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The Creation and Implementation of Interprofessional Simulation Leadership Scenarios

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The Creation and Implementation of Interprofessional Simulation Leadership Scenarios

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Abstract

Healthcare is in a historical state of change creating an era that requires superior leadership skills. Leaders face burgeoning challenges in a competitive environment ensconced in reform. Today's dynamic healthcare environment demands that nurse and interprofessional leaders be astute in a variety of areas including: fiscal responsibility and accountability, organizational politics, interpersonal skills, human resources, communication, conflict resolution, and emotional intelligence. Some areas such as fiscal management are considered *hard skills*, or skills which can be taught, while others such as conflict resolution are referred to as *soft skills*, or skills that are learned through experience. Though soft skills have been identified to be equal to hard skills in importance for successful leadership, there has been minimal educational development in this arena. Simulation provides an integrated approach to transformational leadership tied to experiential learning. While many industries led by aviation and the military have a long history of simulation training in human factors, there has been a modicum of training in healthcare. This Doctor of Nursing Practice comprehensive project design identifies key soft skills for successful leadership. Furthermore, the goal of this project is to determine whether simulation is a viable methodology for assessment and development of these skills for nursing and interprofessional leaders, and thereby expanding the evidence for the use of simulation in leadership development. The overwhelming results indicate that simulation is a viable, efficacious, and efficient methodology for leadership development in soft skill competencies.

Keywords: leadership, soft skills, simulation, interprofessional, human factors, experiential learning, transformational leadership

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The Creation and Implementation of Interprofessional Simulation Leadership Scenarios

Healthcare is in a historical state of change creating an era that requires superior leadership skills. Healthcare leaders face burgeoning challenges in a competitive environment ensconced in reform. It is imperative that leaders draw on experience, values, social behaviors, technical and interpersonal skills, and innovation to meet those challenges (Institute of Medicine [IOM], 2010; Dow, Salas, & Mazmanian, 2012; Kalargyrou, Pescosolido, & Kalargiros, 2012).

Mumford, Campion, and Morgeson (2007) contended that leadership skills can be learned and are not necessarily in-born traits or intellectual abilities. Furthermore, they noted that a particular skill will vary in importance from one situation to another. Mumford, Zaccaro, Harding, Jacobs, and Fleishman (2000) asserted that leaders should be able to motivate employees, influence and persuade peers, communicate organizational vision, and effectively facilitate problem solving and performance. Meng, Berger, Gower, and Heyman (2012) conducted a study of middle and senior level executives who identified strategic decision-making, problem-solving, and communication skills and knowledge to be the three significant factors for successful leadership. Twenty-five percent of the participants were from non-profit and educational organizations. Though founded in the public relations arena, it is easy to transpose the results into healthcare.

Nurses' leadership abilities are fundamental to the success of a healthcare organization as they strive to achieve identified strategic goals (Kanste, 2008). Leadership is comprised of *hard skills* (e.g., business planning, budgeting) and *soft skills* (e.g., human attributes). Upenieks (2003) and Kanste (2008) findings indicated that transformational nursing leadership behavior predicated upon influence, inspirational motivation, and intellectual stimulation, along with traditional rewarding, affects the nurse's feelings of personal accomplishment.

There is a broad range of definitions for leadership, however the simplest is the ability to influence others to achieve goals (Kanste, 2008; World Health Organization, 2009; Government Accounting Office, 2010; Metcalf & Benn, 2013). Kotter (1990) stated that leadership involves providing the organization with a strategic vision, communicating the vision to employees, and inspiring, motivating, and aligning staff to achieve the vision. Leadership is not an intrinsic quality; it is comprised of a diverse collection of competencies, personal attributes, and vision requiring education, leadership development, and mentoring (Hughes, 2009).

A United Kingdom (UK) study revealed that staff perceptions of the effectiveness of senior managers' leadership are associated with decreased rates of patient complaints and improved clinical ratings (Shipton, Armstrong, West, & Dawson, 2008). "Two absolute requirements for successful clinical change are visible support from senior leadership and strong clinical leadership" (Leonard, Graham, & Bonacum, 2004). Upenieks (2003) stated that transformational leaders exhibit such human factor attributes as respect, passion, self-confidence, responsiveness, and credibility. Bennett, Perry, and Lapworth (2010) found that emotional intelligence, which includes qualities such as self-confidence, commitment, and empathy, is seen as pivotal for organizational success.

According to the World Health Organization (WHO) (2009), human factors may be defined in several ways, yet the widely recognized definition is from the Health and Safety Executive (HSE) (1999, p.2): "Human factors refer to environmental, organizational, and job factors, and human and individual characteristics, which influence behavior at work in a way which can affect health and safety." The HSE (1999) further espoused that human factors should be considered regarding the job, individual, and organization, and the impact that they have on health and safety-related behaviors.

Individual human factors most often are cognitive, social, and personal resource skills, which are non-technical skills that contribute to safe and efficient performance (Flin, O'Connor, & Crichton, 2008). The concept of non-technical skills including leadership attributes emanates from aviation's Crew Resource Management (CRM) and are recognized as contributing factors to safety (Myers & Orndorff, 2013; Vickers, 2009; Flin et al., 2008). While many industries led by aviation and the military have a long history of training in human factors, there has been a modicum of training in healthcare (Halamek, 2010; Kuehster & Hall, 2010). Most research looks at leadership in relation to business strategies such as performance and productivity (WHO, 2009). The Institute of Medicine (2010) advocated for nurses to be innovative and to take the lead in collaborating for healthcare change.

Cacioppe (1998) contended that a more effective approach to leadership comes from greater emphasis on the human perspective rather than technological or scientific perspectives and that employing simulation is an effective means of leadership development. Exploring the characteristics of simulation provides a perspective on its utilization in soft skill leadership development.

Curtis, DiazGranados, and Feldman (2012) indicated that "simulation refers to any system that replicates real-world processes, actions, or behaviors" (p. 255). Simulation is frequently used in healthcare education, both with staff and students. The value of simulation in nursing education became highly regarded as it is reported to enhance critical thinking, as well as problem solving, clinical judgment, and rapid response skills (Jeffries, 2007).

Lambton, O'Neill, and Dudum (2008) demonstrated students' abilities to recognize medical errors and increased collaboration and communication skills as a result of simulation-based education. Kuehster and Hall (2010) reported that staff indicated that simulation prepared

them to address similar circumstances when they occurred and that learning through their mistakes in a safe environment improved their competencies.

Traditionally, fidelity has been defined by how closely it models real-life situations (Lewis, Strachen, & Smith, 2012). While many simulation methods focus on high fidelity simulation, there are a variety of other methods used in training such as standardized patients, low-fidelity simulators, and multi-media applications. Simulation is referred to as high- or low-fidelity in the sense of physical fidelity, such as environment, equipment utilized, and sensory application; however there are other types of fidelity: functional and psychological (Curtis, DiazGranados, & Feldman, 2012; Dow, Salas, & Mazmanian, 2012). Functional fidelity relates to how realistic the trainee's actions and responses are compared to the realism of the simulation and simulation instrumentation (Curtis et al., 2012). Psychological fidelity is lower in cost as it does not necessitate high physical fidelity. However, psychological fidelity is comprised of task, scenario, temporal, perceptual, and experiential components, all of which vary in fidelity based upon the situation and cognitive skills being addressed (Curtis et al., 2012).

The IOM (1999) recognized full scale simulation as introducing human interaction and communication factors that are critical to patient safety. Organizational achievement is related to successful leadership, yet while the literature discusses at length the competencies required, there is little to address the mechanisms for acquiring soft skill competencies. These skills tie into the American Organization of Nurse Executives' (2011) five competencies: communication, leadership, knowledge, professionalism, and business skills. Utilizing simulation as a method to develop soft skills provides an innovative approach using both self-directed and full-scale simulation.

With nearly one-third of the nursing workforce in the United States eligible to retire in the next 10-15 years (HRSA, 2013), it is imperative that succession planning be implemented in healthcare organizations. Middle management positions often remain unfilled or have high turnover. Stichler (2009) noted the criticality of succession planning as the nursing shortage looms and baby boomers retire. Appropriate candidate selection is paramount to patient care, teamwork, and success. Candidate selection in some arenas such as college leadership included addressing such attributes as communication, collaboration, integrity, and innovation (Frimpon, 2012). Utilizing simulation provides an adjunct to traditional modes of candidate selection (Mota & Scalabrini, 2012).

One key to succession planning is providing aspiring leaders and current managers with leadership development opportunities to ensure success. Given that simulation is a proven methodology in industries outside of healthcare for leadership development, it should also be an effective modality to educate current and aspiring healthcare leaders at all organizational levels.

Nurse leaders have been developed, appointed, and hired throughout history based upon a variety of methodologies. Hiring practices historically have included telephone, individual, and group interviews, as well as a combination of all three. Nurses are often placed in management positions with little or no training (Stichler, 2009). Promotional opportunities often occur through appointments based upon the nurse being the best clinician. Eddy et al. (2009) described the “Last Woman Standing Model of Leadership” (p.12) as becoming a leader by default, the most senior or the best bedside nurse. It is not an uncommon theme to hear from nurse leaders that they were promoted based upon being the last one standing regardless of whether they had the skills or competencies to be successful (Eddy, et al., 2009). Such research coupled with personal experience and conversations with colleagues attests to this assertion leading one to

understand the need for the development of leadership competencies by professional organizations such as the American Organization of Nurse Executives (AONE).

Today's dynamic healthcare environment demands that nurse leaders need to be astute in a variety of areas including: fiscal responsibility and accountability, organizational politics, interpersonal skills, human resources, communication, conflict resolution, and emotional intelligence. Some such as fiscal management are considered hard skills, those which can be taught, while others such as conflict resolution are referred to as soft skills, those learned through experience. Robles (2012) stated that not only are executives expecting candidates and leaders to possess soft skills, but also that soft skill abilities should be seen as an investment as they are critical in the modern market. While Robles referred to business, the analogy to healthcare is apparent.

While leaders are expected to possess or develop these skills, time often limits opportunities to develop and practice these skills prior to embarking on a leadership position. Leaders in academia, seeking to make paradigm changes to curricula and programs, are drawing on nurse executives in practice settings to collaborate on changes and assisting those in practice with staff development processes (Crosby & Shields, 2010; Eddy et al., 2009). Jennings, Scalzi, Rodgers, and Keane (2007) identified a dearth of nurse leaders based upon three major issues: clinical careers are more highly valued than leadership, educational preparation aimed at grooming the nurse for these positions is lacking, and a decreased appeal for leadership roles as a result of the changes and restructuring that occurred in the 1990s.

The IOM (2003) indicated that health professionals need to improve communication, collaboration, and team work (all soft skills) through interprofessional education (IPE). While the literature is replete regarding the utilization of simulation to provide a safe environment for

learning procedures, there is a scarcity of evidence concerning its use in staff development around soft skills such as communication and teamwork (Halamek, 2010; Kuehster & Hall, 2010). Robertson et al. (2010) demonstrated that simulation improved knowledge, attitudes, and abilities to discern teamwork and communication, and communication skills. Vickers (2009) found that simulation-based education improved staff soft skill competencies, as well as improved patient safety.

Organizational success is tied to successful leadership. Although the literature discusses at length some of the competencies required, there is little to address the mechanisms for acquiring these skills, especially soft skills. The aim for this project is three-fold: identify the top five soft skills that leaders consider central to successful leadership; create and implement simulation scenarios addressing those five skills; and integrate them into interprofessional situations. The question posed is: Will nurse leaders and other healthcare leaders enhance their soft skill competencies through the use of simulation?

Evidenced-based Literature Review

Search Strategy

Examining the study question resulted in exploring the literature in the three domains of leadership, soft skills, and simulation and the integration of the domains. Four databases were used: The Cumulative Index of Nursing and Allied Health Literature (CINAHL), Business Premier, PubMed, and Library, Information Science and Technology Abstracts. The search filters included English only in peer-reviewed journals spanning the years 1985 to 2013. Though 1985 may seem too early, the literature for the foundation of simulation becomes evident during the time that other industries were embarking upon its use to improve safety. Additionally,

interest in leadership and leadership competencies became more prevalent in the 1990s, as previously discussed.

Search headings and key words included leadership, soft skills, human attributes, management, and simulation. Truncated key words were used for leadership, administration, management, simulation, education, training, and coaching. The results yielded 454 articles for all domains after duplicates were removed. Following title review and abstract evaluation, 117 articles remained. An additional 10 articles winnowed from a non-annotated simulation bibliography provided by the California Simulation Alliance (CSA) were also reviewed.

Evidence Model

The Johns Hopkins Nursing Evidence-Based Practice (JHNEBP)[®] model (Newhouse, Dearholt, Poe, Pugh, & White, 2007) was applied to evaluate the articles (see Appendix A). Based upon the JHNEBP[®] model: 33% were non-experimental scoring A or B; 9.5% were qualitative scoring A; 19 % were organizational scoring A or B; 14% were literature reviews scoring A, B and C; 9.5% were case studies scoring A or B; 9.5 % were expert opinions scoring A; and, 5% was a systematic review scoring A (see Appendix B). Rounding error accounts for 0.5 percent of the scoring. There were no experimental, quasi-experimental, meta-analysis, or meta-synthesis identified.

Article Evaluation

Leadership and soft skills. Leadership and management are often used interchangeably. Jennings et al. (2007) initiated a systematic review of the literature based upon concerns over the dearth of nurse administrators and the need to address changes in educational curricula. Their agreement with other authors that there are differences and commonalities between the roles of leader and manager provided additional impetus to investigate the differentiating and mutual

competencies. Review of 140 articles found that there was a merging of the distinction between the roles as of the 894 competencies identified, 862 intersected. The 26 distinct leadership competencies fell into the categories of setting the vision and developing people, while those for the six distinct management competencies were in human resource management and information management. The review further discussed educational programs and determined that nursing administration programs will need to change significantly if they are to survive and prepare leaders for the future.

Triola (2007) completed a literature review, business and nursing, based upon the American Association of Critical Care Nurses (AACN) leadership standard regarding authentic leadership. According to many authors cited, authentic leaders are aware of themselves, how they think, and how others see them. Additionally, authentic leaders are seen as inspirational, relationship-centered, resilient, empathetic, and will more readily retain and engage staff. Leaders who are authentic display emotional intelligence and are seen as transformational, leading their organizations to thrive. Triola concluded that there is still much work to be done in refining the characteristics and competencies of the authentic leader.

Successful leaders are critical to an organization's success. Distinguishing management from leadership is a theme found in the literature. Bennett, Perry, and Lapworth (2010) of the UK performed a literature review in an effort to address leadership styles and skills, and to apprise nurses of key skills to develop a culture of empowerment. This analysis found that vision and inspiration were strategic leadership attributes, while management focused on operational issues. They observed that emotional intelligence, which includes qualities such as self-confidence, commitment, empathy, and social attributes, is seen as central to organizational success and leadership. Transformational leadership was identified as affording collaborative

and empowered teams. The article further elucidated that leaders need to be astute at change management, negotiating, conflict management, and the ability to adapt and be flexible.

If organizations are to be successful in a rapidly changing environment, then leadership development, processes, and practices necessitate transformation (Newhall, 2012). While Newhall related this to business, it readily translates to changing healthcare and nursing dynamics. His two case studies involve international businesses and depict two different but similar approaches to leadership development. The premise for both, as found in the literature, is that quality leadership has a positive effect on the competition and affects employee retention and commitment. Decentralized programs were identified as less beneficial than structured models. The first case study involved an international company with 11,000 leaders in 35 countries. A unified and more structured approach involving 10 modules was implemented. Curriculum included leadership skills for the future, communicating for results, effective decision-making, and contributing to change. Results included a continuing developmental process for leaders and an appeal for new talent, which created a more sustainable pipeline. Case study two involved an international company that implemented the Leading for Accelerated Performance and Growth Program (LEAP) in partnership with the developers. The program consisted of five training modules. More than 750 leaders across all levels of management and 1049 observers participated. Observers included direct reports, peers, and managers who provided feedback on how effectively the leaders practiced their new skills. After 3-12 months, results included positive behavioral change across all levels, globally.

Nurses from practice and academia in western New York formed a task force to address the need to plan for the succession of the next generation of nurse leaders (Crosby & Shields, 2010). Fueled by the evolution of nursing leadership and movement from silo to systems

thinking, it was determined that a needs assessment was required to address leader development and the recommended educational content necessary to support it. Conditions to facilitate or constrain leadership were also identified. Themes that emerged included: people skills as facilitating development, lack thereof constraining development, and resource availability that could positively or negatively affect development. Mentorship, educational opportunities, time, and financial support were identified as key resource issues. An educational component of the assessment was designed to define what the participants saw as the cognitive basis for leadership development. Results of the educational component identified 13 categories with a wide variety of topics as necessary for development. Based upon the assessment, and in light of diminished resources and downsizing of local organizations' staff development departments, a local university working with administrators developed creative ways to address needs of leaders and aspiring leaders. Among the suggestions was to create a freestanding nurse leadership academy designed to provide educational programs and enrichment opportunities to promote collaboration, collegial support, and career advice. The first year was deemed successful.

Leadership style often originates prior to one being recognized as a leader. Gunther, Evans, Mefford, and Coe (2007) contributed meaningful data to the literature through research by comparing the leadership styles of junior and senior baccalaureate nursing students. Their descriptive study was grounded in the three frameworks of leadership, emotional intelligence, and the relationship to empathy. The three leadership styles addressed were transactional, transformational, and laissez-faire. Findings indicated that both groups predominant leadership style was transformational while the juniors had a correlation to laissez-faire. Junior students showed a statistically significant, though weak, relationship to empathy in one of two instruments used. Seniors showed the same in both instruments. However, those seniors who

preferred transformational leadership in 4 of 5 elements scored higher in empathy. The decrease in laissez-faire with seniors was attributed to increased knowledge, emotional security, and critical thinking skills. It was determined that graduates who prefer transformational leadership look for organizations demonstrating the essential elements of transformation. While undergraduates have not been in practice, it is opined that the foundation for leadership development starts before one enters into a profession.

Nurse managers' leadership style is pivotal to the success of an organization. McGuire and Kennerly (2006) made a significant contribution to the sparse research on middle management leadership. Their effort was to clarify the link between the leadership style of the nurse manager and staff commitment to the organization. Transactional and transformational styles were linked to staff commitment utilizing a descriptive correlational study methodology. Though nurse managers saw themselves as transformational, staff often saw them as transactional. It appeared that this outcome is partially caused by role descriptions requiring transactional activities, which creates a struggle for managers who prefer transformational styles. There was a statistically significant correlation from staff in relation to transformational leadership and their organizational commitment. The authors concluded that performance standards that promote transformational leadership characteristics and advocacy from senior leadership will enhance the organization and foster a competitive, healthy work environment.

As is well known, the role of the nurse manager evolved over the last two decades. Kramer et al. (2007), using a descriptive design with strategic sampling, explored behaviors relating to how nurse managers support staff and how organizational and leadership practices support them. More than 3000 nurses identified nine key supportive behaviors of nurse managers. Nurse leaders identified seven key organizational structures and practices that

promote nurse managers' ability to transit the changing environment and staff expectations. Staff identified two role behaviors as very important: leadership, especially soft leadership behaviors such as guiding and nurturing, and managing resources including facilitating teamwork and talent acquisition. Caring was identified by staff as one of the most important attributes nurse managers should possess.

As there is an insufficient number of nurse leaders with appropriate competencies to function in today's changing healthcare environment, it is necessary to address curricula in nursing leadership graduate programs (Eddy et al., 2009). The authors used focus group design to ascertain from practice leaders the common themes and background meanings related to leadership in nursing. Leaders urged educators to advise students that leaders do practice nursing, and leadership should be a valued function of nursing. Additionally, leaders urged educators to coach students that leadership may be found in all levels of nursing, not just in management roles. Themes identified were: communication emphasizing listening skills, conflict resolution, communicating a vision, the ability to utilize data and technology, and the ability to face change proactively. Based upon the findings, curricula in various formal educational settings were changed, revised, or initiated to address the identified leadership themes, behaviors, and competencies. Another outcome was enriched cooperative relationships between academic and practice leaders.

Leadership connectedness and people-centered relations have been the focus of increased attention over the last decade. Mentoring has been addressed for decades as a relationship for success. McCloughen, O'Brien, and Jackson (2009) took the theme of *esteemed connection: creating the mentoring relationship* from a previous study and expanded on its importance in nurse leadership development. It was determined that mentoring relationships were derived from

personal informal relationships even when embedded in professional relationships. Regardless of the personal relationship, mentoring sets well defined professional boundaries grounded in integrity and respect. Age did not play a part in the mentor relationship as mentors were seen as people who were admired for their broad skillsets and role modeling and as people of merit. Mentees were seen as having potential leadership abilities and worth investment of the mentor's time. Through honoring human connections, the mentor-mentee relationship is established. The study revealed that the two people in a mentoring relationship established an esteemed connection, which "implicitly determined compatibility, well-defined professional intent, mentor actions and mentee vision contributed to instituting mentoring relationships with a specific purpose of developing nurse leaders" (p. 332).

Simulation and soft skills. Dow, Salas, and Mazmanian (2012) described the insights from human factors studies and industrial and organizational psychology as related to healthcare. Psychological fidelity was identified as more difficult to achieve than physical or functional fidelity as it is based on human responses and individual needs to develop team behaviors. Those insights or lessons learned included: (1) the complex healthcare environment requires novel approaches to continuing professional development; (2) simulation as an educational modality can improve expertise and adaptability to complex situations; (3) simulation is instrumental in evaluating competency skills longitudinally; and (4) interdisciplinary studies of healthcare professionals development provides new understandings of complex issues. Based on their view, simulation-based education is "poised to advance health care delivery by allowing participants and planners to identify gaps at the individual and systems levels" (p. 234). This finding correlates to the proposal that a gap exists in the evidence regarding improvement of soft skills through the use of leadership simulation scenarios.

According to Halamek (2010), while simulation has been adopted at a rapid pace, it has been focused on realistic physical environments providing care to simulated patients using real medical equipment in which behavioral skills are critical. He indicated that healthcare professionals have not been formally educated in these specific skills, nor have instructors and content experts had resources to elucidate what and how these skills are used in professional practice. Behavioral skills critical to successful patient outcomes are described as effective communication, teamwork, and leadership. A discussion ensued regarding the use of simulation as an appropriate methodology to integrate content knowledge, technical skills, and behavioral skills. Predicated on the events of Apollo 13 and using movie clips of the accident, Halamek demonstrated how his organization, Lucile Packard Children's Hospital at Stanford, used the video to address learning behavioral skills and teaching the efficacy of simulation. Healthcare has the opportunity to learn from other industries that have used simulation in high-risk domains to teach and learn critical behavioral skills.

There is controversy over whether simulation provides a realistic learning situation for participants and thus, whether it is an effective modality for teaching and learning. Gaba (2007) conveyed that experience has shown that participants in simulation readily shed their disbelief and act as they would in their real jobs. He described 11 dimensions representing different attributes of simulation (see Appendix C), stating that the integration across the dimensions provides a significantly large number of combinations that may be intertwined to address the complexities of healthcare. As described, simulation is not only effective for individuals and teams, but also for members throughout the healthcare system, from nursing assistants to leaders and regulators. Gaba stated, corroborating with other authors (Vickers, 2009; IOM, 2003), that simulation provides education and training through realistic scenarios and "may indirectly

improve safety, including facilitating recruitment and retention of skilled personnel, acting as a lever for culture change, and improving quality and risk management activities” (p. 127).

Though healthcare has increasingly engaged in simulation over the last quarter century, aviation along with the military led the way as is widely indicated in the literature. Vickers (2009) addressed lessons learned from aviation in developing simulations for staff education and training subsequent to untoward events in her organization. Having reviewed the literature and various studies, it became evident that human factor skills (e.g., communication, situational awareness, teamwork, leadership, and empowerment) are contributing factors to adverse events and are more common than previously recognized. Aviation, through the years, developed Crew Resource Management (CRM) training and utilized simulation as a modality for ensuring that personnel were competent in human factor skills. Combined with organizational support and consultation from experts in the airline industry, simulations were developed resulting in enhanced skills related to humanity, empowerment, communication, leadership, and situational awareness and improved patient safety in the operative suite.

Reed, Lancaster, and Musser (2009) discussed that while faculty have used simulation for clinical situations, there is an absence of simulation training in leadership and management skills. They postulated students do not have the opportunities to practice leadership roles during their clinical rotations and were unable to discover any illustrations in simulation literature related to the complex leadership issues facing the modern nurse. Faculty researched appropriate simulation processes from development through evaluation and then created leadership simulation scenarios that included leadership and management skills, specifically: time management, prioritization, delegation, and communication with other healthcare team members. After completion of the course and evaluation, faculty observed students made decisions quickly

in complex situations, thus confirming their assumptions that leadership simulation scenarios are an effective way of teaching leadership and management skills.

High fidelity simulation, the use of computer-driven mannequins, provides a safe environment for practitioners to learn and practice communication and teamwork (Kuehster & Hall, 2010). Though the literature supports the process of enhanced communication, teamwork, and systems approaches to improve patient safety, Kuehster and Hall (2010) found little published evidence to confirm the use of high fidelity simulation in staff education. The authors addressed the development and implementation of high fidelity simulation in 10 rural facilities designed to provide realistic scenarios around complex situations for which rural providers need to be prepared but may rarely encounter. Simulations emphasized teamwork and communication, and the participants were often video recorded to provide immediate feedback during the debriefing period.

Participants in the Kuehster and Hall (2010) simulations reported that the simulation experience provided them with realistic scenarios after which they felt better prepared to address when similar or actual events occurred. Furthermore, they indicated that simulation provided them with the opportunity to practice skills in a safe environment whereby learning from mistakes also increased their competence. According to Kuehster and Hall, simulation is a “promising pedagogy for health care” (p.127), with the potential capability of reducing errors through the assimilation of communication and teamwork with skills development and retention.

Walsh (2010) described narrative pedagogy as focusing on the human experience stemming from the meanings and interpretations of stories. Combining narrative pedagogy with the conventional content- and competency-driven pedagogy through multi-media simulation would enhance scenarios to accommodate for complex human emotions. Dialogue addressed the

advantages and disadvantages of online simulation, the use of avatars versus human actors, and humanizing simulation, a goal of utilizing narrative pedagogy. Walsh explained the Stilwell model, which is a simulated community accessed through an online platform with stories about the community and healthcare narratives based upon real patients sharing their perspectives. This model allows participants to become engaged with the characters, and to interpret and learn from the patient's experiences. The methodology provides learners with an increased range of experiences through the use of technology, though it is recognized that it will not replace experiential learning in the practice setting.

Robertson et al. (2010), as with other authors, found that communication and teamwork are not usually taught in healthcare professionals' formal education. They described the collaboration between the medical and nursing schools of their university in adapting the TeamSTEPPS curriculum, designed for practicing professionals, into their programs. The philosophy is to teach interprofessional teams the value of their role in patient-centered care. Simulation and video were used to develop team knowledge and attitudinal skills related to teamwork. Evaluation of the program resulted in significant student satisfaction with the methodology, increased knowledge and skills, and enhanced attitudes toward teamwork and its importance in patient care. Though the authors indicated that teamwork skills require time and energy to become expert, they found that even four hours of exposure increased knowledge, attitudes and the ability to discern team skills.

Facilitating transition into practice is a goal faculty often find is not realized because opportunities to address the education to practice gap in the areas of leadership and management are not found in clinical rotations. Thomas, Hodson-Carlton, and Ryan (2011) addressed this issue through the use of leadership simulation scenarios utilizing human actors to add to the

realism of the scenario. Scenarios were developed depicting issues students would not normally encounter during a clinical rotation such as staff conflicts, interaction among members of various departments, critical decision-making and priority setting around patient concerns, and communication regarding errors and other hospital crises. Overall, the authors felt that simulation provided for skill development and that transition into practice would be smoother and retention increased. They contended greater emphasis should be placed upon developing leadership and management skills, and that the simulation lab offers a milieu to provide feedback for problem-solving and clinical decision-making skills utilizing faculty and practicing staff.

After review of the literature, Titzer, Swenty, and Hoehn (2012) found that while the cost of healthcare had risen, the correlational improvement in safety was non-existent and poor communication, problem solving, and communication were significant detractors. Subsequently, they embarked upon developing interprofessional simulations across four disciplines (nursing, radiology, occupational health, and respiratory) to improve collaboration and problem solving. Their university opened a simulation center in 2007, providing easy access to this educational modality. Collaboration, communication, and problem solving issues were interjected into clinical scenarios, and each discipline was represented in the simulation. Benner's Novice to Expert Model (1984) was utilized as the learning concept. Simulation as a safe learning environment was noted as students felt they had the opportunity to learn without adversely affecting patient outcomes and to learn from mistakes. The authors concluded that simulation provided an effective interprofessional development experience, and students learned how their roles integrated with each other and that their perceptions of roles differed from reality.

Robles' (2012) study was designed to ascertain the soft skills that executives expect of their personnel. Soft skills were differentiated from hard skills, those associated with the

technical expertise and knowledge needed for the position. The study results indicated the top 10 soft skills, interpersonal or people skills, were: integrity, communication, courtesy, responsibility, social skills, positive attitude, professionalism, flexibility, teamwork, and work ethic. Integrity and communication were overwhelmingly denoted as the top two. Robles quoted Sutton (2002), stating that soft skills are so important that they are rated number one across industries as significantly important. Research suggested soft skills are just as reliable an indicator of job performance as hard skills, and both skillsets are necessary and should complement each other.

Literature Synthesis

Leadership has been researched and discussed in literature within and outside of health care for decades. Rapidly changing dynamics leads nurses to explore whether the skills and competencies of the past will fit with the new era of nursing and healthcare leadership. As discussed in the review, there is concern about what constitutes a leader, what skills and competencies are essential for leaders, and what organizations and individuals do to support and develop leaders.

Transformational leadership is identified as the style that will lead an organization to success. However, transactional expectations from organizations present challenges in balancing those needs. Characteristics of successful leaders include emotional intelligence as a mechanism to facilitate a transformational style and lead staff to organizational commitment. While competencies have been set forth by organizations such as AONE, it is evident there is consistent agreement regarding transformational leadership and the attributes constituting the style. However, educational systems need to realign themselves to address leadership development.

A major concern emerging in the review is the perceived dearth of leaders for the future, yet one might surmise that the talent is there waiting to be developed and encouraged to step into another form of nursing-formal leadership. Facilitating that encouragement requires changes in formal and informal educational opportunities. The ever-increasing utilization of simulation appears to indicate that it is an innovative approach to leadership development.

Exploring the domains of leadership, soft skills, and simulation provided evidence to pursue the question: Will nurse leaders and other healthcare leaders enhance their soft skill competencies through the use of simulation? The literature clearly identifies leadership styles, skills, and competencies necessary for successful leadership and in turn for successful organizations. Although the literature is sparse, some academic institutions are pursuing the integration of leadership and management education through simulation. Additionally, it is evident that with the changing times, required skills and competencies have not only transformed, but are creating a need for academia and informal educational programs to make a paradigm shift. To that end, one approach would be for educational institutions and healthcare organizations, individually or in collaboration, to utilize simulation as a methodology to teach and assist leaders in learning how to practice 21st century leadership styles and demonstrate soft skill attributes.

Theoretical Frameworks

Kolb's Experiential Learning and Bass' Transformational Leadership theories are fundamental in supporting the development and implementation of simulation-based leadership scenarios. Transformational Leadership Theory integrates with development of soft skills, while simulation is designed to realistically emulate experience.

Transformational Leadership

Throughout the literature, transformational leadership has also been referred to as charismatic leadership. Originally, transformational leadership was defined by Downton in 1973, but it was significantly disseminated by James MacGregor Burns, presidential biographer, leadership expert, and Pulitzer Prize-winning historian. Burns (1978) espoused that transformational leaders, through their personality and vision, inspire their followers or employees to change their expectations, perceptions and motivation to work toward common goals. Translated differently, one might say that transformational leaders inspire and motivate employees to embrace organizational goals through their charismatic qualities and commitment to mission, vision, and values.

Bass (1985) expanded on Burns' idea of transformational leadership, indicating it was based upon the impression leaders leave on their followers. Furthermore, he stated transformational leadership contains four components: intellectual stimulation, individualized consideration, inspirational motivation, and idealized influence. The four components may be defined respectively as leaders who: (1) not only challenge the status quo, but encourage innovation and creativity; (2) maintain open communication, cultivate supportive relationships, and offer direct recognition of contributions; (3) have and articulate a clear vision and provide the milieu for others to be passionate and motivated to fulfill the vision; and (4) act as role models garnering respect and trust resulting in followers who emulate their ideals. This definition became known as Bass' Transformational Leadership Theory (see Appendix D).

Experiential Learning

Experiential learning is founded on learning from one's experiences and learning styles. Kolb (1984) expressed his Experiential Learning Theory (ELT) as learning centered on the

individual's experiences and learning styles from which knowledge is created. According to ELT, individuals fall within four learning styles: diverging, accommodating, converging, and assimilating. The learning styles function across a four-stage learning cycle, which flows as: experiencing, reflecting, thinking, and acting. Based upon transiting each part of the cycle, the learner develops concrete experiences that lead to observations and reflections. While learners may prefer one stage of the cycle, Kolb indicated that to be wholly effective, learners should transit all stages to create new experiences from their observations and reflections.

McLeod (2010) depicted Kolb's model (see Appendix E) integrating learning styles and cycles across two axis continuums identified by Kolb as perception, or the emotional response or how one feels about a task, and processing, or how a task is considered. Additionally, McLeod developed a two-by-two matrix (see Appendix F) depicting Kolb's learning styles, which are a combination of two preferred styles along the intersecting continuums. McLeod defined the learning styles as: (1) *accommodating learners*, who are hands on, rely on intuition, and are attracted to new challenges and experiences; (2) *diverging learners*, who look at things from different perspectives, are idea generators, good at brainstorming, like groups, and are good listeners; (3) *converging learners*, who solve problems using their learning, prefer technical tasks, are less people-oriented, find practical solutions, simulate, and experiment with new ideas; and (4) *assimilating learners*, who prefer a concise logical approach, are less concerned with people, require explanation over practical opportunity, and are attracted to sound theory over practical value-based approaches.

Theory Integration

Soft skill scenario simulations are designed to provide leadership development at all leadership levels regardless of style or background. Additionally, simulation is predicated upon

reality, using scenarios that individuals may react to, founded on their own background and education. Kolb's model, ELT, provides an overarching framework in which simulation functions. As represented, leadership scenario simulations incorporating the concepts of ELT and providing immediate feedback may be used as an iterative process for continual development. Utilizing today's technology and the variety of simulation options offers the opportunity to design and provide individualized, self-directed, or facilitated learning scenarios whereby individuals may develop leadership skills focused on becoming transformational leaders. Experiential Learning Theory readily corresponds to psychological fidelity (Curtis et al., 2012) founded on experience and generating a realistic encounter.

Transformational Leadership addresses intellectual stimulation, individualized consideration, inspirational motivation, and idealized influence thus integrating with ELT's concepts of individual development rather than organizationally oriented, traditional learning methodologies. The two theories are related in their focus on transformation: one on the transformational skills and characteristics of a leader and the other on the transformation of the leader's experiences and learnings into new knowledge. Consequently, these two theories are explicitly and implicitly interrelated to address the successful implementation of soft skill leadership simulations (see Appendix G).

Methods

Ethical Issues

Ethical issues are minimal as participants and organizations were assured that their names and responses would remain confidential. Surveys conducted were anonymous, though the ability for the investigator to determine who had answered each survey was made possible through their Internet Protocol (IP) addresses. This was not known to the investigator until

analysis of the responses occurred. The addresses were not utilized, nor researched. Prior to conducting the surveys and simulations, conference calls were held with the sponsoring agencies' representatives to discuss the process, including confidentiality. While participants provided demographic information to the investigator (see Appendix H), names were withheld from the analysis and report. Participants were also assured the results of the simulation experience would remain confidential unless the participant chose to share them with her/his colleagues or supervisors.

Setting

Though the initial goal was to determine soft skill attributes and utilize simulation to determine the level of expertise of nurse leaders, it became evident through the literature review (Appendix B), personal conversations with key leaders, and review of professional organizations' objectives/websites (e.g., AONE, Society for Simulation in Healthcare) that interprofessional education (IPE) is considered fundamental to successful organizations. Therefore, it was decided to include a non-hospital healthcare organization in the project. Two "sister" organizations from a large Health Maintenance Organization (HMO), one Magnet medical center (i.e., designation conferred by the American Nurses Credentialing Center), and a division of a large international pharmaceutical company volunteered to participate in the implementation of leadership simulations in their organizations.

Planning the Intervention

Although the literature is replete with studies and articles regarding leadership and individual soft skills, there is a negligible amount tying them together and relating them to the success of healthcare organizations. It is also evident that there has been insufficient education regarding leadership development and the impact of soft skill competencies vis-à-vis safety and

leadership or organizational success (IOM, 1999; IOM, 2003; Halamek, 2010; Kuehster & Hall, 2010). Based on his study, Robles (2012) contended business executives value soft skills as much as hard skills, and that in today's competitive environment, leaders need to be competent in these cognitive skills. Ten top soft skills were identified, with integrity and communication being highest. Similar evidence was not found specifically for healthcare or nursing, nonetheless one might assert that these would be similar.

In review of the California Simulation Alliance (CSA) library of over 65 evidence-based scenarios, a gap exists as there are no leadership scenarios. Though there is an abundance of evidence regarding simulation as a modality for teaching and practicing procedures, tasks, and CRM, there is minimal documentation for its use involving "soft" skill leadership development. Furthermore, during the 2013 International Meeting on Simulation in Healthcare and the 2013 AONE annual meeting, several participants and presenters commented on the lack of leadership simulations and scenarios.

Predicated upon foregoing evidence as well as dialogue with colleagues, nurse leaders and advisors, it was determined to investigate the human attributes or cognitive soft skills that healthcare leaders identified as essential leadership competencies. Subsequently, scenario-based simulations would be developed and implemented for leaders and aspiring leaders to address their current levels of expertise in the top five identified soft skills. Discussions included the areas of consideration in which these types of scenarios could be utilized: leadership development, candidate selection, and succession planning. The Institutional Review Board of Human Subjects (IRBPHS) at the University of San Francisco (USF) approved the project as quality improvement in nature, therefore exempt (see Appendix I).

Implementation of the project included determining the soft skills to utilize for developing simulation scenarios entailed significant planning. Conceptually, the project was divided into five phases: (1) securing confidence in and support for the project; (2) determining the soft skills upon which to create the scenarios; (3) obtaining implementation sites, preferably allowing for interprofessional participation; (4) implementation; and, (5) evaluation. The overall process comprised multiple steps delineated in a Gantt chart (see Appendix J) that was utilized for tracking and updating the project as it progressed.

Securing project support. Prior to embarking on the project, it was necessary to secure support from a credible organization that supports nursing and simulation as a modality for teaching. Led by the California Institute for Nursing and Healthcare (CINHC), the CSA is an alliance designed to promote and enhance the development of simulation for “transforming the education of registered nurses and healthcare professionals”

(<https://www.californiasimulationalliance.org>). Supporters of the CSA include: the California Board of Registered Nursing, the California Community Chancellor’s Office, the Employment Development Department, and the California Hospital Association. After conversing with Dr. Waxman, Director of the CSA, it was approached regarding interest and support for the project.

Presentation of the SWOT analysis (see Appendix K) assisted in solidifying the CSA’s support for the project. Strengths and opportunities offset concerns regarding whether organizations would understand the benefits of leadership development through simulation. Discussion occurred addressing the use of the scenarios for development of current and aspiring leaders, succession planning, candidate selection, and the impact on patient safety.

Agreement was made for the CSA to support the project through validation and testing of the scenarios in return for waiver of intellectual property for the scenarios, and reformatting and

adapting the CSA template for leadership scenario development. Moreover, the CSA's agreement for validation and testing was in-kind payment, thus the expenses associated with the project were borne by the student (see Appendix L). However, longer term, the student would become a CSA faculty member, hence gaining experience while being reimbursed for participating in and/or developing courses administered by the organization. Historically, the CSA has referred its faculty for consultative engagements to organizations seeking content or simulation expertise.

Whereas the CSA may be entering an agreement with a third party to sell its scenarios, the organization currently benefits from the sales of its subscriptions, annual conference fees, and educational courses. The addition of the leadership scenario template, leadership scenarios, and leadership bibliography to the CSA library fills an existing gap, the absence of leadership simulation scenarios. As a result of supporting the efforts related to this DNP project, the CSA may project incremental subscription sales. Though it may be difficult to ascertain if new subscriptions are a result of adding the leadership scenarios, it is not uncommon for organizations to realize a benefit for increasing advantages for its membership. Moreover, the addition of a faculty member provides the CSA with potential revenue increases through development and implementation of contemporary leadership development courses.

Incremental projections over a three-year period for increased subscription sales are provided in Appendix L. Assumptions include: (1) continued fees based on 2013; (2) three new California individual subscribers per year; (3) five new California facility subscribers per year; (4) two individual, out-of-state subscribers per year; (5) one out-of-state facility subscriber per year; (6) two new leadership scenarios per year requiring validation and testing by the CSA; (7) videography for one new scenario per year; and (8) initial marketing expenses in the first year

alerting current and prospective subscribers to the enhancement of the library related to leadership scenarios, template, bibliography, and future leadership offerings.

In the event the CSA had chosen to sponsor the project in its entirety, it would have realized a return on investment (ROI) in the second year and year three by meeting half of the assumptions alone. There were no assumptions made for increased revenues from additional courses that may be developed and offered.

Determining soft skills for scenario development. As elucidated previously, successful leadership is contingent upon leaders being decidedly competent in soft skills as well as hard skills. It is clearly delineated by organizations such as the IOM and AONE that cognitive or soft skills have a positive impact on leadership and patient safety. Instead of arbitrarily selecting five skills, a survey of a cross-section of leaders, faculty, and nurses to ascertain which top five should be utilized in developing the first leadership simulation scenarios was conducted (see Appendix M). Twenty-one soft skill attributes were culled from the literature for respondents to select their top five.

SurveyMonkey[®] was identified as the tool for developing, distributing, and analyzing the questionnaire. A Skype[™] video conference call into the classroom of a DNP leadership class took place to explain the project and secure volunteers to test the questionnaire prior to distribution. Eighteen of the 20 students completed the questionnaire and provided feedback. Modifications were made and sent to the volunteers. Twenty students completed the questionnaire with minor suggestions that were incorporated, after which, the questionnaire was finalized. The volunteers included nurses in the roles of Chief Nursing Officer, director, manager, faculty, nurse practitioner, and staff nurse.

Initially, a convenience sample of attendees at the 2013 AONE conference was obtained through a manual distribution of the survey. Subsequently, the same survey was distributed via SurveyMonkey[®] to the following constituents: University of San Francisco DNP students and faculty, Doctors of Nursing Practice list-serve, CSA subscribers via newsletter, and an array of healthcare professionals known to the author. After two weeks, a follow-up email was sent as a reminder requesting completion of the survey. Two weeks later, the survey was closed.

Once the surveys were analyzed, initial scenarios were developed, validated, and tested prior to implementation. While nurse leaders remained the initial focal point, based on the literature, simulations were designed for nursing and interprofessional leadership education and development. A literature search for each identified soft skill was conducted with the aim of providing appropriate study materials for each skill.

Obtaining implementation sites. In an effort to obtain a cross-section of types and geographic locations, leaders of two national health systems were contacted. Additionally, leadership representatives of four hospitals and one pharmaceutical company were contacted regarding interest in participating. All were provided with a written synopsis of the project (see Appendix N). Discussions with the organizations' representatives included phone calls, e-mails, Skype[™], and one-on-one meetings. After careful deliberation, the two national health systems and one hospital were eliminated from participation due to inability to participate in identified time-frames, competing projects, and expense beyond budget for implementation and evaluation.

Four organizations agreed to participate in the project: two "sister" HMO organizations, one Magnet hospital, and one nationally recognized pharmaceutical company. After agreeing to participate, each organization's representatives were asked to identify potential participants, preferably on a voluntary basis. Prospective participants were apprised of the process, their

questions were answered, and they were informed that simulations would occur on-site or in the organization's simulation center. Information sharing occurred via email with representatives, conference calls with prospective participants, and follow-up from organizational representatives. Based on feedback from the organizations' leadership representatives, the implementation sites and dates were determined ahead of time and coordinated over a two-week period. It was estimated that scenarios, including pre-briefing and debriefing, would average 60 to 90 minutes.

An evaluation process will be developed and implemented to determine the effectiveness of the simulation education. Follow-up and participation in the evaluation will be accomplished through mutually agreed upon methods (e.g., webinar, Skype™, on-site). Feedback from participating organizations is imperative for improving scenarios, updating them, and future development of additional scenarios pertaining to other soft skills.

Implementation Process

Once analysis of the survey was completed, scenarios were developed for the top five soft skills that respondents identified as necessary for successful leaders: communication, integrity, teamwork, listening, and problem-solving. Prior to developing the scenarios, it was essential to revise the CSA scenario template as it was designed primarily for clinical simulations. After modifying the template, it was submitted to CSA experts for validation prior to its use to develop the leadership scenarios. The template (see Appendix O) was operationalized in the development of the five soft skill scenarios.

Dr. Waxman, Director of the CSA and known simulation expert, validated the scenarios prior to implementation. Students in the DNP program at the University of San Francisco (USF) with backgrounds in middle management volunteered to participate as actors in testing of the

five scenarios. Following testing of each scenario, a debriefing occurred to determine whether revisions were needed or the scenarios were acceptable as submitted. Minimal modifications were needed, and all were accepted during a two-day period. Sample scenarios are provided in Appendix P.

Given that simulation is also multi-media based and may be self-directed or facilitated, two scenarios were video-recorded for future educational purposes. The project designer, as director, provided guidance to the actors and videographer. Two versions of each scenario were recorded: one illustrating appropriate learner responses and one displaying an array of inappropriate responses by the learner.

Evaluation Process

Evaluation of the simulation experience and of lessons learned was accomplished via three methods: simulation debriefing, on-site verbal evaluation following the debriefing utilizing a pre-determined set of questions (see Appendix Q), and a follow-up survey linked to SurveyMonkey[®] sent to participants 10 days after the simulation completion (see Appendix R). The follow-up survey was vetted by a chief nursing officer colleague and the designer's advisor, Dr. Waxman. After one week, a follow-up email reminder was sent to all participants requesting completion of the survey. The survey was closed after two weeks.

Analysis

SurveyMonkey[®] analytics were utilized to identify the respondents' top five soft skills required for successful leadership and to determine variations in sub-groups' responses compared to the whole. Total group responses were the basis for developing the leadership scenarios. The analytics feature of SurveyMonkey[®] was also utilized to compile the results of the on-site evaluations and debriefings.

Results

Program Evaluation/Outcomes

Program evaluation is divided into results from the Leadership Attributes survey, development and implementation of five soft skill leadership simulation scenarios, and results of the two simulation evaluations. Fifteen management personnel volunteered to participate in the project. Management levels and experience varied across the four organizations (see Table 1). Forty-seven percent comprise assistant managers, 47% were managers, and 1 or 3% was a senior manager.

Table 1. Management Levels and Experience

	ANM ¹	Manager	Senior Manager	Years in Role	Years in Profession
HMOs	7	1		1.5-3 years	10-33 years
Magnet		4		0.75-2 years	17-25+ years
Pharmaceutical Co. ²		2		3-5 years	10-11 years
Pharmaceutical Co. ²			1	7 months	13 years

Note. ¹ANM connotes assistant nurse manager and ²Co. connotes company.

Leadership Attributes Survey. There were 130 respondents to the Leadership Attributes survey: 55 obtained from 2013 AONE attendees and 75 answered through SurveyMonkey[®]. Answers from the AONE attendees were manually entered into SurveyMonkey[®] to accommodate data analysis. Respondents varied in answering all questions and though most answered the question requesting selection of the top five soft skills, 30 either were eliminated or skipped the question. Elimination occurred as a consequence of the respondent not ranking or selecting the appropriate number of soft skills.

Utilizing a five-point Likert Scale, respondents were asked to rank the importance of soft skills to successful leadership. Seventy-three answered that soft skills were important to very

important to successful leadership with a 4.73 rating. When compared to hard skills, 93 ranked soft skills as important to as important as hard skills at a 4.34 rating. No one ranked soft skills lower than important on either question.

Analysis of the top five soft skills revealed that taken collectively, the 100 respondents selected integrity, communicative (used interchangeably with communication, for purposes of this paper), team building, listening, and problem solving. Sub-groups were analyzed as a comparison to the collective group. There are four sub-groups: Chief Nursing Officers of individual or system organization and Vice President of Patient Services; Deans, professors, and associate/assistant professors; directors and managers; and staff nurses. Although similar, there are differences between the groups (see Appendix S).

Development and implementation of the five soft skill leadership simulation scenarios.

Development of the scenarios provided the student with the opportunity to work with simulation experts with an emphasis on template development, scenario writing, validation, testing, and debriefing (Waxman, 2010). Consequently, the student gained competencies in this area of educational development. A revised and updated template designed to address the development of leadership scenarios was completed and submitted to the CSA for publication on its website. Prior to submission, the template was reviewed by the student's advisor, Dr. Waxman, and CSA lead faculty members who offered advice suggesting minimal modifications. After validation, the template was uploaded to the site.

Scenarios based on the top five soft skills as identified through the Leadership Attributes survey were: communication, integrity, teamwork, listening, and problem solving. Completed scenarios were validated, tested, and published on the CSA website. In conjunction with validation and testing, two scenarios were video-recorded and have been made available as

teaching aids on the CSA website. These may be used as precursors to simulation in combination with readings, facilitated discussions, or as independent study.

Successful implementation of the scenarios occurred at the four sites as previously described. Participants were offered the opportunity to select the skill they identified would be most useful to them. Those participants having no preference were offered scenarios their supervisors suggested might be helpful. On two occasions, assignment by the facilitator occurred as participants were undecided, which ensured that each scenario was operationalized by at least two participants. The breakdown by skill was: five for communication, three each for listening and integrity, and two each for problem solving and teamwork. Each of the Magnet and pharmaceutical company participants engaged in different scenarios from their colleagues, while the HMO participants focused on communication, listening, and integrity (see Appendix H).

During the course of study, the student was introduced to Drs. Dev and Heinrichs, co-founders of CliniSpace™, a virtual reality platform for healthcare simulation. Though not originally a part of the project, the student proposed that the virtual world of CliniSpace™ would be advantageous in developing leadership scenarios as self-directed or facilitated study guides pre- or post-full scale simulations. Both Drs. Dev and Heinrichs were supportive of the idea and provided their team's expertise in recording the listening and integrity scenarios in the CliniSpace™ virtual world. Avatars were utilized as the learner-manager and as employees in need of assistance from their managers.

Although the literature indicates varying opinions of virtual reality and the use of avatars in healthcare education, there is an increasing interest in the methodology. Virtual reality, computer-based simulation provides a realistic environment, experiential learning, and provides a non-threatening safe situation whereby mistakes may be made and there is ease of use in self-

directed, online, or facilitated settings (Walsh, 2010; Bai et al., 2012). The use of avatars as substitutes for human actors elicits various opinions as to their efficacy. Walsh (2010) contended the use dehumanized the scenario and should not be a replacement for human actors, while, Bai et al. (2012) found an overwhelming response to virtual reality simulations utilizing avatars. Forty percent of the respondents to this project's simulation evaluation survey indicated the use of avatar scenarios was one of their preferred methods of self-directed study.

Subsequent to recording two versions of each virtual reality scenario, the scenarios were edited by the CliniSpace™ team with guidance from the student. After completion, the scenarios were uploaded to a password-protected link on YouTube. As the scenarios were not available pre-simulation, participants in the listening and integrity scenarios were given access to the videos post-simulation, requesting their feedback regarding their use as study guides. All volunteered to provide feedback via email.

Although four people were contacted for each scenario, only three received the invitation due to incorrect email addresses. One participant for each scenario responded. Their combined responses indicated that they were able to ascertain the elements of each skill. Both agreed that virtual reality scenarios were beneficial, though they differed on whether to utilize pre- or post-simulation.

Simulation evaluations. Overwhelmingly, participants from all locations agreed that leadership simulations are a positive learning experience. None had previously participated in leadership scenario simulations, though some had participated in some form of clinical procedural simulation or non-goal oriented role-play. Debriefings revealed positive reactions as participants discussed with the facilitator their responses, as well as those of the actors and observers. As indicated in the literature, once involved in the scenario, the essence of make-believe subsides as

the situations were realistic (Gaba, 2007; Lewis, Strachan, & Smith, 2012). During the debriefings, participants articulated their feelings, reactions, and stressors. Through facilitation, employing sample questions from the leadership template (see Appendix I), participants addressed how they would have reacted differently based upon discussion about objectives, goals and expected outcomes.

All participants indicated the simulation experience was beneficial. The main themes regarding the advantages of the simulation learning experience were: realism, non-threatening environment, actor was an unknown, immediate feedback through debriefings, and tools or tips learned. Realism was described by one participant as, “It was realistic and good to do with people other than friends who tend to reinforce rather than give honest feedback” (see Appendix T). The focus for improvement centered on wanting more information about the scenario. During the debriefing when this was discussed, most agreed they would not have had any additional information as these issues usually occur unexpectedly.

When exploring the possibilities of using simulation in some form as a self-directed learning method, all participants indicated that they would use others modalities as well. However, most participants clarified that simulation participation was preferable as the “interaction and immediate feedback are important.” There was a variety of responses when considering what methods were preferable, ranging from reading materials and case studies to interest in virtual worlds. This feedback was borne out in the anonymous survey.

Finally, the interview evaluation ended with whether the participant would recommend leadership simulation as an additional process for leadership development. All indicated that they would recommend adding leadership scenario simulation as a process for development. Participants re-iterated the positive results from immediate feedback. One participant

summarized the need to add leadership simulation to the cache of educational modalities by saying, “Yes, particularly because a lot our classes are good but are run by non-nurses versus someone who has lived it and understands the subtleties and knows the people part, patient safety, and clinical. We all drift into clinical, and non-nurses don’t understand, and people don’t get the disconnect. When challenged, it’s fun for them, but we don’t get more out of it.”

Detailed answers from all participants are located in Appendix T.

Since the on-site evaluation process was qualitative and conducted by the student facilitator, a short anonymous questionnaire was administered via SurveyMonkey® approximately two weeks after the simulation experience. The primary objectives were to ascertain if the participants felt that the leadership simulation was beneficial, a repeat of the on-site interview question, and whether they have had the opportunity to use the knowledge they gained as a result of the simulation experience.

Two-thirds of the participants responded to the survey. Though queried regarding in which simulation they participated, the question regarding their work-site was not included. Inclusion would have readily identified the respondent in some cases, as some scenarios were only chosen by one participant in some sites. All scenarios were represented, except for problem solving. Forty percent participated in the communication scenario, 30% in integrity, 20 % in listening, and 10% in teamwork.

As with the on-site interview evaluation, there was an overwhelmingly positive response to the simulation experience by respondents. One hundred percent answered *yes* to the question of whether the experience was beneficial. Seventy percent provided explanations (see Table 2).

Table 2. Respondent Answers to Whether the Experience Was Beneficial

Question	Individual Responses
<i>Was the simulation a beneficial learning process for you regarding "soft" skill leadership development/assessment? If</i>	It was an area that I had never focused on before. It gave a different prospective on integrity that was very positive. I have

<i>yes, please give a brief explanation as to why. If no, what, if anything would have made it beneficial.</i>	actually used what I learned in my practice since the exercise.
	Having the opportunity to practice a realistic situation in a low pressure environment is terrific. I appreciated the opportunity to participate. I learned due to the feedback.
	The simulation served as a good reminder of common business and communication practices that I often take for granted. To improve the experience, it would be beneficial to be able to walk away with a "cheat sheet" with key concepts and learns from the simulation as a reference.
	I always thought it helpful to come up with a "fix" to the problem that employees were presenting to me. I really did not know that I was not really "listening," to their problem. I found this very helpful. Thanks.
	It helped me identify areas I can work on at improving my skills. During the simulation, I was self-aware of the need to change tactic or to draw the conversation away from where it was going. I also found myself thinking that she was so scattered, I'd never be able to pull all the strings together...and that was not my role.
	The ability to role play and have a realistic situation was very helpful. The constructive advice gave techniques and phases that will assist me in those types of events.
	Simulations are a very useful and effective teaching method and help the student and teacher provide feedback that is constructive and individualized.

Note. The only changes in respondent answers were spelling errors.

In an effort to ascertain whether the concepts were implemented post-simulation, the question was asked regarding what and how the information gained was being utilized. Furthermore, it was the facilitator’s goal to discover if the skills acquired were transferable to the practice setting. Eight of the 10 respondents answered positively, and seven provided explanations (see Table 3), thus corroborating the belief that simulation is an effective means of soft skill leadership development.

Table 3. Respondent Answers to Implementing Concepts Learned

Question	Individual Responses
<i>Have you used any of the concepts or pointers you gained since participating in the scenario? Please explain your answer.</i>	I was able to talk to two staff member who wanted me to keep something confidential but expected me to solve. From the onset I set the expectation should it warrant further investigation. I gained their trust to move ahead without any problem.
	I am working on improving my communication skills by talking less when I feel pressured and listening more.
	I have been more upfront about telling someone I can't keep all things private and still get them to give me the information.
	Setting meeting rules at the start of the meeting.
	I have said, "I want to make sure that I am hearing you correctly, you are saying..."
	In some situations I've asked (if it felt appropriate) where

	would you like to see this to go? This has been very helpful.
	I have held the employee accountable for utilizing integrity.

Note. The only changes in respondent answers were spelling errors.

Respondents were asked to relate what skills were the most significant to them (see Table 4) and what other soft skills they would like to develop. Eighty percent identified the most beneficial skills, while 50% answered regarding development in other skills. The other skills identified were problem solving, listening, integrity, and communication.

Table 4. Respondent Answers Regarding the Most Significant Skills

Question	Individual Responses
<i>What three behaviors/skills were the most significant that you will incorporate into your practice?</i>	Become a better listener. Become a better communicator Provide more direction.
	De-escalate; create a distance between me and the person I'm having a conversation with. Stand up.
	Direct feedback.
	Active listening, making the employee feel heard.
	Active listening.
	Not being the fixer. Confirming what I think I heard them say.
	The suggestions to help calm a personal interaction were helpful. Techniques to help foster communication were helpful. In addition, other examples and situations were shared and techniques to address those type of scenarios as well.
	Encouraging the employee to be honest with their peers. Being completely honest even if the answer is not what the employee wants to hear. Standing firm to what I can do and not get pressured into agreeing to promises I can't keep.

Note. The only changes in respondent answers were spelling errors

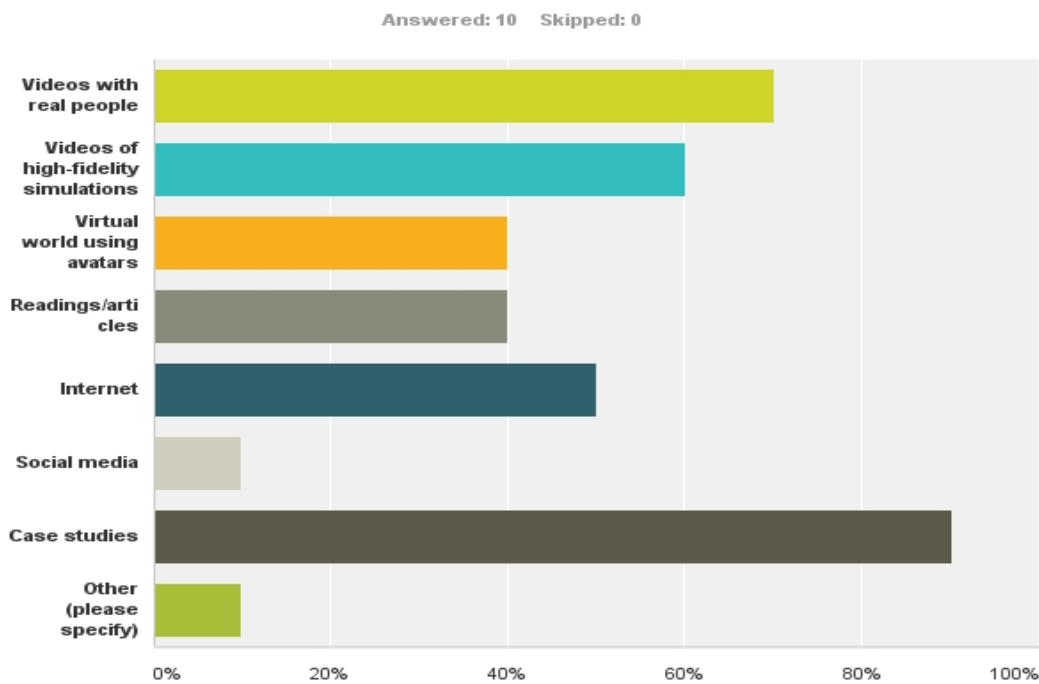
When asked if the respondents would be interested in participating in future soft skill simulations, eight of the 10 said yes. Three were willing to be observers, two were willing to be actors to assist others, and all were interested as a growth experience for themselves. Although 100% of those responding indicated that the simulation experience was beneficial, it is interesting to note that two indicated they would not be interested in future participation.

Adult learning styles and needs vary widely. There are different levels and types of simulation and simulations are often coupled with other mediums to enhance the learning experience. Figure 1 illustrates the different self-directed learning methods the respondents

identified as preferable. This information may be used to provide guidance in the future development of soft skill leadership curricula and the adjunct methodologies to enhance the simulation experience. All respondents answered this question, though the one answer for “other” was not clarified.

Figure 1. Preferable Self-Directed Learning Methods

Q7 We often use various methods for self-directed learning. Please indicate your preference/s? Check all that apply.



Though the simulation center or settings provided by the organizations did not always represent the physical setting, referred to as physical fidelity (Gaba, 2007; Curtis, et al., 2012), the simulation seemed real to the participants. The psychological fidelity (Curtis, et al., 2012) incorporated into the scenarios overcame the lack of physical fidelity substantiating the effectiveness and efficacy of utilizing low cost physical fidelity in a high fidelity psychological domain.

Discussion

Summary

This project provided insight into the needs for interprofessional and individual leadership development at all levels within healthcare organizations. The on-site evaluation interviews and the evaluation survey feedback indicated the need for more leadership development pertaining to soft skills, and that simulation was an effective methodology. Though there were concerns that the positive responses during the interviews may have been skewed as the evaluation was done by the student, the anonymous survey was highly consistent, thus negating the concern.

Although as a total group that selected their top five soft skills, when sub-groups were analyzed, there were differences (see Table 5). All sub-groups selected communicative and integrity, however, each group had two or three variances from the other. While this was not unexpected, it proved interesting to observe the differences. The number of participants in each group was small. Nonetheless, the variances appeared significant and warrant further review. Details for each group may be found in Appendix S.

Table 5. Top Five Soft Skills Selected by All Respondents and Sub-Groups

	First choice	Second choice	Third choice	Fourth choice	Fifth choice
All Respondents	Integrity	Communicative	Team Building	Listening	Problem Solving
CNO and VP Patient services	Team Building	Communicative	Integrity	Problem Solving	Negotiating
Deans and Professors, Associate/Assistant	Communicative	Integrity	Trustworthy	Work Ethic	Problem Solving
Directors and Managers	Adaptability	Communicative	Integrity	Listening	Team Building
Staff Nurses	Communicative	Team Building	Adaptability	Integrity	Trustworthy

Note. All groups selected communicative and integrity as two of their top five skills, coinciding with Robles (2012) identification that communication and integrity are two of the ten top skills executives are seeking in leaders and employees.

Soft skills necessary for successful leadership were considered to be significantly important by the respondents to the Leadership Attribute survey, as well as to the volunteers who agreed to participate in the implementation. As simulation, in the realm of soft skill leadership development, has not been widely used, it was evident that it is a highly successful modality. In discussions and evaluation with participants, it was also evident that adjunct modalities to simulation would be advantageous, though not as a substitute for the “real thing.”

Important factors in implementing the simulations were: the willingness of DNP students to volunteer their time for validation and testing, the support by their faculty for allowing them the time to do so, the availability of the student’s advisor, and, the support of the CSA as a sponsor and for providing the videographer. Successful implementation of the soft skill leadership simulation scenarios would not have occurred without the collaborative effort between the on-site sponsors, the volunteer participants, and the student. Multiple planning calls, conference calls, and emails solidified a smooth implementation at each site.

Lessons Learned

Though the implementation plans were well-designed and checked, the coordination among four organizations in various geographic locations was challenging. Since there were organizations voicing interest earlier in the process, it was fortunate that logistically they were not able to participate. However, the positive outcome is their interest in possible future involvement based upon the success of the project.

Survey development required not only significant time, but also multiple revisions as well. While several iterations of both surveys occurred, it was apparent during the analysis that if repeated some questions would be re-worded. Utilizing a tool like SurveyMonkey® still requires significant time in analyzing the data, and it is not easily transferable. Therefore, time

allotments needed to be significantly increased. Another lesson learned is that distributing a paper survey creates hazards related to respondent interpretation to questions that the online survey structure would have assisted in processing. Specifically, the question regarding selecting and ranking the top five soft skills seemed unclear, as 30% of the AONE respondents either ranked all of the skills or checked all as the highest score. This required eliminating their answers to that question.

Barriers/Limitations

Essentially, there were no barriers to this project. It was well received by the committee chairperson as well as members of the DNP cohort. One member of the cohort readily agreed to support and obtain permission to implement the project in his organization while another indicated that her organization would most likely be interested. After receiving the synopsis of the project (see Appendix N) and presenting to their respective organizational representatives, the proposal was accepted by both parties.

Limitations to implementation primarily concerned the availability of actors to fulfill the roles in the different settings. Consequently, in some situations, the roles of actor and facilitator were filled by the student. Overall, this did not seem to have an adverse effect on the outcomes, though transiting each role during the simulation created an occasional challenge. Sharing one's reactions as an actor versus one's observations as the facilitator presents the possibility of missing queues from the participants. In one instance, though the participant found the simulation beneficial and would recommend further simulation education, the facilitator engaged the participant in a simulation with a competency level higher than what the participant's experience indicated. The maturity of the participant was a significant rationale for the positive

outcome. This was discovered during the debriefing as the participant described her past experience in greater detail.

Two of the scenarios require more than two actors, which limited the number of times these scenarios could be utilized. In one case, this issue created the necessity for a participant to make an alternative selection. These two scenarios would more easily be used in facilitated group settings. Another limitation, or possible distraction, was the lack of appropriate settings. None of the sites had ideal space available to create an atmosphere that would be relevant to the environment in which most of these scenarios would occur. In retrospect, while a possible distraction, other than one comment about better props, the participants agreed on the realism of the situation and were not hindered by the settings.

Sites for implementation were all located in California, thus national generalization may be in question. However, the surveys identifying the soft skills upon which to build the scenarios were broader based and represent respondents from various branches of healthcare and geographic areas. Though not requested as part of the demographics, geographic location for the 55 respondents during AONE were observed.

Implications for Evidenced-Based Nursing

The results indicated that interprofessional leadership development in soft skills through simulation is an effective process and well received. Further outcomes include the assumption that leaders in healthcare organizations are eager for leadership development, and simulation offers an opportunity to experience realistic events in a safe, non-threatening milieu. Predicated on the evaluations, participants were able to apply the lessons learned to their endeavors shortly after participating in the simulations. Subsequently, it appears that developing more scenario

simulations around these top five and expanding to include other soft skills is a realistic progression from this project.

Results will be disseminated via multiple channels. First, and perhaps foremost, is providing the sponsoring organizations with the outcomes of the project. The agencies will also receive the five scenarios, bibliography, and suggestions for follow-up with participants. Second, the scenarios, template, and bibliography are posted on the CSA website for member access. The project will be presented at the 2014 International Meeting for Simulation in Healthcare conference. Recently, a leader at one of the sites requested to use the information contained in this report in developing a proposal for using simulation as a methodology for leadership education.

Correlated Evidence

Studying the outcomes shows a correlation to evidence in the literature. According to Robles (2012), communication and integrity are the top two of ten leadership skills successful leaders should develop. The collective group and sub-groups of survey respondents all indicated communication and integrity as two of their top five, and most often as the top two. Though Robles' study is from industry, the analogy that it is transferable to healthcare was sustained.

Although simulation linked to "soft" skill leadership education is not readily evident in the literature, thus rendering a gap, it is apparent that simulation is an effective means for education. Simulation provides for the realistic application of situations in which learners have the ability to practice in a safe environment without adverse patient outcomes (Gaba, 2007; Halamek, 2010; Lewis, Strachen, & Smith, 2012). This project attests to the fact that realism for leadership soft skill development is possible.

Often simulation is considered too expensive for organizations to implement due to the need for high fidelity, high technology environments to provide effective simulation experiences. Frequently, high fidelity is only related to technology and physical surroundings. Conversely, it is possible to have high fidelity without expensive technology and elaborate physical space. Curtis et al. (2012) described the three domains of fidelity: physical, functional, and psychological. The purview of psychological fidelity is founded on the aspects of behavior and is enhanced through escalation of the situation, thus correlating soft skills as behavioral to psychological fidelity. As demonstrated in the scenarios developed for the project, behaviors add to or detract from the fidelity of the situation. Scenario examples are located in Appendix P.

Conclusions

The future of healthcare lies in the hands of our interprofessional, current, and aspiring, leaders who will be tasked with patient safety, transparency, increased cultural diversity, employee engagement, and multiple regulatory and organizational obligations. While educational activities may be abundant in some organizations, they are primarily centered on procedures, tasks, regulation implementation, and human resource requirements. Evidence indicated that there is a scarce amount of education related to leadership development of soft skills that affect personnel and patient outcomes. Further study needs to occur in identifying soft skills, their relationship to success and the utilization of simulation, full scale and virtual, for leadership development and assessment.

Simulation has been developed and utilized for several decades in industries outside of healthcare, primarily aviation and the military. The 1990s and 2000s have seen a significant increase in healthcare simulation centered on procedures, tasks, and team responsibilities with minimal emphasis on leadership. This project demonstrates evidence that simulation provides an

effective and efficacious method for interprofessional leadership development for nursing and non-nursing healthcare leaders in soft skill application, some of which are identified as critical to patient safety, succession planning, candidate selection, and organizational success.

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Appendix A

Hopkins Evidence-Based Rating Scale

Strength of the Evidence	
Level I	Experimental study/randomized controlled trial (RCT) or meta-analysis of RCT.
Level II	Quasi-experimental study.
Level III	Non-experimental study, qualitative study, or meta-synthesis
Level IV	Opinion of nationally recognized experts based upon research evidence or expert consensus panel (systematic review, clinical practice guidelines).
Level V	Opinion of individual expert based on non-research evidence. (Includes case studies; literature review; organizational experience e.g., quality improvement and financial data; clinical expertise or personal experience).

Quality of the Evidence		
A High	Research	Consistent results with sufficient sample size, adequate control, and definitive conclusions; consistent recommendations based on extensive literature review that includes thoughtful reference to scientific evidence.
	Summative Reviews	Well defined, reproducible search strategies; consistent results with sufficient numbers of well-defined studies; criteria-based evaluation of overall strength and quality of included studies; definitive conclusions.
	Organizational	Well defined methods using a rigorous approach; consistent results with sufficient sample size; use of reliable and valid measures.
	Expert Opinion	Expertise is clearly evident.
B Good	Research	Reasonably consistent results, sufficient sample size, some control, with fairly definitive conclusions; reasonably consistent recommendations based on fairly comprehensive literature review that includes some reference to scientific evidence.
	Summative Reviews	Reasonably thorough and appropriate search; reasonably consistent results with sufficient numbers of well-defined studies; evaluation strengths and limitations of included studies; fairly definitive conclusions.
	Organizational	Well defined methods; reasonably consistent results with sufficient numbers; use of reliable and valid measures; reasonably consistent recommendations.
	Expert Opinion	Expertise is not discernible or is dubious.
C Low quality or major flaws	Research	Little evidence with inconsistent results, insufficient sample size, conclusions cannot be drawn.
	Summative Reviews	Undefined, poorly defined, or limited search strategies; insufficient evidence with inconsistent results; conclusions cannot be drawn.
	Organizational	Undefined, or poorly defined methods; insufficient sample size; inconsistent results; undefined, poorly defined or measures that lack adequate reliability or validity.
	Expert Opinion	Expertise is not discernible or is dubious.

Newhouse, R., Dearholt, S., Poe, S., Pugh, L.C., & White K. (2007). The Johns Hopkins Nursing Evidenced-Based Practice Rating Scale.

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Appendix B

Evidence-Based Scoring

Study	Method	Sample	Intervention/Findings	Outcomes/Recommendations	Strength of Evidence I-IV	Quality of Evidence A-C
<p>Bennett, Perry, Lapworth, 2010</p>	<p>Literature Review</p>	<p>Sample not well-defined. References are credible and relatively extensive. Authors elucidated leadership skills based upon the literature, some of which identified percentage of companies explored while another addressed “rigorous analysis” of 150 chief executives and directors.</p>	<p>The need to differentiate between management and leadership was discussed. Management was identified as primarily concerned with operational issues while leadership is works toward adapting to change and to inspire people to work toward a common goal.</p> <p>Identifying leadership styles and qualities were discussed/referenced at length. Styles included: autocratic, bureaucratic, charismatic, democratic, transactional, transformational, and situational.</p> <p>It was pointed out the leaders may have a style that is dominant; however are able to vary their style in accordance with the situation and context. Utilizing a 360° tool allowed leaders to assess their style and how others see them providing them with feedback on developing their leadership expertise and style.</p> <p>Leadership qualities included: emotional intelligence, teamwork</p>	<p>The authors offered, based upon the literature, recommendations for leaders to enhance their styles such as: the 360° tool, components to enhancing self-awareness, structure for professional development, approaches to change management, and tools to convert differences into opportunities.</p> <p>Reflection indicated that nurses with strong leadership skills can seize the opportunity to influence and lead change.</p>	<p>V</p>	<p>B</p>

Study	Method	Sample	Intervention/Findings	Outcomes/Recommendations	Strength of Evidence I-IV	Quality of Evidence A-C
			<p>and collaboration, change management, negotiating skills, and conflict management.</p>			
<p>Crosby, Shields 2010</p>	<p>Non-experimental</p>	<p>Nurse leaders in Western New York voiced a concern regarding the need to develop leaders for the future.</p> <p>Eighty-five nurses from various HC settings participated in 4 page written workshop evaluation/ survey including an educational needs assessment. Participants were from various educational backgrounds: 48.2% BSN; 2.4% BS in another field; 18.8% MSN 5.9 % doctoral; 12.9 % AS, and 3.5% held hospital diplomas. Thirty were specialty certified and 31.8% interested in obtaining certification thus supporting interest in CE.</p> <p>This was identified as a pilot study thus indicating the sample size as appropriate for the design.</p>	<p>As organizations and systems flatten, leadership is less oriented to position and more toward influence.</p> <p>Nearly 90% of the participants in the study described factors that contributed to and constrained leadership development. Responses were categorized by the authors using descriptive statistics to summarize the results which provide 30 influencing development and 40 constraining leadership development.</p> <p>Influencing included: positive attitudes of people in positions of authority, administrative advocacy for leadership development, mentorship by experienced nurses of less experienced, management responsive to new ideas, educational and unit resources.</p> <p>Constraints to leadership development included: negative attitudes, fiscal constraints, union attitudes, lack of training , lack of planning, lack of time, lack of reinforcement, communication issues,</p>	<p>Recommendations included offering advanced master’s degree in leadership, staff development programs at charge nurse, unit management and other practice levels, encouragement to become certified and establishing a free standing nurse advisory center with the goal of providing “educational and enrichment opportunities” promoting collegial collaboration and career development.</p> <p>A university setting was recommended for the center as it offered a safe neutral and non-affiliated site.</p> <p>A local university embraced the idea of a leadership academy and six initial programs in 2008-09 provided various topics based upon the identified themes and leadership development needs to over 160 participants.</p> <p>A stronger alliance between academia and practice leaders developed engaging in joint solutions.</p> <p>The initial year/pilot was deemed successful and affords an educational approach that resulted from collaboration of leaders in practice and academia.</p>	<p>III</p>	<p>B</p>

Study	Method	Sample	Intervention/Findings	Outcomes/Recommendations	Strength of Evidence I-IV	Quality of Evidence A-C
			<p>leader competitiveness and employee resistance.</p> <p>Themes that emerged were: people skills were first as a means of “nurturing leadership and lack was identified as a barrier to development. Resource availability such as mentorship and educational opportunities was also key in development.</p> <p>The survey participants addressed the educational components needed for leadership development and the authors synthesized the responses into 13 categories including: how to “build” a successful leader; culture change, dealing with difficult people,, workplace violence, increasing critical thinking skills, team building, recruitment and retention, inter-generational issues, succession strategies, incorporation of EBP, staff development with an eye to fiscal constraints, reward and recognition, and addressing the leadership needs in various organizational settings.</p>			
Dow, Salas & Mazmanian, 2012	Literature Review	Predicated primarily on the literature simulation based continuing professional development can “produce programs that improve the quality of health care delivery.”	Lessons for practice were described:1) Healthcare delivery requires innovative approaches to continuing professional delivery; 2) Simulation as an instructional	Meeting the challenges of education has shown a shift from traditional professional development to learner driven, problem-based training guided by the evidence and simulation being an innovative approach	V	A

Study	Method	Sample	Intervention/Findings	Outcomes/Recommendations	Strength of Evidence I-IV	Quality of Evidence A-C
		<p>The real time feedback to learners was addressed while articulating how simulation integrates with adult learning needs and benefits of clinical outcomes. Discussed was the gap that exists in identified global learning needs and the capability of current simulation curricula to meet those needs. Insights are described from human factors studies and industrial and organizational psychology is described.</p>	<p>strategy can accelerate expertise and enhance adaptability to various healthcare situations; 3) Simulation is a valuable assessment tool; 4) Simulation is being integrated into certification; and, 5) interdisciplinary studies regarding professional development are providing new insights into complex and challenging healthcare issues.</p>	<p>to achieve desired outcomes.</p>		
<p>Eddy, et al., 2009</p>	<p>Qualitative</p>	<p>A descriptive design was used for focus groups to identify themes related to competent leadership. The study was based philosophically in Heideggerian interpretive hermeneutics</p> <p>Thus encouraging participants to recall their stories with as much detail as possible in order to ascertain the theme/</p> <p>meaning of their experiences. Five focus groups comprised of 23 nurse leaders from a variety of settings in the Pacific NW participated. Each group met for 1-2 hours and participants included unit managers, clinic managers, staff development personnel and senior</p>	<p>Using a semi-structured interview guide, participants were encouraged to expand beyond the questions and offer their thoughts on leadership that may not be included. The guide included participant demographic, telling a leadership story about an experience, what leadership competencies are required in their position,, what knowledge and competencies are needed by nurse leaders in their organization, given the discussion, what would a nurse leadership curriculum need to include and why, and what ways can the nursing administration program facilitate enrollment of leaders or potential leaders in the Masters program.</p>	<p>Findings included nurse leaders encouraging academia to educate students that leadership is “nursing and to value leadership” and that leadership transcends roles across the organization. Also addressing gender relational barriers should be addressed as it was found that male subordinates were less positive for female leaders than female subordinates. Themes identified included: communication with emphasis on listening skills; conflict resolution; communication of vision and the ability to inspire and motivate; ability to use data and technology in decision-making; financially savvy; and to be proactive rather than reactive to change.</p> <p>Participants appreciated being queried regarding modifying educational programs to implement changes regarding leadership development. Their support for continued collaboration with academia included suggestions for leadership seminars, ongoing</p>	<p>III</p>	<p>A</p>

Study	Method	Sample	Intervention/Findings	Outcomes/Recommendations	Strength of Evidence I-IV	Quality of Evidence A-C
		<p>administrators.</p> <p>Rigor/ trustworthy-ness, credibility, dependability, and transfer-ability were addressed.</p> <p>Limitations include reflection of regional variations in leadership, leaders knew each other and concerns for conflict of interest may have been a concern though did not seem apparent based upon the openness of the conversation and though efforts were made to invite underrepresented nurse leaders, participants reflected on the lack of diversity.</p>		<p>conversations and volunteering to be guest speakers.</p> <p>Results of the study included changes and revisions in course and curriculum for the leadership domain in the current Masters program. Curriculum revisions focused on five courses in leadership and included the themes identified by the participants. Courses significantly revised included: Organizational Leadership, Financial and Human Resource Stewardship, Quality Improvement and Program Evaluation, and Information Management for Clinical Practice.</p> <p>Changes in curricula based upon nurse leader input resulted in improved and increased collaboration between practice and academia.</p>		
Gaba 2007	Expert Opinion	<p>After a review of the evolution of simulation in healthcare, the author addresses the future through the depiction of two possibilities: the adaptation of simulation into healthcare's fabric and the intermittent use of simulation resulting in a lack of evidence and poor utilization of its potential.</p> <p>Eleven dimensions are discussed and how they impact healthcare the exponential cross utilization of dimensions is addressed. Discussion also involved low tech to hi tech simulation experiences and the</p>	<p>It is evident that simulation has been highly successful in aviation and the military. While simulation in healthcare has expansive potential it would not totally replace current methods of education and training as human beings vary and thus the same situation will vary as well.</p> <p>Simulation has a direct effect on patient safety; costs will vary widely; key drivers will include the public, insurers, professional organizations, accrediting organizations and</p>	<p>Simulation should be embraced and woven, as a full partner, into the education and training of healthcare personnel across disciplines and responsibilities: staff at all levels through management – clinical and non-clinical.</p> <p>Areas for further research include: integrating different types of simulation across various applications , populations and purposes; assessment of effectiveness; development of applications for complete work units and healthcare organizations; establishment of bench marks and criteria for competencies; investigation of human performance in healthcare simulation; and, use of simulation usability testing of</p>	V	A

Study	Method	Sample	Intervention/Findings	Outcomes/Recommendations	Strength of Evidence I-IV	Quality of Evidence A-C
		<p>variety of settings in which simulation is beneficial. Driving forces for the full integration of simulation into healthcare was outlined and discussed.</p>	<p>regulatory agencies.</p>	<p>medical devices and patient processes.</p>		
<p>Gunther, Evans, Mefford, Coe, 2007</p>	<p>Non-experimental</p>	<p>A correlational descriptive study to explore the leadership styles of BSN nursing students. The study is founded in theoretical frameworks of the full range of leadership, emotional intelligence, and the key characteristic of empathy.</p> <p>IRB approval obtained.</p> <p>Junior (n=92) and senior (n=86) enrolled in leadership and management courses were invited to participate. Participation was voluntary, anonymous and no course faculty was involved during the data collection.</p>	<p>Two instruments were used to measure cognitive and affective dimensions of empathy: the Hogan Empathy Scale (HES) and the Emotional Empathy Tendency Scale (EETS). Both instruments have been widely used in nursing and have established validity and reliability. Additionally the Multifactorial Leadership Questionnaire (MLQ-5x) consisting of 45 descriptive statements representing leadership factors and outcomes was administered. The MLQ has been extensively used in nursing research. SPSS 13.0 for Windows was the statistical package used for analysis of the results.</p> <p>Three research questions were addressed: participants predominant leadership style analyzed using descriptive statistics; the difference in style between junior and senior students was addressed using a t-test comparing the MLQ-5x of each group; and the relationship of style and empathy levels was addressed utilizing</p>	<p>Findings indicated that the predominant style for both groups was transformational. Some weak correlations with empathy were identified with some of the leadership components measured by the MLQ-5x. There was weak positive correlation for juniors between HES and MLQ-5x that measured transformational components of inspirational motivation, intellectual stimulation, and individualized consideration. There was also a weak inverse correlation with laissez-faire in passive avoidant style. Senior students' scores showed weak positive correlation with transformational components of influence (behavior) and consideration in both HES and EETS. Additionally, there was a weak positive correlation with HES and transformational components of influence (attributed) and intellectual stimulation.</p> <p>Limitations of the study included small sample size though may be appropriate as a pilot and lack of longitudinal design to address style as students' progress throughout their junior and senior years.</p> <p>Conclusions included that as students progress through their educational experience they become more knowledgeable and gain emotional maturity which may attribute to senior students losing the laissez-faire style and becoming more</p>	<p>III</p>	<p>B</p>

Study	Method	Sample	Intervention/Findings	Outcomes/Recommendations	Strength of Evidence I-IV	Quality of Evidence A-C
			<p>the Pearson correlation coefficients of the results for the HES, EETS, and the MLQ-5x for both groups..</p> <p>Transactional, transformational and laissez-faire leadership styles were discussed along with emotional intelligence and empathy.</p> <p>The MLQ-5x measures the behaviors for these three leadership styles</p>	<p>transformational. Additionally, as semesters progress there is more emphasis on managing self and leadership styles and relationships.</p> <p>There was little difference between the groups regarding empathy as a component of emotional intelligence associated with successful leadership; however, it is noted that seniors who preferred transformational leadership in 4 of the 5 elements scored higher in cognitive empathy than junior students.</p> <p>According to the study students graduating who prefer transformational leadership expect to join organizations that demonstrate the elements of transformational leadership and that support their development.</p>		
Halamek 2010	Case Study/Expert opinion	The author describes the use of scenes from the movie Apollo 13, based upon the actual mission, to identify the use of simulation to address effective communication, teamwork, delegation and other behavioral attributes. These are utilized at a Stanford University in California to educate and train healthcare professionals regarding the use of simulation for behavioral development. The article describes the process used by NASA for simulation training and how that	There has been little education of healthcare professionals in the behavioral attributes that affect outcomes. The use of simulation in other industries provides examples of how healthcare might adapt those simulations. Using video, while explaining to the trainee the purpose, provided another avenue to use with simulation to develop skills and recognize the importance of practice/simulation education.	"Behavioral skills are vital to providing safe and effective healthcare, especially to patients who are critically ill." Simulation provides a methodology for practicing the integration of cognitive and technical skills while working as a team member in a complex intense situation. Media serves as an effective way to contribute to learning objectives and outcomes.	V	A

Study	Method	Sample	Intervention/Findings	Outcomes/Recommendations	Strength of Evidence I-IV	Quality of Evidence A-C
		<p>transposed into the real life crises that occurred during the mission. In turn, these examples may be analogous to teamwork and communication within the realm of healthcare.</p>				
<p>Jennings, Scalzi, Rodgers, Keane 2007</p>	<p>Systematic Review</p>	<p>Review based upon differentiating nursing leadership and management competencies.</p> <p>Systematic search of CINAHL and Medline producing 316 articles from 2000 through 2004 of which 80 were eliminated as not relevant. Works outside the US were eliminated based upon the principle that leadership and management varies in other countries depending on the culture, factors related to insurance programs and language idiosyncrasies that make translation difficult.</p> <p>This resulted in 127 articles. An additional 10 were located outside of the electronic search (n=10) that included a recent article that was part of a series providing alternative perspectives. Another 3 were added from prior to 2000 based upon providing a foundation for the timeframe. Thus, 140 articles were evaluated by 3 independent authors who identified which competencies for leadership and</p>	<p>Of the 894 competencies identified, 581 were addressed as leadership; however all but 32 were addressed in both leadership and management. Twenty-six of the 32 were specific to leadership and only 6 were specific to management.</p> <p>Utilizing content analysis techniques, two authors determined there were 36 categories of which 23 were common to leadership and management. After the categorization was complete, the authors determined that results fell into two domains: individual skills and organizational or business skills.</p> <p>The top 10 categories for both included personal qualities and interpersonal skills though the rank ordering was reversed.</p> <p>The top 10 for leadership included developing people and vision and which mentioned in management they ranked much lower.</p>	<p>While leadership competencies were discussed twice as often as management, the narrowed gap between competencies for each category reflects the rapidly changing healthcare environment. There are arguments that the merging of competencies does not do justice to the distinct differences of leadership and management. Thus, this “begs” the question of whether of whether the distinction is as relevant as in the past.</p> <p>The evidence indicates a need for a paradigm change in curriculum development that reflects the merging of commonalities of competencies.</p> <p>Faculty needs to look at new conceptual frameworks to address this evolution.</p> <p>Suggestions for “state of the art” with key stakeholders including educators, nurses, nurse executives, employers to provide direction for curriculum development aimed at addressing the needs of leaders and the social, financial and healthcare issues of the changing dynamic.</p> <p>Nurse executives must address the challenge of the changing dynamic of management and leadership competencies providing support for managers to transit the lines from the frontline to executive</p>	<p>IV</p>	<p>A</p>

Study	Method	Sample	Intervention/Findings	Outcomes/Recommendations	Strength of Evidence I-IV	Quality of Evidence A-C
		<p>management were addresses and did not try to judge the appropriateness of the competencies. After several meetings they were able to reconcile any differences and no articles were eliminated; therefore the study is consensus-based.</p> <p>Sixteen disciplines were represented in the articles with 44% published in nursing journals; 21% in healthcare management journals, 9% in business , 7% in medical and the rest scattered through journals of the other disciplines. Most were opinion based though 43% used some type of data. The authors were not able to discern significant differences between the two types of methodologies.</p>	<p>While human resource management and information management were in the top 10 management, they ranked lower for leadership.</p> <p>Competencies were reflected in a positive manner with minimal discussion of negative effects of some attributes such as passion for your work overshadowing another's point or view. While collaboration was mentioned more frequently than conflict resolution leaving the impression that the more difficult attributes of leadership and management may be easier to ignore than to discuss.</p> <p>Additionally, educational programs were examined related to whether programs today will prepare nurses with the leadership competencies to be successful in the evolving healthcare environment.</p> <p>Some articles identified competencies however; the input from practicing nurse executives was missing. A pair of studies overcame the issue of faculty based curriculum development without the perspective of practice leaders by soliciting nurse</p>	<p>leadership roles.</p>		

Study	Method	Sample	Intervention/Findings	Outcomes/Recommendations	Strength of Evidence I-IV	Quality of Evidence A-C
			<p>executives' feedback through a questionnaire. Results were founded in 9 categories: the business of health, healthcare delivery systems, health policy, law, and ethics, human capital, information systems, leadership and management, organizational theory and design, quality management, and research. While gaining the insight of these leaders, no attempt was made to correlate to specific roles and responsibilities, stage of one's career, or how a particular setting might influence the needed competencies.</p> <p>Competencies reflected in professional nursing organizations were discussed and included those of the ANA, AONE, and the AACN. Of note is the absence of communication as a category in the ANA since ANA standards are based upon the belief that success is dependent upon vertical and lateral communication. The AONE competences reflect collaboration from various other professional organizations and are more comprehensive; however, it was suggested that it would be beneficial if practicing nurse executives could validate the fit between</p>			

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			the stated competencies and their actual needs.			
Kramer, et al., 2007	Non-experimental,	<p>A mixed method, descriptive design using strategic sampling as well as objective measures and qualitative interviews addressed the research questions. The framework used was Donadedian's paradigm of Structure-Process-Outcome. The two areas of research were to clarify the process nurse managers use to convey support to staff nurses by determining the role behaviors and to identify organizational supports management/leadership practices that promote and sustain the behaviors. Staff nurses were in determining manager support.</p> <p>Role behaviors were identified through an investigator developed Nurse Manager Support Scale administered to 2382 staff nurses working on 199 clinical units in 8 Magnet hospitals. The Essentials of Magnetism (EOM) were used to identify the strategic sample. Interviews were held with 446 interviewees as "consensus of expert" interviews that included 244 staff nurses, 105 managers and 97 physicians from the 101 units scoring high on the EOM scale.</p> <p>IRB approval was</p>	<p>Role functions identified fell into five categories: leadership, managing work group, resources and practice, career development, and managing the unit. Ratios based upon the staff nurse expectations to nurse manager performs the role were analyzed. Significant differences by hospital regarding the Nurse Manager Support Scale and 2 of 4 role functions were identified: Career Development ($P \geq .000$) and Managing the Unit ($P \geq .002$). Three of the 8 were significantly lower on these functions. The differences were due to behaviors around encouragement of EBP projects, encouragement of staff in interdisciplinary rounds, and providing patient care on a routine basis. After exploring job descriptions and organizational expectations it was determined staff nurse expectations of nurse managers is influenced by hospital and departmental expectations.</p> <p>Staff nurses indicated that all expectations on the Nurse Manager Support Scale were expected by them.</p> <p>Supportive behaviors fell in the following</p>	<p>Results of the interviews and Nurse Manager Support Scale were essentially identified the same role behaviors that staff nurses expect of nurse managers related to staff support.</p> <p>Experts on nearly every unit identified or used terms such as "walks the talk" which is cited in the literature.</p> <p>Staff identified through factor analysis that 2 of 4 role functions as very supportive: leadership, in particular those soft leadership skills (e/g/, building, guiding, nurturing) and managing resources, especially hiring competent staff and making expectations.</p> <p>Career Development fell lower in the scale in the nice to have and expected; and was unexpected as career development is one of the Magnet Forces of Magnetism. Since this study was primarily in Magnet hospitals it may be reflective of the fact that moving forward in one's career is a personal and not a management responsibility.</p> <p>Other functions and behaviors that may commonly be expected as defining nurse manager support were not (e.g., managing the unit) as staff felt that it was their responsibility along with the charge nurses' to oversee the unit while education was relegated to the staff development and/or unit educators. Additionally, this is one of the functions identified as affected by organizational culture.</p> <p>Nurse managers completed the</p>	III	A

Study	Method	Sample	Intervention/Findings	Outcomes/Recommendations	Strength of Evidence I-IV	Quality of Evidence A-C
		obtained.	<p>areas: approachable/safe, adequate and competent staff walks the talk, watches our back, group cohesion/teamwork, caring conflict resolution, self-confidence, and feedback.</p> <p>Structures that were identified as supporting practice of the nurse managers included: support from the top, peer support, management and training session sin the “soft” aspects of leadership in EBP, strong hospital and department culture that is alive and well, charge nurse and secretarial support for nurse managers, centrally located private space near the unit for nurse manager, and computer classes/seminars for the manager.</p>	<p>support scale as they thought their staff might and were able to compare how accurate they were in answering in the way their staff would. In so doing, they compare their understanding of what the staff identifies as needs and expectations.</p> <p>Results of the study provide nurse managers with guidance on the best way to spend their time and meet staff expectations.</p> <p>Further empirical investigation is needed to ascertain the assumption that a healthy workplace produces superior outcomes for nurses and patients.</p>		
Kuehster & Hall 2010	Organization Experience	Using a high fidelity simulator, the authors provided clinical simulations in 10 of the system’s rural hospitals, most were critical access. Based upon the literature and the need to improve communication and teamwork, they incorporated communication and teamwork concepts into the scenarios.	Participants addressed the realism of the scenarios and lessons learned that were applicable to their real life situations. In one case, they related having a similar situation by which they were able to interpolate the lessons and another where an actual patient with the same issues as the simulation occurred and the participants were able to utilized	While simulation will not replace the clinical setting, it provides realistic situations in which skills and competencies can be honed and practices. Low volume, high risk or high risk situations can be practiced through simulation so as to provide practitioners with skills they may not practice on a day to day basis and to incorporate communication and teamwork. Filming the simulation and allowing participants to actually see and hear what occurred reinforces	V	B

Study	Method	Sample	Intervention/Findings	Outcomes/Recommendations	Strength of Evidence I-IV	Quality of Evidence A-C
			teamwork skills they had acquired.	learning objectives and allows for development in a non-threatening environment.		
McCloughen, O'Brien, Jackson 2009	Qualitative	<p>Hermeneutic phenomenology was used in this qualitative research study examining mentor-mentee relationships. Purposeful sampling was used in participant selection of 13 leaders in accordance with Kvale's suggestion that 15±10 interviews is an appropriate number for interview studies. Letters were sent to 15 leaders meeting the inclusion criteria of: being recognized as being in a leadership position for >5 years and being professionally active. Diversity was ensured through selecting from a variety of settings and part of the country: academia, practice, and management. Thirteen, comprised of 10 women and 3 men, agreed to participate. The study is based in Australia and participants hailed from Queensland, New South Wales, and the Australian Capital Territory.</p> <p>Each leaders participated in an in-depth unstructured interview process lasting up to 1 ½ hours. This was to encourage them to share perceptions, interpretations and evaluations regarding their experiences. Open-ended questions</p>	<p>Four themes were and 10 subthemes were identified; however, this study focused on the first major essential theme of: esteemed connection: creating a mentoring relationship.</p> <p>Participants indicated they had mentoring relationships, both as mentor and mentee, within and outside of nursing. Many also indicated that their role as mentee contributed to their leadership development and that they mentor others for this reason.</p> <p>While they agreed that mentorship relationships were professional in nature, participants indicated that the impetus was more likely based upon informal personal connections. Mentors were respected for their accomplishments and were seen as role models and persons of merit. Mentees were seen as aspiring to be something different and as people worthy of investing one's time.</p> <p>Esteemed connection was considered the foundation for mentorship relationships and included subthemes: considering each other with positive regard, developing respectful boundaries, and</p>	<p>The study revealed the esteem connection that brings mentor and mentee together and corroborates what is in the literature.</p> <p>Additionally, it revealed that mentorship is not generational in nature that mentor-mentee matching is not based upon age but upon relationships: the mentor being appreciated for wisdom and accomplishments rather than seniority; and, the mentee being seen as having potential and being worth the time and energy investment.</p> <p>While mentor and mentee characteristics have been reported in the literature there is little discussion of leadership potential being a key characteristic of mentees.</p> <p>This study revealed that the mentee's interest in nursing or being a leader is less influential than exhibiting the characteristics of leadership: esteemed connection being central to leadership mentoring relationships.</p>	III	A

Study	Method	Sample	Intervention/Findings	Outcomes/Recommendations	Strength of Evidence I-IV	Quality of Evidence A-C
		<p>were utilized to encourage reflection. Phenomenological studies are designed to draw on participants' to reflect as accurately as possible the meanings embedded in their experience. Interviews were audiotaped and transcribed verbatim in order to interpret in accordance with the hermeneutic tradition. Pseudonyms were used to protect confidentiality.</p> <p>Interview texts were interpreted and themes identified using van Manen's three step approach and Radnitzsky's principles for hermeneutic interpretation.</p>	<p>honoring key human characteristics.</p> <p>Participants described mentees as having promise and recognized their potential as nurse leaders as reflected in their ability to question and be self-reflective while also examining and being passionate about nursing, the profession.</p>			
<p>McGuire, Kennerly 2006</p>	<p>Non-experimental</p>	<p>This descriptive correlational study is aimed at examining the transformational and transactional characteristics of nurse managers.</p> <p>The correlation between two variables, the leadership style of nurse managers and the organizational commitment of staff nurses, were examined.</p> <p>Similarities between the two groups were addresses as well.</p> <p>Of the 21 CNOs representing not-for-profit hospitals greater than 150 beds in the Midwest who were contacted, 11 agreed to</p>	<p>As expected nurse managers rather themselves higher than staff and saw themselves as more transformational than staff. It was noted that this it is often the case that managers see themselves as more transformational though their job descriptions are rooted in transactional behaviors based upon organizational needs.</p> <p>Significant correlation ($p < 0.01$) between the staff scores on the MLQ and OCQ. All subscales on the MLQ were significant except the transactional subscale</p> <p>Management-by</p>	<p>Given the pace of today's acute care units and the hierarchy of organization and their requirements for managers to respond transactionally, while acting transformational is challenging at best.</p> <p>Organizations led by their senior nurse executives need to advocate for transformational career development, hiring practices and performance standards.</p> <p>The study validates that transformational leaders create a sense of commitment and followership from staff.</p>	<p>III</p>	<p>A</p>

Study	Method	Sample	Intervention/Findings	Outcomes/Recommendations	Strength of Evidence I-IV	Quality of Evidence A-C
		<p>participate.</p> <p>A convenience sample of 63 nurse managers with 24 hour responsibility and who had been in their position for greater than six months were invited to participate. Additionally, participation was predicated upon at least 5 of their 15 or more direct reports had to agree to participate.</p> <p>The nurse manager demographics reflected the general population of nursing.</p> <p>Over half of the managers were responsible for more than one unit and supervised an average of 64 employees.</p> <p>Three quarters of them held a baccalaureate or master's degree in nursing.</p> <p>The staff nurse group of 500 worked on their current unit at least 6 months and were similar in demographics to their managers other than their educational preparation which consisted of 57% being diploma or associate degree prepared.</p> <p>All participants completed demographic questionnaires that included work and organization related questions. Measurement of</p>	<p>exceptions (active) which was consistent with transformational leadership.</p> <p>Idealized influence, a transformational characteristic showed the strongest positive relationship to organizational commitment (contingent reward and organizational commitment). The literature indicates that staff is more likely to follow leaders who demonstrate these characteristics.</p> <p>Pearson's correlation showed no significant correlation between the manager's self-assessment and the organizational commitment of staff.</p> <p>While correlations were too weak to draw conclusions, the positive direction between inspirational motivation and organizational commitment is indicative of transformational styles.</p> <p>Intellectual stimulation showed significant results though correlated negatively with staff nurse commitment, therefore transactional in nature.</p>			

Study	Method	Sample	Intervention/Findings	Outcomes/Recommendations	Strength of Evidence I-IV	Quality of Evidence A-C
		<p>transformational and transactional characteristics was accomplished utilizing the Multifactor Leadership Questionnaire Form 5X (MLQ-5x). Two versions were used: nurse managers completed the leader form as a self-assessment and staff completed the rater form to assess the manager's leadership characteristics.</p> <p>The organizational commitment of staff was accomplished utilizing the Organizational Commitment Questionnaire (OCQ) developed by Porter and Smith (1979).</p> <p>The OCQ and MLQ-5x have been previously tested, validated and determined reliable.</p>				
Newhall 2012	Expert Opinion	<p>This case study, from the "business world", included a comprehensive survey of leaders from 74 countries and included the views of 12,000 leaders and 1800 human resource professionals.</p> <p>Based upon the reviewing the data of low performing and high performing companies, DDI developed programs for companies to institute to develop leaders in their</p>	<p>The LEAP program, implemented in contains five modules that included essential leadership skills, goal setting, and coaching and performance management. Observers provided objective feedback on how well the participants were implementing their new skills.</p> <p>The program was implemented and after 3-12 months results were reported.</p>	<p>LEAP concepts and training are applicable internationally and across the continuum of leadership roles.</p> <p>The second example concluded, from comments that the program was not only providing leaders with skills and competencies to be successful in their roles, but also appealing to new talent.</p> <p>Conclusions also included the need to assess the companies' needs from leadership and</p>	V	A

Study	Method	Sample	Intervention/Findings	Outcomes/Recommendations	Strength of Evidence I-IV	Quality of Evidence A-C
		<p>organizations. Two case studies were presented. One based on the findings of implementing the program called LEAP, Leading for Accelerated Performance and Growth. LEAP was instituted in a major producer of construction materials and involved 21 regions and included 775 leadership participants and 1049 observers. Leaders transited first level to senior management while observers were managers, direct reports and peers who could provide participants with additional behavior ratings both before and after training. The second case study was based upon having a strategic and unified approach to leadership based upon the results of employee engagement surveys. The company is an international electronics company in 35 countries with more than 11000 leaders.</p>	<p>Results included: 1) Observers reported a 44% increase in effective leadership skills while 67% of leaders reported practicing new skills; 2) significant increase in skills was noted across all global regions of the study; 3) more than half reported increased productivity based upon improved changes in their behaviors; 4) a majority of observers indicated that leadership loyalty to the company had increased and, 5) skills also improved in areas that were identified as strengths before the training.</p> <p>The second case study aligned with a unified approach consisted of 10 modules for leadership development presented in a structured manner. The modules curricula included: leadership skills, communicating for results, effective decision-making, and contributing to change initiatives.</p>	<p>employee perspectives as well as prospective of new talent acquisition. Companies that invest in its leaders are one new employee seek as an interest in their development is recognized.</p> <p>These two case studies verify that programs can be successful across international regions.</p>		
<p>Reed,, Lancaster, & Musser 2009</p>	<p>Case Study</p>	<p>The authors, faculty members, collaborated in developing a leadership scenario for senior students in the last semester of their senior year. They hypothesized that leadership and management could be observed and taught through simulation.</p>	<p>Students were allowed to intervene if issues were unclear. It was clear that faculty needed to be familiar with simulation principles and should have simulation experience even if just as an observer. It was also identified that students need to find</p>	<p>Student decision-making abilities and reaction to a changing environment were observed. Observations by faculty solidified their thoughts that leadership and management can be taught in a simulated environment.</p>	<p>V</p>	<p>B</p>

Study	Method	Sample	Intervention/Findings	Outcomes/Recommendations	Strength of Evidence I-IV	Quality of Evidence A-C
		<p>Jeffries framework was utilized to develop the 2.5 hour scenario whereby students acted as charge nurses and staff nurses on a unit with responsibilities for assignments, patient placement, patient complaints, communicating with other professionals, addressing unexpected issues such as emergency admissions, and other occurrences on a typical med-surg unit.</p>	<p>the experience positive and reap the benefits of positive reinforcement and maintenance of objectives.</p>			
<p>Robertson, et al. 2010</p>	<p>Non-experimental</p>	<p>Interprofessional team training curriculum was developed based upon a modification of TeamSTEPPS for medical and nursing students within the same university setting. Active experiential learning techniques have been seen to facilitate team skills and studies have shown that simulation is viewed as relevant and immediately useful. After approval from the IRB, 213 students (104 medical students and 88, 1 not accounted for in the article) participated in the study. Tests were administered to assess the students' knowledge related to leadership, situation monitoring, mutual support, and communication. Attitudes toward teamwork were assessed using the CHIRP scale based upon seven categories: interdependence,</p>	<p>Students rated the success videos more favorably than the opportunity videos.</p> <p>After training there was significant improvement in participants' attitudes toward teamwork and knowledge of team skills.</p> <p>Limitations included unanticipated computer issues with data missing from students; however, since they were randomly missed, it was felt that mitigated interpretation bias. Additionally, TeamSTEPPS is designed for practicing professionals requiring adaptation of the curriculum to the student environment. The gap in clinical knowledge, even though scenarios were adjusted/created for students, created a situation where senior nursing students took the role of team leader</p>	<p>Future work needs to occur to determine how interprofessional training impacts retention of teamwork knowledge, skills and attitudes.</p> <p>It is felt that interdisciplinary teamwork education should be implemented and that this could be a model for the future.</p> <p>A longitudinal curriculum is being developed to address the questions regarding the "ability of educational interventions to create meaningful long-term change, knowledge, skills, and attitudes."</p>	<p>III</p>	<p>B</p>

Study	Method	Sample	Intervention/Findings	Outcomes/Recommendations	Strength of Evidence I-IV	Quality of Evidence A-C
		<p>recognition, empathy, sharing, dominance, organizational climate, and respect. Students were assigned according to class session and divided proportionately. Simulations were designed around patient care and integrated teamwork and communication opportunities were included. Videos were also adjunctive showing success or opportunities. After completion of the course, simulations and vides, students were given questionnaires to complete rating the evidence of the skills present or not utilizing a 5 point Likert scale.</p>	<p>which created a distraction for medical students who expected to do so. During simulation, teamwork skills were not evaluated thus providing little data to attest to performance as a result of training.</p>			
Robles 2012	Non-experimental	<p>The purpose of the study was to determine the soft skills that executives considered most important for prospective employees. Forty-five business students interviewed two executives each after which the executives received a questionnaire asking them to list their top 10 soft skills. Some reported more than 10; therefore, the 49 respondents listed 517 skills including repetition. After the skills were collated, 26 emerged and the top 10 most often listed were included in the questionnaire to be rated by importance. A 5 point Likert scale was used for the rating. During three semesters,</p>	<p>The top two soft skills were overwhelmingly integrity and communication followed by: courtesy, flexibility, interpersonal skills, positive attitude, professionalism, responsibility, teamwork, and work ethic.</p>	<p>Conclusions and recommendations included: soft skills and hard skills need to be complementary; soft skills are critical in today's work[place and should be considered an investment; business educators need to understand the importance of soft sills and include them in their curriculum; and, that many job applicants do not have soft skill competencies.</p> <p>Recommendation was made to consider further research to validate whether and determine whether other soft skills are as important as this study suggested.</p>	III	B

Study	Method	Sample	Intervention/Findings	Outcomes/Recommendations	Strength of Evidence I-IV	Quality of Evidence A-C
		<p>91 students participated thus 182 executives received the final survey to rate the skills. The response was 57 or 62% of the executive.</p>				
<p>Thomas, Hodson-Carlton & Ryan 2011</p>	<p>Organization Experience</p>	<p>University nursing school faculty identified the gap between education and practice for students transitioning into practice. The gap related to leadership and the complexities facing new graduates and the need to provide realistic education in leadership and management. The report encompassed the semesters of Fall 2008, Spring and Summer of 2009. Simulation scenarios were developed and implemented regarding situations not normally encountered in clinical rotations such as: charge nurse responsibilities, handling crises, staff disagreements, physician relationships and communication. The number of students involved ranged from 76-132. Online videos were utilized as teaching aids and volunteers from the community and healthcare organizations were used in the simulations.</p>	<p>Evaluations from students found that 82% felt they were more prepared to assume the charge nurse role; 93% felt they had a better understanding of the role around such issues as communication, collaboration, cooperation, decision-making, critical thinking, problem-solving, and delegation; 95 % identified that they could apply decision-making, problem-solving and critical thinking; and, 96% indicated an increased awareness of their role in crisis management. The percentages were based on the number of students participating during a given semester, therefore, raw numbers varied.</p>	<p>Recommendations and implications cited included that communicating, delegating, problem-solving and supervising skills should be taught early in the program and levels of achievement should be measured as students progress through the program.</p> <p>It was offered that to further address the education-practice gap that greater partnerships should be developed; staff nurses/preceptors need to create a learning environment for students challenging their critical reasoning skills.</p>	<p>V</p>	<p>A</p>
<p>Titzer, Swenty & Hoehn 2012</p>	<p>Non-experimental</p>	<p>Interprofessional simulation was developed with IRB approval to collect data after each simulation.. Simulations were based</p>	<p>Roles and responsibilities were discussed and clearly the results were positive with a mean SD greater than 4.0.</p>	<p>Future teaching methods should include additional information before the simulation is considered.</p> <p>Since students didn't feel they</p>	<p>III</p>	<p>A</p>

Study	Method	Sample	Intervention/Findings	Outcomes/Recommendations	Strength of Evidence I-IV	Quality of Evidence A-C
		<p>upon collaboration and team building. Four disciplines participated and the Benner model was interpolated to discuss the learning process for all disciplines. The disciplines included along with the number of participants were: nursing, 79; occupational health, 27; radiology, 15; and, respiratory, 10. Participants ranged from freshman through seniors with 12 % being male and half of those from nursing. Faculty from all disciplines participated in designing the simulations. Nursing took the lead as they were the most experienced in the use of simulation followed by radiology with occupational health and respiratory having no experience in simulation. Sim Man[®] was used as the patient. EPSS and HPPS were used as evaluation tools.</p>	<p>The students in the simulation reported of sense of chaos during the simulation though they felt the simulation provided interdisciplinary teamwork. The scores that were lowest addressed having adequate information to solve the problem and that they were encouraged to explore all possibilities of the situation. While seniors valued the interprofessional simulation, freshman did not see the need.. There were discrepancies by participants in regarding the responsibilities of which professional should do what indicating that a greater understanding of each discipline is necessary for enhanced patient outcomes.</p>	<p>could explore all possibilities, it is important for faculty should be providing exercises that allow students to in utilizing those skills and perhaps suggest alternatives to students for developing those skills.</p> <p>Limitations included the challenges posed by the different levels of student experience; measurement of perception of other disciplines roles and priorities did not occur prior to the simulations therefore an understanding of perception changes could not occur. Additionally, this was one university in the mid-west and the outcomes may not be applicable to other organizations.</p> <p>“Future studies of IPE simulation</p> <p>Could include student comparisons based upon professional discipline, educational ranking, and clinical experience.”</p>		
<p>Triola 2007</p>	<p>Literature Review</p>	<p>This review addresses the elements of authentic leadership as defined by the AACN. The literature reviewed included nursing and business though databases and sample size were not identified. While the author speaks of a plethora of topics related to authentic leadership, references were scant</p>	<p>Authentic leadership characteristics were identified from varied sources and included: ability to understand one’s won purpose, values oriented, leasing with heart, and establishment of sustainable relationships, self-discipline, and relationship-centered principles.</p> <p>Additionally, authentic leaders display the</p>	<p>The author concludes that there is much work to be done regarding authentic leadership and defining the key characteristics ,competencies and attributes of the authentic leader.</p>	<p>V</p>	<p>C</p>

Study	Method	Sample	Intervention/Findings	Outcomes/Recommendations	Strength of Evidence I-IV	Quality of Evidence A-C
		considering the topic.	<p>ability to manage their own authenticity and the ability to bring people together.</p> <p>Characteristics included self-awareness, motivation, empathy, and social skills – emotional intelligence.</p> <p>A significant number of characteristics and competencies are indicated throughout the literature.</p>			
Vickers 2008	Organization Experience	<p>Based upon a critical incident in the author’s organization, they embarked upon Human Factor education through simulation. The criteria used included lessons learned from the aviation industry and consultants in CRM were utilized. Also addressed was the issue that preventing errors was two-fold: human factor and systems. Human factors identified included such competencies as leadership, communication .A course and simulation were developed and implemented. Numbers of staff were not specified; however, Intensive Care and anesthesia staff began the process for this 437 bed hospital. Subsequently, the goal is to roll out the program to all staff.</p>	<p>As a result of their training, staff reported intervening in situations they believed might result in an adverse outcome. Among the skills identified as improved after the training included: situational awareness, communication, humanity and empowerment.</p>	<p>All staff should go through such a program. Tools were developed for use such as the STOP moment and TIPS (Theatre Implementation of Patient Safety).</p> <p>As a result of training, members who participated also voiced recommendations for systems improvement, the second of the two-fold requirements for improvement in patient outcomes.</p>	V	A
Walsh 2011	Organization	Discussion of what narrative pedagogy is compared to traditional	Findings include that real people rather than avatars for narrative	Stories should be written that are interchangeable as the production for video may be	V	A

Study	Method	Sample	Intervention/Findings	Outcomes/Recommendations	Strength of Evidence I-IV	Quality of Evidence A-C
	Experience	competency driven curricula. Evidence in the literature is provided and then discussion endues regarding the integration of narrative with traditional pedagogies. Utilizing a variety of modalities from computerized web-based media to avatar usage was addressed. Narrative pedagogy is story-based and is designed to humanize the simulation experience. The Stilwell model is the focus for discussion and addresses multi-media use and meeting the needs of today's learner.	pedagogy are more humanizing and realistic equaling an enhanced learning environment.	high at first; however, the utilization in multiple situations makes the product reasonable. Today's learners are multi-media oriented and web accessibility provides a broader audience with easy access. Complementary utilization with traditional approaches results in humanizing the learning experience.		

Note. Scoring based on The Johns Hopkins Nursing Evidenced-Based Practice Rating Scale. 2 007. Baltimore, MD. © The Johns Hopkins

Hospital/The Johns Hopkins University School of Nursing (see Appendix A).

Appendix C

Dimensions of Simulation

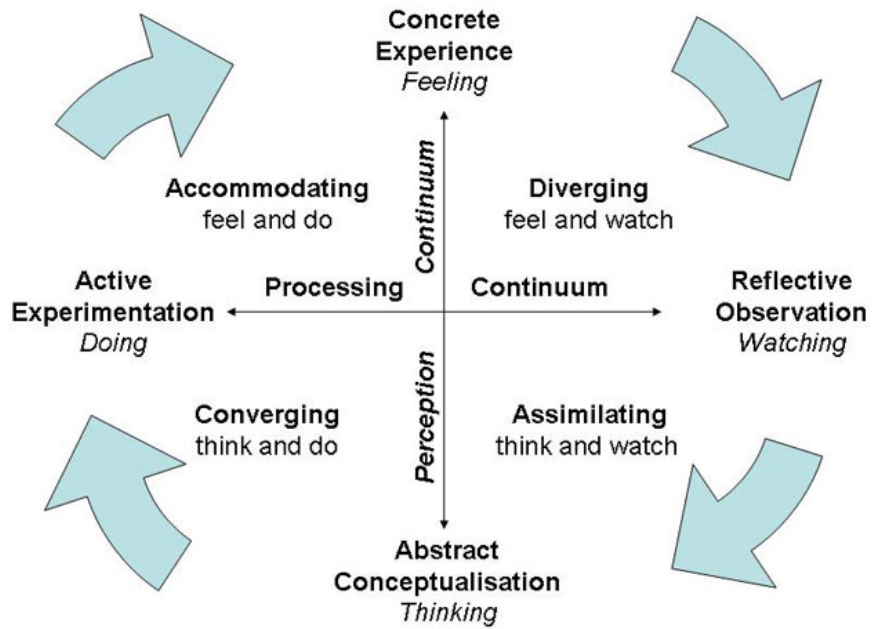


Figure 1. The 11 dimensions of simulation applications. Items marked with an asterisk are derived in part from Miller.⁴⁴ Any particular application of simulation can be categorized as a point or range in each dimension (shown by diamonds). The diamonds in this figure illustrate one specific application—multidisciplinary CRM oriented decision making and teamwork training for ICU personnel.

Note. Gaba, D. M. (2007). The future vision of simulation in healthcare. *Simulation in Healthcare*, 2(2),

Appendix E

Kolb's Learning Styles



Note. McLeod, S. A. (2010). *Kolb's learning styles and experiential learning cycle - Simply psychology*. Retrieved from <http://www.simplypsychology.org/learning-kolb.html>

Appendix F

Kolb's Learning Styles 2x2 matrix

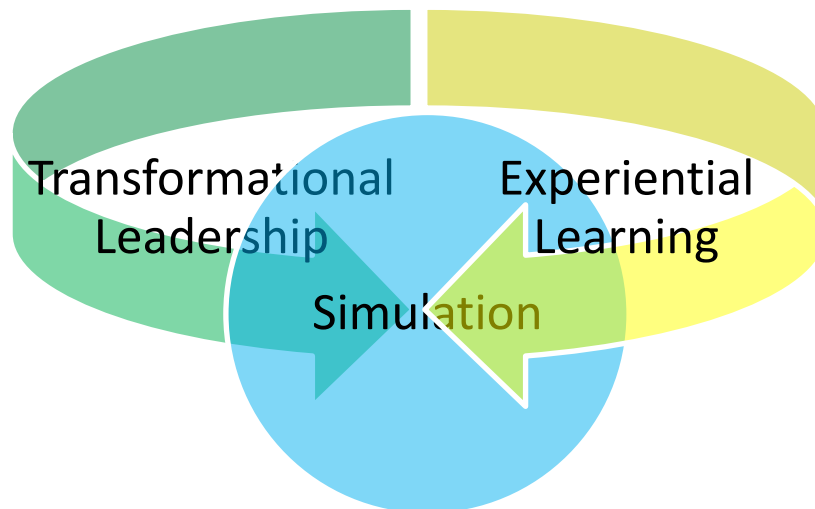
	doing (Active Experimentation - AE)	watching (Reflective Observation - RO)
feeling (Concrete Experience - CE)	accommodating (CE/AE)	diverging (CE/RO)
thinking (Abstract Conceptualization - AC)	converging (AC/AE)	assimilating (AC/RO)

Note. McLeod, S. A. (2010). *Kolb's learning styles and experiential learning cycle - Simply psychology*. Retrieved from

<http://www.simplypsychology.org/learning-kolb.html>

Appendix G

TELS Model of Simulated Learning[®]



Note. Transformational Leadership and Experiential Learning through Simulation (TELS). Created by C. Delucas, November 18, 2013.

Appendix H

Analysis of Participants

Title	Setting	Role Yrs.	Prof Years	Responsibilities	Other experience	Scenario
ANM	HMO	18 mos.	24 years	Day-to-day oversight of unit. Patient placement; staff resource; rounding; service recovery' involvement in budget, quality and projects; evaluations; attendance reviews; disciplinary process; manage 16 staff.	N/A	L
ANM	HMO	2 years	33 years	Day-to day coordination of admitting and recovery of OR patients	N/A	C
ANM	HMO	2 years	10 years	Daily management of nursing units.	CNA 10 years	C
ANM	HMO	3 years	13 years	Unit facilitator, coordinator. Advocate for both patients and families, and staff.	Staff nurse	C
Interim Mgr	HMO	1 mo.	23 years	Daily operations, staff and budget oversight	Medical assistant	I
ANM	HMO	8 mos.	17 years	Maternal-Child Health – no delineation of responsibilities	1 years as a high school teacher and 2 years as a computer programmer	C
ANM	HMO	5 years	11 years	Staffing, performance monitoring, coaching, budget responsibility with regard to staffing	5 years as CNA	L
ANM	HMO	3 years	28 years	Manage front-line staff/shift; budgeting at the staffing level	Staff nurse, nurse anesthesia	I
Nurse Mgr	Magnet	9 mos.	13 years	Manager, L&D/Mom-baby	Staff RN, Clinical coordinator	L
Nurse Mgr	Magnet	1.5 years	14 years	24/7 responsibility of Rehab/Orthopedic	Staff nurse	T

				floors		
Nurse Mgr	Magnet	16 mos.	25+ years	Med/Surg 141 Employees	Bedside, Clinical Coordinator	PS
Nurse Mgr	Magnet	2 years	17 years	Manager of Progressive Care Unit, Cardio-Pulmonary ICU, Staffing, Cardiac Monitors Techs	2 years retail department store	I
Mgr	Pharm. Co.	5 years	11 years	R&D. Administers global grants program for healthcare	Researcher, healthcare consulting, Biotechnology, Pharmaceuticals	T
Mgr	Pharm. Co.	3 years	10 years	Manage of team of 2. Perform literature surveillance of scientific information and communicate findings to stakeholders	Pharmacy technician, Biotechnology	PS
Sr. Mgr. and Pharmacist	Phar. Co.	7 months	13 years	Medical Information Team Lead. Lead a team of 6 on-site managers, 2 admins, third party call center	Retail pharmacy, pharmacy tech and clerk	C

Note. Mgr connotes manager and ANM, assistant nurse manager.

Appendix I

USF IRB Approval

November 13, 2012

Dear Angeline Christine Delucas:

The Institutional Review Board for the Protection of Human Subjects (IRBPHS) at the University of San Francisco (USF) has reviewed your request for human subjects approval regarding your study. Your study has been deemed to be exempt from IRB review based on the following conditions:

Unless otherwise required by department or agency heads, research activities in which the only involvement of human subjects will be in one or more of the following categories are exempt from this policy:

1) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: (i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects, and (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

This application does not require IRB review.

On behalf of the IRBPHS committee, I wish you much success in your research.

Sincerely,

Terence Patterson, EdD, ABPP
Chair, Institutional Review Board for the Protection of Human Subjects

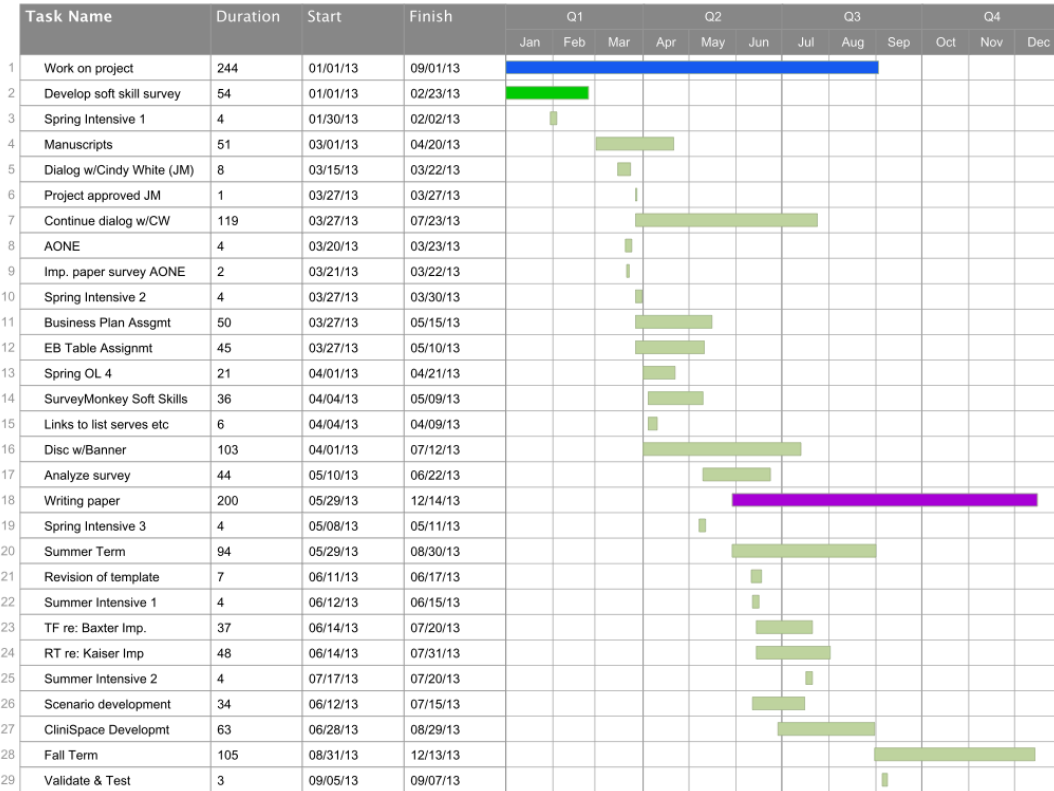
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Appendix J

Gantt Chart

DNP Timeline



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Appendix K

CSA SWOT Analysis

<p style="text-align: center;"><u>Strengths</u></p> <ul style="list-style-type: none"> • Meets goals of interprofessional education (nurses and other healthcare professionals) • Low cost for CSA • Adds leadership scenarios to library filling the existing gap • Provided updated leadership template for CSA subscribers and faculty to utilize • Increased awareness that simulation is not all high tech, but highly effective • Does not require a high tech simulation center • Appeals to all levels and types of healthcare organizations • Multi-media potential – appeal to younger generations • May be used by individuals or groups • Adds leadership content expert to faculty 	<p style="text-align: center;"><u>Weaknesses</u></p> <ul style="list-style-type: none"> • May not be considered high fidelity for those interested in mannequin simulators • Requires actors • Lack of understanding of importance • Need to communicate the relevance of simulation in leadership and the potential uses
<p style="text-align: center;"><u>Opportunities</u></p> <ul style="list-style-type: none"> • Increase in subscribers • Advances full scale high fidelity simulation • Enhances CSA role in leadership development • Assist organizations in improving patient safety through enhanced leadership education 	<p style="text-align: center;"><u>Threats</u></p> <ul style="list-style-type: none"> • Organizations may think that it will increase their educational expenses • Availability of scenario authors and commitment to complete scenarios • Competition from major national organizations such as the National League for Nursing

Appendix L

CSA Incremental Financial Projections for Leadership Scenario Sales

Table K1. CSA Subscriber Rates - 2013

Subscriber	California	Out-of- State
Individual	\$75.00	\$350.00
Facilities	\$350.00	\$1000.00

Note. Fees as described on CSA web-site: www.californiasimulationalliance.org

Table K2. CSA Three Year Projection for Incremental Revenues

	2013	2014	2015	2016	3 year incremental sales
Revenues – CSA^a					
California- Individual		225	450	675	1350
California- Facility		1750	3500	5250	10500
Out of state - Individual		700	1400	2100	4200
Out of state - Facility		1000	2000	3000	6000
Total-gross		3675	7350	11025	22050
Expenses- CSA					
Validation & Testing ^b	0	400	400	400	1200
Videography ^c	500	250	250	250	750
Marketing		1000			1000
Total	500	1650	650	650	2950
Net Revenues		2025	6700	10375	19100
Expenses- Student					
Taxi to/from airport to home	31				
Airfare	469				
Hotel ^d	2,260				
Meals ^d	887				
Rental car expenses	187				
Tolls & Parking	40				
Actors-remuneration ^e	72				
Sponsor Expenses	140				
Validation & Testing ^f	0				
Videography ^e	25				
Participants ^e	373				
Total	4484				

Note. ^aCSA subscriber revenues are based on 2013 rates (see Table K1). ^bValidation and testing rates at \$50/hour at 4 hours per scenario.

^cVideography at \$125 per hour at 2 hours per scenario. ^dBased on government allowed per diem rates. ^eProvided in the form of gift cards.

^fIn-kind provided by the California Simulation Alliance.

Appendix M

Leadership Attributes Survey

Survey Description

Dear Colleague,

I am a candidate in the Doctor of Nursing Practice (DNP) in Executive Leadership program at the University of San Francisco. My project is centered on identifying the human factor attributes (soft skills) that epitomize successful leaders. Identification of key attributes will be accomplished through the following survey. Scenarios will be developed and through the employment of simulation, leaders and aspiring leaders will be able to ascertain their level of expertise in those skills.

You are being asked to complete the following survey to determine the top five attributes that contribute to successful leadership. Those top five will be used to develop the first scenarios and simulations to be implemented in health care organizations.

Time to complete the survey will take approximately 5 minutes.

Thank you for your willingness to participate. All information will remain confidential.

Christine Delucas, DNP(c), MPH, RN, NEA-BC
acdelucas@aol.com

Survey Questions

1. What is your title? (Check all that apply)

Chief Nursing Officer, stand alone organization

Chief Nursing Officer, System level

Chief Executive Officer

Chief Operating Officer

Vice President, Patient Care Services

Assistant Vice President

Assistant Chief Nursing Officer

Dean

Associate Professor/Assistant Professor

APN/NP

Director

Manager

Assistant Manager

Charge Nurse

Staff Nurse

Consultant

Other (please specify)

2. What is your current health care setting?

- Acute care, stand alone (skip question 3 and complete rest of survey)
- System
- Long Term Care (skip question 3, then complete the rest of the survey)
- Home Health/Hospice (skip 3, then complete the rest of the survey)
- Physician Office/Group Practice (skip 3 and 4, then complete the rest of the survey)
- Consulting Practice (skip questions 3 and 4, then complete the rest of survey)
- Education (university - skip questions 3 and 4, then complete the rest of the survey)
- Education (community college - skip questions 3 and 4, then complete the rest of the survey)
- Education (practice setting)
- Pharmacology (Health Care Industry - skip questions 3 and 4, then complete the rest of the survey)
- Pharmacology (Practice setting)
- Technology (Health Care Industry - skip questions 3 and 4, then complete the rest of the survey)
- Technology (Practice Setting)
- Indicate area of practice

3. What is the size of your system?

- 2-5 organizations
- 6-10 organizations
- 11-15 organizations
- 16-20 organizations
- Other (please specify)

4. What is the bed size of your organization/system?

- Less than 100 beds
- 100-299 beds
- 300-599 beds
- 600-899
- greater than 900 beds

Thank You

If you would like to participate in this project and/or receive the results of this survey, please email me directly with your interest and contact information.

Thank you for taking the time to complete this survey.

Christine Delucas
acdelucas@aol.com

Appendix N

Synopsis of Project

Clinical leadership is fundamental to the success of a health care organization as it strives to achieve identified strategic goals (Kanste, 2008). Leadership is comprised of “hard” skills (e.g., business planning, budgeting) and “soft” skills, human attributes. Upenieks (2003) and Kanste (2008) findings indicate that transformational leadership behavior predicated upon influence, inspirational motivation, and intellectual stimulation along with traditional rewarding affects the leader’s feelings of personal accomplishment.

There is a broad range of definitions for leadership; however the simplest is the ability to influence others to achieve goals (Kanste, 2008; World Health Organization, 2009; Government Accounting Office, 2010). Kotter (1990) states that leadership involves providing the organization with a strategic vision; communicating that vision to the employees; and, inspiring, motivating and aligning staff to achieve the vision. Leadership is not an intrinsic quality, but is comprised of a diverse collection of competencies, personal attributes and vision requiring education, leadership development and mentoring (Hughes, 2009).

This project is centered on identifying the human factor attributes (“soft” skills) that epitomize successful leaders. Initially, a survey utilizing convenience sampling of attendees at the 2013 AONE conference was utilized to identify five key “soft skills” that attendees indicated were necessary for successful leadership. This was followed up with the same survey being distributed via Survey Monkey™ to the following constituents: University of San Francisco DNP students and faculty, Doctors of Nursing Practice list serve, and an array of healthcare professionals known to the author. Once the surveys are analyzed, initial scenarios will be developed, validated and tested prior to implementation. While nurse leaders were the initial focal point, the simulations are being designed for inter-professional education and development.

The University of San Francisco IRB has reviewed and approved the project as qualitative in nature. Prior to implementing the scenario simulations, the scenarios will be validated and tested in collaboration with the California Simulation Alliance. Dr. KT Waxman is involved as advisor to the DNP student and is a recognized simulation expert. Clini-Space™ leaders have agreed to have the student develop virtual reality scenarios utilizing their platform as web-based precursor study sessions, prior to implementation of “live” scenario implementation.

Organizations that agree to participate in the initial phases will be asked to identify participants, preferably on a voluntary basis. The participants will be apprised of the process, questions answered, and simulations will occur on-site or in each organization’s simulation center. Based upon feedback from the organization’s leadership, the implementation site will be determined ahead of time. It is estimated that scenarios including pre-briefing and debriefing should average 1-1 ½ hours. An evaluation process will be developed and provided to the organization to use in determining the effectiveness of the simulation education. Follow-up and participation in the evaluation by the DNP student will be accomplished through mutually agreed upon methods (e.g., Webinar, Skye, on-site). Feedback from participating organizations is imperative for improving scenarios, updating them, and for future development of additional scenarios pertaining to other “soft” skills.

Contact Information: Christine Delucas at cdelucas@aol.com or (615) 924-9682.

References

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- Kotter, J. (1990). *A force for change, how leadership differs from management*. New York: Free Press.
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Appendix O

Leadership Template



California Simulation Alliance (CSA) Simulation Scenario Template Leadership Specialty

The California Simulation Alliance (CSA) is comprised of simulation users from all disciplines from throughout the state. Several regional collaboratives have formed totaling 7 as of March, 2011: The Rural North Area Simulation Collaborative (RNASC), the Capital Area Simulation Collaborative (CASC), the Bay Area Simulation Collaborative (BASC), the Central Valley Simulation Collaborative (CVSC), the Southern California Simulation Collaborative (SCSC), the Inland Empire Simulation Collaborative (IESC), and the San Diego Simulation Collaborative (SDSC). The CINHC, a non-profit organization focused on workforce development in healthcare provides leadership for the CSA.

The purpose of the California Simulation Alliance (CSA) is to become a cohesive voice for simulation in healthcare education in the state, to provide for inter-organizational research on simulation, to disseminate information to stakeholders, to create a common language for simulation, and to provide simulation educational courses. The goals of the alliance will include providing a home within the CINHC for best practice identification, information sharing, faculty development, equipment/vendor pricing agreements, scenario development, sharing and partnership models. More information can be found on the CSA website at www.californiasimulationalliance.org

All scenarios have been validated by subject matter experts, pilot tested and approved by the CSA before they were published online. All scenarios are the property of the CINHC/CSA. The writers have agreed to release authorship and waive any and all of their individual intellectual property (I.P.) rights surrounding all scenarios. I.P release forms can be obtained by emailing KT Waxman at kt@cinhc.org

Original CSA template modified for Leadership Development 8/13

ALL DATA IN THIS SCENARIO IS FICTICIOUS



SECTION I: SCENARIO OVERVIEW

Scenario Title:	
Original Scenario Developer(s):	
Date - original scenario	
Validation:	
Revision Dates:	
Pilot testing:	
Learner Level:	
Estimated Scenario Time:	
Estimated Debriefing time:	
Target group:	
Leadership Competencies:	
Brief Summary of Case:	

Original CSA template modified for Leadership Development 8/13

ALL DATA IN THIS SCENARIO IS FICTICIOUS



EVIDENCE BASE / REFERENCES (APA Format)

Original CSA template modified for Leadership Development 8/13

ALL DATA IN THIS SCENARIO IS FICTICIOUS



SECTION II: CURRICULUM INTEGRATION

A. SCENARIO LEARNING OBJECTIVES	
Learning Outcomes	
Specific Learning Objectives	
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	
Critical Learner Actions	
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	

B. PRE-SCENARIO LEARNER ACTIVITIES	
Prerequisite Competencies	
Required prior to participating in the scenario	
Knowledge	Skills/ Attitudes
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

Original CSA template modified for Leadership Development 8/13

ALL DATA IN THIS SCENARIO IS FICTICIOUS



<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

Original CSA template modified for Leadership Development 8/13

ALL DATA IN THIS SCENARIO IS FICTICIOUS



SECTION III: SCENARIO SCRIPT

A. Case summary

B. Key contextual details

C. Scenario Cast		
Leaders/others	<input type="checkbox"/> High fidelity simulator <input type="checkbox"/> Mid-level simulator <input type="checkbox"/> Hybrid (Blended simulator) <input type="checkbox"/> Standardized patient	
Role	Brief Descriptor (Optional)	Actor/Confederate (A/C) or Learner (L)

Original CSA template modified for Leadership Development 8/13

ALL DATA IN THIS SCENARIO IS FICTICIOUS



Environment, Equipment, Essential props					
Recommend standardized set ups for each commonly simulated environment					
1. Scenario setting: (example: office, board room, patient room)					

2. Equipment, supplies, monitors (In simulation action room or available in adjacent core storage rooms)					
Table/chairs		Calculator			
Computer monitor		Chart			
Binders					
Books					
Paper					

Original CSA template modified for Leadership Development 8/13

ALL DATA IN THIS SCENARIO IS FICTICIOUS



CASE FLOW / TRIGGERS/ SCENARIO DEVELOPMENT STATES			
Initiation of Scenario:			
PARTICIPANT STATUS	DESIRED LEARNER ACTIONS & TRIGGERS TO MOVE TO NEXT STATE		
1. Role or position	Triggers:	Learner Actions	Debriefing Points:
PARTICIPANT STATUS	DESIRED ACTIONS & TRIGGERS TO MOVE TO NEXT STATE		
2.	Triggers:	Learner Actions:	Debriefing Points:
PARTICIPANT STATUS	DESIRED ACTIONS & TRIGGERS TO MOVE TO NEXT STATE		
3.	Triggers:	Learner Actions:	Debriefing Points:

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ALL DATA IN THIS SCENARIO IS FICTICIOUS



PARTICIPANT STATUS	DESIRED ACTIONS & TRIGGERS TO MOVE TO NEXT STATE		
4.	Triggers:	Learner Actions:	Debriefing Points
Scenario End Point:			
Suggestions to <u>decrease</u> complexity:			
Suggestions to <u>increase</u> complexity:			

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ALL DATA IN THIS SCENARIO IS FICTICIOUS



APPENDIX A: Optional digital images of scenario milieu/set-up	
<p>Insert digital photo here</p>	<p>Insert digital photo here</p>
<p>Insert digital photo here</p>	<p>Insert digital photo here</p>



APPENDIX B: DEBRIEFING GUIDE

General Debriefing Plan			
<input type="checkbox"/> Individual	<input type="checkbox"/> Group	<input type="checkbox"/> With Video	<input type="checkbox"/> Without Video
Debriefing Materials			
<input type="checkbox"/> Debriefing Guide	<input type="checkbox"/> Objectives	<input type="checkbox"/> Debriefing Points	
Core Leadership Competencies to Consider for Debriefing Scenarios			
<input type="checkbox"/> Leadership	<input type="checkbox"/> Teamwork/Collaboration	<input type="checkbox"/> Evidence-based leadership	
<input type="checkbox"/> Communication	<input type="checkbox"/> Human factors	<input type="checkbox"/> Systems thinking	
Sample Questions for Debriefing			
<ol style="list-style-type: none"> 1. How did the experience of (identify the human factor) in leadership feel for you? 2. Did you have the knowledge and skills to meet the learning objectives of the scenario? 3. What GAPS did you identify in your own knowledge base and/or preparation for the simulation experience? 4. What RELEVANT information was missing from the scenario that impacted your performance? How did you attempt to fill in the GAP? 5. How would you handle the scenario differently if you could? 6. In what ways did you feel the need to check the ACCURACY of the data you were given? 7. In what ways did you perform well? 8. What three factors were most SIGNIFICANT that you will transfer to your leadership/management setting? 9. Consider the potential leadership and managerial benefits of improving your _____ (name the soft skill) expertise. 			
<p>Notes for future sessions:</p> 			

Appendix P

Sample Scenarios – Teamwork and Listening



1



California Simulation Alliance (CSA) Simulation Scenario Template Leadership Specialty

The California Simulation Alliance (CSA) is comprised of simulation users from all disciplines from throughout the state. Several regional collaboratives have formed totaling 7 as of March, 2011: The Rural North Area Simulation Collaborative (RNASC), the Capital Area Simulation Collaborative (CASC), the Bay Area Simulation Collaborative (BASC), the Central Valley Simulation Collaborative (CVSC), the Southern California Simulation Collaborative (SCSC), the Inland Empire Simulation Collaborative (IESC), and the San Diego Simulation Collaborative (SDSC). The CINHC, a non-profit organization focused on workforce development in healthcare provides leadership for the CSA.

The purpose of the California Simulation Alliance (CSA) is to become a cohesive voice for simulation in healthcare education in the state, to provide for inter-organizational research on simulation, to disseminate information to stakeholders, to create a common language for simulation, and to provide simulation educational courses. The goals of the alliance will include providing a home within the CINHC for best practice identification, information sharing, faculty development, equipment/vendor pricing agreements, scenario development, sharing and partnership models. More information can be found on the CSA website at www.californiasimulationalliance.org

All scenarios have been validated by subject matter experts, pilot tested and approved by the CSA before they were published online. All scenarios are the property of the CINHC/CSA. The writers have agreed to release authorship and waive any and all of their individual intellectual property (I.P.) rights surrounding all scenarios. I.P release forms can be obtained by emailing KT Waxman at kt@cinhc.org

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ALL DATA IN THIS SCENARIO IS FICTICIOUS



SECTION I: SCENARIO OVERVIEW

Scenario Title:	Leadership Teamwork
Original Scenario Developer(s):	Christine Delucas, DNP(c), MPH, RN
Date - original scenario	August, 2013
Validation:	September 5, 2013 by Dr. KT Waxman, Director CSA
Revision Dates:	
Pilot testing:	September 5, 2013 at the University of San Francisco
Learner Level:	Competent
Estimated Scenario Time: 15 minutes	
Estimated Debriefing time: 30 minutes	
Target group: Frontline managers, middle managers, directors	
Leadership Competencies: Knowledge of team leader responsibilities Understanding and demonstrating knowledge of the phases of team development Adaptability in leadership style and communication techniques	
Brief Summary of Case: The manager has been asked by her/his Vice President to implement the Risk module of the organization’s enterprise-wide electronic documentation and personnel system. The system was implemented almost two years ago, staff is fairly comfortable with it and this is the last module before going totally paperless.	

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ALL DATA IN THIS SCENARIO IS FICTICIOUS



3

EVIDENCE BASE / REFERENCES (APA Format)
Marosi, I. & Bencsik, A. (2009). Comparison of educational and organizational teamwork. <i>Problems of Education in the 21st Century</i> , 13, 74-89.
Osbiston, M. (2013). Interprofessional collaborative teamwork facilitates patient centered care: A student practitioner's perspective.
Snyder, L. G. (2009). Teaching teams about teamwork: Preparation, practice, and performance review. <i>Business Communication Quarterly</i> . March, 74-79. doi: 10.1177/1080569908330372

Original CSA template modified for Leadership Development 8/13

ALL DATA IN THIS SCENARIO IS FICTICIOUS



4

SECTION II: CURRICULUM INTEGRATION

A. SCENARIO LEARNING OBJECTIVES	
Learning Outcomes	
1. Demonstrates effective communication – written and verbal	
2. Demonstrates effective situational techniques – resolving conflict	
3. Utilizes the phases of team development to initiate team engagement	
Specific Learning Objectives	
1. Identify three components of an effective team	
2. Recognize three attributes of effective team leaders and team members.	
3. Describe the process/stages of developing a high performance team.	
4. Discern the difference between a group and a team.	
Critical Learner Actions	
1. Demonstrates effective communication skills	
2. Engages team members in role development	
3. Utilizes leadership skills to initiate the team learning processes	
4. Creates a forum for discussion and team member participation	

B. PRE-SCENARIO LEARNER ACTIVITIES	
Prerequisite Competencies	
Required prior to participating in the scenario	
Knowledge	Skills/ Attitudes
<input type="checkbox"/> Read assignments prior to participating	<input type="checkbox"/> Understands the role of team leader and team member
<input type="checkbox"/> Know the organization’s policies regarding team chartering	<input type="checkbox"/> Communication styles , written and verbal
<input type="checkbox"/> Knows organizational communication processes	<input type="checkbox"/> Shares openly and understands the need to address and learn from errors
<input type="checkbox"/> Aware of team development and growth processes	<input type="checkbox"/>

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ALL DATA IN THIS SCENARIO IS FICTICIOUS



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SECTION III: SCENARIO SCRIPT

A. Case summary
<p>The manager has been asked by her/his Vice President to implement the Risk module of the organization’s enterprise-wide electronic documentation and personnel system.</p> <p>The system was implemented almost two years ago, staff is fairly comfortable with it and this is the last module before going totally paperless.</p> <p>The manager, in conjunction with the VP, selects team members to participate and has invited them to their first meeting.</p>

B. Key contextual details
<p>Ms. Garrett has invited 5 department managers to participate; however, only three are able to make the first meeting (Ms. Young, Ms. Simpson, and Mr. Granger). They have not worked as a team before, are from various departments and are not exactly sure why they’ve been brought together.</p> <p>Two arrive late. Ms. Brown shows up late after indicating she won’t make it.</p>

C. Scenario Cast		
Leaders/others	<input checked="" type="checkbox"/> High fidelity simulator <input type="checkbox"/> Mid-level simulator <input type="checkbox"/> Hybrid (Blended simulator) <input checked="" type="checkbox"/> Standardized patient/person	
Role	Brief Descriptor (Optional)	Actor/Confederate (A/C) or Learner (L)
Ms. Garrett	Manager	L
Ms. Young	Dept. Manager/Team member	A
Mr. Granger	Dept. Manager/Team member	A
Ms. Simpson	Dept. Manager/Team member	A
Ms. Brown	Dept. Manager/Team Member	A/C

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ALL DATA IN THIS SCENARIO IS FICTICIOUS



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Mr. Reyes	Dept. Manager/Team Member	A/C
Ms. Jacobs	Dept. Manager	C

Environment, Equipment, Essential props	
Recommend standardized set ups for each commonly simulated environment	
1. Scenario setting: (example: office, board room, patient room)	
Conference room	

2. Equipment, supplies, monitors						
(In simulation action room or available in adjacent core storage rooms)						
X	Table/chairs		Calculator			
X	Computer monitor	X	Chart			
	Binders	X	Projector			
	Books					
X	Paper and pencils					

CASE FLOW / TRIGGERS/ SCENARIO DEVELOPMENT STATES			
Initiation of Scenario: The meeting is to start at 2 PM and Ms. Garrett has arrived early to be sure the room is unlocked. Mr. Granger and Ms. Simpson arrive on time. After waiting a few minutes, Ms. Garrett starts the meeting. Part way into the introductions, Ms. Young arrives late. After introductions conclude and discussion begins, Ms. Brown arrives late.			
PARTICIPANT STATUS	DESIRED LEARNER ACTIONS & TRIGGERS TO MOVE TO NEXT STATE		
1. Role or position Ms. Garrett	Triggers:	Learner Actions Begins the meeting. Starts introductions	Debriefing Points:
PARTICIPANT STATUS	DESIRED ACTIONS & TRIGGERS TO MOVE TO NEXT STATE		
2.	Triggers:	Learner Actions: Ms. Garrett welcomes	Debriefing Points: Leader maintains

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Ms. Young rushes in, apologetic	Late arrival before introductions are complete.	Ms. Young, continues introduction. Ascertains team members' understanding of the team's purpose. Establishes ground rules.	composure.
PARTICIPANT STATUS	DESIRED ACTIONS & TRIGGERS TO MOVE TO NEXT STATE		
3. The three team members look perplexed and indicate they have no idea why they're there.	Triggers:	Learner Actions: Ms. Garrett inquires to learn why they are unaware of the team's charter. In so doing, she re-groups and starts at the beginning and addresses her error in not communicating in such a way as they were informed.	Debriefing Points: Seeks clarification from team members as to why they were unaware. Discusses issues around appropriate notification of team charter, goals and objectives. Discusses team leader and member roles and responsibilities
PARTICIPANT STATUS	DESIRED ACTIONS & TRIGGERS TO MOVE TO NEXT STATE		
4. Ms. Brown wanders in cell phone in hand.	Triggers: Ms. Brown arrives after introductions are complete and discussion is in process.	Learner Actions: Welcomes Ms. Brown, then continues explaining the process of team selection, etc. and the charter. She reviews team process and obtains agreement to set	Debriefing Points Ms. Garrett and team members maintain composure. Ms. Garrett addresses the process of developing and becoming a team. Answers and encourages questions.

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		ground rules.	Ends with establishing ground rules and setting next meeting date.
<p>Scenario End Point: Ends with initial ground rules established and agreement for time of next meeting.</p>			
<p>Suggestions to <u>decrease</u> complexity: All arrive on time.</p> <p>Suggestions to <u>increase</u> complexity:</p> <p>After discussion of the team’s charter, two feel un-qualified to participate even though they were “hand-picked” with the VP’s agreement.</p> <p>Ms. Jacobs barges into the meeting, complaining about being left out and demanding to be included as a team member.</p>			

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ALL DATA IN THIS SCENARIO IS FICTICIOUS



9

APPENDIX A: Optional digital images of scenario milieu/set-up	
Insert digital photo here	Insert digital photo here
Insert digital photo here	Insert digital photo here



APPENDIX B: DEBRIEFING GUIDE

General Debriefing Plan			
X <input type="checkbox"/> Individual	<input type="checkbox"/> Group	<input type="checkbox"/> With Video	X <input type="checkbox"/> Without Video
Debriefing Materials			
X <input type="checkbox"/> Debriefing Guide	X <input type="checkbox"/> Objectives	X <input type="checkbox"/> Debriefing Points	
Core Leadership Competencies to Consider for Debriefing Scenarios			
X <input type="checkbox"/> Leadership	X <input type="checkbox"/> Teamwork/Collaboration	<input type="checkbox"/> Evidence-based leadership	
X <input type="checkbox"/> Communication	<input type="checkbox"/> Human factors	<input type="checkbox"/> Systems thinking	
Sample Questions for Debriefing			
<ol style="list-style-type: none"> 1. How did the experience of (identify the human factor) in leadership feel for you? 2. Did you have the knowledge and skills to meet the learning objectives of the scenario? 3. What GAPS did you identify in your own knowledge base and/or preparation for the simulation experience? 4. What RELEVANT information was missing from the scenario that impacted your performance? How did you attempt to fill in the GAP? 5. How would you handle the scenario differently if you could? 6. In what ways did you feel the need to check the ACCURACY of the data you were given? 7. In what ways did you perform well? 8. What three factors were most SIGNIFICANT that you will transfer to your leadership/management setting? 9. Consider the potential leadership and managerial benefits of improving your _____(name the soft skill) expertise. 			
Notes for future sessions:			



1



**California Simulation Alliance (CSA)
Simulation Scenario Template
Leadership Specialty**

The California Simulation Alliance (CSA) is comprised of simulation users from all disciplines from throughout the state. Several regional collaboratives have formed totaling 7 as of March, 2011: The Rural North Area Simulation Collaborative (RNASC), the Capital Area Simulation Collaborative (CASC), the Bay Area Simulation Collaborative (BASC), the Central Valley Simulation Collaborative (CVSC), the Southern California Simulation Collaborative (SCSC), the Inland Empire Simulation Collaborative (IESC), and the San Diego Simulation Collaborative (SDSC). The CINHC, a non-profit organization focused on workforce development in healthcare provides leadership for the CSA.

The purpose of the California Simulation Alliance (CSA) is to become a cohesive voice for simulation in healthcare education in the state, to provide for inter-organizational research on simulation, to disseminate information to stakeholders, to create a common language for simulation, and to provide simulation educational courses. The goals of the alliance will include providing a home within the CINHC for best practice identification, information sharing, faculty development, equipment/vendor pricing agreements, scenario development, sharing and partnership models. More information can be found on the CSA website at www.californiasimulationalliance.org

All scenarios have been validated by subject matter experts, pilot tested and approved by the CSA before they were published online. All scenarios are the property of the CINHC/CSA. The writers have agreed to release authorship and waive any and all of their individual intellectual property (I.P.) rights surrounding all scenarios. I.P release forms can be obtained by emailing KT Waxman at kt@cinhc.org)

Original CSA template modified for Leadership Development 8/13

ALL DATA IN THIS SCENARIO IS FICTICIOUS



SECTION I: SCENARIO OVERVIEW

Scenario Title:	Leadership Listening
Original Scenario Developer(s):	Christine Delucas, DNP(c), MPH, RN
Date - original scenario	August, 2013
Validation:	September 5, 2013 by Dr. KT Waxman, Director CSA
Revision Dates:	
Pilot testing:	September 5, 2013 at the University of San Francisco
Learner Level:	Novice - Competent
Estimated Scenario Time: 15 minutes	
Estimated Debriefing time: 30 Minutes	
Target group: Aspiring leaders, middle managers and directors	
Leadership Competencies:	
Engages in active listening skills, verbal and non-verbal. Knowledgeable about various communication styles/skills. Recognizes signs of active listening vs. hearing.	
Brief Summary of Case:	
Staff nurse, new to the unit (inter-professional alternate: employee new to workplace/department) stops by manager’s office and asks if s/he has a moment. Manager invites the employee to come in and sit down.	

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ALL DATA IN THIS SCENARIO IS FICTICIOUS



3

EVIDENCE BASE / REFERENCES (APA Format)
Bane, D. B. (2011). Good listening skills make efficient business sense. <i>The IUP Journal of Soft Skills</i> , 5(4), 43-51.
Coldwell, G. (2013). An underrated leadership skill. <i>Nursing Standard</i> , 27(47), 63.
Milligan, R. A., & McCuiston, K. C. (2010). Management, supervision, and leadership principles and skills: Implementation is the challenge. <i>Society for Range Management</i> , August, 21-25.

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ALL DATA IN THIS SCENARIO IS FICTICIOUS



4

SECTION II: CURRICULUM INTEGRATION

A. SCENARIO LEARNING OBJECTIVES	
Learning Outcomes	
1. Differentiate between active listening vs. hearing	
2. Exhibit the physical attribute that active listening is occurring	
3. Differentiate between the cognitive characteristics of active listening	
4. Defend what active listening accomplishes	
Specific Learning Objectives	
1. Identifies key verbal and nonverbal elements of active listening	
2. Demonstrates ability to listen actively	
3. Interprets the conversation accurately utilizing active listening and communication skills.	
Critical Learner Actions	
1. Provides an appropriate setting for listening to the employee	
2. Demonstrates interest in what the employee has to say	
3. Uses elements of active listening at the appropriate junctures in the conversation, verbal and non-verbal	

B. PRE-SCENARIO LEARNER ACTIVITIES	
Prerequisite Competencies	
Required prior to participating in the scenario	
Knowledge	Skills/ Attitudes
<input type="checkbox"/> Read assigned reading prior to the simulation	<input type="checkbox"/> Open-minded in listening to employee concerns
<input type="checkbox"/> Viewed the study guide video prior to the simulation	<input type="checkbox"/> Positively re-enforces collaboration
	<input type="checkbox"/> Identifies actions to take when listening to employees, colleagues, and other staff regardless of position in the organization
<input type="checkbox"/>	<input type="checkbox"/> Displays respect

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SECTION III: SCENARIO SCRIPT

A. Case summary

Staff nurse, new to the unit (inter-professional alternate: employee new to workplace/department) stops by manager’s office and asks if s/he has a moment. Manager invites the employee to come in and sit down.

B. Key contextual details

The nurse new to the unit (or new employee in a department) is concerned with the lack of assistance and guidance from her/his preceptor/mentor. The new nurse/employee is anxious and concerned, overwhelmed and wants to do a “really” good job and really likes the unit/department. S/he had worked here before in an assistant role and is now a RN/employee with more education and responsibility; however it doesn’t look like s/he anticipated the change in complexity of the new position. While the preceptor/mentor has reported how well s/he is doing (unbeknownst to the employee) to the manager, s/he is feeling left alone and lacks guidance. S/he has not discussed this with the preceptor/mentor.

C. Scenario Cast

Leaders/others	<input checked="" type="checkbox"/> High fidelity simulator	
	<input type="checkbox"/> Mid-level simulator	
	<input type="checkbox"/> Hybrid (Blended simulator)	
	<input checked="" type="checkbox"/> Standardized patient/person	
Role	Brief Descriptor (Optional)	Actor/Confederate (A/C) or Learner (L)
Mr. Gates	Manager	L
Ms. Walters	RN/Employee	A

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ALL DATA IN THIS SCENARIO IS FICTICIOUS



6

Ms. Martin	Preceptor/Mentor	C
------------	------------------	---

Environment, Equipment, Essential props	
Recommend standardized set ups for each commonly simulated environment	
1. Scenario setting: (example: office, board room, patient room)	
Manager's Office	

2. Equipment, supplies, monitors						
(In simulation action room or available in adjacent core storage rooms)						
X	Table/chairs	X	Calculator			
X	Computer monitor		Chart			
	Binders	X	Desk			
X	Books	X	Phone			
X	Paper	X	iPhone			



7

CASE FLOW / TRIGGERS/ SCENARIO DEVELOPMENT STATES			
PARTICIPANT STATUS	DESIRED LEARNER ACTIONS & TRIGGERS TO MOVE TO NEXT STATE		
1. Role or position Ms. Walters, very anxious asks Mr. Gates if he has time to talk	Triggers: Ms. Walters is on the verge of tears	Learner Actions Invites Ms. Walters in to sit down at table and chairs. Joins her there. Closes door, changes phone to vibrate. Inquires about the visit.	Debriefing Points:
PARTICIPANT STATUS	DESIRED ACTIONS & TRIGGERS TO MOVE TO NEXT STATE		
2. Mr. Gates	Triggers:	Learner Actions: Sits at table with Ms. Walters. Acknowledges that she is upset and inquires further. Leans forward, and offers Kleenex. Waits.	Debriefing Points: Sets the environment. Displays interest and concern.
PARTICIPANT STATUS	DESIRED ACTIONS & TRIGGERS TO MOVE TO NEXT STATE		
3. Ms. Walters shares her concerns with her preceptor, feeling overwhelmed, and unaccustomed to the new environment. Really wanting to do a	Triggers:	Learner Actions: Gestures at appropriate times. Paraphrases and summarizes periodically. Questions for clarification. Inquires as to whether he has understood	Debriefing Points: Review elements of active listening. What worked/didn't. Discuss how to end the conversation.



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good job.	Ms. Walters agrees to try out the suggestions and is thankful for the support.	correctly. Allows Ms. Walters to talk without letting her get off track. Brings her back when necessary. Uses words indicating empathy in understanding. Provides encouragement. Discusses suggestions and inquires as to whether Ms. Walters “feels” these would be helpful based upon his understanding of what she has related.	
PARTICIPANT STATUS	DESIRED ACTIONS & TRIGGERS TO MOVE TO NEXT STATE		
4.	Triggers:	Learner Actions:	Debriefing Points
<p>Scenario End Point: Ms. Walters agrees to suggestions and leaves feeling supported.</p>			
<p>Suggestions to <u>decrease</u> complexity: Ms. Walters is concerned about her preceptor but feels she just wants advice on how to approach her. Suggestions to <u>increase</u> complexity: Ms. Walters is unable to clearly articulate her concerns and talks in circles without providing concrete information; becomes more animated.</p>			



9

APPENDIX A: Optional digital images of scenario milieu/set-up	
<p>Insert digital photo here</p>	<p>Insert digital photo here</p>
<p>Insert digital photo here</p>	<p>Insert digital photo here</p>



APPENDIX B: DEBRIEFING GUIDE

General Debriefing Plan			
<input checked="" type="checkbox"/> Individual	<input type="checkbox"/> Group	<input type="checkbox"/> With Video	<input checked="" type="checkbox"/> Without Video
Debriefing Materials			
<input checked="" type="checkbox"/> Debriefing Guide	<input checked="" type="checkbox"/> Objectives	<input checked="" type="checkbox"/> Debriefing Points	
Core Leadership Competencies to Consider for Debriefing Scenarios			
<input type="checkbox"/> Leadership	<input type="checkbox"/> Teamwork/Collaboration	<input type="checkbox"/> Evidence-based leadership	
<input checked="" type="checkbox"/> Communication	<input checked="" type="checkbox"/> Human factors	<input type="checkbox"/> Systems thinking	
Sample Questions for Debriefing			
<ol style="list-style-type: none"> 1. How did the experience of (identify the human factor) in leadership feel for you? 2. Did you have the knowledge and skills to meet the learning objectives of the scenario? 3. What GAPS did you identify in your own knowledge base and/or preparation for the simulation experience? 4. What RELEVANT information was missing from the scenario that impacted your performance? How did you attempt to fill in the GAP? 5. How would you handle the scenario differently if you could? 6. In what ways did you feel the need to check the ACCURACY of the data you were given? 7. In what ways did you perform well? 8. What three factors were most SIGNIFICANT that you will transfer to your leadership/management setting? 9. Consider the potential leadership and managerial benefits of improving your _____(name the soft skill) expertise. 			
Notes for future sessions:			

Appendix Q**On-site Evaluation Questions**

Was this beneficial to you? Explain your answer.

What suggestions do you have for improvement in the process?

Would you use simulation as a self-directed process for learning, and if so, how?

Would you recommend leadership simulation as an additional process for leadership development?

For those participating in the listening and integrity scenarios, they were asked whether they would review and comment on the virtual reality scenarios that were developed. If so, the request was that they provide information back regarding the use of them as a study guide pre or post participation in a simulation experience.

Appendix R

Simulation Evaluation Survey

Introduction

Dear Colleagues,

Thank you for assisting me with my DNP project by participating in the "soft" skill simulations.

As I indicated in a previous email, I'm requesting less than 10 minutes of your time to complete the following survey.

Your feedback will assist me in further evaluation of the scenarios and the process of using simulation as a modality for leadership assessment and development. Feedback will be aggregated and your individual responses will remain confidential.

It was truly a pleasure meeting each of you and I wish you the best in your leadership journey.

Christine Delucas, DNP(c), MPH, RN, NEA-BC

1. In what scenario did you participate?

- Communication
- Integrity
- Teamwork
- Listening
- Problem solving

2. Was the simulation a beneficial learning process for you regarding "soft" skill leadership development/assessment?

- Yes
- No

If yes, please give a brief explanation as to why? If no, what, if anything, would have made it beneficial?

3. Have you used any of the concepts or pointers you gained since participating in the scenario? Yes No

Please explain your answer.

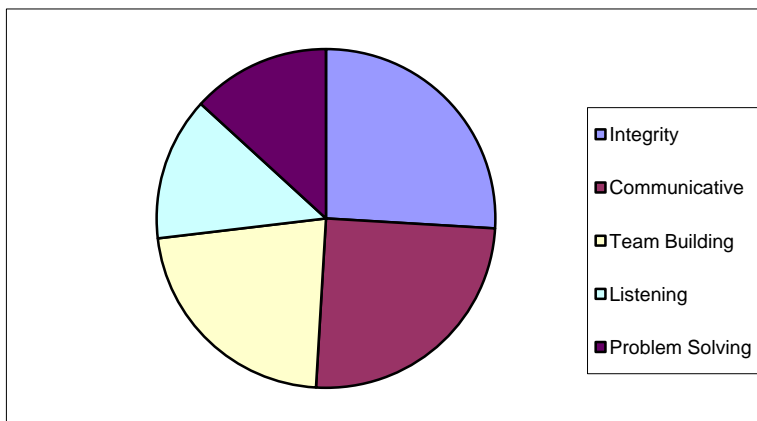
4. What three behaviors/skills were the most significant that you will incorporate into your practice?**5. Would you be interested in participating in future "soft" skill simulations? Check all that apply.** Yes No (if no, skip to #7)**6. If yes to #5, what would participation look like to you? Check all that apply.** As a growth experience for self (learner) As an actor to help others As an observer**7. We often use various methods for self-directed learning. Please indicate your preference/s? Check all that apply.** Videos with real people Videos of high-fidelity simulations Virtual world using avatars Readings/articles Internet Social media Case studies Other (please specify)

8. What other "soft" skills would you like to develop?

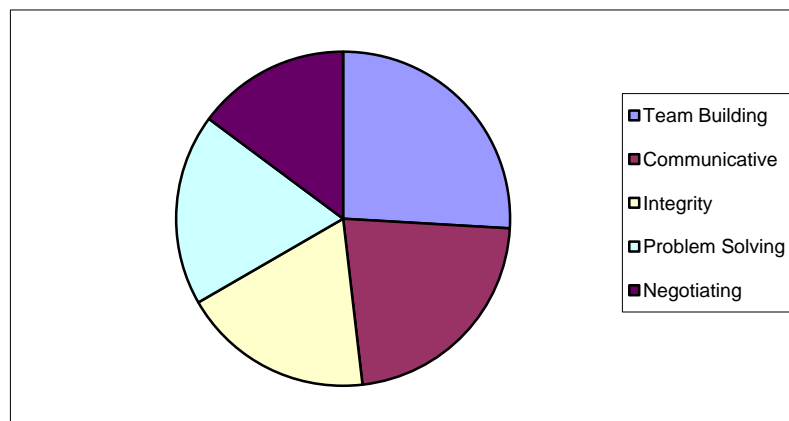
Appendix S

Top Five “Soft” Skills by Group

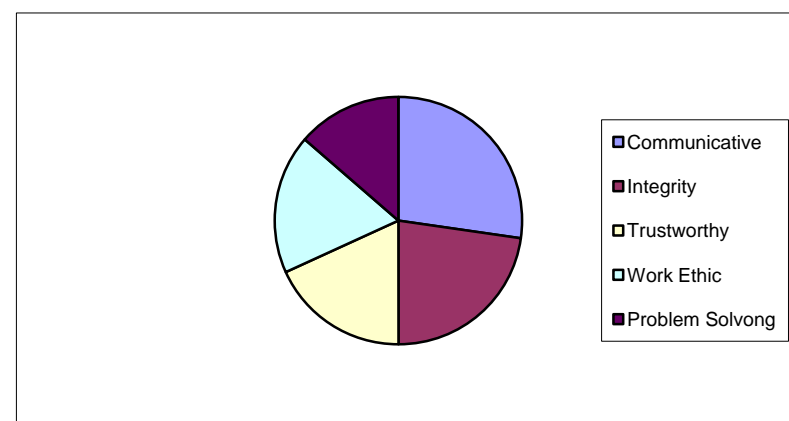
Collective Group	
Integrity	55
Communicative	53
Team Building	47
Listening	29
Problem Solving	28



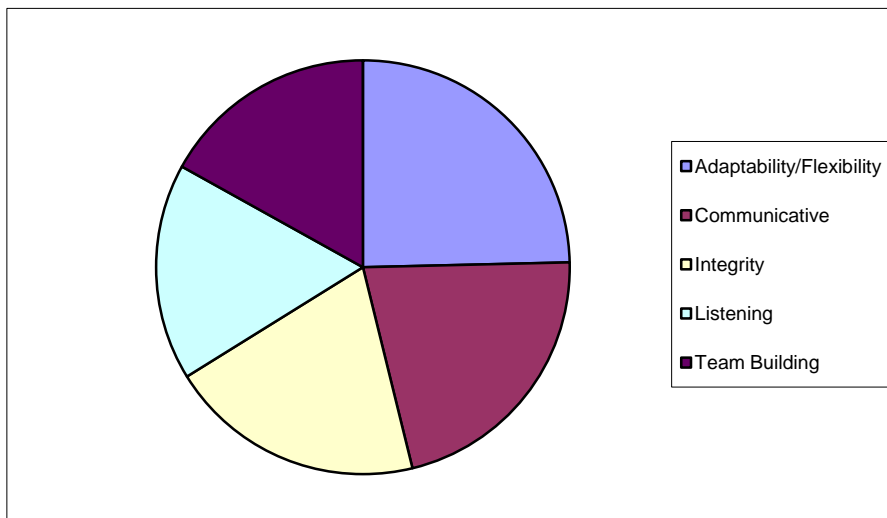
Chief Nurse Group	
Team Building	7
Communicative	6
Integrity	5
Problem Solving	5
Negotiating	4



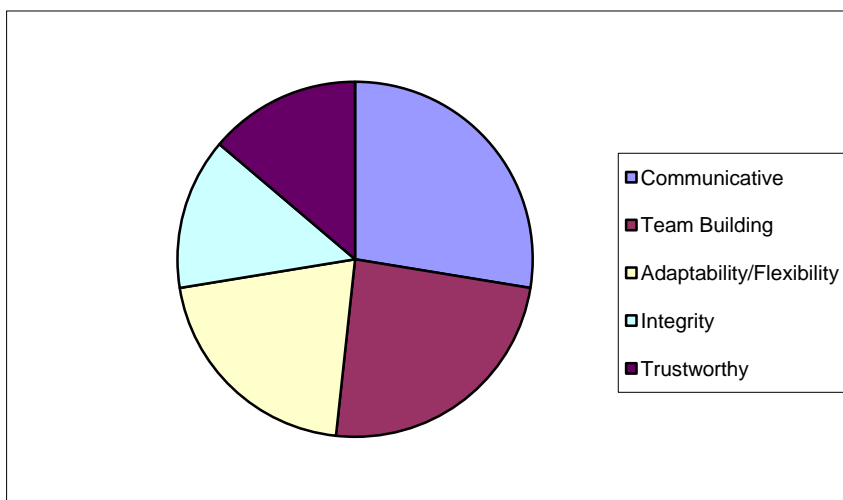
Deans and Associates	
Communicative	6
Integrity	5
Trustworthy	4
Work Ethic	4
Problem Solving	3



Directors and Managers	
Adaptability/Flexibility	16
Communicative	14
Integrity	13
Listening	11
Team Building	11



Staff nurses	
Communicative	8
Team Building	7
Adaptability/Flexibility	6
Integrity	4
Trustworthy	4



Note. When viewing the online version, hovering over each section of the pie provides the value and percentage of each skill.

Value equates to combined total of the times the skill was selected by the survey participants.

Appendix T

Respondent Answers to On-site Evaluation of Simulation Experience

<i>Question</i>	<i>Respondent Answers</i>
Was this beneficial to you? Explain your answer.	“It was realistic and good to do with other than friends who tend to reinforce rather than give honest feedback.”
	Liked the tools for de-escalation. Made you be more aware and “open your eyes to see things differently>’ Tips for communication were helpful.
	“Very much. You tend to get into a routine, forget things. A good reminder.”
	Realistic. Good to do with other than your friends who tend “to reinforce rather than give honest feedback.” Realistic, isn’t pretend.
	Very realistic. Helped think of different ways to phrase things, to think through, think improvement.
	Realistic. Gave concrete examples in debriefing. “Tips for de-escalation helped to determine dealing with difficulty, looking at hearing versus listening.”
	“Oh yes. In other simulations, people got caught up in acting so it wasn’t as beneficial (realistic).” Flow exchange and feedback. “When people know each other, they’re timid, all good, rather than feedback for improvement.”
	Adds variety to learning, puts in real life versus role play that you know ahead of time. Beneficial for someone in my position (assistant nurse manager). Like simulation; see what others are doing. Some fear due to judgment/role modeling.
	Simulation – “you know, it’s not threatening, mirrors real life. Felt the pressure even though acting. I had to think about how to respond.”
	Good to hear again. Have never been in live simulation, very good, forced to think quickly, think about being in the situation. Debriefing, forming, organization and team discussion.
	Able to identify what to do; step back and check perceptions of colleagues up and down the chain. Realistic, want to find the real answer.
	Gained tools, used some tactics.
	In the moment. Learning for the future, debriefing provided immediate feedback.
	Simulation – the best way to learn, realistic. “Good to have people you don’t know because your own people know you.”
What suggestions do you have for improvement in the process?	
	Two answered no without further explanation
	No, low key and not intimidating.
	No, comfortable atmosphere, encouragement and constructive criticism.
	Add reflection in debriefing to past experience
	Seven wanted more information about the scenarios, know ahead of time.
	One preferred to have an employee level actor rather than facilitator as well as knowing more about the scenario.

	Tighten role/scenario.
	More props.
Would you use simulation as a self-directed process for learning, and if so, how?	
	“Prefer being a participant. Just watching, you don’t get the feel.”
	Yes, and participation. “Can capture the essence through videos; virtual worlds could be helpful”. Additions including books with case studies at the end of each chapter.
	“Prefer live interaction and feedback is really important.” Videos and vignettes as a study guide, not a replacement.
	“Yes, but would be live scenarios with immediate debriefing.”
	“Yes, I do all the time, like change.” Prep using self-directed in learning. Read articles. “Interactive avatars sound fascinating.”
	“Yes. Historically/currently, I feel a little alone, as you go up the chain, limited communication for support.” Do at a time and place that’s suitable and pre-planned.
Would you recommend leadership simulation as an additional process for leadership development?	
	All responded yes. Not all elaborated.
	“Yes, particularly because a lot our classes are good but are run by non-nurses versus someone who has lived it and understands the subtleties and knows the people part, patient safety, and clinical. We all drift into clinical and non-nurses don’t understand and people don’t get the disconnect. When challenged, it’s fun for them, but we don’t get more out of it.”
	“Yes, number 1. Self-learning a little.”
	“Absolutely – especially the feedback part.” Like the application and then the immediate feedback.
	“Oh yes, absolutely. You get real time feedback, rather than vignette when you can figure out the right answer.”
	“Definitely. It’s important to be in the hot spot so you learn. The best part was the safe environment.” You can increase complexity and make it more challenging.
	“Yes, leadership courses, classroom, videos, readings for OJT - hard to get done while working with the outside pressure. This gives you time to do, to participate.”
	“Yes. Would like more.” Supplements growth. “Can use in daily life as well, good learning, good in early career.”

Note. If not quoted directly, the responses are paraphrased.