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The Impact of a Change in Leadership

Submitted in Partial Fulfillment of the Requirements for the Degree of Doctor of Nursing

Practice at the University of Kentucky

By

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Fort Worth, Texas

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Abstract

Background: Unmitigated stress in nursing results in moral distress, burnout, turnover and poor patient outcomes. Authentic leaders can improve the nurses' work environment and satisfaction by improving communication and implementing supportive measures.

Purpose: The purpose of this study was to determine whether a change in executive leadership at BSW Grapevine Medical Center reduced nursing job stress as evidenced by improved nurse satisfaction, nurse retention, nurse engagement, patient satisfaction and care outcomes.

Conceptual Framework: Watson's Theory of Human Caring

Design: This study is a quantitative, descriptive retrospective measurement of two points in time, before and after a leadership change. All data collected was aggregate and anonymous. Data collected included: HAI SIR, HCAHPS, RN voluntary retention rates, People and Pulse Survey engagement and participation scores, NDNQI survey response data.

Results: Environmental and cultural changes implemented by the change in executive nurse leadership at BSW Grapevine had positive associations with nurse satisfaction, nurse engagement and patient satisfaction scores. There was no evidence supporting an association with patient care outcomes or voluntary RN retention rates.

Conclusion: Authentic leaders can implement certain measures to improve the overall culture of the work environment, directly improving nurse satisfaction and nurse engagement. A healthy work environment, combined with satisfied nurses, results in improved patient satisfaction scores.

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The Impact of a Change in Leadership

Background & Significance

Problem Statement

As a result of pervasive stress, the nursing profession is physically, emotionally, and psychologically taxing (Gomez-Urquiza et al., 2017; Chen et al., 2009). When unmitigated this stress leads to moral distress, compassion fatigue, burnout, turnover and job abandonment (Admi & Moshe-Eilon, 2010; Munnangi et al., 2018; Cohen-Katz et al., 2005; Pahlavanzadeh et al., 2016; Pahlevani et al., 2015; Perry, Ritcher, & Beauvais, 2018). Hickey (2019) defines moral distress as multilayered, arising out of inaction during an ethical conflict or question that compromises personal and professional values. Burnout is defined by the presence of emotional exhaustion, or depletion of emotional resources; depersonalization, when one lacks regard for clients or peers; and reduced personal achievement (Chang et al., 2017; Gomez-Urquiza, De la Fuente-Solana, & Albendin-Garcia, 2017; LeRoux, 2019; Van Bogaert et al., 2017). Emotional exhaustion is a characteristic of compassion fatigue, which is defined as a reduction in empathy caused by recurring exposure to patient suffering and stress (Peters, 2018). This study will address the impact a change in leadership can have on the following factors that are influenced by nursing job stress: nurse engagement, nurse satisfaction, nurse retention rates, patient satisfaction and care outcomes.

Scope, Context & Consequences

The scope of nursing job stress is widespread. An estimated 31% of nursing staff experience emotional exhaustion, 36% confirm depersonalization, and 29% experience low personal accomplishment (Gomez-Urquiza, De la Fuente-Solana, & Albendin-Garcia, 2017). Poorly managed stress impacts every healthcare setting and context with negative consequences

for all stakeholders; each healthcare professional, patient and family member will experience the adverse effects of mismanaged stress. (Gomez-Urquiza, De la Fuente-Solana, & Albendin-Garcia, 2017; Perry, Richter, & Beauvis, 2018; Hickey, 2019).

In terms of nurse retention, thirty to fifty percent of new nursing graduates will leave their first job within the year, and 63% will leave their second year (Hillman & Foster, 2011; Kiel, 2012). After two years at the bedside, 33% of new nurses abandon bedside care completely (Hines, 2019). Kiel (2012) states the cost of nursing turnover is often equal to the annual salary of said nurse, ranging from \$50,000-\$70,000. This is a detriment to an organization's financial well-being.

Additionally, the attitude and mental state of the nurse significantly impacts perceived and actual performance in the healthcare setting (Perry, Richter, & Beauvis, 2018). There are a plethora of factors contributing to nursing job stress. The most commonly cited are high stress perception coupled with minimal stress management skills, increasing acuity and complexity in patient care needs, regulatory burdens, unhealthy work environments and the fine art of balancing time and efficiency (Chen et al., 2009; Hickey, 2019; Folz, 2019; Admi & Moshe-Eilon, 2010). Improving nurses' ability to manage stress improves job satisfaction, retention rates and patient care outcomes (Perry, Richter, & Beauvis, 2018; Barnard, 2018).

Current Evidence-Based Interventions

Evidence-based interventions such as tangible stress management resources combined with authentic nurse leadership have the potential to empower and engage team members, improve the nurses' well-being and organizational commitment (Hickey, 2019; Ozer et al., 2019; Mehmood et al., 2016). Healthcare leaders must prioritize supporting nursing staff and offering

stress management resources to reduce the negative impact of stress for both nurses and patients (Hickey, 2019; Folz, 2018). Leaders create a healthy work environment using optimal staffing models, streamlined acuity measurement, a culture of certification and continuous learning, all of which mitigate stress and foster resilience (Hickey, 2019).

A three hundred and two bed hospital changed their president and chief nursing officer, then changed their culture. The theme “leading with love” brought leaders to refer to everyone as team members because the term employee is degrading and inaccurate. The President and Chief Nursing Officer (CNO) insisted that supporting bedside nurses precipitated quality care; as there is a positive correlation between nurse well-being and patient outcomes (Hickey, 2019). The following changes occurred between February and May 2019.

Quiet spaces to reflect and decompress, known as Zen rooms, were created on units. Zen rooms align with Morrison (2012), who reminds nurses to take time to pause, center and reflect throughout their shift. The CNO brought bed board back in house to streamline patient-to-bed admission processes, initiated tier two leadership and unit-based huddles to promote high-quality communication; these interventions are known to reduce job stress and cultivate a healthy work environment (Trepanier et al., 2012; AACN, 2019; Chen et al., 2009, Cohen-Katz et al., 2004; Munnangi et al, 2018). Biweekly face to face recruiter-leadership meetings improved the hiring process and staffing ratios (Chen et al., 2009; Admi & Moshi-Eilon, 2010; Perry, Richter, & Beauvis, 2019; Munnangi et al., 2018; Gomez-Urquiza, De la Fuente-Solana, & Albendin-Garcia, 2017).

Disturbing nursing scenarios increase the occurrence of compassion fatigue, moral distress, and burnout (Hickey, 2019; Folz, 2018). Code lavender was introduced for such events: peers, a chaplain and leadership to provided support and education, a concept known to build

moral sturdiness and resiliency (Hickey, 2019). This intervention aligns with the AACN healthy work environment standards: skilled communication, true collaboration and effective decision making (AACN, 2019). Tactics to improve stress management and work life were promoted in team member areas throughout the hospital. These guidelines offer support resources and prompt reflection, mindfulness, cognitive reappraisal, effective coping mechanisms and breathing exercises (Hande et al., 2017; Jones & Johnston, 2000; Cohen-Katz et al., 2005; Pahlevani et al., 2015; Pahlavanzadeh, Asgari, & Alimohammadi, 2016; Shariatkhah, Farajzadeh, & Khazae, 2017; Watanabe et al., 2015).

Purpose & Objectives

The purpose of this study was to determine whether a change in executive leadership at BSW Grapevine Medical Center reduced nursing job stress as evidenced by improved nurse satisfaction, nurse retention, nurse engagement, patient satisfaction and care outcomes. The objective is identified below.

- Identify specific actions by leadership that improve the nurses work environment.
- Determine the influence a change in leadership had on nurse satisfaction and engagement as evidenced by results of the National Database for Nurse Quality Indicators (NDNQI) Survey, People Survey and Pulse Survey, respectively.
- Identify the impact a change in leadership had on voluntary nurse retention rates.
- Determine what impact a change in leadership had on patient satisfaction scores as evidenced by Hospital Consumer Assessment of Healthcare Provider and System (HCAHPS) Survey

- Evaluate how a change in leadership effected patient care outcomes as evidenced by healthcare associated infections (HAI) standardized infection ratio (SIR) composite score (includes catheter associated urinary tract infections [CAUTI], central line associated blood stream infections [CLABSI], colon and hysterectomy surgical site infections, C. diff infections and falls).

Theoretical Framework

Jean Watson sought to integrate the physical world of nursing with the subjective, inter-subjective, inner meaning and underlying healing processes of the human experience (Watson, 1985). Watson's Theory of Human Caring describes nursing care as helping people give meaning to their existence, suffering and disharmony by means of a caring relationship (Delmas et al., 2018). Humanistic and altruistic values help create a bond between the nurse, patient and their families, these values influence attitudes, in turn influencing behaviors (Delmas et al., 2018).

Core behaviors associated with Watson's Theory of Human Caring are authentic presence, compassion, active listening, understanding, reciprocity, support, and collaboration (Delmas et al., 2018). Watson's Theory of Human Caring serves as a guide to authentic and transformational leadership styles and positive organizational scholarship through resilience, self-awareness, mindfulness, and cognitive behavioral stress management techniques (Sitzman, 2017).

Watson (1985) valued caring consciousness, caring intentionality and a heart-centered presence, which directly influence the transpersonal relationship. She coined the concept transpersonal caring relationship; a relationship in which one individual seeks to connect and embrace the soul of another through the process of caring, healing and being authentic in that moment. These ideas describe how one might carry out the largest construct within Watson's

Theory of Human Caring: the ten caritas. First, nurses must practice loving kindness to patients and co-workers alike. Nurses must keep patients first in all decisions, and remain a source of strength, hope and faith for patients and families. Nurses should learn the patient's needs and educate accordingly while nurturing individual spiritual beliefs and practices. Ultimately, nurses are to create a healing environment through holistic care by way of trust and therapeutic communication. These behaviors mirror those of the new leaders at BSW Grapevine: authentic, servant style leadership with the priority of leading with love.

Watson (1985) describes her theory as an ethical, philosophical, and intellectual blueprint for the ever-evolving nursing profession - being authentic and present in the moment to recognize ourselves in others. Nurses must take care of themselves before caring for others. When nurses apply Watson's Theory of Human Caring to their well-being, research found a reduction in medication errors, improved clinical skills and higher retention rates while practicing in a healing environment (Holly Wei, Fazzone, Sitzman, & Hardin, 2019). Delmas et al. (2018) found that nurses who utilize Watson's Theory of Human Caring experienced an improved sense of self-esteem, well-being, personal achievement, and higher levels of work life satisfaction.

Review of Literature

PICOT Question & Search Methods

The PICOT question for this research study is "Does nursing leadership improve nursing job stress (measured by nurse satisfaction [NDNQI], nurse engagement [People and Pulse Survey] and retention rates), and patient satisfaction and care outcomes (measured by HCAHPS and HAI scores) when compared to scores prior to a major change in nursing leadership?"

Search methods included use of EBSCO host software, specifically MEDLINE and CINAHL. Subject headings included the following keywords: nursing, stress, stress management, turnover, retention, burnout, authentic leadership, transformational leadership, Watson's Theory of Caring.

Hundreds of studies were found. Articles needed to directly relate to impact of authentic and transformational leadership styles within the nursing profession, causes of and tactics to manage stress, the impact of stress (on burnout), patient care outcomes, and nurse retention rates, in addition to their influencing factors. Approximately 32 studies met the criteria.

Results included quasi-experimental designed studies, using pre- and post-test evaluations before and after cognitive behavioral stress management sessions. Several random control trials (RCT) regarding particular stress management techniques and training programs evaluated for effectiveness through nurse stress perception. Qualitative descriptive studies were also found. Case control studies, cost analysis versus cost benefit studies and systematic review studies provide insight to the cost of training nurses, nurse turnover, and their contributing factors. The overall strength of evidence is strong.

Synthesis of Evidence

A lack of stress management tools within the nursing profession results in high nurse turnover and a reduction in quality care delivery (Rimas, 2016; Perry, Richter, & Beauvis, 2018). Decision-making and communication is stifled, tarnishing both patient and family experience (Rimas, 2016). Direct interventions should include nurse education to modify responses to stress through positive-self talk, resiliency, and cognitive reconstruction tactics (Admi & Moshi-Elion, 2010; Chen et al., 2009; Chesak et al., 2015; Rimas, 2016). Psychological needs such as

autonomy and competence improve the nurses positive affect, energy, and motivation to complete job tasks promptly and correctly (Perry, Richter, & Beauvis, 2018).

The personality traits of the nurse dictate his or her response to stress (Chen et al., 2009). These characteristics are known as internal factors, and include stress perception, stress of conscience, low organizational commitment, reduced job satisfaction, (Admi & Moshi-Elion, 2010; Chen, Lin, Wang, & Hou, 2009), poor coping behaviors and incivility amongst co-workers (Chang et al., 2017). Nurses experiencing burnout are more likely to suffer from fatigue, depression, anxiety (Wantanabe et al., 2015), frustration, sadness, headache and vulnerability to diseases (Van Bogaert, 2017; Gomez-Urquiza, De la Fuente-Solana, & Albendin-Garcia, 2017; Munnangi et al., 2018).

If given the right tools nurses are capable of improving their stress management skills in addition to their personal and professional well-being (Cohen-Katz et al., 2004; Pahlavanzadeh et al., 2015; Pahlevani et al., 2016; Shariatkhah et al.; 2017; Sood et al., 2014; Wantanabe et al., 2015). Studies implementing cognitive behavioral stress management techniques found that these methods reduced emotional exhaustion, depersonalization and burnout while boosting the nurses' sense of personal accomplishment (Pahlavanzadeh et al., 2015; Pahlevani et al., 2016; Shariatkhah et al.; 2017). Similarly, Cohen-Katz et al. (2004) and Watanabe et al. (2015) utilized mindfulness-based stress reduction (MBSR), which combines mindfulness, breathing exercises, cognitive reappraisal, and improved planning and problem-solving abilities to reduce stress. Emotional exhaustion was reduced in the treatment groups, however, an overall reduction in perceived stress and improved personal accomplishment was not significant (Cohen-Katz et al., 2014; Watanabe et al., 2015). Conversely, Sood et al. (2014) integrated a mindfulness and

resiliency-focused program with great success, significantly improving stress perception among participants at all post-intervention evaluations.

Environmental elements that influence stress and burnout are directly related to leadership style and organizational structure and values (Chen et al., 2009; Munnangi et al., 2017; Hickey, 2019). Commonly found external factors are excessive workload, inadequate time and resources, staff shortages and lack of organizational support (Admi & Moshi-Elion, 2010; Chen et al., 2009; Cohen-Katz et al., 2004; Gomez-Urquiza, De la Fuente-Solana, & Albendin-Garcia, 2017; Munnangi et al., 2018). Burnout increases nurse turnover, profession abandonment, sick leave use, adverse event occurrences, reduces organizational productivity and (Munnangi et al., 2018), quality of care (Chang et al., 2017; Gomez-Urquiza, De la Fuente-Solana, & Albendin-Garcia, 2017; Munnangi et al., 2018).

Turnover is an expensive consequence of insufficient organizational support. One can assume it takes one and a half to two times the nurses' salary to replace a nurse (Hillman & Foster, 2011; Kiel, 2012). Fortunately, Ozer et al. (2019) and Hickey (2019) found that authentic leaders can foster higher levels of performance and voluntary retention rates among their team. To improve retention rates, leaders can implement appropriate staffing models that acknowledge the multifaceted nature of nursing care to acknowledge bedside care needs and the cognitive workload required by the nurse (Hickey, 2019).

The AACN Healthy Work Environment framework clearly outlines six evidence-based actions for nurse leaders to adopt to reduce stress and support their nursing team (AACN, 2020). The six standards of a healthy work environment are skilled communication, true collaboration, effective decision-making, appropriate staffing, meaningful recognition and authentic leadership (AACN, 2020; Hickey, 2019). These standards create a continuous learning environment in

which bedside team members and leadership participate in ongoing, active evaluation to identify needs within the ever-changing environment (Hickey, 2019). Authentic leaders highlight strengths and successes while identifying opportunities for improvement for both themselves and their team (Hickey, 2019; Ozer et al., 2019).

Successful leaders prioritize the well-being of their team members (Hickey, 2019; Ozer et al., 2019). A thriving care team relies on positive deviance, identifying collective and individual challenges first, then solving these problems through empathy and empowerment (Hickey, 2019). These characteristics align with the authentic leadership style, which is known for four core components of behavior. First, authentic leaders are self-aware, they seek feedback and acknowledge their own strengths and weakness (Mehmood et al., 2016; Ozer et al., 2019). Secondly, authentic leaders participate in balanced processing, a communication tactic that seeks input from others and truly listens to other point of view (Mehmood et al., 2016). Relational transparency is being true to oneself, being candid about thoughts, feelings, and mistakes (Mehmood et al., 2016; Ozer et al., 2019). Fourth, the moral perspective and value of the leader guides their behavior, always (Mehmood et al., 2016; Ozer et al., 2019). Authentic leaders incite emulation in their followership, allowing their team to adopt these four behavioral components.

Gaps

Studies did not evaluate for a change in patient outcomes during program implementation, leaving room for the audience to question whether improved stress management impacts patient care. Studies did reveal an overall improvement in the nurses' individual health and work environment; however, current research does not identify which stress management techniques were used most frequently or were most successful. Studies do not identify specific organizational changes that can reduce nursing job stress and improve the work environment.

Numerous studies discuss the impact of self-care on nursing job stress but fail to identify specific self-care activities that are most effective.

This study will evaluate what stress-management activities and prompts were put into place to assist nurses in managing job stress. Additionally, this study will identify what changes leadership made that impacted the overall organizational climate. Data analysis will include standardized measurements for patient care outcomes and satisfaction, as well as nurse satisfaction data, including voluntary retention rates. This study seeks to further define the relationship between the nurse's well-being, patient outcomes and a healthy work environment.

Methods

Design

The project design is quantitative. It is a descriptive retrospective measurement of two points in time, before and after a leadership change. All data collected was aggregate; no patient identifiers were present.

Setting

Agency Description

Baylor, Scott and White (BSW) Health is the largest healthcare delivery system in North Texas. BSW Grapevine Medical Center is a three hundred and two bed hospital with seven hundred and fifty nurses on staff, located in Grapevine, Texas; it is not a teaching facility. In comparison to other BSW hospitals, Grapevine exhibited poor nurse retention rates and satisfaction, undesirable HAI outcomes, and low patient satisfaction scores.

Congruence of Project to Agency's Mission, Goals & Strategic Plans

BSW Health is a Christian-based healthcare organization with commitment at its core. The values of BSW Health are to serve faithfully, act honestly, never settle, and to remember we

are in this together (BSWconnect, 2020). Strategies to achieve excellence are as follows: focus on providing seamless and exceptional healthcare, create customers for life through empowering staff and improving patient experience, affordability, alignment throughout to ensure consistent results, and pursuit of sustainable growth initiatives (BSWconnect, 2020).

Stakeholders

Nurses are the largest stakeholders in the project. This project seeks to improve the work environment for nurses by reducing job stress. Patients and the organization will benefit from improved retention rates, nurse satisfaction, patient care delivery, and patient satisfaction.

Sample

Target Population

Hospital administration staff provided monthly aggregate data for HAI SIR composite scores, HCAHPS survey results, RN voluntary retention rate, People and Pulse survey engagement and participation rates and NDNQI survey response data. All patients who received care at BSW Grapevine from July 2018 through May 2020 were included in the HAI composite scores. The actual number of patients was not reported. HCAHPS were sent and received anonymously. All nurses who worked within this time frame are included in the retention rate. Nurses who participated in the 2018, 2019 and 2020 Pulse and People Surveys are included; nurses who participated in the 2017 and 2019 NDNQI survey are included.

Procedure

IRB Approval

BSW Health IRB approval was obtained August 2020. University of Kentucky IRB approval was obtained November 10, 2020. Data was requested January 2021.

Measures & Instruments

Nurse sensitive indicators (NSI) evaluate the quality of nursing practice using statistical methods of environmental conditions that correlate with patient outcomes (Mastal, 2016). The National Quality Forum defines NSI as “performance measures processes, outcomes, and structures directly related to or influenced by nursing personnel, but that nurses are not exclusively responsible for” (Mastal, 2016). This project used the following NSI calculated into a healthcare- associated infection (HAI) standardized infection ratio (SIR) composite score: CAUTI, CLABSI, surgical site infection rates, C. diff and falls. The HAI SIR composite score monitors the quality of nursing care and its impact on CMS payments. This project evaluated hospital-wide HAI composite scores from July 2018 through May 2020.

Developed by Centers for Medicare and Medicaid Services (CMS) and Agency for Healthcare Research and Quality, Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) are the first national, standardized and publicly reported survey from the patients’ point of view (AHRQ; CMS, 2020). HCAHPS is intended to produced data for meaningful comparison amongst other healthcare providers and hospitals (CMS, 2020). The HCAHPS survey is administered at random to patients, two days to six weeks post-discharge, asking the same twenty-nine questions and are publicly reported (CMS, 2020). This project used hospital-wide HCAHPS scores from July 2018 through May 2020.

Mastal (2016) lists other indicators reflective of nursing quality for the in-patient setting, including RN satisfaction surveys and voluntary nurse retention rates. Voluntary retention rates are tracked by service area monthly. A total headcount, hires and terminations are compared to

previous fiscal years. This project used BSW Grapevine house-wide retention rates from May 2018 through May 2020.

The Pulse and People Survey, created by Mercer and Sirota, is the instrument BSW Health uses to evaluate nurse engagement. Mercer and Sirota seek to assist organizations in engaging their employees, improve performance, strengthen work culture, develop business leaders, enhance talent and execute business strategy using Survey Analytics and Reporting (Sirota, 2020). The Pulse and People Survey is reported on and broken down by question, comparing scores of different leaders and their service areas to BSW Health organization totals. The survey uses a Likert scale, ranging from most favorable to most unfavorable. The Pulse Survey is a very brief version of the annual People Survey, and is taken halfway through the year. Due to the length and size of these surveys, this project compared engagement scores and participation rates for the years 2018, 2019 and 2020.

The National Database for Nursing Quality Indicators (NDNQI) delivers evidence to support the relationship between nursing and patient outcomes (NDNQI, 2020). NDNQI encourages healthcare organizations to invest in nursing strategy by highlighting the RNs view of work-life, satisfaction and patient care in comparison to other hospitals. NDNQI data reports survey results question by question, comparing the “Average of All Units in Your Hospital” to the “Average of All Comparison Units in All Comparison Hospitals”, noted as “Mean” on the report. NDNQI data is collected every two years at BSW Grapevine. This project compared NDNQI results relating to nurse satisfaction from the years 2017, as data prior to the change in leadership, to 2019, as data after the change in leadership occurred.

Data Collection

Data was provided via encrypted email and imported from PowerPoint and Excel to SPSS.

Data Analysis

Control charts were created to display monthly HAI composite standardized infection ratio (SIR) data and HCAHPS patient satisfaction across the study period. The control charts included monthly rates as well as confidence limits and reference lines. Monthly RN retention rates and mean Pulse and People survey engagement and participation scores were presented graphically over time. The two-sample t-test was used to evaluate differences by year in NDNQI items. All data analysis was conducted using SPSS, version 25 with an alpha of .05.

Results

Findings

HAI SIR Composite

HAI SIR Composite scores were reported monthly. All monthly variations, except December 2019, experienced normal variation and fell within control limits. The mean HAI SIR was 0.5. A SIR of less than one shows fewer infections than expected occurred, with the exception of December 2019.

HCAHPS Survey Response Scores

HCAHPS monthly mean survey response scores were recorded monthly. The overall average response score was 72.5 (potential range 0-100; see Figure 2). HCAHPS survey response scores after the change in leadership are all above the overall mean, with the exception of December 2019. The majority of scores post-leadership change are noted above the upper confidence level. An upward trendline is noted.

RN Voluntary Retention Rates

Monthly RN Voluntary Retention Rates were tracked monthly. The highest retention rate noted is 85.3 in April 2019; lowest is 78.1 in May 2018. The mean RN voluntary retention rate is 82%. The trend line reveals no increase or decrease over time.

The People & Pulse Survey Participation & Engagement Rate

The Pulse Survey Engagement scores were 82% in 2018, 83% in 2019, and 84.4% in 2020 (see Figure 4). The People Survey Engagement scores were 82% in 2018, 83.4% in 2019, and 86.2% in 2020. Both surveys indicate a clear increase in engagement over time. Participation rates in the Pulse Survey were 44% in 2018, 74% in 2019, and 95% in 2020; participation rates more than doubled over time. Participation rates in the People Survey were 86% in 2018, 94% in 2019, and 81% in 2020.

NDNQI Survey Response Data

The NDNQI Survey Response Data displayed in Table 1 compares pre-leadership change responses from 2017 to post-leadership change responses from 2019. In 2017 ‘Unit RNs reporting less than a year practicing as a nurse’ reported a mean of 11.5 ($SD = 11.23$), compared to a mean of 6.36 ($SD = 10.45$; $p < .001$) in 2019. Similarly, in 2017 ‘Unit RNs reporting less than one year on the unit’ reported a mean of 36.64 ($SD = 25.73$) compared to a mean of 19.45 ($SD = 24.06$; $p < .001$). The ‘Percent planning to leave the unit because of dissatisfaction with work environment’ in 2017 average 44.73 ($SD = 33.11$) compared to a mean of 27.42 ($SD = 32.4$; $p < .001$) in 2019.

The item ‘CNO who is highly visible & accessible to staff’ recorded a mean of 2.61 ($SD = 0.42$) in 2017, and a mean of 3.36 ($SD = 0.46$; $p < .001$) in 2019. Item ‘CNO equal in power &

authority to other top-level hospital executives' 2017 mean was 3.05 ($SD = 0.31$), compared to a mean of 3.46 ($SD = 0.33$; $p < .001$) in 2019. 'Administration listens & responds to employee concerns' mean response in 2017 was 2.68 ($SD = 0.41$) compared to 3.27 ($SD = 0.42$; $p < .001$) in 2019. The 'Mean Practice Environment Scale Score' was 3.03 ($SD = 0.27$) in 2017, and 3.27 ($SD = 0.27$; $p < .001$) in 2019. These indicate an improvement in the work environment.

There was a significant increase in 'Job Enjoyment' 2017 ($M = 4.17$ [$SD = 0.6$]) to 2019 ($M = 4.61$ [$SD = 0.61$]; $p < .001$, see Table 1) and 'Autonomy' ($M = 4.57$ [$SD = 0.52$] compared to $M = 4.98$ [$SD = 0.52$], respectively; $p < .001$). The average number of RN activities left undone decreased from 1.7 ($SD = 1.24$) in 2017 to 1.42 ($SD = 1.28$; $p < .001$) in 2019. Only a slight improvement was noted in perceived quality of care ($M = 3.51$ [$SD = 0.3$] vs $M = 3.66$ [$SD = 0.31$; $p < .001$]).

Discussion

The focus of this study sought to determine how a change in leadership influenced patient care outcomes, nurse satisfaction, nurse engagement and nurse retention rates. CMS and hospitals alike utilize data from HAI SIR, HCAHPS, nurse retention rates, nurse engagement, and NDNQI responses to evaluate a hospital's performance and work environment within the American healthcare system. This study measured these variables between two different points in time: May 2018 to January 2019 was considered pre-change in leadership data, and data collected from February 2019 through May 2020 was post-change leadership data, with the exception of NDNQI survey response data. NDNQI 2017 responses were considered pre-change in leadership and NDNQI 2019 responses were post-change.

HAI SIR composite score did not reveal an increase or decrease trend during the study time frame. December 2019 experienced a HAI SIR greater than expected due to a spike in

Clostridium difficile (C. diff) infections. This study did not find a relationship between patient care outcomes as measured by HAI and a change in leadership.

Conversely, HCAHPS scores increased throughout the study period demonstrating an improvement in patient satisfaction. December 2019 was the only month post-leadership change that experienced a below average patient satisfaction rate. There is no explanation for this outlier. December 2019 aside, this finding provides evidence of a positive relationship between patient satisfaction and a nursing team that is supported by authentic leaders. A leader who exhibits trustful and sincere behavior inspires nurses to perform at high levels (Ozer et al., 2019). Additionally, authentic leaders foster followership self-awareness and self-development through learning goal orientation (LGO): a mindset that motivates individuals to improve capabilities by gaining new skills (Mehmood et al., 2016). These components improve nursing performance: the primary factor that influences the patient's experience and satisfaction with care (Mehmood et al., 2016; Hickey, 2019). These concepts combined with study evidence offer improvements that every healthcare organization should adopt in order to improve their patient satisfaction scores.

Engagement scores for both the People and Pulse surveys increased year over year, including more than a two-hundred percent increase in Pulse participation. Previous evidence supports these findings: improving stress management skills improves a nurses' organizational commitment, professional well-being and sense of accomplishment (Admi & Moshi-Elion, 2010; Chen, Lin, Wang, & Hou, 2009; Cohen-Katz et al., 2004; Pahlavanzadeh et al., 2015; Pahlevani et al., 2016; Shariatkhah et al.; 2017; Sood et al., 2014; Wantanabe et al., 2015). Additionally, these results represent civic virtue, known as nurse engagement exhibited by active involvement in organizational development and improvement; nurses develop genuine commitment to the company (Baek et al., 2019; Mehmood et al., 2016).

NDNQI survey response data revealed statistically significant improvements in many domains that impact nurse satisfaction when comparing 2017 and 2019 responses. Between 2017 and 2019, the number of new graduate nurses with less than one year experience decreased by 44%. Similarly, the number of RNs with less than one year spent on a specific unit decreased by 47%. These results indicate a dramatic decrease in the number of RNs who left their unit over the study period, suggesting an increase in retention. These responses contradict the monthly voluntary RN retention rate which did not reveal any improvement over the study period. Despite this, other studies have shown improvement in nurse retention rates in the presence of authentic leadership styles (Ozer et al., 2019; Hickey, 2019).

Authentic leaders at BSW Grapevine demonstrated self-awareness, balanced processing, relational transparency and moral perspective, behaviors known to improve nurse satisfaction and engagement (Ozer et al., 2019; Mehmood et al., 2019). These actions resulted in a 39% decrease in the number of RNs considering leaving their unit due to dissatisfaction. Likewise, job enjoyment and autonomy item rating increased over time. Leadership efforts to reduce staffing shortages and increase organizational support coupled with stress management education reduced stress perception and improved nurse satisfaction (Admi & Moshi-Elion, 2010; Chen et al., 2009; Cohen-Katz et al., 2004; Gomez-Urquiza, De la Fuente-Solana, & Albendin-Garcia, 2017; Munnangi et al., 2018).

The mean score rating for CNO visibility, accessibility and overall perception of power when compared to other hospital executives increased from 2017 to 2019. These results coincide with the mean practice environment score, which increased over time. These findings disclose a positive association between authentic nurse leaders, nurse satisfaction and organizational commitment (Baek et al., 2019; Hickey, 2019). In reference to patient care delivery, nurses felt

that fewer job-related activities were left undone after the change in leadership occurred. A reduction in missed care events implies an improvement in patient care. Not only is this notion unsupported by previous research, it is also contrary to the mean quality of care score in this study, which did not reveal a clinically significant improvement over time. These outcomes echo the HAI SIR composite scores which remained unchanged over the study period.

This study lacked evidence to propose a relationship exists between patient care outcomes and a change in leadership. Nevertheless, this project highlights the positive impact a change in leadership had in terms of patient satisfaction, nurse satisfaction and engagement, and the quality of overall work environment at BSW Grapevine.

Implications for Practice, Education, and Future Research

Nurses' experience emotional exhaustion and burnout due to unadulterated job stress (Admi & Moshi-Eilon, 2010; Munnangi et al., 2018; Chen et al., 2009). Reducing nursing job stress is accomplished through improving an individuals' stress management skills and overall work environment, including adequate staffing ratios, high-quality communication, autonomy, and empowerment (Admi & Moshi-Elion, 2010; Chen et al., 2009; Cohen-Katz et al., 2004; Gomez-Urquiza, De la Fuente-Solana, & Albendin-Garcia, 2017; Kiel, 2011; Munnangi et al., 2018; Trepanier et al., 2012). Leadership can foster a continuous learning environment to develop their nursing teams' stress management skills and nurture their relationship with work (Mehmood et al., 2016). Notably, authentic nurse leaders improve patient satisfaction by creating a psychologically safe culture to improve nurse satisfaction, engagement and performance (Hickey, 2019; Mehmood et al., 2016).

This study found significant evidence to support previous research indicating that changes in leadership (style) can improve the work environment in addition to patient and nurse satisfaction. These findings should encourage organizations to acknowledge their role in the quality of the nurses' work environment and nurse satisfaction. Additionally, these elements shape patient experiences and ultimately determine patient satisfaction scores.

However, this study did not find a relationship between leadership and patient care outcomes, a component many studies of this kind is currently lacking. It would be prudent to further examine the relationship between a healthy work environment, satisfied nurses, and patient care outcomes. Further research is recommended to confirm whether a change in leadership impacts patient care outcomes and nurse retention rates.

Limitations

This study had several limitations. First, the sample population was limited to one hospital. Secondly, HCAHPS, NDNQI, the People and Pulse Surveys are all subjective in nature. Different nurses have different perceptions of their working environments (Baek et al., 2019). It is reasonable to assume that multiple factors impact nurse and patient perceptions and actions differently. These limitations reduce the generalizability of findings. The Covid-19 pandemic is the third limitation. The pandemic resulted in a sudden upheaval within many aspects of the nursing profession, including but not limited to: visitation policies, patient to nurse ratios, resource availability, patient acuity and complexity. During Covid-19, nurse engagement and retention rates are influenced by social support demonstrated during this study, such as emotional, instrumental or informational support, including appraisal (Kim, Lee, & Cho, 2020). Nonetheless, Covid-19 exacerbated problems associated with nurse recruitment, retention and

satisfaction (Kim, Lee, & Cho, 2020; Senek et al., 2020). The pandemic resulted in numerous modifications to the hospital setting that otherwise would have remained the same.

Conclusion

The purpose of this study was to identify the impact a change in leadership had on nursing job stress, the nurses' work environment in addition to patient satisfaction and outcomes. The change in leadership was demonstrated by authentic leadership style. Leadership maintained a goal to support nurses by way of improving staffing ratios, increasing communication, and offering stress management techniques in multiple approaches. Overall, the study found a remarkable improvement in nurse satisfaction and engagement scores as well as patient satisfaction. Further studies are recommended to evaluate the relationship between these variables and patient care outcomes and nurse retention rates.

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Figure 1. Monthly HAI SIR Rates

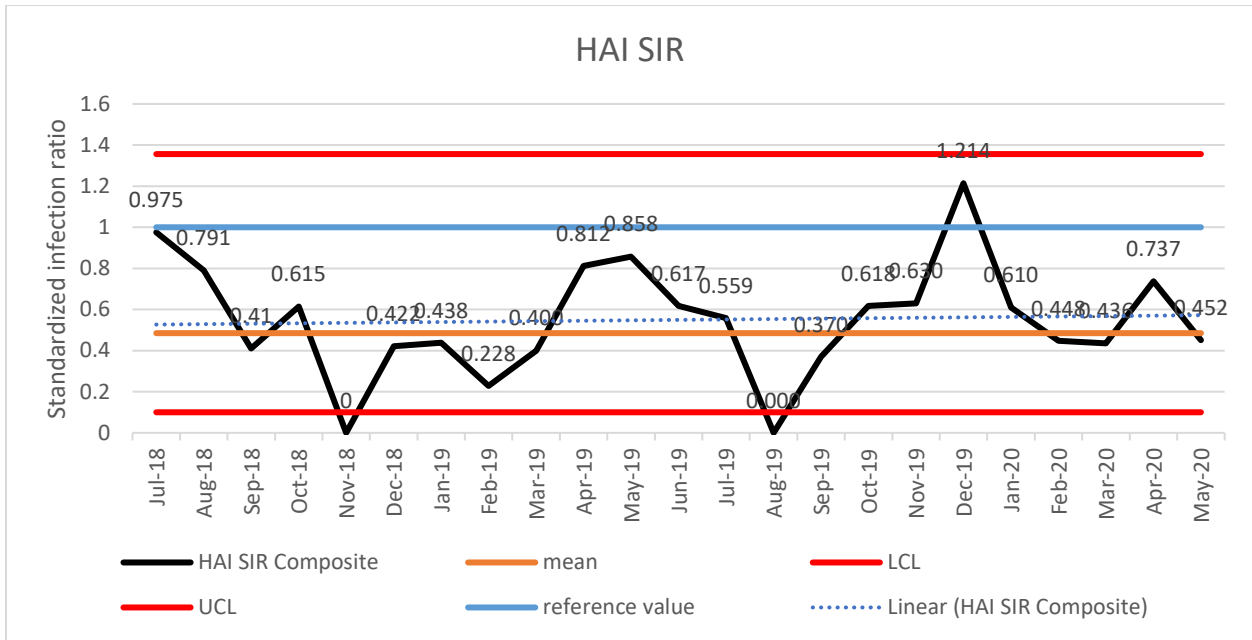


Figure 2. Monthly HCAHPS Survey Response Scores

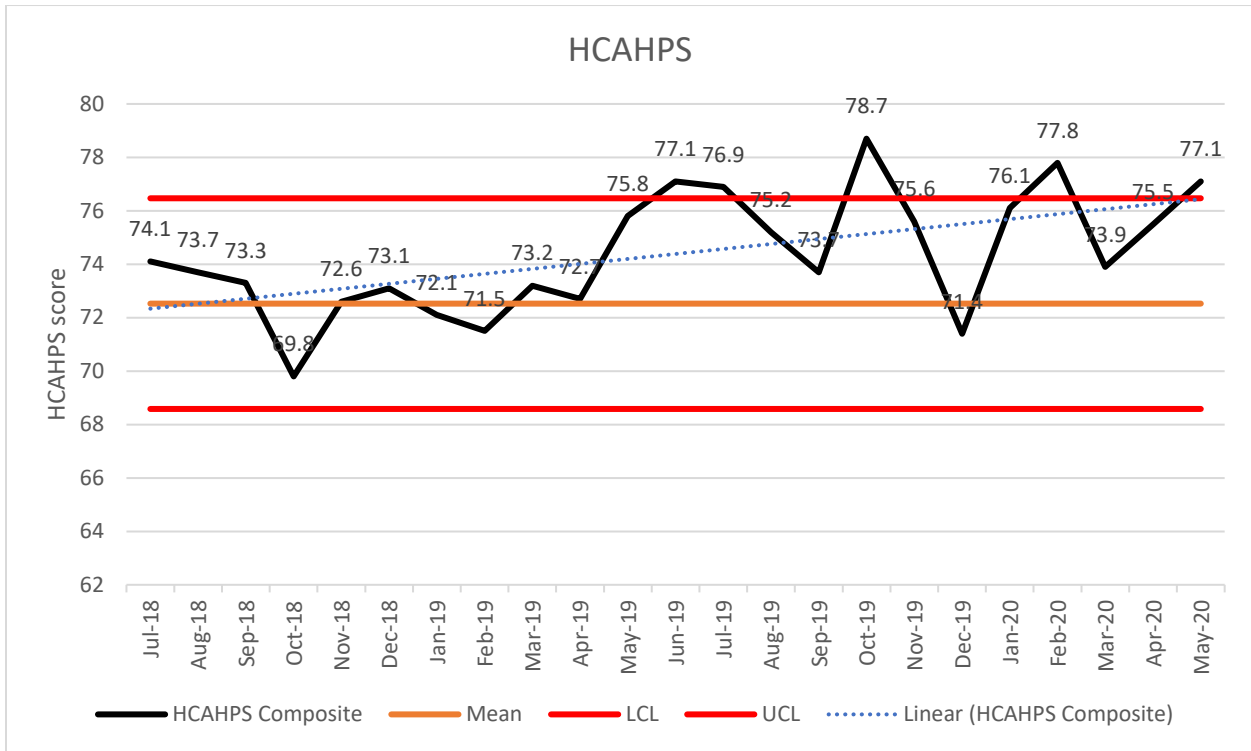


Figure 3. Monthly RN Voluntary Retention Rates

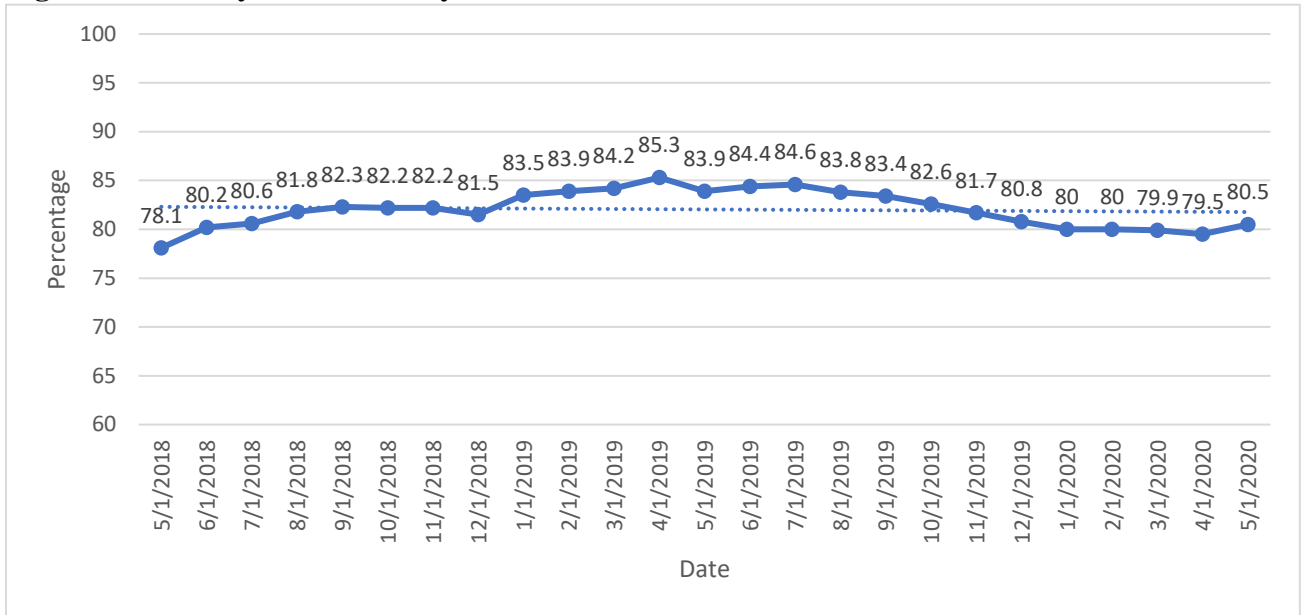


Figure 4. Pulse & People Survey Engagement & Participation Rates

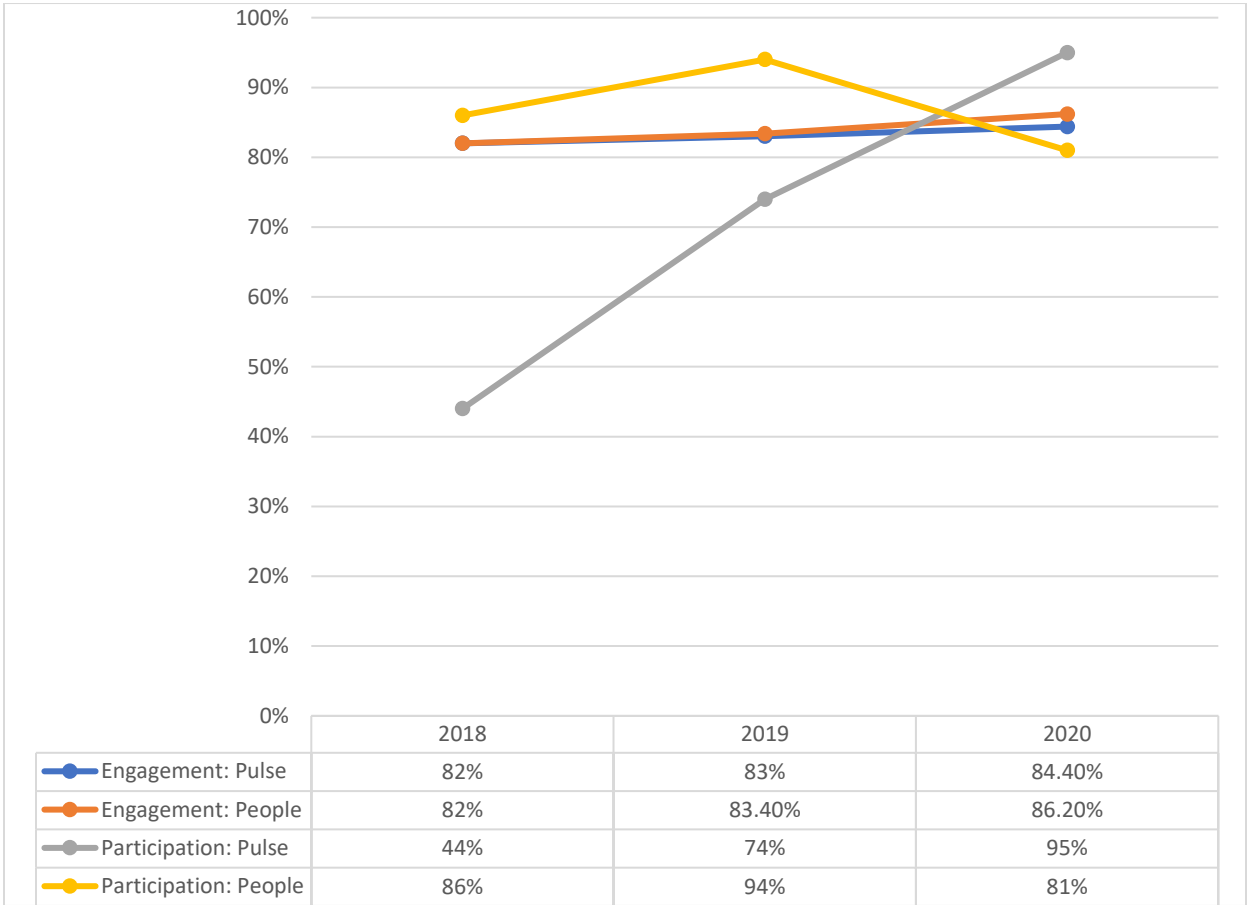


Table 1. NDNQI Survey Response Data

	Pre (2017) Mean (SD)	Post (2019) Mean (SD)	<i>p</i>
Unit RNs reporting <=1 year in practice	11.5 (11.23)	6.36 (10.45)	0.0001
Unit RNs reporting <=1 year on unit	36.64 (25.73)	19.45 (24.06)	0.0001
Percent Planning to leave the unit because of dissatisfaction with the work environment	44.73 (33.11)	27.42 (32.4)	0.0001
CNO who is highly visible & accessible to staff	2.61 (0.42)	3.36 (0.46)	0.0001
CNO equal in power & authority to other top-level hospital executives	3.04 (0.31)	3.46 (0.33)	0.0001
Administration listens & responds to employee concerns	2.68 (0.41)	3.27 (0.42)	0.0001
Job Enjoyment	4.17 (0.6)	4.61 (0.61)	0.0001
Autonomy	4.57 (0.52)	4.98 (0.52)	0.0001
Missed Care: Avg. number of activities RN left undone	1.7 (1.24)	1.42 (1.28)	0.0001
Mean Rating: Perceived Quality of Care in General	3.51 (0.3)	3.66 (0.31)	0.0001
Mean Practice Environment Scale Score	3.03 (0.27)	3.27 (0.27)	0.0001