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Toward a New Future for Healthcare and Nursing Practice

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The healthcare trends described in this article will eventually lead to transformation of healthcare delivery and nursing practice. The nursing profession needs to be proactive in creating new models of care delivery and in redefining the work of nursing. The authors describe 2 examples of emerging models and principles for the creation of future models, related leadership challenges for nurse executives, and strategies for leading change. Ensuring that changes in care delivery models lead toward a desired future that fulfills nursing's social contract is a mandate for nursing leaders.

> You can't depend on your judgment when your imagination is out of focus.
>
> Mark Twain

Forces for change are affecting how healthcare is delivered. These forces are categorized as shifting population demographics, finance reform, consumerism, and personalized medicine.

Forces for Change

Population

Two forces are very visible challenges to reshaping our healthcare future: aging of our population and workforce as well as financial realignment. An aging and increasingly diverse population is one major indicator with immediate consequences for healthcare. This force suggests that the increased demand for care, in turn, will tax our currently diminished workforce. Given the shortages of nurses, physicians, and other allied health professions, leaders must assume the task of both system and role redesign.[1]

Healthcare Finance

The need for finance reform is another factor impinging on the preferred future in healthcare. Healthcare costs continue to rise, and cost shifting is occurring among employers, healthcare providers, workers, and insurers. The number of uninsured in the United States is testing our capacity to care. Cost, access, and quality will continue to be the triumvirate guiding any healthcare system reconfiguration.

Technology

Technology has far-reaching implications for reform because it affects both processes of care and also the way organizations work. Technology also empowers consumers. Although some of the new technology may actually increase the cost of care up front, this same technology has the potential to improve health and eventually decrease care costs.

Among the broad-based effects of technology are the development of health information systems and the genomics that are contributing to biotechnical advances in care.[2] Health information systems are increasingly being used to decrease healthcare costs by standardization and improved data capture to support both billing practices and care decisions. Information systems have the potential to reduce the rate of increase in healthcare costs that are predicted to reach 19% of the gross national product by 2014.[1] Information systems

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enable leaders to more effectively capture cost and quality indicators that are used to improve practice and reward performance, thereby improving the efficiency and efficacy of healthcare.

Technology advances are also impacting care itself. Less invasive procedures and increased portability of equipment, supplies, and advances in diagnosis and treatment have made it possible to change the locus and type of healthcare procedures.

Technology also affects consumer expectations for healthcare. Unlike other industries, new technologies in healthcare are additive, often raising consumer and provider expectations.[1] Both consumer and provider expectations are shaped by experiences with other more technologically advanced enterprises, such as the travel and banking industries. Healthcare is just now beginning to develop the information systems that would improve transactions among providers, consumers, and financiers of healthcare.

Technology has the potential to change healthcare delivery. As healthcare technology advances, healthcare problems previously thought to be life threatening will begin to look more like chronic disease. Nanotechnology, genetics, and biomedical advances are emerging as reality in healthcare, with indications of how technology will affect a person's health. Robotics, gene therapies, and other advances technology are changing both consumer and provider expectations for health, care, and treatment. Envision a future healthcare delivery system with these technologic advances, with mature information systems and a focus on disease and illness prevention. We cannot yet imagine future possibilities.

Consumerism

Ellis,[3] a well-known health futurist, cites the acceleration of innovations as key to changing patient expectations for healthcare. He states, "It is no longer just the diseased dreaming of an esoteric cure for their particular condition; it's everybody, expecting cures for their particular ugliness, obesity, faltering libido, and aging. If health is being redefined by accelerating innovation, so too must the enterprise and professionals of healthcare."[3(p1)] Nursing prides itself on being at the patient's side in time of need. Nursing's social contract is based on a patient/family relationship for providing holistic care throughout the care continuum. At this point in history, technology, communication, and consumer knowledge will not only continue to raise consumer expectations but will also enhance nursing's capability to fulfill the social contract. Consumer expectations will serve as leverage for improving nursing's capacity.

Consistent data from multiple sources provide clear trends on consumer requirements. Consumers are giving healthcare providers clear messages.[4] In fact, Morrison[5] adds consumerism and the net culture to the core values Americans hold for healthcare. The study of Schoen et al[4] of more than 1,000 randomly selected US citizens offered clear direction on their preferred healthcare future based on evidence from their current healthcare system experience. Schoen et al found that customers want well-coordinated care with access to both their medical record and information regarding quality and cost. Customers want value. They want well-coordinated care provided through one source with access to their medical records. Yet, studies indicate that patients are more likely to have short-term relationships with physicians and minimal, if any, access to their medical record. The gaps in what customers want and reality are considerable. Forty-two percent of the participants in study of Schoen et al reported experiencing care inefficiency, poor coordination of care, or unsafe care in the previous 2 years.

In general, participants felt it was important to access quality and cost information about their care and that these factors should have bearing on reimbursement. Participants believe electronic health records, interprofessional teamwork in group practices, expanded roles for nurses, use of reminders for preventive care, and enhanced information exchange could improve healthcare quality.

Participants voiced negative experiences in receiving timely care, costs of the care, and paperwork related to care and billing practices. They related their problems and challenges in navigating the healthcare system. In fact, more than two-thirds of the participants stated that they had serious problems in one of these areas in the last 2 years.

Almost half of all participants expressed concerns about their ability to afford care in the future. More than half expressed concern about their ability to receive quality care in the future. Reported incomes of these participants ranged from less than $35,000 to as high as $74,000. Those with increasingly higher income levels were more likely to express concern about healthcare costs.

Personalized Medicine

Personalized medicine refers to the development and treatment of disease and disease propensity with interventions based specifically on a person's genetic profile. Advances in genomic, pharmacokinetics, and computer technology are quickly making personalized medicine a reality that will improve

patient outcomes and necessitate changes in healthcare delivery.[6] Personalized medicine reinforces a growing consumer expectation that healthcare in general should be custom fitted to the individual. The success of "boutique" practices speaks to the consumer's interest in individualized service.

According to Health and Human Services secretary, Michael Leavitt, Health and Human Services funding for personalized healthcare is projected to grow to $352 million with the President's budget, with $15 million allocated for startup funds in fiscal year 2008.[7] One of the major implications of personalized healthcare is that consumers will take a more active role in their care. Growth of home diagnostics and monitoring advances and easy access to health information via the Internet support the trend toward self-help.

Personalized medicine also implies that treatment will be made personal, a trend already under way. Patients are informed before office visits about their care and evaluate and compare information they have obtained with that provided by the physician or care givers. Customers expect to be a part of the planning process for their health, discussing a plan of action for their own healthcare. This trend is not stratified by income level. A recent study of 12,878 participants found that uninsured individuals with chronic disease were more likely than those who were privately insured to use the Internet for information.[8]

As patients become more knowledgeable about their healthcare, the time pressure on providers can be expected to increase. In 2004, the reported median time physicians spent with patients on an office visit was 14.7 minutes.[9] The challenge for providers lies in applying their expertise to collaborations with consumers to evaluate Internet information and available up-to-date scientific evidence.

Just as technology is increasingly an enabler to assist care givers in diagnosis and treatment, it is also an enabler for patients who assume more ownership for their own health. Personalized medicine, which will become personalized healthcare over time, is one of the most exciting aspects of future healthcare. Continued development of personalized medicine will not only require a time commitment from nurse executives and their colleagues, but also require a paradigm shift from consumer as patient to consumer as partner.[6]

In summary, escalating costs, provider shortages, advances in technology, personalized medicine, and consumer expectations are driving the call for a fundamentally transformed heath care system. Emerging models are developing which are informed by these forces for change.

Innovative Care Delivery Models

To date, most innovations in healthcare involve only specific aspects of care or system processes and are not based on our current model of aligning financial incentives. An example is that implementation of the electronic health record does not bear the benefit of transformation if the electronic health record simply mirrors current state. These types of changes, alone, do not respond to the consumer mantra that "the US healthcare system needs either fundamental change or complete rebuilding."[4(p1)]

New models and principles for care delivery are emerging, repositioning the main point of care in the primary care environment, and redefining the timing of interventions based on genetic makeup. The hospital is no longer the crown jewel of the healthcare system.

There is "public support for more integrated approaches for delivering patient care."[4(p13)] Healthcare professionals and experts agree that care coordination must be featured in a transformed healthcare system. Developing models that address care coordination are described in the following section. These models are the medical home and the ambulatory intensive care unit.

Medical Home

The patient-centered medical home model of healthcare is gaining national interest. The idea of the medical home, sometimes referred to as "advanced medical home concept," was developed by the American Academy of Pediatrics as a model for the care of children with chronic illnesses. The American Academy of Family Physicians, the American Academy of Pediatrics, the American College of Physicians, and the American Osteopathic Association recently published a joint article agreeing to the definition of a medical home.[10]

The medical home is defined as "patient-centered care focused on prevention, health promotion, and coordinated care across the lifespan…This health model integrates all aspects of the care continuum. It focuses care on care coordination and active disease management."[1(p31)] Essential components of the medical home incorporate expectations from both consumers and healthcare professionals. Although variations can be found in the literature, Figure 1 illustrates model principles that mirror the reported evidence on consumer's wants and requirements for future healthcare.[1,10,11]

Models incorporating these principles are being proposed as models for transformation of primary care.[12] To make such models feasible, healthcare

- Comprehensive healthcare services including activities from prevention through tertiary care accessed and coordinated via a plan of care developed by the medical home team and the patient
- The interdisciplinary team oversees continuity of care from community, ambulatory, and inpatient services and across all specialities
- The consumer is the key decision maker
- Open, ongoing, consistent access to the same provider group through face-to-face, e-mail, telephone contact, and other modes of communication
- Electronic health records and advanced information systems for evidence-based decision support at the point of care and quality monitoring initiatives
- Open access systems for direct scheduling
- Access to medical records for patients and providers to support information exchange and continuity
- Measurement of key indicators for monitoring of health status at the individual and population level
- Redesigned reimbursement models that provide for health promotion/prevention activities; e-mail and telephone consultation with some aspect of payment based on performance

Figure 1. Consumer-preferred principles for healthcare models.

financing must be redesigned to align financing with care delivery. Efforts are under way to obtain funding to test the models and to evaluate resources that would be required to ensure that the models work as designed. In addition, the models are being tested for efficiency and efficacy. For example, the Louisiana Healthcare Redesign Collaborative has adopted the medical home as the cornerstone for post–Katrina New Orleans and has submitted a proposal to the Center for Medicare and Medicaid Services for financing.[10] Although based on primary care, these models have profound implications for restructuring healthcare services and the roles of providers. They provide a template for care coordinated through a primary care delivery system that links tertiary care services into a unified healthcare model. Healthcare providers in this new model will provide integrated services, necessitating new broader roles and functions.

Ambulatory Intensive Care Units

A project currently funded by a grant from California Health Care Foundation is testing the ambulatory intensive caring unit (A-ICU).[13] This model is built to demonstrate significant cost savings in the care of high-risk, chronically ill individuals who incur the highest costs in the current system. The A-ICU is built on the premise that individuals can be seen at the appropriate level of care and that decisions to change the level of care can be made in the patients' best interest rather than on financing incentives. A medical home provider links and coordinates appropriate care resources to the patient to achieve efficiencies. The medical home provider has a continual relationship with the patient and oversees care across the continuum.

The A-ICU builds efficiency by changing the processes of care and organizational management to the primary care level. High-risk patients benefit from innovative, intensive primary care interventions to improve health status and care management in a long-term relationship. Providers function not as "gatekeepers" but as partners with the patients, engaging them to take responsibility for their own health in a system grounded in quality. The primary care team contracts with inpatient and specialty services based on demonstrated quality/efficiency indicators. Other providers must show worth/value to become ancillary to this process. Moving the locus of control from insurer to the patient-provider relationship supports building a more appropriate competitive process based on quality/efficiency rather then reimbursement regulations and rates.

Principles to Create Future Care Models

Value-Based Competition

To craft future healthcare models, value-based competition is one of the first principles that needs to be addressed. The notion of value-based competition was introduced by Porter and Teisberg[14] as an antidote to what they describe as failed incremental changes in both the healthcare system and financing structure. They argued that competition has promoted progress in other industries but not in healthcare. Healthcare has fallen victim to zero-based competition, which they define as winning at the expense of another, operating on a system where cost shifting has benefited neither providers nor the patients.[15] They set forth 3 interrelated principles to drive healthcare transformation:

1. positive sum competition,
2. system restructuring, and
3. rewards management.

Transition to positive sum competition in healthcare would be based on value or "health outcomes per dollar spent."[15(p2)] Positive sum competition incentivizes improved results based on clinical outcomes as opposed to volume or length of stay. To restructure the healthcare system, Porter and Teisberg[14,15] proposed a system organized around medical conditions and care cycles rather than provider specialties such as cardiology or endocrinology.[15] Medical conditions reflect the set of sequelae commonly seen with a particular diagnosis that is addressed in an integrated

way. An "integrated care unit"[15] is then equipped to deliver care along the continuum based on the patient's experience of the disease.

Results measurement emphasizes measuring results to evaluate value of care. In this model, competition is value based and therefore focused on outcomes. In this regard, process measures and evaluation of specific procedures and episodes of care are not useful unless they provide knowledge to improve outcomes. Value can only be determined if outcomes are measured across the care cycle based on medical conditions.[14,15] The principles of value, results measurement, system restructuring, and value-based competition, provide a promising framework for transforming healthcare. Value, rather then procedures, becomes the basis for reimbursement which eliminates unhealthy competition and cost shifting. Effective outcomes are determined based on the care cycle rather then the episode of care.[14]

Nursing Leadership

Morrison wrote that in healthcare today, "organ and body functions are restored while the whole patient is ignored. The system is failing to serve."[5(p203)] Nursing must become the guardian of the values that bring dignity and respect to the patient and to humanize care as we go through the transformation and build beyond it. To sustain its status in healthcare, nursing must develop the organization and role design to deliver care across the life cycle. Nurse leaders are challenged to design the framework and methodology for determining care outcomes over the course of the care cycle. Furthermore, nurse executives are challenged to manage ambiguity, uncertainty, and conflicts during the transitions while sustaining a focus on transformation and innovation.

Excellence in change management must be fostered by the nurse executive's office. Leaders who have the ability to recognize the impact of change and create models for intervening should be rewarded. New leadership roles should provide oversight for both inpatient and ambulatory services. Furthermore, nursing's professional organizations must continue to place us at the table as part of design teams and innovators.

Challenges related to technology are fundamental. To reach and maintain excellence, nurses must pursue and require advanced technologies to deliver care. The nurse executive must lead a workforce that both understands and effectively uses these technologies and ensures that patients understand the capability of the current technology. The broader and more long-term challenge for healthcare leaders is to create new models of care using technology to drive down the cost of care and to create healthy communities that need to use less rather than more healthcare.

Strategies for Leading Change

Key strategies for effective leadership in this transition involve the adoption of technology and change management. The Technology Informatics Guiding Education Reform Initiative (TIGER) summary report notes that we must be about the work of "integrating informatics seamlessly into nursing, making it the stethoscope of the 21st century."[16(p3)] Our ability to connect with patients is highly dependent on our adoption of technology. Cell phones, Webinars for working with groups, online synchronous forms of communication, and decision support applications are the tools which we must incorporate into practice.

Echoing the TIGER report, we must become active players on all fronts related to the development and implementation of health information technology, enforcing the standard for evidence-based tools at the point of care for both nurses and consumer use. The TIGER report identified management and leadership as one of the key pillars for practice transformation in informatics and recommends the creation of "shared vision, courageous leadership and direction and support."[16] These same principles serve us well in advocating for system redesign.

We are inundated today with the number of changes we are confronting. Ellis[3] speaks to the acceleration of change. We are charged with managing these changes and their implications for stakeholders. Therefore, we must become students of change. In contrast to notions of rapid diffusion of innovation, Morrison describes the healthcare environment as one where the "…rhetoric of the field is one of rapid structural change, but to observers outside the industry, change is taking place at a pace akin to glacial erosion."[5(p204)] While we are confronted with possibilities, we are also caught in this dilemma. We are charged with keeping the need for change and reevaluation at the forefront and invited to create rather then react.

Traditional strategies for change management are based on the assumptions of planned change.[17] These approaches to planned change apply to modifications in an existing structure that are reversible and do not require new learning. This type of change merely skims the surface compared with what is occurring and what needs to occur in healthcare. The consumer is calling for fundamental change in the healthcare system, and new models such as the A-ICU call nursing's attention to

"reconceptualizing and reconfiguring the workforce around an entirely different types of work."[17]

To do this, we must also reconceptualize the tools and strategies we use to create change. This type of change, referred to as second-order change, occurs when there is a fundamental shift in the organization's basic framework itself.[18(p356)] Frameworks for second-order change, although in need of further testing and research, may be more informative in guiding healthcare transformation. They call for new infrastructure requiring new learning. A new story is being told.

Changing Time, Location, and Relationship

The forces for change in healthcare are impacting the critical connection between the nurse and the patient. Patients no longer come to us as a captive audience. Historically, we have enjoyed a relationship with our patients based on the fact that they depend on us at a time of acute vulnerability. We met them in the hospital. Today, 56% of patients in hospitals stay for 4.5 hours or less.[19] This has economic implications as well as implications for our survival.

If we want to maintain our signature relationship with patients, we must find ways to stay connected to them personally but not necessarily to the place where we treat them. We must re-imagine our definitions of how we serve patients and believe in them. The need to create work structures, employee work arrangements, and organizations that allow nurses to span episodes of care is critical.

New models such as the advanced medical home and value-based competition are built on concepts that have traditionally been the nursing purview such as compassionate, culturally sensitive, and coordinated care. These models may provide a venue to support our social contract with patients, but we must be involved in their evolution and testing. Research is needed to demonstrate value, qualitatively and economically, and evaluate designs that reinvent the role of the nurse.

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