PART I

Leading in Times of Complexity and Rapid Cycle Change

CHAPTER 1

Trends Shaping Nursing Leadership

Implications for Education and Practice

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LEARNING OBJECTIVES AND ACTIVITIES

- Consider personal, organizational, and systems changes needed to effect greatness.
- Describe current trends in the business of health care and its impact on nurse administration.
- Discuss major influences, particularly of the Institute of Medicine, Agency for Healthcare Research and Quality, Institute for Healthcare Improvement, and other major players in the health system.
- Describe the impact of evidence-based practice in promoting safety and quality patient care and healthy work environments.

CONCEPTS

Complexity, complex adaptive systems, chaos, change, innovation, safety, quality, healthy work environments, health promotion, competency, diversity, strategic thinking, globalization, lifelong learning

SPHERES OF INFLUENCE

Unit-Based or Service-Line-Based Authority: Evaluating the quality and appropriateness of health care; promoting care delivery with respect for individuals; consideration of patients' right and preferences; accepting organizational accountability for services provided to recipients; evaluating performance of personnel in a fair and transparent manner.

Organization-Wide Authority: Encourages management by objectives and other directing activities that develop the conditions for individual and organizational effectiveness; directs human resource personnel to develop working conditions to satisfy and retain the best workers at high levels of productivity; facilitates the conduct, dissemination, and utilization of research to create evidence-based nursing, healthcare, management and administrative systems; communicates effectively with staff; responds to expressed needs from staff and provides leadership by example; promotes the delivery of culturally competent care.

Quote

There comes a special moment in everyone's life, a moment for which that person was born. That special opportunity, when he seizes it, will fulfill his mission—a mission for which he is uniquely qualified. In that moment, he finds greatness. It is his finest hour.

—Winston Churchill

Introduction

Nursing is front and center in realizing a transformed healthcare system. In 2008, the Institute of Medicine (IOM) and Robert Wood Johnson Foundation (RWJF) partnered to assess and respond to the need to consider the state of the science of nursing. Thus, the 2-year Initiative on the Future of Nursing was established. Following the completion of this report, IOM and RWJF hosted national conferences on November 30 and December 1, 2010 to share how the report's recommendations could be translated into action. RWJF will use the report as a basis for an extensive implementation phase. As a result of the conferences and discussions, four key messages are being communicated that will provide structure for future recommendations:[1]

1. Nurses should practice to the full extent of their education and training.
2. Nurses should achieve higher levels of education and training through an improved education system that promotes seamless academic progression.
3. Nurses should be full partners, with physicians and other health professionals, in redesigning health care in the United States.
4. Effective workforce planning and policy making require better data collection and an improved information infrastructure.

A number of recommendations were also included in *The Future of Nursing*. These recommendations flow from the four key messages. Eight recommendations were proposed:[2]

1. Remove scope-of-practice barriers.
2. Expand opportunities for nurses to lead and diffuse collaborative improvement efforts.
3. Implement nurse residency programs.
4. Increase the proportion of nurses with a baccalaureate degree to 80% by 2020.
5. Double the number of nurses with a doctorate by 2020.
6. Ensure that nurses engage in lifelong learning.
7. Prepare and enable nurses to lead change to advance health.
8. Build an infrastructure for the collection and analysis of interprofessional healthcare workforce data.

The Future of Nursing's recommendations are just beginning to influence the direction of policy as they are presented to national, state, and local government leaders; payers, healthcare researchers, executives, and professionals, including nurses and others, as well as to larger groups such as licensing bodies, educational institutions, and philanthropic and advocacy organizations. Additionally, organizations focusing on advocating for consumers are also essential aspects of the recommendations from the IOM and RWJF.[3]

In the past decade, health care has witnessed dramatic swings, including a change in social demographics, advancements in medical technologies, heightened consumer awareness, and greater demand for high-quality, efficient, and cost-effective care. This consumer-driven, competitive environment heralds a transformation that all healthcare organizations must embrace to succeed and be sustainable. Quality improvement, evidence-based practice, the patients' experience, and systems thinking are essential to maintaining one's competitive edge. The traditional hierarchical, bureaucratic, and insulated organizational models no longer work in this new business of health care. An emerging model needs to be flat, innovative, nimble, and responsive to change. If a healthcare organization is to survive in today's frenetic pace, greater flexibility and the ability to deal with ambiguity are essential.[4]

Being great or going from good to great takes the courage of one's convictions, vision, and energy. We are charged with keeping up with trends that affect short- and long-term planning. Collins contends that visionary companies have better management development and succession planning than

comparable companies, thereby ensuring greater continuity in leadership talent grown from within. Level five leadership does matter.[5]

Visioning and futuristic thinking do embrace an openness to change. In the 21st century workplace that is driven by innovation and technological transformation, new knowledge, skills, and abilities are demanded from everyone. New roles to address the demands are critical. High trust, encouraging the heart, authentic leadership, and relationship-based care are important in balancing quality, safe health care, efficiency, and cost constraints. There is a different emphasis and skill set for nurse administrators today than those that dominated the past century. Logic, predictability, and linear reasoning were the order of the day and did give some measure of success in a stable environment. These skills are not enough and alone no longer serve us well in our complex, complicated systems.

ORGANIZATIONAL SYSTEM: CONTEXT FOR TRENDS AND CHANGE

Considering trends in light of organizations and systems propels the nurse administrator to consider different, innovative ways to structure and redesign processes and outcomes necessary to transform care delivery. Organizations must move away from domination by an overrationalistic thinking "machine" focused on predictability; theorists of complexity and chaos show us that the natural world does not operate this way. Stacey purports that this revelation of the role of "creative disorder" in the universe needs to be taken to heart by managers. The consequences, as Stacey summarizes, turn management practices upside down. Considering complexity theory and organizations as complex adaptive systems (CAS), Stacey postulates the following points:[6]

- Analysis loses its primacy.
- Contingency (cause and effect) loses its meaning.
- Long-term planning becomes impossible.
- Visions become illusions.
- Consensus and strong cultures become dangerous.
- Statistical relationships become dubious.

The list goes on. An organization seeking stable relationships within an unpredictable environment is a recipe for failure. An organization expecting predictable outcomes by focusing on its strengths, continuing what it does best, and making limited adjustments will likely be left in the dust by its innovative rivals. Successful strategies, in the long run, do not come by fixing organizational intention and circling around it; they emerge from complex and continuing interactions between people. According to Stacey, the dominant 1980s approach to strategy, which distanced itself from the strategic planning paradigm of preceding decades, still managed to maintain the aim of strategic management as its intent. "Management complexity theorists emphasize, rather, the importance of openness to accident, coincidence, serendipity. Strategy is the emerging resultant."[7]

Management in times of chaos requires a new way of thinking and being in the world. Managing in light of intense demands for greater quality, efficiency, and effectiveness of patient care necessitates consideration of alternatives to business as usual. The unusual becomes the usual; the ordinary becomes the extraordinary. Both have a place in managing and leading organizations.

Stacey distinguishes ordinary from extraordinary management. Ordinary management considers a logical analytic process to the day-to-day operations, using data analysis, goal setting, evaluation of available options against goals, rationality, implementation, and evaluation, generally through hierarchical monitoring. Control is at the center of ordinary management. Cost-effective performance is often the yardstick by which effective and efficient systems are judged.[8]

According to Stacey, extraordinary management is also essential if the organization is to transform itself in situations of open-ended change. "Extraordinary management requires the activation of the

tacit knowledge and creativity available within the organization. This necessitates the encouragement of informal structures—for example, workshops around particular issues or processes, with membership drawn from different business units, functions, and levels."[9]

Establishing informal groups requires spontaneity within the organization, often stimulated by paradoxes, inconsistencies, and conflicts occurring in the process of ordinary management. Informal groups need to be self-organizing systems, capable of redefining or extending their purpose versus being bound by fixed terms of reference. Such conditions enhance group learning, and such results are influenced as arguments to the broader management view. Stacey proposes that "in the necessary absence of hard evidence, arguments in favor of new assumptions and directions will be analogical and intuitive, and the process of decision making will be political as champions attempt to persuade others to their point of view."[10]

It is within this frame of reference that the nurse executive can truly be innovative, moving the organization to think differently, try out new ideas, fail, start over again and again, and embrace the willingness to deal with ambiguity and uncertainty.

COMPLEX SYSTEMS

Healthcare systems are complex. The emerging field of complexity science offers alternative leadership and management strategies for the chaotic, complex, healthcare environment. A survey revealed that healthcare leaders intuitively support principles of complexity science. Leadership that uses complexity principles offers opportunities in the chaotic healthcare environment to focus less on prediction and control and more on fostering relationships and creating conditions in which CAS can evolve to produce creative outcomes.[10]

Zimmerman, Lindberg, and Plsek, in their work with CAS, note that this theory has much in common with general systems thinking, the learning organization, total quality, empowerment, gestalt theory, organizational development, and other approaches. Conceptualizing CAS purports an understanding of how things work in the real world. The authors provide the following principles in their work with CAS:[11]

1. View your system through the lens of complexity.
2. Build a good-enough vision.
3. When life is far from certain, lead with clockware and swarmware in tandem.
4. Tune your place to the edge.
5. Uncover and work with paradox and tension.
6. Go for multiple actions at the fringes, and let direction arise.
7. Listen to the shadow system.
8. Grow complex systems by chunking.
9. Mix cooperation with competition.

Working through these principles affords the nurse executive the opportunity to consider work from a number of different angles. For example, in principle 5, the authors suggest one balance data and intuition, planning and acting, safety and risk, giving due credit to each. "Clockware," coined by Kelly, describes the management processes that involve operating the core production processes of the organization in a manner that is rational, planned, standardized, repeatable, controlled, and measured. In contrast, "swarmware," also coined by Kelly, refers to management processes that discover new possibilities through experimentation, trials, autonomy, freedom, intuition, and working at the edge of knowledge and experience. Good-enough vision, minimum specifications, and metaphor are examples of swarmware. This process provides just enough of an idea or concept or paints a landscape that leads individuals in CAS to become more participatory in trying whatever might work.[12]

Another example when working on principle 4 (tune your place to the edge) could be interpreted as placing the group at the edge of chaos, which increases the likelihood that creative approaches would emerge. The authors put forth the following paradoxical questions to consider:

- How can we give direction without giving directives?
- How can we lead by serving?
- How can we maintain authority without having control?
- How can we set direction when we don't know the future?
- How can we oppose change by accepting it? How can we accept change by opposing it?
- How can a large organization be small? How can a small one be large?
- How can we be both a system and many independent parts?
- What other questions might be relevant to the context of your work environment?[13]

> *"The chaos manager must recognize these 'forks in the road' and create a context supporting the new line of development by finding interventions that transcend the paradoxes or make them irrelevant … . The task hinges on finding new understandings or new actions that can reframe the paradox in a way that unleashes system energies in favor of the new line of development."*
>
> —Gareth Morgan

Furthering the need to understand macro-, micro-, and mesosystems as CAS, Plsek notes CAS as a "collection of individual agents who have the freedom to act in ways that are not always predictable, and whose actions are interconnected such that one agent's actions change the context for other agents."[14] By studying natural and human systems properties we can better understand the overall environment. These properties are described as follows:[15]

- Relationships as central to the system
- Structures, processes, and patterns
- Actions based on internalized simple rules and mental models
- Attractor patterns
- Constant adaptation
- Experimentation and pruning
- Inherent nonlinearity
- Systems embedded within other systems that coevolve

Using these properties, Plsek describes specific ways that such properties can be considered in adopting healthcare innovation within a complexity framework. Actions based on internalized simple rules and mental models would consider how individuals respond to their environment using internalized rules that drive action. For example, in a biochemical system, the "rules" are a series of chemical reactions. According to Plsek,[16]

> At a human level, the rules can be expressed as instincts, constructs and mental models. "First, do no harm" is an example of an internalized rule that might be behind an individual's reluctance to embrace the risk of an innovative change. These mental models need not be shared, explicit, or even logical when viewed by others, but they nonetheless contribute to the patterns in the complex system.

Plsek notes that mental models often are so ingrained in one's thinking that it is difficult (without reflection and examination) to embrace other perspectives and viewpoints. Without this much-needed work, it is likely that "fads and gimmicks" will be touted without real change, thus sustainability of new ways of doing business are unlikely to last and spread throughout the organization.

Zimmerman, Lindberg, and Plsek pose the question of how complexity science might improve management and the health of organizations. They put forth the following questions to ponder:[17]

- How does coevolution affect the role of a leader? If everything is changing and I am part of that change, how do I plan?
- If a CAS self-organizes, what is the job of manager or leader of a CAS?
- Can we use ideas of self-organization to unleash the full potential of our staff?
- Can we create the conditions for emergence as two or more organizations are coming together in a merger?
- What do we have to change to improve the quality of our services and reduce costs? Can complexity science provide us with any insights to this question?
- If an organization is a CAS, what does this imply about strategic planning?
- Can we use insights from complexity to improve the health of communities?
- If the edge of chaos is the area of greatest innovation, how do we stay on the edge of chaos? What are the risks of staying on the edge?
- What organizational structures, designs, and processes are consistent with a complexity science perspective? How would implementing these "complex" ideas improve organizations and the services they offer?
- How can we ensure that complexity science enhances and complements proven management approaches? Where and when does complexity science add most value? Where are "traditional" approaches more appropriate?

Such foundational work in rethinking, questioning, and reflecting one's organization, its core business, and its relationship often provides a first step to developing policies and procedures within the system.

WORKING IN COMPLEX ADAPTIVE SYSTEMS

Nurses continue to top Gallup's annual survey of honesty and ethics among professions. We are in a strategic position to make a difference in managing and sustaining positive healthcare outcomes. Our hope is that our citizens count on nurses to bring about real change that ensures safe patient care by setting a path toward greatness and that we make good on our promises.[18]

Conceptualizing organizations as CAS provides a more useful framework for today's chaotic organizations. The content and context of leadership and management affect what nurse leaders do and how they must now behave in fundamentally altered work environments.

In 1996 the Institute of Medicine took on healthcare improvement to resolve unsafe care by ambitiously moving toward quality initiatives. The Institute of Medicine's seminal works, *To Err Is Human: Building a Safer Health System*[19] (1999) and *Crossing the Quality Chasm* (2001), underscore the failings of the current healthcare system in which an estimated 98,000 hospitalized patients die annually in this country as a result of medical error. These well-documented sources of evidence also provide a vision for healthcare reform required for transformation and to bridge the gap between the current state of healthcare delivery and the ideal state. Small fixes are not enough to repair a broken system. Because of its strategic positioning in the healthcare arena as well as its strength in numbers, nursing must take up the challenge (it is there for the taking!), focusing on safe patient outcomes within healthy work

environments. *Keeping Patients Safe*[21] provides well-grounded evidence, practices, and models in which care delivery led by nurses can make the difference. The American Organization of Nurse Executives, the American Association of Critical-Care Nurses, the American Nurses Association, and other major nursing organizations have provided models to work with in making these changes.[19,20] Understanding complexity, complex adaptive systems, and change are all a part of this drive not only to improve care but also to strive for greatness. Transforming the workplace by translation are skills and competencies that can be learned and embraced in this new world of healthcare work. Authentic leadership can make the difference in translating evidence into practice.

CREATING HEALTHY WORK ENVIRONMENTS

Creating and sustaining healthy work environments must be taken on by nurse leaders. Unhealthy work environments contribute to medical errors, outdated care delivery systems, and stress among healthcare providers. Our workplaces cannot allow unsafe conditions that demoralize the workforce. Unhealthy work environments often tolerate lateral and horizontal violence; thus basic civility, respect, and courtesy are not a part of the organization's culture. Healthy work environments support meaningful work and are a joyful place to be, charged with energy and vitality. The American Organization of Nurse Executives identifies six critical factors to improve workplace initiatives, extracted from their study of workplace improvement and innovation:[22]

1. Leadership development and effectiveness
2. Empowered collaborative decision making
3. Work design and service delivery innovation
4. Values-driven organizational culture
5. Recognition and rewards systems
6. Professional growth and accountability

Using the preceding as a framework and an agenda for change, nurse executives are poised to initiate innovations and sustain healthy workplaces in the midst of persistent healthcare provider shortages, shrinking Medicare and Medicaid reimbursement, increasing healthcare costs and double-digit health premium increases, an aging population, and increased chronic illness management. To address such demands requires a major overhaul of our thinking and an unearthing of our mental models as we engage our workforce and carry out our business mission and professional responsibility. Professional nursing organizations are making strides to improve care delivery within a healthy work environment.

PROFESSIONAL ORGANIZATIONS FOR CHANGE TO IMPROVE CARE DELIVERY

A number of professional organizations have as their core mission patient safety and patient-centered care. For example, the American Association of Critical-Care Nurses, in their *Standards for Establishing and Sustaining Healthy Work Environments*, reports that successful outcomes can only be supported by key elements: skilled communication, true collaboration, effective decision making, appropriate staffing, meaningful recognition, and authentic leadership.[23]

In the same vein, the American Organization of Nurse Executives (AONE) also offers strategies and tools for addressing this critical work of sustaining healthy workplaces. AONE has partnered with the Robert Wood Johnson Foundation in the support of Transforming Care at the Bedside (TCAB). The intent of this initiative is the advancing and informing with evidence of healthy workplace strategies for patients and staff to make a difference. TCAB provides a framework and direction to managers and

staff as they move forward in taking these bold moves: safe and reliable care, vitality and teamwork, patient-centered care, and value-added care processes.[26] Working with the TCAB initiative, Martin et al. combine these moves and add six core values of work redesign, called the test of change. These work redesign strategies include an emphasis on the nursing staff, creating systems where work happens and, as it happens, improving efforts centering around patients' and employees' needs, executive leadership support, testing small samples to learn and spread to a larger scope, teaching along the way, and making it happen now.[27] Lessons learned in this journey focus on the importance of getting things started, with local spread moving to system spread. The concern was that this may have been considered a "flavor of the month" initiative, thus delaying the progression and sustainability of the change. Guidance by evidence, with the continuation of outcomes management and measurement, has offered further support for the importance of this work.

Another example includes the Registered Nurses' Association of Ontario, which provides guidelines and tools for developing healthy work environments. These evidence-based guidelines include attention to professionalism, staffing, teamwork, ethics, and lifelong learning and development. These evidence-based guidelines and other tools equip the nurse executive with important resources for implementing, measuring, and evaluating change. Translating evidence into practice requires that the nurse executive has a working knowledge of how to find, use, and evaluate the evidence to support best practices.[27]

EVIDENCE-BASED PRACTICE

Evidence-based practice and organizational transformation require that we be intentional and focused. Paying attention necessitates strategies to speed the rate of diffusing innovation. This is critical when innovation improves the quality of care. The evidence continues to grow; however, being slow to move is a barrier to best practice. The Institute of Medicine report, *Crossing the Quality Chasm*,[20] identified two barriers in particular that today are impeding health quality improvement: suboptimal investment in information technology and a reimbursement system that fails to provide coverage for innovative technologies in a timely manner. Understanding evidence-based practice underscores the need to be conversant with the drivers and barriers of diffusion, a major challenge today.

Nurse executives have a number of evidence-based practice models at their disposal, along with tools for appraising the evidence and best practice guidelines. For example, the University of Iowa, Johns Hopkins Medical Center, Academic Center for Evidence-Based Practice, and the Stetler Model of evidence-based practice offer exemplars for infusing evidence into professional nursing practice.[28–31] It is important that the nurse executive use these tools to inform clinical practice as well as create an evidence-based–rich environment with a culture that supports curiosity and inquisitiveness.

Competent nurse leaders must push on the drivers and reduce or eliminate barriers, when appropriate. If nurse executives have no systematic way of identifying breakthrough innovations early in their development, they are not able to give them the drive they need. Identifying innovations alone is not enough. Nurse executives must overcome resistance to change and embrace new information, knowledge, and skills in this aspect of the change process. In *Accelerating Quality Improvement in Health Care: Strategies to Speed the Diffusion of Evidence-Based Innovations*, examples are given to illustrate the need for thoughtful, rapid response. For example, when contemplating hospital redesign, consideration for optimum clinical care flow should take into account not only patient comfort but also ease of access to facilities and ease of movement for patients and their families. This would address infection control and other patient safety issues, allowing both integration of today's latest technology and technological upgrades over time. Along with clinical care concerns, creating a physical and working environment that would attract and retain the best medical, nursing, and administrative staff is also essential to this holistic approach.[32]

TRENDS AND TRANSFORMATION: A FOCUS ON SAFETY, QUALITY, AND EDUCATION

The viability of our organizations depends on a successful transformation from traditional hierarchies to models of shared accountability that capitalize on the organizations' collective talent. Structures, processes, and outcomes are created and implemented to improve the quality of how we deliver health care. Patient safety is at the center of quality and is critical to what we do.

Integrating patient safety into nursing practice requires a change in the organizational culture. At most healthcare institutions, senior leadership identifies patient safety and quality as a strategic imperative within the organization. For example, the University of North Carolina Health Care System created a patient safety plan that emphasizes a focus on processes and systems rather than on the individual performance of a hospital staff member. Nurse managers on the University of North Carolina's inpatient units were challenged to identify areas for improvement, develop practice strategies to address these areas, and then work with staff to implement and evaluate the newly redesigned practice.[33]

The nurse manager's role has evolved into a highly complex pivotal position within healthcare organizations. This role is the cornerstone to high-quality patient care, financial success, and patient and family satisfaction. At this level of leadership, strategic goals and objectives are translated and operationalized at the unit/departmental level. Through this evolutional process, traditional undergraduate nursing programs do not adequately prepare nurses for these complex middle management roles. Advanced knowledge, skills, and abilities are no longer for the selected few! Based on the needs and complexity of our healthcare business, formal graduate-level education is critical for the development of the nurse manager. Graduate degrees in nursing administration or an advanced nursing degree combined with a master's in business administration can equip the new nurse manager with the fundamental tools and knowledge needed for development. The nurse executive, in leading the organization, can facilitate this by creating innovative programs for bridging this gap. Programs that might be included are partnerships with universities that grant the required degrees, special tuition reimbursement policies that accelerate completion of the degree, and flexible scheduling focusing on time management. A supportive and facilitative environment can do much to lay the groundwork for doctoral education for those nurse managers who ultimately move on to senior leadership roles. There must be evidence of organizational commitment for advancing the nurse manager's education.[34]

Evidence-Based Practice 1-1

A qualitative study described six themes critical to the work of chief nurse executives that included communication, continuous learning, high-quality health care, partnerships, relationship, and future orientation.[35]

Furthering this emphasis, Scoble and Russell developed a list of 130 competencies desired of nurse administrators. From this list, 13 key competency categories were ranked in order, with the top 6 identified as leadership behaviors and skills, financial acumen and budgeting, business acumen, management skills, communication skills, and human resource and labor relations. As the chief nurse executive considered priorities and challenges, five critical areas were enumerated: quality, patient safety and compliance, financial performance, leadership, and patient care delivery. These skill sets and competencies are underscored by current quality initiatives requiring interdisciplinary interventions often spearheaded by nursing.[36]

NURSING-SENSITIVE INDICATORS, SAFETY STANDARDS, AND QUALITY INDICATORS

Maas, Johnson, and Morehead proposed the phrase "nursing-sensitive indicators" to reflect patient outcomes influenced by nursing practice.[37] Needleman et al. noted that "nursing-sensitive indicators" may be a more comprehensive term focusing on the relationship of nursing with negative—or adverse—patient outcomes, such as medication errors, patient falls, and nosocomial infections. These authors note that there is less evidence that examines the relationship of nursing and positive patient outcomes, attributing the use of negative outcomes to the fact that adverse patient outcomes are more readily available in medical records and existing administrative data sets.[38]

Needleman et al. used the phrase "outcomes potentially sensitive to nursing" to recognize nursing contributions in the clinical care delivery process; however, the reluctance here points to the struggle in determining attribution when care delivery processes are interwoven.[38] Reporting of nursing sensitive to the CMS is forthcoming. In October 2010, hospitals were required to inform CMS of the systems planned to report the measures electronically.

This is changing, however, with the National Database of Nursing Quality Indicators (NDNQI) translating data into high-quality care. The American Nurses Association (ANA) pushed through efforts to collect and evaluate nursing-sensitive indicators in the early 1990s, providing ongoing support for database development activities through the National Center for Nursing Quality. University of Kansas School of Nursing, which ranks among the top nursing schools in the nation in National Institutes of Health funding for nursing research, continues to provide ongoing nursing-sensitive indicator consultation and research-based expertise to the NDNQI. This school of nursing primarily conducts research on clinical and health policy topics in two areas: healthcare effectiveness and health behavior. The NDNQI continues to grow and is a powerful tool available to nurse executives. This national database program has two primary goals:[39]

- To provide comparative information to healthcare facilities for use in quality improvement activities
- To develop national data on the relationship between nurse staffing and patient outcomes

According to the ANA, the database is growing and contains hundreds of participating healthcare facilities along with various kinds of data being collected. For example, patient outcome and nurse staffing data are being collected on critical care, step-down, medical, surgical, medical/surgical, pediatric, psychiatric, and rehabilitation units. Nurse satisfaction data are being collected from a wide variety of nursing units and across the organization. The data are collected according to strict standards; collaboration has been a key component in the growth of NDNQI. Participants can be part of the development process if they so choose.

NDNQI provides the capacity to trend data. NDNQI provides participants with quarter-by-quarter and unit-by-unit comparisons of nursing care, thus eliminating isolated and perhaps misleading snapshots of performance. The NDNQI data allow the nurse executive to mark progress, understand and improve the care of patients and the work environment of nurses, avoid costly complications, and assist in marketing the quality of nursing leadership's efforts. The NDNQI can also serve as a valuable tool for retention of nursing staff and recruitment of potential employees.[40] In a similar vein, reports from the Institute of Medicine's Quality Initiative brought public attention to the urgent need for understanding, measuring, improving, and ensuring the quality of health care in the United States. Focused on important aspects of healthcare quality, such as revealing serious healthcare systems errors and patient safety concerns, these quality initiatives recommended a taxonomy of quality attributes for the healthcare system. Recommendations were further proposed to enhance quality initiatives to coordinate quality-related efforts in six government programs, offering strategies for interdisciplinary education in

the health professions and identifying changes needed in the work environment for nurses to improve patient safety. These major initiative reports represent a systematic effort to focus on quality and patient safety concerns in health care and to advance critical healthcare quality efforts in the United States.[19–21] Additionally, although putting recommendations from these reports into practice is challenging, macro-level quality initiatives in the public and private sectors are ongoing. For example, within the federal government the Quality Interagency Coordination Task Force was formed, bringing together independent initiatives within various governmental agencies relating to or affecting healthcare quality.[41] Another example is the National Healthcare Quality Report, developed by the Agency for Healthcare Research and Quality (AHRQ), which presented data on the quality of services for seven clinical conditions and included a set of performance measures that serve as a baseline for the quality of health care.[42]

Private groups, such as the Leapfrog Group,[43] the National Quality Forum,[44] the Joint Commission,[45] and the Institute for Healthcare Improvement,[46] are also proposing efforts and recommendations for improving and ensuring high-quality health care. Many of these initiatives attempt to move closer to the point of care delivery. As reported, professional organizations and provider groups, such as the American Nurses Association,[47] the American Medical Association,[48] and the Veterans Health Administration,[49] also proposed quality surveillance activities aimed at identifying and capturing provider- and profession-specific clinical quality indicators. Public reporting of healthcare quality data can drive quality improvement, expanding the potential value of quality indicators.

Another example comes from the AHRQ, which identifies quality indicators to measure healthcare quality by using available hospital inpatient administrative data. Patient safety indicators are tools to help health system leaders identify potential adverse events occurring during hospitalization.[50] The AHRQ quality indicators expanded the original Healthcare Cost and Utilization Project quality indicators. The prevention quality indicators, the first set of AHRQ quality indicators, were released in November 2001. The second set, the inpatient quality indicators, were released in May 2002 and in March 2003. In February 2006 the fourth quality indicator module, the pediatric quality indicators, was added as the pediatric population was removed from the other modules.[51]

AHRQ is making the patient safety indicators software available without charge to hospitals and other users as SAS® and SPSS® programs with software documentation and a user guide that provides a synopsis of the evidence taken from the *Measures of Patient Safety Based on Hospital Administrative Data*. According to AHRQ, patient safety indicators[52]

- Can be used to help hospitals identify potential adverse events that might need further study
- Provide the opportunity to assess the incidence of adverse events and in-hospital complications using administrative data found in the typical discharge record

Evidence-Based Practice 1-2

Despite the Institute of Medicine reports calling for the creation of a standardized set of measures for monitoring the quality and effect of structural changes on the process and outcomes of nursing care, we did not observe a unified direction emerging in the literature. Reviews suggest that the following problems persist in efforts to examine profession-specific quality of care:

- Lack of standardized performance measure definitions
- Lack of consensus on a core set of evidence-based measures
- Limited availability of data at the unit and/or shift level

As such, controversy regarding the appropriate definition, number, and approach to indicator identification was found to persist.[53]

Evidence-Based Practice 1-3

Improvement Science is an emerging scientific field focused on healthcare improvement. A critical goal of this field of research is to determine which improvement strategies work best to facilitate effective and safe patient care. The Improvement Science Research Network (ISRN) has been instrumental to this effort, including all aspects of research that investigates improvement strategies in healthcare, systems, safety and policy. Translational science and implementation science are related terms in this new field. The ISRN will contribute to the ongoing development of a working definition of improvement science.[54]

- Include 20 indicators for complications occurring in hospital that may represent patient safety events
- Include six indicators with area-level analogs designed to detect patient safety events on a regional level
- Are free and publicly available
- Can be downloaded

SUMMARY

We are in a new world of health care, and business as usual is the unusual order of the day. Understanding the organization through different lenses, such as CAS, may provide new tools for enhancing performance. Change, innovation, and infusion of evidence-based practice also contribute to greater efficacy and efficiency in leading. Being armed with an understanding of evidence-based practice and quality indicators improves one's success in creating a safe environment for patients, their families, and the workforce. Without the authentic leadership that is transparent in its serving, there is little hope for real change that is sustained over time. The health of the patients and families entrusted to our care depends on our courage to be great and to continually strive for excellence. It is the hope of these authors that increasing knowledge, skills, and abilities can serve this end.

APPLICATION EXERCISES

Exercise 1-1

Interview a nurse manager. Discuss nursing-sensitive indicators and how they are measured and evaluated. How are these data used to improve nursing care?

Exercise 1-2

Spend time on a nursing unit (department, service) that you have not been exposed to (work or field site). What do you observe in light of a complex adaptive system (CAS)? Write down what you are observing and compare and contrast to the principles of a CAS.

Exercise 1-3

Observe at least three (3) shifts of care delivery on a nursing unit (department) using the principles of Transforming Care at the Bedside (TCAB) Write down your observations and contrast these to TCAB principles.

NOTES

1. Institute of Medicine. (2011). *The future of nursing, Leading change, advancing health*. Committee on the Robert Wood Johnson Foundation Initiative on the Future of Nursing, Institute of Medicine. Washington, DC: National Academies Press, p. 4.
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SELECTED WEBSITES

Agency for Healthcare Research and Quality

www.ahrq.gov

AHRQ funds, conducts, and disseminates research to improve the quality, safety, efficiency, and effectiveness of health care. The information gathered from this work and made available on the website assists all key stakeholders—patients, families, clinicians, leaders, purchasers, and policymakers—to make informed decisions about health care.

American Association of Critical-Care Nurses

www.aacn.org

American Association of Critical-Care Nurses provides leadership and resources to their members to improve health care for critically ill patients and their families. Core concepts of patient- and family-centered health care are integrated throughout their practice guidelines.

American Hospital Association

www.aha.org

The AHA is the premier membership organization for U.S. hospitals and provides leadership and advocacy for member hospitals to improve care for patients and their families. IFCC collaborated with AHA to develop the toolkit, Strategies for Leadership: Patient- and Family-Centered Care, available for download at http://www.aha.org/aha/key_issues/patient_safety/resources/patientcenteredcare.html.

Center for Health Design

www.healthdesign.org

The Center for Health Design is a nonprofit research and advocacy organization of health care and design professionals who are leading the effort to improve health quality through architecture and design.

Center for Medical Home Improvement

www.medicalhomeimprovement.org

A medical home is defined as a community-based primary care setting that provides and coordinates high quality, planned, patient and family-centered health promotion, acute illness care, and chronic illness management throughout the continuum of care, across the lifespan.