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Educating Nursing Students for Practice in the 21st Century

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Abstract

Nurses face a number of challenges in the 21st century. One major challenge pertains to nursing education, specifically to the entry into practice preparation of undergraduate nursing students. Not only do nurses need to be adequately prepared to care for an ever increasing complex patient population, but they are called upon to be leaders in healthcare. The ways in which nurses were educated during the 20th century are no longer adequate for dealing with the realities of health care today; and having a baccalaureate degree alone does not always prepare new graduate nurses for the complexities of today's health care environment and regulatory oversight. Academia and service alike, play a vital role in the future of nursing in the U.S. and globally. Together they are responsible to provide aspiring nurses with the tools necessary to not only meet today's, but tomorrow's complexities of health care and to demand the knowledge, skills and attitudes that are consistent with professional practice. Academia and service areas must work together to improve the educational preparation of nursing students today.

Introduction

Nurses face a number of challenges in the 21st century. One major challenge pertains to nursing education, specifically to the entry into practice preparation of undergraduate nursing students. Nursing educational programs in the past prepared nurses to practice for the day, but did not plan for their practice in the future [1]. Nurses today still need to provide safe, competent and effective patient care; however, the care of yesterday does not meet the needs of today's patient population. The patient population is aging and becoming increasingly complex, as a result, competencies necessary for today's health care environment go beyond hands-on practical skill [2]. The ways in which nurses were educated during the 20th century are no longer adequate for dealing with the realities of health care today. Nursing students may benefit from an academic curriculum with a greater emphasis on the development both critical and clinical thinking.

Background

Challenges for nurses are no longer bound by hospital walls. The Institute of Medicine, 2011 Future of Nursing document calls upon nurses to be leaders in health care. As leaders, nurses are urged to incorporate teamwork and collaboration into everyday practice and to be involved in research and integrate evidence-based

practice. Nurses also need to consider the big picture, such that they look towards system improvement and influencing health policy specifically on issues of cost of care, quality of care, and access to care [3]. To respond to these increasing demands, the IOM suggests future nurses be educated in ways that better prepare them to meet the complex needs of the population. The committee calls for existing nurses to achieve higher levels of education and that entry into practice be at least at the baccalaureate level [3].

Entry into practice requirements for nurses varies from state to state. Specific criteria are determined by each state's State Board of Nursing. However, all U.S. states and the District of Columbia agree that licensure is granted upon the successful completion of an approved nursing program and achieving a passing score on the National Council Licensure Examination for Registered Nurse (NCLEX-RN) [4]. Currently there are four different educational paths that prepare nursing students for licensure: diploma, associate degree, baccalaureate degree and master's degree programs [1]. According to the 2008 National Sample Survey of Registered Nurses, 34.2% of the 3.1 million nurses were initially educated at the bachelor's level or higher, 45.5% at the associate level, and the remaining 20.4% at the diploma level [5].

Because diploma programs make up less than 10% of all basic nursing education programs today [6] and the entry to practice at the master level is intended for persons who already hold a bachelor's degree [7] the focus here is on the two most popular entry level paths to becoming a registered nurse today, the associate and baccalaureate programs. Both the Associate Degree in Nursing (ADN) and the Bachelor's Degree in Nursing (BSN) are awarded through institutions of higher education. ADN programs typically require 72 credits and are often based in community and/or vocational colleges. BSN programs typically require 125 credits and are exclusive to college and/or university settings. If attending full-time, associate programs usually take an average of three years to complete, while the baccalaureate program typically takes four years to complete. In addition to nursing requirements, both programs require core requirements in the natural sciences (i.e. anatomy and physiology, microbiology, chemistry), social sciences (i.e. psychology, sociology), liberal arts (i.e. english, philosophy, music) [4]. Nursing courses in both programs are offered through a combination of faculty led lectures, laboratory practice, and clinical training in a variety of clinical settings. Unlike the ADN, the BSN program requires courses in research and statistics, additional courses in liberal arts and the sciences, as well as population-specific nursing courses

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and leadership. The addition of these courses is essential in the development of that nurse to provide quality care to an increasingly complex patient population and to be a future nursing leader.

Call to Action

The literature presented here compels patient care centers in the U.S. and globally to look not only at the number of nurses they have caring for patients, but also at the educational preparation of those nurses. Initially, within the first 6 months to one year, new graduate nurses of ADN and BSN programs tend to share the same hands-on practical skill in acute care settings [8,9] however; BSN student's, especially after the first year, demonstrated superior capabilities in critical thinking, clinical judgment and leadership [10-12]. Giger and Davidhizar (1990) revealed that the ADN students had lower levels of conceptual and theoretical thinking, leadership ability and proficiency in the use of the nursing process i.e. making nursing diagnoses, implementing nursing interventions and evaluating the effects of those nursing interventions as compared to the BSN students [10]. A population-specific study by Rosen (2000) revealed that ADN students had lower perceptions of self-efficacy when surveyed about working with communities as compared to their perceptions of self-efficacy when surveyed about working with individuals and families; the BSN students' perceptions of self-efficacy were consistently high among all three groups [13]. These findings are expected given that ADN prepared nurses do not receive the same population-specific content as does the BSN prepared nurse.

Linda Aiken PhD, RN, pioneer, and leading advocate for quality patient care, has authored more than three-hundred research studies over the last decade. Aiken identifies and recommends solutions to the gaps in the quality of patient care we see today. Nurse staffing and the educational preparation of nurses were two predominant concerns related to the quality of patient care received in acute care settings. Aiken's work was replicated abroad and revealed consistent results as those found in the US [14-26]. Those studies related to educational preparation of nurses disclose a disparity in outcomes among patients cared for by baccalaureate prepared registered nurses and those who were not [27-30]. These studies postulate that education plays a superior role to experience in patient care. Evidence revealed that hospitals with fewer baccalaureate prepared registered nurses had an increase in post-operative complications among their patients [28]. The work of Aiken and others is pivotal in the push for baccalaureate nursing education and has led to major discussions concerning each state's entry into practice for the registered nurse.

In order to meet the changing demands of U.S. health care, the National Advisory Council on Nurse Education and Practice (NACNEP) advised that at least 66% of the nursing workforce hold at least a baccalaureate degree in nursing by 2010; to date, only about 50% of U.S. nurses meet that request [31]. Although we have seen a significant drop in the number of diploma prepared nurses, 55% in 1980 down to 13.9% in 2008, the ADN still remains a popular and affordable way to enter into nursing practice today. Data shows a steady increase in nurses initially prepared with an ADN, 18% in 1980 up to 36.1% in 2008 [5]. Baccalaureate degree schools of nursing are making the process of obtaining a BSN more desirable for the ADN by providing affordable and flexible RN-BSN programs. As a result, there is a growing preference for the BSN among existing registered nurses. The AACN reports a 288% increase in enrollment of RN-BSN completion programs from 2003 to 2011 [7].

Although there is a movement towards obtaining the BSN in many parts of the U.S., the entry into practice issues are not only in the hands of academia. Employers who have a desire to attain Magnet Recognition are showing a preference for the BSN. Many offer tuition reimbursement options for existing registered nurses and prefer to hire only BSN prepared nurses. According to an AACN (2012) study, 501 schools of nursing reported that "39.1% of hospitals and other health care settings are requiring new hires to have a bachelor's degree in nursing [9% increase from 2011], while 77.4% of employers are expressing a strong preference for BSN program graduates" [31].

Although some hospitals support the notion that a baccalaureate degree be entry into practice, having a baccalaureate degree alone does not always prepare new graduate nurses for the complexities of today's health care environment and regulatory oversight. Academia produces knowledgeable and skilled individuals; however, some have difficulty transitioning into the multifaceted role of the nurse. New graduates have the knowledge and skills to deliver safe effective care, but in general, struggle when attempting to connect theory to practice [32] particularly in situations where they are required to think on their feet [33]. Academia must get creative in teaching undergraduate nursing students to think critically and clinically.

Preparation of Undergraduate Nursing Students

Academia may consider a blended approach to educating undergraduate nursing students. While humanities and sciences serve in the development of the student's ability to think critically, nursing courses serve in developing the student's ability to think clinically. As explained by Tanner (2005), critical thinking, is demonstrated by "the capability to analyze assumptions, challenge the status quo, recognize limitations ...and take action to improve it" (p.48); clinical thinking, on the other hand, involves "skills of clinical judgment and decision making, [clinical thinking] require[s] solid theoretical knowledge and the ability to notice clinical signs, interpret observations, respond appropriately, and reflect on actions taken" (p. 48) [34]. Tanner (2005) suggests critical thinking be part of the liberal arts curricula while nursing education should focus on clinical thinking [34].

Promoting Critical Thinking

Peirce (2010) offers courses in the humanities as a foundation for gaining knowledge. "The broader base of knowledge, the better the ability to problem solve and further construct new knowledge from seemingly unrelated information" [35]. Much is to be gained through courses in the humanities. The educational benefit gained from history includes an understanding of our past socially, politically and culturally [35]; Philosopher George Santayana, known for his pragmatism and the famous quote, "those who cannot remember the past are condemned to repeat it", simply teaches us as individuals, families, communities, and nations to learn from our past. The educational benefit gained from literature includes an appreciation of the human condition thorough communication and expression of experience [35]. Thomas Mann's, *The Magic Mountain* (1927) uses experiences with tuberculosis to teach about life, death, and spirituality [36]. The educational benefit of philosophy, ethics and religion affords the student an understanding of essential human dignity, respect, worth and value [35]. While the foundational ethical principles of beneficence and non-maleficence should be incorporated into every decision we make as humans, studies show that student nurses lack the confidence in their own ability to handle ethical dilemmas [37].

Promoting Clinical Thinking

Burns and Poster (2008) further define clinical thinking as the "nurse's skills and performance in differentiating and identifying patient problems, intervening appropriately and in a timely manner, and communicating needed information to the physician and other providers in a timely, accurate, and appropriate manner" [33]. They suggest a collaborative learning between academia and hospitals to better prepare new graduate nurses in the practice of clinical thinking skills. The complexity of today's health care environment adds more challenges to academia to assure their graduates are able to meet the demands within the nursing profession. The Quality and Safety Education for Nurses Initiative (QSEN), funded by the Robert Wood Johnson Foundation, identified six competencies for graduates of all levels of nursing programs to meet: Patient-Centered Care, Teamwork, Collaboration, Evidence-Based Practice, Quality Improvement, Safety and Informatics [38]. These competencies are part of the health care environment and must be incorporated into the new graduates' practice. The patient-centered care competency focuses on providing compassionate and coordinated care that

encompasses respect for patient's preferences, values and needs. Team work and collaboration is based on promoting an environment that fosters open communication, mutual respect, and shared decision making between the health care team to achieve quality patient care. The competency of evidence-based practice integrates best current evidence with clinical expertise for delivering of optimal care. Quality improvement is a process that uses data to measure outcomes and based on the results improvement methods are implemented to improve safety and quality outcomes. The Safety competency focuses on minimizing risk of harm to patients through system processes and individual performances. Lastly the use of informatics demonstrates how the health care team communicates, manages knowledge and supports decision making. Nursing faculty need to impress upon the nursing students of today the nurse's role in maintaining safety and quality as a standard of practice. Innovative models of nursing education must emerge so that new graduates are equipped with the knowledge, the skill, and the attitude related to deliver safe patient care and assure positive patient outcomes.

Nursing students need to understand the safety initiatives and practices that exist within the health care organization. Awareness of the organization's mission and the challenges that exist in providing quality care and positive patient outcomes is a start. Also, by providing the student with a more engaging clinical learning experience allows the students to see firsthand these practice initiatives that promote and environment of safety and quality care to the patient. Allowing the students to be part of the unit's daily routines may help instill the value of the QSEN competencies. Faculty need to continue to integrate QSEN competencies both in the classroom and clinical setting. Encouraging collaboration between the students and the health care team can show students firsthand how effective communication can lead to better patient outcomes. Activities on the unit that demonstrate this team approach may include, the a.m. huddle, interdisciplinary rounds, shift to shift report, skincare rounds and process improvement activities. Involving students in activities on the unit promotes active learning and student engagement. Promotion of meaningful student involvement in clinical experiences facilitates the connection between theory and practice for students [39]. Engagement in the clinical setting creates confidence; students often felt more engaged when the nurses in the clinical setting offered support and encouragement [39-42]. Having students participate in unit activities is not only beneficial to student learning, but it is beneficial in promoting collaboration among the faculty and clinical nurse. Academia and service areas must use innovative practices such as these to work together in providing placement and preparing students for the transition into professional nursing practice.

Conclusion

Nurses not only need to have practical skill, but they need to possess the appropriate knowledge, skills, and attitude to move the profession into the 21st century. Nursing practice is a shared responsibility. Academia and service alike, play a vital role in the future of nursing in the U.S. and globally. Together they are responsible to provide aspiring nurses with the tools necessary to not only meet today's, but tomorrow's complexities of health care and to demand the knowledge, skills and attitudes that are consistent with professional practice. It is hopeful that academia and service will work together to collectively move the profession of nursing forward.

References

- American Nurses Association (ANA) (2013). Nursing education.
- National Advisory Council on Nurse Education and Practice (NACNEP) (2010) Eighth annual report to the secretary of the U.S department of health and human services and the U.S congress addressing new challenges facing nursing education: solutions for a transforming healthcare environment. Washington, DC: U.S. Department of Health and Human Services, Division of Nursing.
- Institute of Medicine (IOM) (2011) Future of Nursing: Leading Change, Advancing Health. Washington DC: The National Academies Press.
- Bureau of Labor Statistics (2013) U.S. Department of Labor, Occupational Outlook Handbook, 2012-13 Edition, Registered Nurses.
- Health Resources and Services Administration (2010) The registered nurse population: Findings from the 2008 National Sample Survey of Registered Nurses. Washington, DC: U.S. Department of Health and Human Services.
- American Association Colleges of Nursing (AANC) (2011). Nursing Fact Sheet.
- American Association of Colleges of Nursing (AANC) (2012). Research and Data Center.
- Davis-Martin S, Skalak C (1992) Differences in patient rating of care provided by BSN and ADN students. *Nurs Forum* 27: 23-28.
- Smith JE (2002) Analysis of differences in entry-level RN practice by educational preparation. *J Nurs Educ* 41: 491-494.
- Giger JN, Davidhizar RE (1990) Conceptual and theoretical approaches to patient care: associate versus baccalaureate degree prepared nurses. *J Adv Nurs* 15: 1009-1015.
- Pardue SF (1987) Decision-making skills and critical thinking ability among associate degree, diploma, baccalaureate, and master's-prepared nurses. *Journal of Nursing Education* 26: 354-361.
- Shin K, Jung DY, Shin S, Kim MS (2006) Critical thinking dispositions and skills of senior nursing students in associate, baccalaureate, and RN-to-BSN programs. *J Nurs Educ* 45: 233-237.
- Rosen LM (2000) Associate and baccalaureate degree final semester students' perceptions of self-efficacy concerning community health nursing competencies. *Public Health Nursing*, 17: 231-238.
- Aiken LH, Clarke SP, Sloane DM, Sochalski JA (2001) An international perspective on hospital nurses' work environments: The case for reform. *Policy, Politics & Nursing Practice* 2: 255.
- Aiken LH, Clarke SP, Sloane DM, Sochalski JA, Busse R, et al. (2001) Nurses' reports on hospital care in five countries. *Health Aff (Millwood)* 20: 43-53.
- Aiken LH, Clarke SP, Sloane DM; International Hospital Outcomes Research Consortium (2002) Hospital staffing, organization, and quality of care: cross-national findings. *Int J Qual Health Care* 14: 5-13.
- Kanai-Pak M, Aiken LH, Sloane DM, Poghosyan L (2008) Poor work environments and nurse inexperience are associated with burnout, job dissatisfaction and quality deficits in Japanese hospitals. *J Clin Nurs* 17: 3324-3329.
- Li B, Bruyneel L, Sermeus W, Van den Heede K, Matawie K, et al. (2013) Group-level impact of work environment dimensions on burnout experiences among nurses: a multivariate multilevel probit model. *International Journal of Nursing Studies* 50: 281-291.
- Liu K, You LM, Chen SX, Hao YT, Zhu XW, et al. (2012) The relationship between hospital work environment and nurse outcomes in Guangdong, China: a nurse questionnaire survey. *J Clin Nurs* 21: 1476-1485.
- Nantsupawat A, Srisuphan W, Kunaviktikul W, Wichaikhum OA, Aunguroch Y, et al. (2011) Impact of nurse work environment and staffing on hospital nurse and quality of care in Thailand. *J Nurs Scholarsh* 43: 426-432.
- Neff DF, Cimiotti JP, Heusinger AS, Aiken LH (2011) Nurse reports from the frontlines: analysis of a statewide nurse survey. *Nurs Forum* 46: 4-10.
- Poghosyan L, Clarke SP, Finlayson M, Aiken LH (2010) Nurse burnout and quality of care: cross-national investigation in six countries. *Res Nurs Health* 33: 288-298.
- Sochalski J, Aiken LH (1999) Accounting for variation in hospital outcomes: a cross-national study. *Health Aff (Millwood)* 18: 256-259.
- Van den Heede K, Sermeus W, Diya L, Clarke SP, Lesaffre E, Vleugels A, et al. (2009). Nurse staffing and patient outcomes in belgian acute hospitals: Cross-sectional analysis of administrative data. *International Journal of Nursing Studies* 46: 928-939.
- Van den Heede K, Clarke SP, Sermeus W, Vleugels A, Aiken LH (2007) International experts' perspectives on the state of the nurse staffing and patient outcomes literature. *J Nurs Scholarsh* 39: 290-297.
- You LM, Aiken LH, Sloane DM, Liu K, He GP, et al. (2013) Hospital nursing, care quality, and patient satisfaction: Cross-sectional surveys of nurses and patients in hospitals in china and europe. *International Journal of Nursing Studies* 50: 154-161.
- Aiken LH, Cimiotti JP, Sloane DM, Smith HL, Flynn L, et al. (2011) Effects of nurse staffing and nurse education on patient deaths in hospitals with different nurse work environments. *Med Care* 49: 1047-1053.
- Aiken LH, Clarke SP, Cheung RB, Sloane DM, Silber JH (2003) Educational levels of hospital nurses and surgical patient mortality. *JAMA* 290: 1617-1623.
- Aiken LH, Clarke SP, Silber JH, Sloane D (2003) Hospital nurse staffing, education, and patient mortality. *LDI Issue Brief* 9: 1-4.
- Aiken LH, Cimiotti JP, Sloane DM, Smith HL, Flynn L, et al. (2012) Effects of nurse staffing and nurse education on patient deaths in hospitals with different nurse work environments. *Journal of Nursing Administration* 42: S10-S16.

31. American Association of Colleges of Nursing (AACN) (2012) Employment of new nurse graduates and employer preferences for baccalaureate-prepared nurses.
32. Lasater K, Nielsen A (2009) The influence of concept-based learning activities on students' clinical judgment development. *J Nurs Educ* 48: 441-446.
33. Burns P, Poster EC (2008) Competency development in new registered nurse graduates: Closing the gap between education and practice. *The Journal of Continuing Education in Nursing* 39: 67-73.
34. Tanner CA (2005) What have we learned about critical thinking in nursing? *J Nurs Educ* 44: 47-48.
35. Peirce AG (2010) The essential imperative of basic nursing education: an ethical discourse. *ANS Adv Nurs Sci* 33: 320-328.
36. Mann T (1927) *The magic mountain*. English Ed. A. Knoph
37. Callister LC, Luthy KE, Thompson P, Memmott RJ (2009) Ethical reasoning in baccalaureate nursing students. *Nurs Ethics* 16: 499-510.
38. Quality and Safety Education for Nurses (QSEN) Network (2008) Quality and safety for nursing education competencies.
39. Wilkinson C, Peters L, Mitchell K, Irwin T, McCorrie K, et al. (1998) 'Being there': learning through active participation. *Nurse Educ Today* 18: 226-230.
40. Kruger BJ, Roush C, Olinzock BJ, Bloom K (2010) Engaging nursing students in a long-term relationship with a home-base community. *J Nurs Educ* 49: 10-16.
41. Ransie K, Grealish L (2007) Nursing students' perceptions of learning in the clinical setting of the Dedicated Education Unit. *J Adv Nurs* 58: 171-179.
42. Pollard K (2009) Student engagement in interprofessional working in practice placement settings. *Journal of Clinical Nursing* 18: 2846-2856.