

Interprofessional Education in the Age of Risk and Innovation

In July 2018, over 400 health professionals gathered in Minneapolis, Minnesota, to attend the Nexus Summit, “Creating Results: Interprofessional Vision to Action.” In her plenary address, Barbara Brandt, Director of the National Center for Interprofessional Practice and Education, spoke about the seismic shifts occurring in health care and health professions education and the importance of asking the right questions. This editorial provides a synopsis of Brandt’s address and raises questions for nurse educators.

The shift occurring in health care today has similar magnitude to the Copernican revolution, according to Julie Murchinson in a podcast for Oliver Wyman Health (2018). In the first century A.D., Ptolemy had crafted the prevailing theory of the universe, one in which the planets rotated around the Earth. In the 16th century, Copernicus challenged the status quo and provided data to suggest a new theory, one in which the sun is the center of the universe. Consider this analogy within health care. The prevailing model is a provider-centric system in which patients traditionally travel to a location to receive health care. Market forces (such as the broad availability of telehealth technology) and consumer demand for a more personal approach to care are shifting to create a more patient–consumer centric health care system.

The velocity of change in health care and health professions education is multisector and unprecedented. Each sector affects the other; however, sectors only follow one or two others at the most based upon our own expertise. To fully appreciate the magnitude of change, in

addition to new payment and financing models focused on value instead of volume, Brandt presented six Ds that are driving the seismic shift:

- Disruptions.
- Deployment of professionals and workers for new models of care.
- Deregulation and scope of practice.
- Distribution.
- Demographics and diversity.
- Digital health and learning.

Disruption

A disruptive innovation is a process in which a new business model is created that is different from the prevailing approach (Christensen, Raynor, & McDonald, 2015). As an example, the introduction of retail or convenient care clinics created a disruptive innovation in primary care that changed the business model from one of a solution shop that considers a variety of diagnoses to a process model in which a limited number of diagnoses are treated with standardized protocols. Additional disruption is expected within the retail health industry given the joint venture of Amazon™, Berkshire Hathaway®, and JP Morgan™ into health care. The recent purchase of PillPack by Amazon is another example of bringing health care directly to the consumer (Ballentine & Thomas, 2018). Patients receive their medications at home in easy-to-read packets that are presorted by time of day. There is no longer a need for patients to separate their medications into their daily doses themselves or to depend on a family member or local health worker. Furthermore, other nonhealth-care corporations such as Salesforce™,

Best Buy™, and Walmart™ are entering health care because they believe they can meet consumer demand for personalized services by significantly lowering costs (MediMedia®, 2018).

Deployment

The methodology for health workforce planning has traditionally focused on supply of specific professions within current models of care delivery (Brandt & Fraher, in press). New health care roles and emerging technologies are rarely considered. Bodenheimer and Smith (2013) recommended reframing how we think about workforce planning to address the mismatch between patient demand and provider capacity. They suggested that we consider the effective and efficient deployment of the current workforce within interprofessional teams. In addition, they suggested considering overlapping and dynamic scopes of practice, as well as planning linked to the needs of patients, families, and communities.

Deregulation and Scope of Practice

For several years, many questioned the value of regulation in many fields and professions. In addition, scope of practice challenges are becoming increasingly common due to cost containment pressures, access issues created by perceived workforce shortages, and new payment models (Fraher, Spero, Kandrack, & Gaul, 2018). Further, new team-based models of care are creating “plasticity” in the roles of health care professionals with overlapping functions (Holmes, Morri-

son, Pathman, & Fraher, 2013). In the United States, there are national standards for licensure and certification of health professionals, but defining scope of practice and licensure are functions of the states. Unfortunately, states are not consistent in which professions are licensed. A recent systematic review (Xue, Ye, Brewer, & Spetz, 2016) suggested states in which more independent practice of nurse practitioners occurs allows for increase in numbers of nurse practitioners and greater provision of primary care. As new roles such as patient navigators or community health workers are created and implemented, what licensure or certification requirements are necessary, if any? How do we consider new roles with regard to the whole team?

Distribution

A common question in workforce planning is whether a true shortage exists or if there is more of a maldistribution of providers, by specialty and location? The answer is both. In a recent study of the geographic variation in the supply of psychiatrists, psychologists, and psychiatrists, researchers found that all three provider types are unequally distributed across the United States (Andrilla, Patterson, Garberson, Coulthard, & Larson, 2018). There are similar patterns with obstetric and midwifery providers in rural areas, affecting maternal morbidity and mortality (Healy, 2018). Are we teaching students using traditional models of care when those models may be limited in meeting the needs of rural and underserved patients? What proportion of students are receiving primary care experience using a team-based approach in these areas? Are we using innovative strategies to ensure a health workforce in these areas?

Demographics and Diversity

Demographic shifts in the United States favor an older and more racially and ethnically diverse population. There is a decline in high school graduates, coupled with falling admissions rates in higher education, providing concerns about the future pipeline. Regional workforce shortages in a variety of sectors have created a dependence on immigration to fill some job roles (Span, 2018).

In nursing education, we have struggled to recruit student cohorts that align with the demographics of communities. Progress is occurring in the proportion of male nurses, as well as Hispanic nurses, entering the workforce (Kovner et al., 2018), yet room for improvement remains. Moving the needle on increasing diversity among students and faculty requires not only institutional commitment and infrastructure, but also community involvement (Glazer, Tobias, & Mentzel, 2018). We must extend partnerships to generate a relevant workforce reflecting the population demographic.

Digital Health and Learning

Finally, advances in technology are providing opportunities to care for patients over a distance. Telehealth technologies facilitate remote home monitoring, remote intensive care unit monitoring, and clinic visits using video technology and digital otoscopes. Although nursing students increasingly interact with high-fidelity simulation manikins and online course materials, are they learning to apply technological advances in patient care? How is the use of distributed technologies in patient care affecting connection with the interprofessional team?

The Medical Futurist (2018) identified 10 promising technologies that many faculty likely have not considered. Although simulation is becoming ubiquitous, how are we exposing students to augmented reality (that might permit easier visualization for venipuncture), virtual reality (being used in behavioral health treatment), or robotics? The use of artificial intelligence to assimilate data and create a treatment pathway for evidence-based care is becoming increasingly available. Physical technologies, such as three-dimensional printing and tissue engineering, are creating advances in patient care. Further, to facilitate remote patient-centered monitoring, portable diagnostics through mobile technologies or digital tattoo microchips will allow for greater patient engagement and activation in their care. Finally, software-enabled technologies such as nutrigenomics, which will allow for personalized nutrition recommendations or chatbots that serve as the first line of primary care may require a different

skill set for health professionals. Are we preparing the workforce to be adaptable to these technological advances?

The seismic shifts in health care will likely generate a need to better align students with the care delivery system of the future. It is time we have different conversations to ask different questions to find better solutions. What can you do to prepare yourselves and your students for this evolving dynamic?

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