dynamics and interactions.

Strengths of this project were largely attributable to the strength and engagement of the nursing leaders who participated and were responsible for the operations and oversight of the project implementation environment and the associated staff/team members. The nursing leaders and involved team members were amenable to and actively participative in the conduction and implementation of the QI project within the targeted environment/unit. The healthcare organization as a whole is largely engaged and invested in the incorporation and utilization of Lean management concepts, principles, and methodologies in operations and patient care delivery. Support from the healthcare organization, through components such as dedicated resources and associated strategic goals/priorities in alignment with the aims of this project, also served as a great strength for the conduction of this QI project.

Interpretation

Following the conduction of the QI project, the nursing leaders and their team were able to successfully implement and utilize team huddles and a huddle board within the practice environment of the associated acute care inpatient nursing unit. The nursing leaders were able to achieve and/or complete the interventions and processes outlined in the standard work and framework captured in the team huddle/huddle board rollout nursing leader behaviors document (Appendix A). This was further supported and demonstrated by the achievement of a score of

100% (25 out of 25 points) on the team huddle/huddle board score card (Appendix C) by week six and then maintained through weeks seven and eight. The team huddle/huddle board score card demonstrated the interdependence and relationship between team huddles and the huddle board in that perfect scores could not be achieved for the team huddle or huddle board components independent of one another without certain components being present in the other. Aside from the quantitative outcomes and results of this QI project, attention was paid to the qualitative factors and associations that impacted the interventions and outcomes, as well as the relation of the two together.

Nursing leadership engagement and buy-in with regards to the aims and interventions associated with this type of project presented as critical factors to the success of this project early on. The fact that both nursing leaders who participated in this project had previously gone through a two-day Lean leadership course where they were education on and exposed to concepts, principles, and methodologies associated with Lean management. Subpar engagement and buy-in on the part of the nursing leaders could easily impact or hinder the progression of interventions and the project as a whole, as well as influence and/or limit the potential impact and outcomes stemming from the project and interventions. These outcomes are not limited to the direct interventions of the project itself, but also include the outcomes to be associated with the work carried out by the nursing leaders and the frontline team through the utilization of team huddles and the huddle board for the purposes of continuous performance and process improvement. It is essential to establish a readiness and willingness to learn and participate on the part of the nursing leader(s) prior to embarking on a project or initiative such as this one. Lean management is a concept that is still foreign to nursing leaders and many others in nursing

and healthcare and requires a desire and dedication on the part of an individual to learn and embrace new ways to approach and carry out work and patient care.

It is also important to understand the pressures, time constraints, and competing priorities in existence for nursing leaders in today's healthcare climate in order to determine the best approach to be taken and the amount of support required to aid in success and sustainability. Adequate and consistent consultation on the part of the DNP student aided in the overall understanding, progress, and engagement of the nursing leaders. The nursing leaders felt supported in their efforts and less like they were being handed a top-down directive despite the work and aims of the QI project having association with strategic priorities of the organization. Outside of the context of this project, it will be important for any nursing leader aiming to carry out the work of this project to identify an individual that will be able to mentor, support, and ensure accountability.

The standard work and framework associated with the project gave clear direction and outlining of expectations, which also aided in nursing leader engagement and buy-in through the elimination of blind navigation and unclear expectations and deliverables. It was apparent during project conduction that the accompanying standard work could not be indicative of the necessity for complete rigidity in the carrying out of interventions or processes. Although components of the standard work should not be displaced or disregarded, there should be room for compromise, iteration, and fluidity. The standard work included as part of this project allows for some degree of creative freedom with regards to how and when some interventions will be carried out and/or enforced. The possession or enforcement of unrealistic rigidity would likely serve as a hindrance for engagement, progress, and success for nursing leaders given the factors present in their roles and responsibilities previously mentioned. It is important for the sake of

buy-in and engagement to establish and oversee the balance necessary that will not result in too little or too much rigidity or that could ultimately jeopardize any outcomes as a result.

In addition to establishing the importance of mentorship and support at a level above the nursing leader(s), this project also highlighted the importance of establishing a support structure below the nursing leader(s) as well. In the context of this project these were the charge nurses on the implementation unit, who are also viewed as informal nursing leaders on the unit. Within the huddle/huddle board rollout nursing leader behaviors (Appendix A), formal engagement of the charge nurses is outlined to begin in the 'Huddle Initiation' phase. The nursing leaders participating in the project made the decision to include the charge nurses before this point beginning in the 'Planning & Preparation' phase, which seemed to have beneficial and supporting results to the efforts at large. Charge nurses were instrumental in the off-hour (night and weekend) shift engagement with the interventions and processes associated with the project. Considering that off-hour shift engagement is often difficult and a significant barrier to true progress and success, as well as consistency and completeness in intervention and process conduction, this played a critical role in this project where challenges in this regard were still experienced and could have likely been more restrictive. Earlier incorporation also seemed to be conducive to the establishment of accountability and engagement, as well as supportive to the teamwork within the leadership structure and unit environment as a whole. In the future, consideration should be given to the development of a competency or validation tool for these leaders to ensure that each individual possesses and is assessed for the ability and the effectiveness to serve in a leading role for the success and sustainability of the project and its work. Future iterations of the project and/or associated work should consider earlier

formal/systematic engagement of charge nurses and/or informal leaders while remaining mindful to not impede the engagement and learning of the primary nursing leaders.

Through the conduction of the QI project, quantitative and qualitative data was also collected for secondary outcome metrics to assess overall satisfaction of the nursing leaders and team members with regards to the team huddles and huddle board eight weeks after initiation of the project. 90% or greater of the survey respondents indicated agreement or strong agreement with each of the six survey items contained within the team huddle/huddle board satisfaction survey (Appendix D). This is indicative that participants found that team huddles and huddle boards provided relevant information, aided in timely problem solving, improved the work environment and communication, included relevant participants, and were overall useful. The survey tool was adapted from the tool created for a study by Melton et al. (2017). Although the study by Melton et al. (2017) concerned team huddles only without the use of huddle boards, results in that study were consistent with this QI project in relation to the provision of information, resolution of problems, improvement of communication, and usefulness.

A variation in the survey tool utilized in this QI project from the one created by Melton et. al (2017) was the inclusion of a qualitative comment section for each survey items to allow for the collection of both quantitative and qualitative feedback. The qualitative feedback obtained from this project was primarily positive with few negative or neutral comments. Positive comments are consistent with beneficial outcomes realized in other literature and studies regarding team huddles and huddle boards that pertain specifically to improved individual and team dynamics and relations, as well as improved patient care delivery (Baloh, Zhu, & Ward, 2018; Davis, 2015; Melton et al., 2017; Provost, Lanham, Leykum, McDaniel, & Pugh, 2015). Of note, none of the negative or neutral comments demonstrated correlation with unfavorable

quantitative ratings/responses on corresponding surveys. It is also important to note that none of the disagree responses indicated on the survey were linked with any qualitative comments elaborating on rating selection. Consideration should be given in any future iterations of this project or its work to determine alternate or expanded approaches and methods to solicit and collect more in the way of qualitative feedback from participants with regards to satisfaction and in order to better aid in intervention and process improvement and finetuning in relation to the project as a whole.

Limitations

There were several limitations associated with this QI project. The assessment and framework tools utilized during the implementation of the project have not undergone any formal validity or reliability testing within or outside of the setting/site of implementation or outside of the confines of the project itself. The team huddle and huddle board score card was an adaptation of a tool from a previously published study (Melton et. al, 2017); the study did not speak to the validity and reliability of the tool in the published work. The tools were created utilizing personal knowledge and experience with Lean management from a nursing/healthcare leadership perspective, in conjunction with a review of the latest relevant literature and best practices, through a partnership between the DNP student and the Assistant Director for Lean Sigma Deployment at the acute care medical who served as a content expert for Lean management.

Another limitation of this project relates to the scope and size of intervention implementation. The various aspects and components of the project have not been formally implemented and assessed outside of the targeted acute care inpatient nursing unit and scope of this project. The unit and staff size were relatively small compared to other acute care inpatient

units/settings in the organization and therefore accurate generalizability cannot be determined based off this preliminary implementation. Relative to this limitation is the unknown generalizability to areas/settings outside of the acute inpatient nursing unit setting, as other settings, such as outpatient settings, exhibit profound differences in structure, operations, processes, and patient care delivery at times.

Replication of this project by others could potentially be hindered or influenced by a variety of factors. An individual or individuals possessing inadequate knowledge or experience levels with regards to Lean management and the concepts, principles, and methodologies contained within this project could inaccurately or ineffectively execute the interventions and processes. This would also impact the ability of the individual(s) to serve as a mentor and consultant for nursing leaders and others, resulting in a downstream effect of ineffectiveness and impaired success with implementation and outcomes. Replication could also be impaired through the engagement of a nursing leader or nursing leaders who do not possess a willingness to learn and participate and therefore will not demonstrate and exert the appropriate amount of attention and effort to project and process implementation.

Finally, internal validity should also be considered as a potential limitation for this QI project. Observations and assessments were conducted solely on the part of the DNP student. This was inclusive of the administration and interpretation of all related assessment and survey tools utilized throughout all phases of project implementation. The DNP student attempted to avoid recall bias through the collection of detailed and thorough notes of observations and discussions. However, this leaves potential for observer bias to exist as there were no comparative assessments/observations completed by another individual or individuals.

Conclusions

The growth, development, and fostering of frontline nursing and support staff accountability and engagement with regards to the quality and safety of patient care delivery is an evolving challenge faced by nursing leaders that is of paramount importance to the future success and sustainability of healthcare. The ability to establish a connection for staff between their performance and work and the subsequent implications and outcomes, as well as their part in improvement and rectification, is now one of the most critical roles and responsibilities for any nursing leader. This quality improvement project demonstrates the ability of the nursing leader to accomplish this through the implementation of team huddles and huddle boards.

This project was the first formal implementation and assessment of team huddles and huddle boards that took place in this healthcare organization. The results of the project and associated outcome metrics demonstrate that through the utilization of standard work and frameworks, nursing leaders are able to implement team huddles and huddle boards in their respective areas of oversight and responsibility with strong and consistent consultation, mentorship, and support. Underpinned by Kotter's model for change, this project reinforces that a culture of accountability and engagement for both leadership and the frontline can be introduced and engrained for the benefit of enhanced patient care delivery and enhanced quality and patient safety. The results of the project also demonstrate that nursing leaders and their teams are satisfied with the impact that team huddles have on individual and team dynamics such as information sharing, problem solving, work environment, and communication.

Conduction of formal research for the establishment of validity and reliability of associated assessment and survey tools, as well as the standard work/framework associated with the project, is needed in the future in order to successfully study, improve, and continue with the work around Lean management, specifically team huddles and huddle boards. Further

implementation of the work contained within this QI project will allow for lessons to be learned with regards to replicability and generalizability among various leader types and within various practice settings. Lessons pertaining to sustainability and the production of ongoing success through positive outcomes can also be explored and derived. Nursing and healthcare leaders within academia and practice should support these efforts without reservation given the proven and potential benefits to quality, safety, cost, and experience/satisfaction. This includes exposing and educating leaders and staff to the concepts, principles, and methodologies of Lean management, and incorporation of Lean into strategic priorities and planning throughout all organizational and leadership levels.

Through the establishment of team huddles and huddle boards in areas of nursing practice today, nursing leaders will be able to undoubtedly contribute to a progressive and revolutionary approach to the improvement and refinement of patient care delivery. With the utilization of Lean management, gone will be the days of top-down directives for improvement and innovation. Instead, the continuous performance and process improvement that will elevate nursing and healthcare to the next level and into the future will be driven by the minds and individuals that are actually doing the work. Communication is at the core of all that we do in healthcare. Team huddles and huddle boards change and revolutionize the way nurses and healthcare providers communicate.

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References

Baloh, J., Zhu, X., & Ward, M. M. (2018). Implementing team huddles in small rural hospitals: How does the Kotter model of change apply? *Journal of Nursing Management*, *26*(5), 571–578. https://doi.org/10.1111/jonm.12584

Bedgood, C. (2017). The art of lean Six Sigma in healthcare. *Industrial Management*, *59*(6), 22–25. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=bsu&AN=126226815&site=ehost-live&scope=site

Bell, A. M., Bohannon, J., Porthouse, L., Thompson, H., & Vago, T. (2016). Process improvement to enhance quality in a large volume labor and birth unit. *MCN: The American Journal of Maternal Child Nursing*, *41*(6), 340–348. https://doi.org/10.1097/NMC.0000000000000275

de Koeijer, R., Paauwe, J., & Huijsman, R. (2014). Toward a conceptual framework for exploring multilevel relationships between lean management and Six Sigma, enabling HRM, strategic climate and outcomes in healthcare. *The International Journal of Human Resource Management*, *25*(21), 2911. Retrieved from https://search.proquest.com/docview/1625131945?accountid=11752

Davis, M. (2015). Bed huddles improve communication and patient safety. *Med-Surg Matters*, *24*(5), 2–3. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=rzh&AN=111198474&site=ehost-live&scope=site

DelliFraine, J. L., Wang, Z., McCaughey, D., Langabeer, J. R., & Erwin, C. O. (2013). The use of Six Sigma in health care management: Are we using it to its full potential? *Quality Management in Health Care, 22*(3), 210. Retrieved from https://search.proquest.com/docview/1400005696?accountid=11752

Donnelly, L. F. (2017). Daily readiness huddles in radiology: Improving communication, coordination, and problem-solving reliability. *Current Problems in Diagnostic Radiology*, *46*(2), 86–90. https://doi.org/10.1067/j.cpradiol.2016.09.002

Hansell, K., & Kirby, E. M. (2015). Team engagement and improvement through huddles. *JOGNN: Journal of Obstetric, Gynecologic & Neonatal Nursing*, *44*, S46-7. https://doi.org/10.1111/1552-6909.12605

Patri, R., & Suresh, M. (2018). Factors influencing Lean implementation in healthcare organizations: An ISM approach. *International Journal of Healthcare Management*, *11*(1), 25–37. https://doi.org/10.1080/20479700.2017.1300380

Martin, H. A., & Ciurzynski, S. M. (2015). Situation, background, assessment, and recommendation: Guided huddles improve communication and teamwork in the emergency department. *JEN: Journal of Emergency Nursing*, *41*(6), 484–488. https://doi.org/10.1016/j.jen.2015.05.017

Melton, L., Lengerich, A., Collins, M., McKeehan, R., Dunn, D., Griggs, P., … Bugajski, A. (2017). Evaluation of huddles: A multisite study. *Health Care Manager*, *36*(3), 282–287. https://doi.org/10.1097/HCM.0000000000000171

Molla, M., Warren, D. S., Stewart, S. L., Stocking, J., Johl, H., & Sinigayan, V. (2018). A Lean Six Sigma quality improvement project improves timeliness of discharge from the hospital. *Joint Commission Journal on Quality & Patient Safety*, *44*(7), 401–412. https://doi.org/10.1016/j.jcjq.2018.02.006

Provost, S. M., Lanham, H. J., Leykum, L. K., McDaniel Jr., R. R., & Pugh, J. (2015). Health care huddles: Managing complexity to achieve high reliability. *Health Care Management Review*, *40*(1), 2–12. https://doi.org/10.1097/HMR.0000000000000009

Schonberger, R. J. (2018). Reconstituting lean in healthcare: From waste elimination toward 'queue-less' patient-focused care. *Business Horizons*, *61*(1), 13–22. https://doi.org/10.1016/j.bushor.2017.09.001

Serr Roszell, S., & Lynn, M. R. (2016). A measure of Lean quality improvement for hospital staff nurses. *Journal of Nursing Care Quality*, *31*(4), 373–379. https://doi.org/10.1097/NCQ.0000000000000185

Silver, S. A., McQuillan, R., Harel, Z., Weizman, A. V., Thomas, A., Nesrallah, G., … Chertow, G. M. (2016). How to sustain change and support continuous quality improvement. *Clinical journal of the American Society of Nephrology: CJASN*, *11*(5), 916–924. https://doi:10.2215/CJN.11501015

Weaver, R. R. (2015). Seeking high reliability in primary care: Leadership, tools, and organization. *Health Care Management Review*, *40*(3), 183–192. https://doi.org/10.1097/HMR.0000000000000022

Appendix A

Huddle/Huddle Board Rollout
NURSING LEADER Behaviors

My Cohort: _____

Start Date: _____

This document will be discussed at your scheduled 1:1 meetings with your Director.

		Behaviors	Barriers & Support Needed	Target Date	Complete?
Pre-Work		Email intent to initiate team huddle/huddle board to Brandon Buckingham (bbuckin2@jhmi.edu) and Erica Reinhardt (ericareinhardt@jhmi.edu)			☐
		Read *Beyond Heros* by Kim Barnas			☐
		Visit Director of Nursing (DON) team huddle (Tues 10-10:30 a.m.) with Director			☐
		Visit 6 Surg & Med A team huddle			☐
		Complete myLearning training titled *An Introduction to LEAN for Healthcare*			☐
		Review Scorecard and Huddle Board Standard Work (mock-up)			☐
		Visit True North huddle during Executive Council (Fri 10-10:30 a.m.) with Director			☐
Planning & Preparation Phase (~2 weeks)	**Huddle**	Build standard work for team huddle; distribute & discuss standard work with staff			☐
		Determine team huddle time (recommend NOT as part of shift change, if possible)			☐
		Initiate team huddle (before board is up, to establish culture of huddling) a. Led by Patient Care Manager (PCM) b. Solicit attendance to ensure people participate c. Discuss: i. readiness for the day/daily operations ii. daily audits			☐
		Email standard work and huddle board location to Brandon and Erica and schedule a time for Brandon and Erica to observe the current huddle			☐
		Attend at least 1 team huddle from each cohort unit; give and receive feedback			☐
	Huddle Board	Determine location of huddle board			☐
		Order: 1. 4ftX6ft dry erase magnetic white board 2. Dry erase markers 3. Thin electrical/crafting tape 4. Magnets			☐

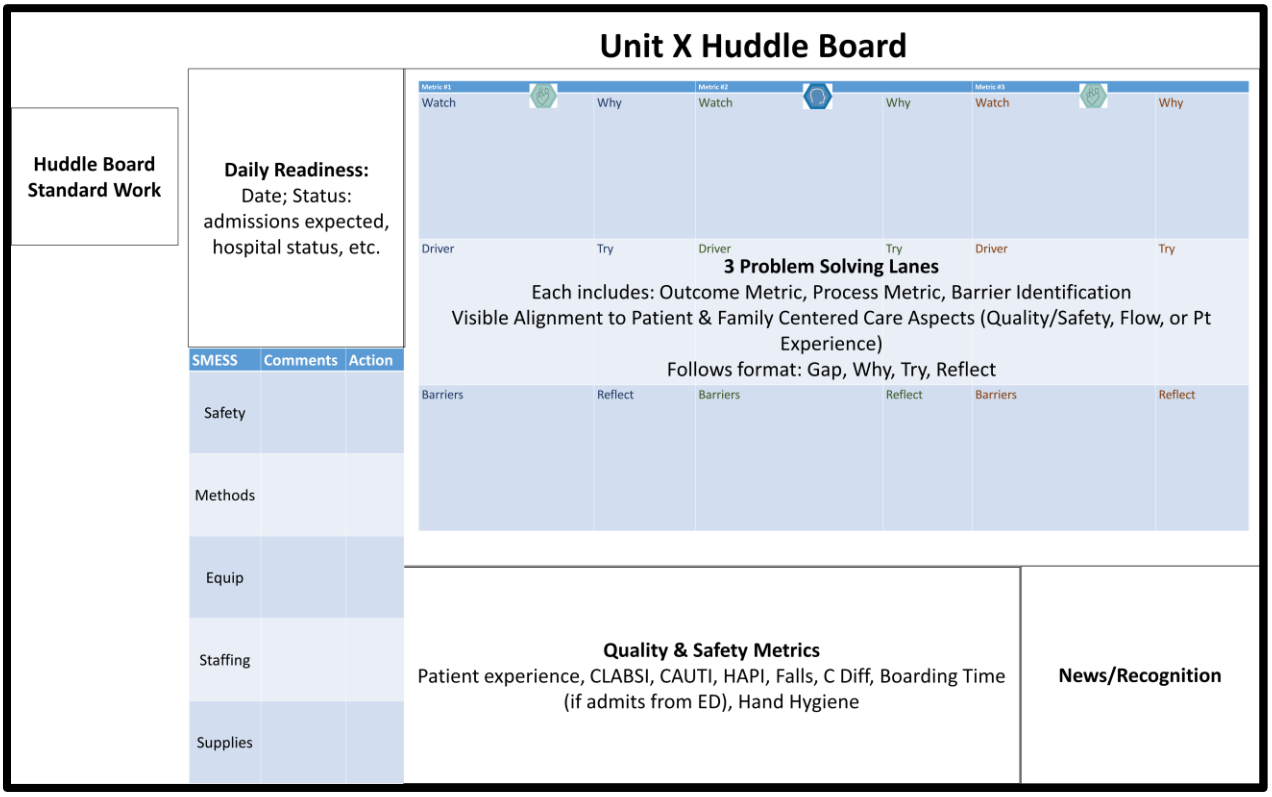
		*See provided supply list for other supply order recommendations			
		Request Facilities to hang huddle board			☐
		Mock-up huddle board following JHBMC standard			☐

Huddle Initiation (~4 weeks)	**Huddle**	Send Charge Nurse to 6 Surg & Med A team huddle			☐
		Initiate team huddle standard work using the huddle board 1. Visualize & discuss trending 2. Discuss & record barriers (solicit & display front line feedback)			☐
		Develop team huddle discussion; frame data in a positive manner			☐
		Attend at least 1 team huddle from each cohort unit; give and receive feedback throughout completion of Huddle/Huddle Board Scorecard			☐
	Huddle Board	Record plan to gather/post watch metrics			☐
		Build huddle board components 1. Daily readiness 2. Watch metrics 3. Daily audits (max of 2 metrics) with trending 4. Barriers (per staff)			☐

Huddle Sustainability	**Huddle**	Develop team huddle skills: 1. Deliver individual feedback in real time 2. Deliver group feedback without pointing fingers			☐
		Initiate Gemba rounds that include a senior executive (Executive Champion or CUSP Executive if possible)			On calendar? ☐
		Coach and mentor Charge Nurses to lead team huddles			☐
		For challenging, unresolved issues that require support or resources beyond the scope of the team, escalate as appropriate			Ongoing
	Huddle Board	Build out problem solving lanes – review barriers and discuss solutions			☐
		Revise/update metrics when target met/sustained			Ongoing

Appendix B

Huddle Board Standard Work (Mock-Up)



Appendix C

Team Huddle and Huddle Board Score Card

Unit:	
Date Observed:	
Observer:	

			Yes or N/A=1; No=0	
Huddle Board	**General**	Is the board magnetic & dry erase?		
		Is the board at least 4ftx6ft?		
		Is the board easily accessible to team members?		
	Elements - Does the board contain:	Huddle **Standard Work**?		
		Today's or Yesterday's **Date**?		
		Up-to-Date **Daily Readiness** information, including SMESS components?		
		Visual **Strategic Alignment** of metrics to Patient & Family Centered Care Priorities of Quality/Safety, Flow, or Pt Experience?		
		3 **Problem Solving** lanes (with Gap/Why/Try/Reflect format) - (at least 1 must be in use)?		
		Process Metrics updated today or yesterday?		
		Evidence of **Problem Solving**?		
		Up-to-date **Watch Metrics** (or problem solving) on: Patient experience, CLABSI, CAUTI, HAPI, Falls, C Diff, Boarding Time (if admits from ED), Hand Hygiene, add'l NDNQI metrics?		
		Space for staff **News & Recognition**?		
		Is the board free of clutter, including any items other than the above elements?		
		Huddle Board Score:	**/13**	%

Huddle	**General**	**Attended** by all as identified per Standard Work?		
		Led by the Charge Nurse or PCM?		
		Attended by the PCM (when able)?		
	Elements - Does the discussion in	**Introduction** of new people (when appropriate)?		
		Review of **Daily Operations/Readiness (including SMESS)**?		
		Review of **Process/Performance Audits** from today or yesterday?		
		Discussion of **Barriers**?		
		Review of **Problem Solving** (when appropriate)?		
		Review of **Watch Metrics** (if new data)?		
		Review of new **News/Recognition** (when approriate)?		
		Asking Attendees (by name) if they need help?		
		Thank You		
		Huddle Score:	**/12**	%
		Total Score:	**/25**	%

Appendix D

Team Huddle and Huddle Board Satisfaction Survey

Unit: _____ Role: _____

Instructions for Completion: Please check (✓) the most appropriate response and/or write your responses/ comments to the following items related to team huddles and the huddle board.

	Strongly Disagree	Disagree	Agree	Strongly Agree	Comments
Team Huddles and the Huddle Board provide us with relevant information.					
Team Huddles and the Huddle Board help us to solve problems in a timely manner.					
Team Huddles and the Huddle Board improve the work environment.					
Team Huddles and the Huddle Board improve communication between unit staff.					
Team Huddles include all relevant staff.					
Overall, I think Team Huddles and the Huddle Board are useful.					

This survey was adapted from the Baptist Health Huddles Satisfaction Survey.

Appendix E

Mid-Shift Huddle Standard Work

Please use this standard work as a reference and source of structure for the conduction of the huddle:

- The mid-shift huddle for day shift is to be held at 11:00 am and the mid-shift huddle for night shift is to be held at 11:00 pm, 7 days per week. The huddle is to take place in front of the huddle board and all staff should be in attendance (including agency and float staff)
- Review information relevant to **UNIT ACTIVITY & OPERATIONS,** including but not limited to:
    - Admission, discharge, and transfer activities from yesterday and anticipated activity for today
    - Status of the Operating Rooms and the Emergency Department (including updated NEDOC score and any alerts)
    - Staffing and patient assignments for optimal care delivery and patient/staff safety
    - Any barriers or challenges (known or anticipated) experienced during the shift thus far or moving forward; this information should be recorded in the allocated space on the huddle board under the SMESS categories (Safety, Methods, Equipment, Supplies, Staff)
- Review information relevant to **METRIC #1/#2/#3**, including but not limited to:
    - Updates to the *WATCH* metric, if applicable
    - Results of the daily performance and/ or process audit *(DRIVER)* associated with the metric, including successes and failures
    - Contributors to and reasons for successes AND barriers and challenges associated with failures in relation to the practices/processes captures during the audit; barriers should be recorded in the allocated *BARRIER* space under the corresponding metric on the huddle board
    - If applicable, the *WHY*, *TRY*, and *REFLECT* sections of the huddle board should be reviewed and/or updated for the corresponding metric when discussion and/or work from the mid-shift huddle drives or impacts these areas
- Review updates to **PATIENT SATISFACTION** and **QUALITY/SAFETY** dashboards
- Review any important or relevant updates or feedback from the unit or hospital
- Ask each and every staff member in attendance how they are doing and if they need any additional resources or support
- Conclude mid-shift huddle by **11:15 am/pm**

*Please notify the Patient Care Manager, Assistant Patient Care Manager, or Patient Care Coordinator, as appropriate, of any concerns, issues, or needed follow-up that result from mid-shift huddle.