

Inspiring Innovative Leadership Behaviors to Improve Emergency Department Nurse Retention

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## Chapter 1

### Introduction

The nursing shortage is a global issue. The World Health Organization reported in 2010 that in every country, whether rich or poor, there are not enough nurses to meet the health care needs of the population (Senior, 2010). Improving nurse retention is an important strategy nursing leaders use to address the ongoing shortage. Understanding why nurses choose to leave their positions and what leaders can do to encourage them to stay is the first step. Nurse retention in general will be reviewed along with more specific emphasis on retention of nurses in an emergency department (ED).

### **Background and Significance**

Concern about Registered Nurse (RN) turnover and retention is driven by both non-economic and economic factors. Having enough RNs to provide safe care and the impact on over-burdened staff with increased workloads are examples of non-economic drivers (Jones, 2008). The cost of replacing an RN and the possible impact on quality indicators, such as patient satisfaction scores that affect reimbursement from the Centers for Medicare and Medicaid Services (CMS), are examples of economic drivers (Jones, 2008). The costs of RN turnover are significant and are measured at either the individual nurse level or at the organizational level. It is estimated that in the United States (US), the cost of replacing an RN ranges from \$22,000 to \$64,000 per nurse, depending on geographic location, and organizations spend \$300,000 annually for every 1% increase in nurse turnover (Jones, 2008). Replacing an RN also depends on availability of qualified applicants. It is estimated there are over 500,000 RN positions currently open in the US, with that number expected to increase to 1 million by 2020 (Auerbach, Staiger, Muench & Buerhaus, 2013). Even as enrollment in nursing schools has increased over

the last decade, the American Association of Colleges of Nursing (AACN) reported in 2014 that enrollment has slowed down based on data reported from 720 schools of nursing in the US (AACN, 2014). If the projection for the increase in number of jobs comes to fruition, it appears the demand for RNs will continue to exceed the supply.

RN job satisfaction, turnover, intent to leave, retention and intent to stay have been studied extensively. In the literature, the decision for RNs to either stay in their position or go elsewhere is based on many factors. Work environment including nurse staffing ratios and teamwork, mentoring and education programs, and organizational commitment have been identified as factors influencing retention (Chan et al., 2013; Cummings et al., 2009; Lartey, Cummings, & Profett-McGrath, 2013; Nei, Snyder, & Litwiller, 2014; Person, Spiva & Hart, 2013; Van den Heede et al., 2013). Sawatzky and Enns (2012) found engagement was the key predictor of emergency department nurses' intention to leave. In a systematic review by Lartey et al. (2013), 12 studies examining interventions that promote RN retention found individually targeted interventions, such as mentoring, and the leader taking a personal interest in the nurse resulted in higher retention. They also found retention was the highest when leaders implemented many different interventions, which they categorized as implementing a nurse practice model, teamwork training, leadership training, and individual development programs. Leadership behavior is also significant factor. Sellgren, Ekvall, and Tomson (2008) identified caring about people, supporting a creative work climate, and effectively handling change as important leadership behaviors. A systematic review by Cummings et al. (2010) identified 24 studies that found leadership behaviors focused on people and relationships were associated with higher retention, while 10 studies found leadership focused on tasks were associated with lower retention. Several studies specifically identified transformational leadership behaviors compared

to transactional leadership behaviors as a positive factor in RN retention (Abualrub & Alghamdi, 2011; Duffield et al., 2010; Raup, 2008; Van den Heede et al., 2011; Yen-Ju Lin et al., 2010). Cowden, Cummings and Profetto-McGrath (2011) conducted a systematic review of 23 studies and found a positive relationship between transformational leadership and RNs' intentions to stay in their current positions.

According to Bass and Riggio (2006), transformational leadership is described as having four behavioral components: individualized consideration, intellectual stimulation, inspirational motivation, and idealized motivation. Individualized consideration is showing concern for staff members, recognizing each person's strengths and weaknesses. Intellectual stimulation is encouraging creative thinking and challenging the norm. Inspirational motivation is sharing a compelling vision. Idealized influence is demonstrating competence and effective crisis management while celebrating the successes of staff members (Bass & Riggio, 2006).

Alternatively, Bass and Riggio (2006) describe transactional leadership as having three behavioral styles: passive management-by-exception, active management-by-exception, and contingent rewards. Passive management-by-exception is only taking action after a problem has occurred. Active management-by-exception is tightly monitoring the work environment, viewing mistakes as unacceptable. Contingent reward is setting a goal and establishing the reward for achieving that goal (Bass & Riggio, 2006). The final leadership style Bass and Riggio (2006) describe is the passive avoidant style in which the leader offers little direction or support, and avoids making decisions.

The primary setting for the retention studies was in acute care and focused on inpatient unit RNs with very few studies focused specifically on Emergency Department (ED) RN retention. The ED work environment is different from other units as it is a fast-paced, complex,

critical care setting where nurses are providing care to multiple patients with a wide range of needs every shift. Additional stressors such as ED overcrowding and pressure to get patients in and out quickly (turnaround time) contribute to this unusual environment (Hooper et al., 2010). Some of the RN retention strategies identified such as consistent staffing ratios are difficult to implement in the ED as the number of patients presenting to the department on any given day and time will vary greatly. Furthermore, health systems are experiencing increased financial strain due to the change in reimbursement implemented by the Centers for Medicare and Medicare Services (CMS) and infrastructure changes required by the Patient Protection and Affordable Care Act. As a result, many have implemented policies to reduce costs and eliminate any spending not directly linked to these initiatives.

### **Internal Evidence**

ED RN turnover at a large metropolitan hospital in Arizona increased to 20% during the third and fourth quarters of 2014, with 18 RNs leaving between June and September 2014. The goal is 10% and the ED had been averaging 12% over the last two years. Costs for overtime and using supplemental nurses to fill in vacancies are significant, resulting in the department being \$75K over budget for 2014. While some positions have been filled, the ED Director has received a limited number of applications for the open positions, and additional staff are continuing to leave (A. Forsberg, personal communication, February 5, 2015). Improving RN retention is a priority for this leader and the organization. In addition, the hospital is seeking Magnet designation and transformational leadership is one of the five domains expected in the current Magnet Recognition Program® (2014). The ED leadership team has demonstrated transactional leadership behaviors, namely, passive management-by-exception, focusing on issues only after an error has occurred (Bass & Riggio, 2006). For example, currently if an error is made labeling

a lab specimen, the individual is held responsible and placed on corrective action for six months (A. Forsberg, personal communication, February 5, 2015). The current policy and procedure for handling lab specimens in the ED, however, has not been reviewed by leadership to identify if there are system-level factors contributing to the errors.

### **Problem Statement**

Improving RN retention is an ongoing challenge for nursing leaders and is a complex issue with no standardized solution given the multiple practice settings and widely varying nurse skills and competencies. Leaders around the world are seeking to identify and implement the best strategies for RN retention (Chan et al., 2013; Cowden et al., 2011). The ED RN population was identified in only one specific study; therefore, it is unclear what may work best to improve ED RN retention. This inquiry has led to the clinically relevant PICO question, “In Emergency Department Registered Nurses (P), how does transformational/complexity leadership style (I) compared to transactional leadership style (C) affect nurse retention (O)?”

### **Search Strategy**

The search strategy for ED RN retention involved the review of eight electronic databases: Academic Search Premier, CINAHL, Cochran Library, ERIC, Medline, PsychINFO, PubMed, and Sociological Abstracts.

### **Keywords and Database Results**

The initial search used for all the databases included the following keywords and Boolean connectors: ‘leadership,’ AND ‘emergency department,’ AND ‘retention,’ OR ‘intent to stay,’ OR ‘intent to leave,’ OR ‘turnover.’ The search was further refined to include only English language articles published after January 1, 2010, and peer-reviewed research. This search provided two applicable studies in which ED RNs were the population of interest. Therefore the

additional keyword, OR ‘critical care,’ was added as the ED is a critical care unit (Hooper et al., 2010). This resulted in significantly more results. An initial scan of the article titles indicated further refinement was needed to focus the search results on nurse/nursing retention. The truncated keyword ‘nurs\*’ was added. Even with the addition of this key word, the results from Academic Premier, the Cochran Library, PsychINFO and PubMed databases were not relevant to the PICO question and those databases were excluded from further review.

CINANL Plus returned the most results applicable to the PICO question with 94 studies retrieved. ERIC returned 11 studies, Medline returned 120 studies, and Sociological Abstracts returned 28 studies.

### **Selection Criteria and Process**

The initial two articles found using only ‘emergency department’ as the population of interest were retrieved from both CINAHL and Medline and were selected for further evaluation. A hand ancestry search of these articles identified two additional ED RN population research articles focused on retention. Although published in 2008 and 2009, both proved to be relevant to the PICO question and were selected for further evaluation.

A review of the article titles and abstracts was completed to further narrow the selection. Research articles focused on leadership/management behaviors and their impact on at least one of the outcomes (retention, intent to stay, intent to leave or turnover) for nurses in an acute care setting were identified. An additional 23 articles were found: 10 from CINAHL, one from ERIC, nine from Medline and three from Sociological Abstracts. A hand ancestry search of references included in these articles led to older, less applicable, or studies that had already been found. Searches of the grey literature lead to three unpublished dissertations, none of which were

applicable, either due to population or setting. A total of 27 studies were selected for further evaluation.

Exclusion and inclusion criteria were used to select the final studies used for the in depth literature review. Exclusion factors included studies including an RN population outside the acute care setting such as skilled nursing facilities, the population was not clearly defined, studies only using rural healthcare settings, or the setting was undefined. Inclusion factors included at least 50% of the identified study population were RNs or nurse managers, was done at an urban healthcare organization(s), and any country was accepted if the study was published in the English language. Several studies were discarded due to inadequate documentation of the research process, or inadequately reported data and statistical results. The final ten studies selected meet the inclusion criteria and were relevant to the PICO question. Each study was reviewed, extracting pertinent data, and organized into evaluation and synthesis tables, providing a means for a focused comparison of the research results (Appendix A and B).

### **Appraisal and Evidence Synthesis**

The PICO question is focused on the influence of leadership behaviors, and as such, the search resulted in descriptive research. Two of the studies are systematic reviews of descriptive studies, Level V evidence, and eight of the studies are Level VI evidence (Melnyk & Fineout-Overholt, 2011). This level of evidence is appropriate for behavioral-based research when higher levels, such as random control trials, are not available. The chosen studies were of good quality, noting confidence intervals (CI), levels of significance ( $p$ ) and the Cronbach's  $\alpha$  coefficient ( $\alpha$ ) for the measurement instruments used (Appendix A). All studies utilized theoretical frameworks, which improves the confidence to act on the resulting evidence, although one was an author-developed model being tested (Appendix A). All studies used voluntary

population samples, which may provide bias in the results. Some homogeneity of the samples was found in RN licensure and gender, due to the inclusion criteria focusing on nurse retention as opposed to other health care positions (e.g. nursing assistants, aides, or techs), although the education level of nurses did vary by country (Appendix B). Additional descriptive information provided was limited and showed heterogeneity in age and years of experience (Appendix B).

All studies examined leadership practices/styles impact on outcomes, with job satisfaction, intent to stay, and organizational commitment measured most often (Appendix B). The leadership practices were categorized as either focused on relationships (transformational) or task (transactional). Three studies also evaluated other factors, such as work environment and staffing. Questionnaires, generally using a Likert scale, were the measurement instruments, with the Multifactor Leadership Questionnaire (MLQ) the most frequently cited instrument in both systematic reviews (Appendix A). Cronbach's  $\alpha$  coefficient ranged from 0.7 – 0.9 for all the instruments, showing acceptable internal consistency and reliability. Pearson correlation and various regression analyses were the primary statistics used for data analysis to determine the relationships between the variables (Appendix A). Commonly used fit indices including the Goodness of Fit Index (GFI), Adjusted Goodness of Fit Index (AFGI), and Root Mean Squared Residual (RMSR) were used to evaluate the construct validity of the revised MLQ Form 5x-Short (MLQ5) using four independent samples, with sample sizes ranging from 1,520 – 1,573 (Avolio & Bass, 2004). The results on the four samples showed the GFI range was 0.90 – 0.91, the AFGI range was 0.88 – 0.89, and the RMSR range was 0.051 – 0.056, each of which indicates a reasonable level of fit for the MLQ5 (Avolio & Bass, 2004).

Relationship-focused leadership practices, more specifically transformational leadership practices, have a positive influence on nurses' job satisfaction, organizational commitment, and

intent to stay in their current positions, all of which translates to higher nurse retention (Abualrub & Alghamdi, 2012; Cummings et. al., 2010; Duffield et. al., 2010). While one study showed both relationship and tasked-focused leadership practices have a positive impact on job satisfaction, the preponderance of evidence from the systematic reviews and individual studies showed transactional (task-focused) leadership practices decreased job satisfaction (Abualrub & Alghamdi, 2012; Cummings et. al., 2010; Raup, 2008).

The search also identified current literature cautioning leaders from relying on only transformational leadership (Malloch, 2014; Weberg, 2012). Transformational leadership is not a comprehensive solution for leaders wanting to improve RN retention as it does have gaps that become apparent in the current healthcare environment (Malloch, 2014). Transformational leadership does not consider the influence of the organizational culture in which the leader must work. It is focused on the individual and does not address teamwork, critical to an ED environment. Power remains with the leader, instead of empowering and engaging staff at the point of service to improve patient care (Malloch, 2014). It is also focused on linear thinking, missing the opportunity for innovation that occurs through networking across complex systems and nonlinear process (Weber, 2012).

To address these gaps, leaders must also develop complexity leadership behaviors, understanding both interconnectedness and change are the new “norm” in today’s health care environment while continuous stability indicates organizational death (Porter-O’Grady & Malloch, 2015; Weber, 2012). Complexity Leadership Theory (CLT), based on complexity science, is a leadership theory that promotes learning, creativity, and the adaptive capacity within complex systems (Uhl-Bien, Marion, & McKelvey, 2007). CLT is comprised of three types of leadership: administrative, enabling, and adaptive leadership. Administrative leadership is the

traditional leadership model of hierarchy, alignment, and control; enabling leadership supports creative problem solving, adaptability, and learning; adaptive leadership provides the source of change within an organization (Uhl-Bien et. al., 2007). CLT encourages developing networks, empowerment, and engagement at all staff levels, creating energy to support the ability of the organization to adapt to the ever-changing healthcare environment. No publications were found identifying the impact of complexity leadership behaviors on job satisfaction, organizational commitment, and RN retention. However, the attributes or characteristics of complexity leadership namely high levels of teamwork, empowerment, and engagement have been shown to improve RN retention (Cummings et al, 2010; Sawatzky & Enns, 2012; Young-Ritche et al, 2009). Based on this evidence, leaders should be encouraged and supported to develop transformational leadership behaviors within the framework of complexity leadership as effective strategies to facilitate improvement of nurse retention in the nursing workplace.

### **Purpose**

The purpose of this project is to increase leader knowledge of strategies based on transformational and complexity leadership as a means to increase positive relationships, engagement, and decrease turnover. For leaders to change their behaviors, they will need information, support, and encouragement. The project will include multiple interventions including training and personalized coaching. The participant's progress will be measured with the MLQ, and utilize both the self-assessment and employee feedback tools over a 90-day period. These strategies are intended to increase engagement and empowerment of registered nurses in the emergency department.

## Chapter 2

### Applied Clinical Project: Methods & Results

This chapter discusses the clinical project methods and results. Both the EBP model selected to guide the project process and the conceptual model developed for the project are included. The conceptual model is built of four theories, each providing a specific component of the project model. The project methods section provides detail on the participants, interventions completed, and measurement tool utilized. Project results, including the statistical analysis methodology, and a discussion of the results with strengths and limitations of the project conclude the chapter.

#### **Evidence Based Practice Model**

The Johns Hopkins EPB Conceptual Model (JHEPB) was chosen to guide this project (Appendix C, Figure C1). JHEPB facilitates how evidence can be translated to clinical, administrative, and educational nursing practice (Melnyk & Fineout-Overholt, 2011). JHEPB has a foundation of education and research to drive practice, but also includes internal factors, such as culture and environment, and external factors, such as regulations and quality measures (Newhouse, Dearholt, & Poe, 2007). The model is a good fit for this project as both internal and external factors can influence leadership behavior. The Johns Hopkins Nursing Process for EBP (JHNP) provides the steps for reviewing evidence and implementing a practice change (Appendix C, Figure C2). JHNP has three components, the practice question, evidence, and translation with multiple steps within each component (Newhouse et al., 2007). For the project, the practice question and evidence steps resulted in the PICO question, search, evaluation, synthesis of the evidence, and concluded with the recommendation for the ED leadership team to move towards transformational and complexity leadership practices. The translation steps guided

how the evidence regarding transformational and complexity leadership were implemented. Steps included securing support from decisions makers, creating an action plan, implementing and evaluating outcomes, and communicating findings (Appendix C, Figure C2).

### **Project Conceptual Model**

Four theories influenced the conceptual model developed for this project, each one providing insight on how leaders can be inspired to adopt innovative leadership behaviors (Appendix D). Bandura's Social Cognitive Theory (SCT) (1986) was selected as it emphasizes the interaction and reciprocal influences of behavior, the environment, and personal/cognitive factors. Leadership practices are behaviors influenced by the leader's work environment, corporate culture, and their thoughts and feelings about leadership. Self-efficacy, goals, and outcome expectations contribute to behavior changes. SCT provides a framework on how to influence a change in behavior. To take into account the organization's culture and the relationship between culture and leadership, Schein's theory of organizational culture analysis (2010) was incorporated in to the conceptual model. The theory evaluates organizational culture on three levels: artifacts, espoused beliefs and values, and basic underlying assumptions. There is a reciprocal relationship between leadership behavior and organizational culture with leaders influencing the culture while the long-standing culture also influences the behaviors of leaders (Schein, 2010). Understanding this relationship in addition to the SCT provided guidance to develop useful interventions to influence the project participants to embrace new leadership behaviors.

Innovation leadership in the conceptual model combined Complexity Leadership Theory (CLT) as previously described, with the transformational leadership framework (Uhl-Bien, Marion, & McKelvey, 2007; Bass & Riggio, 2006). CLT boosts the effectiveness of

transformation leadership behaviors by adding empowerment and engagement, two critical components leaders need to embrace to lead in the complex health care environment. Finally, an open systems theory framework was used to structure the conceptual model, incorporating feedback loops from the expected outcomes to the organizational culture, personal behaviors, and innovation leadership (Haines, 1998). This conceptual model was used to guide the project interventions (Appendix D).

## **Project Methods**

### **Ethics**

IRB approval was received from Arizona State University (ASU) utilizing the exempt study criteria (Appendix E). Additional approvals were received from the research committee at the facility and the Senior Director of Professional Practice for the health system (Appendix F).

### **Setting and Organizational Culture**

The project was conducted at a large, metropolitan medical center in the southwest United States. The medical center is licensed for 510 acute care beds. The ED is a 92-bed department, including specialty units for pediatric and behavioral health ED clients. The ED serves over 300 patients per day.

The organization's culture embodies transactional leadership behaviors, utilizing a top down control and decision-making structure (Bass & Riggio, 2006). Information is primarily distributed utilizing electronic modalities (intranet and emails) and leaders are expected to use active management-by-exception behaviors. The culture is standard driven, where professionals are monitored by supervisors, punishment occurs for making errors, and rewards are given for accomplishing assigned tasks. A disconnect, however, is evident between this expectation and

the espoused value statement of the organization which includes active communication to ensure a highly coordinated patient experience and innovation.

Utilizing Schein's (2010) framework of artifacts, values, and underlying assumptions as the three levels of organizational culture further highlights the transactional nature of the ED culture. An underlying assumption is all nurses are interchangeable widgets in the process with no difference in outcomes based on experience, skills, and education. They value having a licensed "body" in the staffing spot for the day as a full staff is more important than having the skills needed to match the level of acuity of the patients presenting to the ED. The artifact then, is the process by which shifts and schedules were reassigned on a recent "right-sizing" process. Seniority within the health system, not as an RN in the department or even as an RN, was used to determine who got to pick their shift first. Two new graduate RNs were higher in the seniority list as they previously worked in the organization in a non-licensed role and, therefore, were able to pick their shifts before much more experienced RNs. In addition, RNs that had been hired and working 3,12-hours shifts, were required to change their schedule to 7, 10-hour shifts, when the allotted number of 12-hour shifts available was filled. Both schedules are considered full time, which is all their employment guaranteed, however there was no individual consideration of the personal impact for now having to work an extra day (7 versus 6) and losing 2 hours of pay per pay-period (70 hours versus 72 hours). The result was shifts staffed "by the numbers," but lacking the depth of skills needed in complex patient care situations.

Another example at the corporate level is the change to the tuition reimbursement policy. The espoused value is the organization values knowledge and competence. The assumption is they can retain more people by helping with education costs, but also requiring 1 year of service after receiving tuition reimbursement. The artifact, however, is a change in the policy that

initially stopped tuition reimbursement altogether. When it was restarted a year later, all students had to reapply, now with a limited number of tuition reimbursement contracts available. The corporation values the RN to BSN students as the goal is to apply for Magnet® recognition at all the hospitals within the system. When the contracts ran out, RNs that had already started a graduate program lost their tuition support from the organization. The challenge is to mediate the current disconnect in the organization and inspire the ED leaders to utilize transformational behaviors to benefit the organization and their followers, while still meeting their superior's expectation to manage utilizing transactional behaviors.

### **Participants**

The participant pool consisted of 18 members of the ED leadership team. The job titles included Director, Senior Manager, Clinical Manager, Training Manager, and Quality Manager. All leaders were invited to participate at the monthly leadership team meeting and with a follow up email, including a letter describing the project and the consent process. Agreement to complete the pre-assessment was considered consent to participate.

### **Interventions**

The project was designed as a two-step intervention procedure to validate the current research. After the pre-intervention measure was completed, a 2-hour education session was completed with all participants. The education session included the components of transformational and transactional leadership, as well as ten principles of complexity as applied to the health care system. Participants were provided with a workbook containing the information and several worksheets to begin developing their individual goals. A formative assessment was used during the session to ascertain self-identified comprehension of the course concepts.

The second step was individual coaching, scheduled every two weeks throughout the 3-month duration of the project. The initial coaching session was face-to-face between the participant and the coach, and included a review of their self-assessment and rater results. The participants and coach dialogued on what the participants thought drove their assessment results and began to formulate their individual goal to focus on a specific innovation leadership component. During the second coaching session, goals were finalized. Resources for further reading, discussion of strategies to work on behaviors, and role-playing were included in the coaching sessions. Ongoing coaching sessions were completed face-to-face, and with additional follow up conversations by email and phone calls when requested.

### **Outcome Measures, Data Collection and Analysis**

The Multifactor Leadership Questionnaire Form 5x-Short (MLQ5) was utilized for this project. Reliability and validity of the MLQ5 is well-established as previously discussed. A license was purchased to use the MLQ5 (Appendix G). The instrument was distributed electronically using the Qualtrics software provided by ASU. A random three-digit number was assigned to each participant, utilizing a random number generator and only that identification number was used in the Qualtrics database to protect confidentiality. The participants each completed the pre-intervention MLQ5 self-assessment and provided names of three raters with one alternate they wanted to complete the feedback assessment. The raters were contacted via email to request their feedback and were provided a separate consent letter. Agreement to complete the assessment was considered consent to participate. The raters' identification numbers were entered into Qualtrics utilizing the participant's number and XXX01, XXX02, or XXX03 to protect the rater's confidentiality and the feedback instrument was distributed electronically. The Qualtrics software was utilized to monitor completion of the assessments,

send email reminders with the assessment link to those not completed, and thank you emails to those that had completed the assessment. Each communication included a “complete by” date and contact information if the person had questions or comments.

The MLQ5 is a 45-item assessment, utilizing a Likert-scale, providing a score of 0 – 4 on 12 leadership behaviors (0 = not at all, 1 = once in a while, 2 = sometimes, 3 = fairly often, and 4 = frequently, if not always) (Bass & Avolio, 2006). The variables are identified as idealized influence – attributed, idealized influence – behavior, inspirational motivation, intellectual stimulation, individualized consideration, contingent rewards, management-by-exception – active, management-by-exception – passive, and laissez-faire leadership. The three additional variables were “extra effort,” asking if the leader inspires the follower to give extra effort on the job, “effectiveness,” asking if the leader is effective in leading the group, and “satisfaction,” asking if the follower is satisfied with the way the leader interacts with them. The three rater assessments were combined into one aggregate score for analysis and to provide feedback to the participants. The process of self- and rater-assessments was duplicated at the end of the project to provide post-intervention measurements for comparison of MLQ5 scores.

The Statistical Package of Social Sciences (SPSS) version 23 (SPSS Inc., Chicago, IL) was used for all data analysis. The pre- and post-intervention self-assessment and aggregate rater assessment scores for each of the 12 variables was entered into SPSS for analysis. Demographic information including gender, years within the profession, and years as a leader were also included.

### **Proposed Budget**

The cost to purchase the MLQ5 training manual and the license was \$150. There was no charge to use the ASU Qualtrics software. The printing cost for the workbooks and other

materials used during the education session was \$65. Two education sessions were conducted and a light meal was provided to participants. The overall cost for both sessions was \$150. The development of the education materials, the additional resources provided during the individual coaching sessions, and the creation of the MLQ5 assessments within the Qualtrics software did not require a monetary expenditure. The total cost with this size participant group was \$365.

### **Project Results**

This project was a pilot evaluation of an evidence-based intervention, utilizing both an educational and a personalized coaching intervention, to inspire leadership behavior change.

Two questions were the basis of the evaluation.

1. How did the participants' self-evaluation of their leadership behaviors change after the education and coaching sessions?
2. How did the raters' perception of the participants' leadership behaviors change after the education and coaching sessions?

### **Data analysis**

Descriptive statistics were used to describe the participants as well as the leadership components measured by the MLQ5. Additional analysis of the variables required a non-parametric test due to the small sample size ( $n = 9$ ). The Wilcoxon matched-pairs test was selected to test the perceived change in leadership behaviors on the self-evaluation and rater evaluation pre- and post-intervention. The three assumptions required for using a Wilcoxon test were met: 1) the data analyzed was continuous and at the ordinal level, 2) the independent variable consisted of matched pairs, meaning the same subjects were present in both groups and measured on two occasions with the same dependent variable, and the total sample size is more than five pairs (Kellar & Kelvin, 2013).

### **Demographics of sample**

All members of the leadership team were invited to participate in this project ( $N = 18$ ). Nine leaders agreed to participate ( $n = 9$ ), representing 50% of the participant pool. Ages of the leaders ranged from 34 to 55 years ( $n=7$ ,  $M = 45$ ,  $SD = 7.62$ ) (Appendix H, Table 1). The average number of years as a nursing leader was 7.28 years ( $SD = 6.39$ ) and the average number of years in their current position was 2.76 years ( $SD = 3.35$ ). The number of years within this health care system ranged from 6 to 30 years, and the average number of years was 16.22 ( $SD = 8.01$ ) (Appendix H, Table 1). The highest education degrees earned by the leaders included an Associate ( $n = 2$ , 22.2%), Bachelor ( $n = 2$ , 22.2%), and Masters ( $n = 4$ , 44.5%), with one not reported (Appendix H, Table 2).

### **Descriptive statistics of variables**

The desired results on the MLQ5 are to score high in the transformational components, indicating the person is more transformational in their leadership style and low in the transactional components, indicating the person is less transactional (Bass & Avolio, 2006). The leaders' pre-intervention self-evaluation showed individual consideration as their highest transformational behavior ( $M = 3.44$ ,  $SD = .42$ ) and idealized influence – attributed was their lowest ( $M = 2.64$ ,  $SD = .49$ ). For the transactional components, the leaders identified contingent rewards as their highest transactional behavior ( $M = 2.92$ ,  $SD = .68$ ) whereas laissez-faire has the lowest mean ( $M = .42$ ,  $SD = .33$ ). The leaders' post-intervention results showed the same components as highest and lowest; however there was a shift in the means. Post-intervention, individual consideration average was 3.39 ( $SD = .49$ ), slightly down from the pre-intervention results and idealized influence – attributed did increase slightly to 2.78 ( $SD = .61$ ). On the transactional components, a similar result occurred with both contingent rewards remaining as the highest and

laissez-faire as the lowest. However, both means actually increased slightly from the pre-intervention results ( $M = 2.94$ ,  $SD = .50$  and  $M = .52$ ,  $SD = .40$ , respectively) (Appendix I, Table 1).

The raters pre-intervention evaluation of the leaders also showed individual consideration as the highest transformational component ( $M = 2.98$ ,  $SD = .73$ ) and idealized influence – behaviors as the lowest ( $M = 2.66$ ,  $SD = .77$ ). On the transactional components, the raters concurred with the leaders' results, with contingent rewards as the highest average ( $M = 2.94$ ,  $SD = .80$ ) and laissez-faire as the lowest ( $M = .64$ ,  $SD = .56$ ). The raters' post-intervention evaluation did show a shift in the transformational components. This time, inspirational motivation had the highest average ( $M = 2.99$ ,  $SD = .65$ ) and idealized influence – behaviors remained the lowest ( $M = 2.68$ ,  $SD = .59$ ). The post-intervention evaluation again concurred with the leaders' results, with contingent rewards as the highest average ( $M = 2.82$ ,  $SD = .50$ ) and laissez-faire as the lowest ( $M = .57$ ,  $SD = .74$ ). Both of these transactional components did decrease pre- to post-intervention results (Appendix I, Table 1).

The additional subscales included on the MLQ5, addressing extra effort, effectiveness, and satisfaction, were also evaluated. Satisfaction averaged the highest for both the leaders and raters in the pre-intervention evaluations ( $M = 3.33$ ,  $SD = .71$  and  $M = 3.08$ ,  $SD = .91$ , respectively). Satisfaction also averaged highest for both the leaders and the raters post-intervention, however both averages did decrease slightly ( $M = 3.12$ ,  $SD = .71$  and  $M = 2.96$ ,  $SD = .86$ , respectively) (Appendix I, Table 2).

### **Study Questions Findings**

The leaders' pre- and post-intervention self-evaluation scores on the MLQ5 could be positively matched by individual identification codes used within the Qualtrics software. The

pre-intervention results were compared to the post-intervention results in order to identify if there was a change in how the leaders perceived their own behaviors. No significant differences were seen in the median scores of the self-evaluation of their leadership behaviors (Appendix J, Table 1).

The raters' pre- and post-intervention evaluation scores could be positively matched by individual identification codes and to the specific leader they were evaluating, within the Qualtrics software. Again, no significant differences were seen in the median scores of the evaluation of the leaders' behaviors (Appendix J, Table 2).

### **Discussion**

The purpose of this project was to determine if a combination of education and individual coaching would lead to a difference in how leaders perceived their transformational/complexity and transactional leadership behaviors, and if their raters perceived a difference in their behaviors, at the end of the 3-month timeframe. Based on the results, there was no significant change in the perception of the leadership behaviors of the sample group. There are a number of possible explanations for this result. The sample size was small and the timeframe was short. Studies have found the time it takes for a self-selected behavior changes to become automatic vary greatly among individuals, taking from 18 to 254 days (Lally, Van Jaarsveld, Potts, & Wardle, 2010). Behavior change is also influenced by the organizational culture and by colleagues (Bandura, 1986). Another possibility is the lack of instrument clarity for this particular phenomenon. For example, there may be other ways to measure complexity leadership that are not available.

Three observations were made during the coaching sessions as related to the individual results the leaders had on the MLQ5. First, the leaders that actively participated in the process

by setting specific goals, creating action plans, and following through had individual results from their raters showing increases in their transformational behaviors and decreases in their transactional behaviors. For example, one participant who identified herself as being “shy,” choose to work on her individual consideration component by taking specific steps to get to know her new team members better. She made a list of all her direct reports, identified those she did not know very well, and developed an action plan which included setting time aside each shift to spend away from her desk and visit with members of her team in a casual, non-managerial, way. At first she found it very difficult to do. Role-playing during the coaching sessions helped and by the end of the project, she reported feeling much more confident talking with people she does not know very well and was able to use the information she learned about the new individuals to make their work schedule more contusive to their needs outside of work. Her post-intervention rater results showed improvement in all areas of transformational behaviors, which further motivated her to continuing working on her behaviors after the end of the project.

On the other end of the sample group, another leader also made a similar goal as he was often in meetings or behind a closed door in his office, and did not know many of his direct reports. Encouraged to follow a similar plan to identify who he would approach and how, the participant did not follow through. During the coaching sessions, any number of reasons were provided for why the action plan was not being worked, such as there was not enough time that week or he was pulled away to deal with an issue. The post-intervention individual results showed a decrease in his transformational behaviors during the project. When asked why he thought that had happened, he shared he felt there wasn't enough time to be a transformational leader in this organization as the demands of his job were focused elsewhere. Based on the

observation of these two participants, it appears desire to change behaviors of itself is not enough; it also requires doing the work to make it happen.

The second observation was in regard to the leaders' self-evaluations. Four leaders had a decrease in transformational and an increase in the transactional scores on the post-intervention results. When asked why, all four indicated they thought they were doing pretty good before they learned what they should be doing. One possible explanation could be that gaining new knowledge about transformational and complexity leadership raised their personal standards of what innovative leadership is and, subsequently, changed their expectations of themselves in their leadership role.

A final observation based on the individual coaching sessions, was regarding the two leaders that were already doing fairly well with the transformational behaviors, as indicated by their pre-intervention self- and rater evaluations. These two leaders embraced the complexity leadership concepts and chose to further develop their skills in dealing with complexity in the health care environment during the project. For example, one leader created a goal focused on facilitating relationships between two silos within the organization and created opportunities for learning by developing cross-training, which allowed individuals from a different department to assist with critical needs in the ED. Prior to this project, there was not "cross-pollination" of resources between these two departments. With the assistance of the coach, the leader was able to break down barriers, improving the interaction and networking between the departments. The emergence of this new relationship has created a sense of urgency to expand the idea to other areas. Even though this leader's goal was focused on a complexity concept, her post-intervention MLQ5 results showed improvement in her raters' evaluation on her transformational leadership behaviors.

### **Strengths and Limitations**

The small sample size ( $n = 9$ ) is a limitation of this project, decreasing the chances of identifying a true effect of the education and coaching intervention. While observation can be made about the outcomes, the sample size does not support data reliability of the results. The project sample mean results for the components measured by the MLQ5 were within the 50<sup>th</sup> percentile of the “norms” for the United States published by the authors, meaning this group of leaders is the “norm” for leaders based on thousands of respondents assessed by the authors (Bass & Avolio, 2006). The project did not have any attrition, meaning all nine participants that started the project finished the project, also a strength of this sample.

The timeframe, as previously discussed, is a limitation. The project also took place during October, November, and December, the fourth quarter for the organization in which budgeting for the following year is a priority and holidays are celebrated by many people. These calendar months, with the professional and personal distractions, may also have impacted some of the leaders from following through on their action plans to the extent they had planned.

Finally, an additional limitation of the project was the self-selection of the raters for each participant. Each leader submitted three people they wanted and an alternative in case someone declined to participate. Bias in selecting who they would get feedback from cannot be overlooked. Previous relationships, both good and difficult, may have impacted the raters' responses. The project was designed specifically to have self-selection of raters, primarily to decrease the possibility the leader would discount the feedback they received from the rater evaluations. A random sample taken from all their direct reports may have provided different results, both pre- and post-intervention. Each individual has different interactions with, and a different perception of, the leader. The MLQ5 measures the subjective responses of the raters

and a random set of three raters may experience the leader differently than those selected by the leader, resulting in higher or lower results on the measured variables.

### **Conclusions**

The project did not find a statistically significant difference in the participants' leadership behaviors after the education and coaching intervention, neither on the self-evaluation nor rater evaluation. Several changes including extending the timeframe for the one-on-one coaching and randomization of the rater evaluations may have produced a different result. Individual differences were observed, so while the group as a whole did not show a change, some participants did report taking positive steps to increase their transformational/complexity leadership skills while decreasing their transactional behaviors. Further studies are needed to explore development strategies, as current literature supports the importance these leadership skills in addressing the ongoing challenge of nurse retention in all areas of health care, not just in the ED.

## Chapter 3

### Organizational Impact and Sustainability

This chapter discusses the impact of the project outcomes, including financial implications and the current policy that may hinder the project. Sustainability for the project and the implications for further application on a broader scale will be addressed, including gaps in present literature and practice. The chapter concludes with a summary of the project and a brief discussion of the author's personal scholarship development.

#### **Project Impact**

No statistical differences were identified pre- and post-intervention between transformational/complexity leadership behaviors and transactional leadership behaviors on the MLQ5. ED RN retention rates should be evaluated at the 12-month post-project timeline for a data point, similar to other published research (Duffield et al., 2010; Raup, 2008). However, the initial subjective feedback provided by some staff members during the department project debrief indicates they feel some of the leaders are more available and willing to listen to their ideas about how to improve processes. On the basis of new information gained about transformational/complexity leadership, a new orientation process is being piloted, which includes each new employee being assigned to a specific clinical manager and time set aside for individual coaching by that manager to support their on-boarding process. This is to supplement their peer orientation which was the extent of the prior process. The ED Director and one Senior Manager, both participants in the project, shared they are looking forward to the "mini" employee satisfaction survey that will take place in March to see if there is an improvement in employee job satisfaction measure from the August results.

Coaching among participants has also been observed. Four of the participants have paired up as partners since the formal coaching intervention ended, in order to continue to support each other in applying the principles of transformational and complexity leadership. They hold each other accountable and have used each other as “guinea pigs” to try new techniques. For example, one participant struggled with dealing with conflict when challenged about the decisions she made while managing the department during her shift. Different strategies were discussed during the coaching session. She did experiment with and found one that felt comfortable and worked for her. After the end of the project, the participant had started to fall into old avoidance patterns. Her partner reminded her of her previous success, helped rebuild her confidence, and held her accountable to try again when confronted with a difficult situation. It has also been observed that language/terminology of both transformational and complexity leadership is being used by participants within the workplace, not only with each other, but with their colleagues that did not participate in the project.

The potential impact of the ongoing actions of the leaders that have embraced innovative leadership practices can slowly change the culture within the ED (Schein, 2010). SCT identifies the influence colleagues’ behavior can have on an individual (Bandura, 1986). As the participants continue to use the language and demonstrate the behaviors of transformational leadership and applying the principles of complexity, they can influence the other leaders’ to practice transformational and complexity behaviors.

### **Role in Successful Implementation**

The project was successfully implemented by starting the year before to lay the foundation for change. The ED Director was engaged early, prior to the development of the PICO question or any literature search, to identify what her greatest challenges were for the

department. A partnership was formed at that time and she remained a champion for the project throughout its duration. The initial literature findings were shared and ideas for the intervention were discussed. Seeking her guidance through each step of the EBP process ensured the project was applicable and practical for her leadership team.

The high turnover created the realization change was needed among the leadership team. Using evidence to show how the leaders could impact retention without assistance from executive or corporate leadership (e.g. increasing salaries/benefits) was the key to breaking down barriers to the process. It gave credibility to the content of the education intervention and to the presenter/coach. Flexibility in scheduling and customizing the coaching approach for each individual to meet their specific needs, especially as the participant group demonstrated a wide range of experience, contributed to having no attrition throughout the project.

### **Financial Implications**

The cost of this project, utilizing one individual as educator and coach, was minimal as previously discussed. Materials could be reproduced and distributed to all those with a designated leadership role at this facility for approximately \$8 per person, costing about \$1000 for the current number of positions. All leaders at this facility are exempt employees and do not receive overtime pay. For the project, the education and coaching sessions were done during their normal work hours with the ED Director supporting the participants' time away from their routine activities during these sessions. Going forward, there may be overtime costs depending on if the education program was utilized for existing leaders or inspiring leaders, not yet in an exempt position. The organization has a professional development staff that could be utilized to do the initial education intervention once they are trained, as to not accrue additional costs. The information could be presented to the facility leaders during meetings that are already part of the

routine, perhaps broken up into several sections instead of the 2-hour education intervention completed for this project. Overall, getting the information on innovation leadership behaviors into the hands of each leader (based on title) within the facility would be an inexpensive proposition.

Unfortunately, there is not an existing group that could be utilized to do ongoing coaching, especially if the program length was extended. Hiring an additional person for this specific role could be a potential solution, however determining how many leaders one person could effectively coach would be a factor. Leaders could coach one another as part of their job expectation, as a type of mentoring program, but this process would require oversight to facilitate matches and evaluate the effectiveness of the pairs. Not everyone is willing, or able, to coach others. For those that were willing, there would be costs to train team members on effective coaching techniques. A quick internet search of coaching programs resulted in several off-the-shelf education programs, ranging from \$500 per person up to \$5000 per person for a certification program. It would be challenging to justify the cost of using an external program to train the number of coaches needed, given the previously discussed stand on tuition reimbursement established by the corporate leadership. The health system could use the existing corporate education resources to develop an in-house program at a much reduced cost if the benefits of such a program could be established.

The evidence transformational leadership behaviors improve employee job satisfaction and retention has been previously established, however, not specifically for ED nurses. At this time, this facility has 42 RN positions open; 6 positions are in the ED. The current formula used by the health system calculates it will take approximately \$22K to hire and on-board an experienced RN (P. Henderson, personal communication, February 26, 2016). The cost to the

department for utilizing a traveling RN for a 3-month contract is \$36K per RN or if a resource RN is used, the cost is \$800 per 12-hour shift (P. Henderson, personal communication, February 26, 2016). Each time an RN leaves, the ED leaders calculate which option will be less expensive, based on current openings and applicants. In the previous 12-month period, it was determined traveling RNs are a lower cost as the pool of applicants for open positions is small and it is taking 6 – 8 months to fill an open position (P. Henderson, personal communication, February 26, 2016). Based on this information, each RN that can be retained in their current position will save the ED department \$58K in replacement, recruiting, and hiring costs. The cost benefit for implementing an education and coaching program that has the potential for improving employee retention throughout the facility far outweighs the cost for implementing the program, despite the up front costs to develop and implement such a program.

### **Impact of Current Policy**

Internal cost-cutting measures have impacted education opportunities within the health system. Education programs previously offered through a corporate partnership have been eliminated over the last two years and most education positions have been eliminated (P. Henderson, personal conversation, February 25, 2016). New spending must be aligned with the strategic initiatives of the system in order to be approved. Applying Schein's organizational culture theory, these policies are cultural artifacts at a system level, indicating developing leaders is not valued (Schein, 1986). The health system needs to reevaluate internal funding for leadership education. Evidence of transformational leadership is a criteria component for Magnet® recognition, and obtaining this recognition for all facilities in the health system is currently a corporate initiative. Evidence shows Magnet® hospitals have higher percentages of satisfied RNs, lower RN turnover, and vacancy (Scott, Sochalski, & Aiken, 1999). Supporting

leaders by offering transformational/complexity leadership education within the system is in alignment to this strategic initiative and policy should support this program.

On a national level, the American Organization of Nurse Executives (AONE) has developed two applicable documents addressing retention. Guiding Principles are designed to assist nurse leaders in addressing issues in health care (AONE, 2016). “AONE Guiding Principles for The Aging Workforce” (2010) stresses “commitment for retaining the older nurse (defined as anyone 40 or over) in the workforce occurs across all level of the organization” (p. 1) and “training on strategies for understanding the aging workforce’s needs must be available” (p. 1). “AONE Guiding Principles for Creating Value and Meaning for the Next Generation of Early Careerist” (AONE, n.d.) specifically addresses “nourishing retention” through evidence-based leadership practices. Suggested actions include a formalized mentoring program and fostering professional development (AONE, n.d.)

Sigma Theta Tau International (STTI), the Honor Society of Nursing, has published a resource paper and position statement on leadership and leadership development priorities (STTI, 2005). They state “developing strategies for supporting the leadership development of nurses is imperative” (p. 1). The paper includes developing clinical leadership, which includes “can be demonstrated by nurses who bring to the workplace ideas for increasing workplace satisfaction (p. 2). The paper also specifically identifies transformational leadership as a leadership development priority, which is mirrored in the Magnet® requirements.

The project supports the recommendations from both AONE and STTI. The methodology and findings learned during the project could be used to update the AONE guiding principles to further describe how to implement their recommendations. The findings could also support updating the STTI position to include complexity leadership with the transformational

leadership priority, to address the emerging challenges in the health care environment and as demonstrated in the project's conceptual model, education, and coaching interventions.

### **Sustainability**

The Director of Professional Practice at the facility plans to incorporate the education materials into the information she uses to do developmental coaching with leaders. Although the results did not show a statistically significant change for the pre- and post-intervention variables, initial feedback from participants was positive and supports the recommended approaches from the education program. She plans to use the training materials as a pilot for a group of Medical/Surgical clinical managers that have requested help to improve their employee survey scores. She also expressed that “planting seeds” throughout the facility is the way to proceed at this time in light of the spending restrictions in place.

The Director will evaluate her results in addition to those produced by this project, to determine if she will recommend the program be added to the corporate level “Leadership Academy” as that program will be revised during 2017. The Academy is a system-wide program that all new leaders are expected to complete in their first year in the new role. The 8-week course was offered year around, but has been changed to start either in January or June of each year. This program could potentially be incorporated as one of the modules within the larger program, ensuring the sustainability of the education intervention. However, the coaching intervention would not be included in the Academy. There is not the capacity to expand roles within the Professional Development department to use staff for coaching when not related to a specific performance issue until evidence is produced showing the effectiveness of an education plus coaching program (K. Maryak, personal conversation, February 23, 2016).

The ED Director has also requested the MLQ5 be available for repeat testing in 1 year for members of the leadership team. The individual feedback from the MLQ5 provided to the project participants was valued as an insightful development tool, providing a different perspective from the health system employee satisfaction survey. Resources were provided to both the ED Director and the Director of Professional Practice to purchase their own license for the MLQ5 should they want to use this tool in the future.

### **Gaps Identified and Implications for Further Study**

National RN turnover rates have increased from 11.2% in 2011 to 16.4% in 2015 and are reported as 22% for the region including Arizona (Colosi, 2015). Emergency RN turnover is reported as 21.7% nationally, only behind behavioral health RN turnover at 30.7% (Colosi, 2015). Multiple studies have identified a connection between adequate levels of RN staffing and safe patient care, including fewer deaths, lower failure-to-rescue incidents, lower rates of infection, and shorter hospital stays (Rosseter, 2014). Retention continues to be a leadership challenge and while leadership behavior has been shown to impact retention, there continues to be a gap in the literature on how to help nurse managers develop the leadership behaviors that create conditions for better retention. New behaviors, including transformational and complexity leadership, can be learned (Bandura, 1986). Further study is needed to identify actual methodologies that can be used successfully in the health care setting. This would provide the evidence for the “how” to develop innovative leaders.

Health system policies to decrease and/or eliminate financial support for leadership development activities do not support long-term knowledge expansion of leaders. Evidence to support the long-term impact of such programs on productivity, patient safety, quality, employee job satisfaction, and retention is also a gap in the literature. Unfortunately, funding of these

programs appears to remain a frequently eliminated expense to cut in light of ongoing decreased reimbursement from government and private payers. A study comparing outcome variables such as patient safety and staff retention rates between health care systems, those that have eliminated leader development programs and those that continue to invest in the development programs, could provide the evidence for “why” to develop innovative leaders.

Health systems need to be more creative in how to provide development opportunities for their leaders instead of eliminating them altogether or expecting the leader to pursue development opportunities on their own. A collaborative relationship between multiple health systems within a geographic area to provide leadership development programs to all the participating systems could take the place of in-house development programs, especially for smaller systems and hospitals that have even less financial resources. A cost-sharing scheme to provide education and coaching could be developed without a partnership on other operations. Engaging a local college/university to provide the expertise for a multi-system development program could provide additional cost savings by using contractors instead of employees to provide the education and coaching.

### **Conclusion**

This project was designed to assist an ED department to decrease their annual turnover. The ongoing financial strain and staffing issues created an opportunity to use an EBP process to address the issue. The literature review provided the evidence on how leadership behaviors influence retention and the positive impact of transformational leadership. The challenge was to inspire the ED leaders to change their behaviors. A combination of education and coaching was provided, utilizing the MLQ5 to assess the participants’ self- and rater evaluations before and after the intervention. Although the results were not statically significant, feedback from

participants and observations by the coach identified the education and coaching did have an impact on individuals that actively participated in the project. Those that embraced the concepts and followed through on their action plans have continued to practice, further developing innovative leadership behaviors after the project timeframe was completed. Practice change can be recommended based on this finding.

In this DNP project, knowledge was gained from each of the EBP process steps, enabling this author to apply many of the skills needed to practice as a DNP scholar. The principal learning and change in personal practice was utilizing evidence to support ideas on how to address complex problems facing health care leaders. Analytical methods, including how to review publish research to identify strengths, weaknesses, and applications, is an essential skill developed during the EBP process, as research methods influence the applicability of the evidence found in the study. Practice applications need to be formed on strong, applicable evidence when possible. The project components utilized theories from many different disciplines, demonstrating additional scholarship development. Both Qualtrics and SPSS were new technology software learned during the project and will have future application. A key responsibility of the DNP scholar is to advance nursing practice, which includes educating and mentoring others nurses. The project intervention reflected this responsibility, and allowed this author to further strengthen both skills. The final outcome of this project was the personal growth of a capable and proficient DNP scholar.

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