Chapter 7
Equipping Advanced Practice Nurses with Real-World Skills

Patricia Eckardt
Stony Brook University, USA

Brenda Janotha
Stony Brook University, USA

Marie Ann Marino
Stony Brook University, USA

David P. Erlanger
Stony Brook University, USA

Dolores Cannella
Stony Brook University, USA

ABSTRACT

Nursing professionals need to assume responsibility and take initiative in ongoing personal and professional development. Qualities required of nursing graduates must include the ability to, “translate, integrate, and apply knowledge that leads to improvements in patient outcomes,” in an environment in which “[k]nowledge is increasingly complex and evolving rapidly” (American Association of Colleges of Nursing, 2008, p. 33). The ability to identify personal learning needs, set goals, apply learning strategies, pursue resources, and evaluate outcomes are essential. Nursing professionals must be self-directed learners to meet these expectations. Team-based learning (TBL) is a multiphase pedagogical approach requiring active student participation and collaboration. Team-based learning entails three stages: (1) individual preparation, (2) learning assurance assessment, and (3) team application activity.

National health care has undergone a dramatic restructuring where inter-professional teams comprised of nurses, physicians, dentists, social workers, dieticians, pharmacists, and ancillary paraprofessionals deliver healthcare to the US population. This transformation in the health care delivery system has included a call to educate thousands of nurses as advanced care (graduate education completed) providers, and hundreds of thousands as entry-level (undergraduate education completed) providers, to organize and lead these healthcare teams, while delivering direct patient care and conducting outcomes effectiveness research. This is a daunting task, as nurses enter the practice of professional registered nursing from diverse trajectories. As the entry into practice differs, so does the educational pathways through nursing undergraduate and graduate studies differ, with many traditional professional nursing educational programs lacking the resources to

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provide students with the skills required for interprofessional success. Nursing programs also need to meet the challenges of educating nurses who live and practice in communities that historically do not have access to academic medical center care and education. In this chapter, we outline how programs of nursing studies within universities and colleges can meet these challenges, by incorporating innovative methods for curricula delivery and learning evaluation. Computer-based education is a critical component for successfully educating nurses—particularly when these nurses are located throughout the world serving in the armed forces or with a humanitarian mission. This chapter provides exemplars of how to prepare nurses with the real-life skills needed to practice in and lead inter-professional care delivery and research teams across their communities. These three case studies illustrate the effectiveness of three distinct computer-based innovative approaches to curricula and evaluation: a social cognitive constructivist approach to graduate nursing computer-based statistics education, a team-based learning approach to undergraduate nursing computer-based statistics education, and a hybrid (face to face and computer-based sessions) team science approach to advanced practice nursing education. The incorporation of these approaches within advanced and entry level practice nursing programs can provide the essentials for the clinical real world—patient practice skills needed to deliver quality patient care to complex patient populations.

**BACKGROUND**

**Current State of Health Care Delivery System and Nursing Curriculum Response**

The national healthcare delivery model has changed drastically over the past few years and further changes are underway. These changes include who provides primary healthcare, where the healthcare is delivered, guidelines for health management of populations, and reimbursement and accountability for healthcare services payment (Dykema Sprayberry, 2014; Forbes, 2014; Scott, Matthews, & Kirwan, 2014; Spetz, 2014). The nursing workforce in the United States is approximately 3.5 million and is expected to increase over the next ten years (U.S. Department of Health and Human Services HRSA, 2014). Nurses are being called to increase their leadership skills, scientific knowledge and practice competencies, educational preparation and to practice to the fullest extent of their education (IOM, 2011).

As the educational and competency requirements increase and role definitions for practice models expand, nursing curriculum content and delivery methods have changed in response (AACN Essentials for Education, 2010, 2011, 2012). However, faculty is insufficient to provide the expertise required to deliver the curriculum and evaluate student learning. Faculty are insufficient in number and often in training to meet the suggested curriculum essentials (IOM, 2011). Faculty lack of preparation in research and statistical knowledge are cited across programs as a roadblock to preparing our students to meet the new educational and practice environment demands (Hyat, Eckardt, Higgins, Kim, & Schmeige, 2013).

Nursing student populations are more diverse than ever. Many students are now entering nursing programs after attaining undergraduate and graduate degrees in other disciplines, and some specific student populations, such as males and minorities, are increasing as compared to the trajectories of the past twenty years (Banister, Bowen-Brady, & Winfrey, 2014). To increase the number of nurses educated to practice, and meet the new guidelines, nursing programs now offer many different pathways to the entry and advanced levels of practice (AACN, 2012). For example, some schools admit students from high school