A Regulatory Model for Transitioning Newly Licensed Nurses to Practice

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This article discusses the importance of developing a national, standardized program, implemented through regulation, for transitioning all newly licensed nursing graduates to practice.* The background for establishing this evidence-based model in the context of today's health-care arena is presented. A model for transition and the supporting evidence are described.

The need for an effective transition-to-practice program in nursing has been documented for more than 70 years (Benner, 2004; Kramer, 1974; Townsend, 1931). More recently, significant work has been done on developing national transition-to-practice programs (Beecroft, Kunzman, & Krozek, 2001; Williams, Goode, Krsek, Bednash, & Lynn, 2007), and the Commission on Collegiate Nursing Education has developed a national accreditation process for residency programs (http://www.aacn.nche.edu/Accreditation/nrp.htm). Additionally, calls for a standardized transition program for newly licensed nurses have come from the Joint Commission (Joint Commission White Paper, 2002); the Carnegie study of nursing education report (Benner, Sutphen, Leonard, & Day, 2010); a synthesis of national reports (Hofler, 2008); the University HealthSystem Consortium and the American Association of Colleges of Nursing (UHC/AACN) (Goode, Lynn, Krsek, & Bednash, 2009); and Orsolini-Hain and Malone's (2007) article presenting evidence of an approaching expertise gap in nursing. The international community has also identified the need for transition-to-practice programs (Table 1).

Background

The need for a standardized transition-to-practice model has arisen because of the changes in health care in the past 20 years. Patients are living longer and have multiple chronic conditions; systems are becoming more complex; and technology is growing exponentially. At the same time, the focus is on patient safety, quality improvement, and evidence-based practice, which require high-level thinking and experiential learning (Ironside, 2009).

Employers report new graduates are not ready to practice.

One study found less than 50% of employers answered, "Yes definitely," when asked if new graduates are ready to provide safe, effective care (National Council of State Boards of Nursing [NCSBN], 2002a, 2004a). Similarly, Berkow, Virkstis, Stewart, and Conway (2008) from the Nursing Executive Center conducted a survey of more than 5,700 frontline nurse leaders, asking about employer perceptions of new graduates on 36 competencies. Improvement was needed across levels of education (ADN and BSN). Berkow et al. (2008) noted that the bottom-rated competencies (such as taking initiative, tracking multiple responsibilities, conflict resolution, ability to prioritize, and understanding quality improvement) would be better taught in an experiential environment such as a transition-to-practice program.

Others predict we are approaching an expertise gap in nursing. Berkow et al. (2008) report that 10% of a typical hospital is staffed by new graduates. This percentage is significant because 89.2% of newly licensed registered nurses (RNs) and 23.5% of newly licensed licensed practical nurses (LPNs) work in hospitals (NCSBN, 2007, 2009c). Orsolini-Hain and Malone (2007) predict the perfect storm where the overall level of nursing experience declines as seasoned nurses retire and the ratio of new graduates to experienced nurses increases, creating an expertise gap. Orsolini-Hain and Malone provide excellent data to support this view and call for a yearlong transition program. Using the number of nurses reporting they will retire between 2011 and 2020, Dracup and Morris (2007) predict a 50% turnover in the nursing profession in a little more than a decade. The projected turnover rate reinforces the urgent need to take action now. Like Orsolini-Hain and Malone (2007), Dracup and Morris (2007) and Goode, Lynn, Krsek, and Bednash (2009) call for the nursing community to unite and support a federally funded residency program in nursing.

Many say that successful transition programs are available now, and thus, transition programs should remain voluntary. Excellent transition programs with favorable outcomes, such as the yearlong residency program developed in partnership by the American Association of Colleges of Nursing (AACN) and the University HealthSystem Consortium (UHC) (Goode et al.,

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* A standardized transition program is defined as a program of active learning for all newly licensed nurses (registered nurses and licensed practical/vocational nurses) designed to support their progression from education to practice across all settings. The definition of orientation is similar to the American Nurses Association's (ANA) definition (ANA, 2000); it is the process of introducing staff to the philosophy, goals, policies, procedures, role expectations, and other factors needed in a specific work setting.

2009), are available. However, transition experiences are variable across the United States, across levels of education, and across settings, as one study of 628 newly licensed RN graduates and 519 newly LPN graduates found (Table 2). Other studies had similar findings (NCSBN, 2003b; Scott, Engelke, & Swanson, 2008).

Based on studies in the early 2000s, the National Council of State Boards of Nursing (NCSBN) membership voted in 2002 to identify models to promote effective transition of newly licensed nurses. NCSBN developed a comprehensive plan for studying the issue and a Transition-to-Practice model based on the evidence (Figure 1). The resultant no-blame model assumes that educational programs are adequately preparing our nurses for practice and that practice settings are not expecting new nurses to hit the ground running.

Medicine, pharmacy, pastoral care, and physical therapy are among the professions providing formalized transition-to-practice programs to their graduates. Three health-care professions—medicine, pharmacy, and pastoral care—receive federal money from the Centers for Medicare & Medicaid Services for their transition programs. Further, according to the American Association of State Colleges and Universities (2006), 30 or more states have some sort of mandated mentor induction program for novice teachers, and 17 states require and fund mentoring.

Effects of Not Having a Standardized Transition Program

The lack of a required standardized program in nursing has several implications, including high turnover rates among first-year nurses and problems with patient safety.

Turnover Rates

Many theorize that the absence of a standardized transition program leads to increased turnover rates in the first year of practice. Keller, Meekins, and Summers (2006) provide insight as to why new nurses need continued support for the first year, even though they graduated from an approved nursing program and have passed the NCLEX®. They write that nursing education cannot prepare new graduates for acculturating into their workplace, comparing the transition to moving to a new country where the language and customs are unfamiliar. Keller et al. (2006) assert that new graduates are expected to become skilled in a wide range of necessary skills and gain a sense of the wider world of their organization and health care. They describe some of these skills as being self-aware and learning about team dynamics, leading teams, coordinating care, managing conflict, understanding the psychological effects of change and transition, communicating, using evidence-based practice, employing systems thinking, and dealing with financial pressures. Honing these skills involves experiential learning that goes beyond opportunities available in pre-licensure education programs.

The literature reports turnover rates of 35% to 60% dur-

TABLE 1

International Transition Programs

Country	Description	Funding	Length
Australia	Will implement a mentorship program after national licensure takes effect in July 2010	National	1 year
Canada	No program at present. Have done extensive work on preceptorships and mentorships	Not applicable	Not applicable
Ireland	Have transition integrated into nursing program; students paid	National	1 year
Portugal	Extensive regulatory model, "Professional Development Program," that includes a separate body that reviews new nurse's and supervisor's reflective reports	National	9 months with second chance following 3 more months
Scotland	Voluntary model, "Flying Start," with online modules and connections to preceptors	National	1 year

ing the first year of practice (Advisory Board Company, 2006; Beecroft et al., 2001; Halfer, Graf, & Sullivan, 2008; Pine & Tart, 2007; Williams et al., 2007). Kovner and Djukic (2009) discuss some of the problems with turnover rate statistics for the newly licensed nurse. Some studies include turnover within the institution; others report their rates after developing a comprehensive transition program. Kovner and Djukic (2009) report a 26% turnover rate in 2 years using unpublished raw data from the RN Work Project, though they do not report what part of that percentage belongs to year one. Comprehensive transition programs are associated with significantly decreased turnover rates after the programs are implemented (Beecroft et al., 2001; Halfer et al., 2008; Pine & Tart, 2007; Williams et al., 2007).

Turnover of newly licensed nurses has been analyzed more in acute-care settings than in long-term care settings. One study (American Health Care Association, 2008) of long-term care reports high rates of turnover across all nurses—41% for staff RNs and 49.9% for LPNs. This indicates the likeliness of high turnover rates for new graduates.

Does retention have implications for safe patient care and nursing regulation? Aiken, et al. (2002) documented unfavorable outcomes when staffing is inadequate. In a review of state disciplinary records, Berens (2000), an investigative reporter, found that temporary nurses have increasingly been the focus of investigations in the last 3 years, with most errors linked to

TABLE 2

Transition Programs Across Settings (NCSBN, 2006c)

	RNs	LPNs
Hospitals (comprehensive*)	40.9%	22.4%
Long-term care facilities (comprehensive)	22.2%	12.7%
Community-based facilities (comprehensive)	31%	7.4%
Average number of weeks in any transition program	11.17	4.72
Percentage reporting no program whatsoever (including orientation)	3%	6.8%

*The term *comprehensive* means that the program includes an orientation and an internship, externship, preceptorship, or mentorship.

lack of knowledge of hospital procedure or unfamiliarity with patient conditions. Likewise, the Massachusetts Board of Nursing (Board of Registration in Nursing, 2007) found LPNs/VNs employed by temporary staffing agencies attributed their errors to an unfamiliar practice setting. Ebright, Urden, Patterson, and Chalko (2004) cited lack of familiarity with the patients and units as reasons for near misses by newly licensed RNs. Although more research is needed, evidence suggests that patients do suffer when nurses leave their jobs. Further, turnover is costly to employers. Kovner, Brewer, Greene, and Fairchild (2009) estimate that replacing nurses who leave costs about 1.2 to 1.3 times the 1-year salary of the nurse.

Effects on Patient Safety

Studies report newly licensed nurses have significant job stress (Elfering, Semmer, & Grebner, 2006; Fink, Krugman, Casey, & Goode, 2008; Williams et al., 2007), and this stress has been linked to patient errors (Elfering et al., 2006). Investigators in Sweden studied 23 novice nurses from 19 hospitals for 2 weeks and found job stressors and low job control to be risk factors for patient safety. The most frequent safety issues related to job stressors were incorrect documentation, medication errors or near misses, delays in patient care delivery, and violence among patients or towards nurses. In the study of the AACN/UHC yearlong residency program, stress gradually decreased over the year (Williams et al., 2007). These results indicate a comprehensive yearlong transition program may decrease stress.

Another safety consideration is that new nurses often engage in concrete thinking and focus on technology (Benner, 2004; Ebright et al., 2004), thereby missing the bigger picture, which can adversely affect patient outcomes (Del Bueno, 2005; Orsolini-Hain & Malone, 2007). For instance, Del Bueno (2005) found when novice nurses were given patient scenarios, 50% would miss life-threatening situations. Novice nurses are often weak in detecting subtle changes in patient conditions (Orsolini-Hain & Malone, 2007), which may be attributed to limited opportunities for following up with patients in nursing programs (Benner et al., 2010). Similarly, Ashcraft (2004), in presenting three cases, discusses the importance of pattern recognition when patients are in pre-arrest states. Novice nurses take longer to put the pieces together and would benefit from consultation with an experienced nurse. Statistics show that if new nurses fail to recognize changes in patient status, patients can deteriorate quickly. Only 27% of adult patients and 18% of pediatric patients survive cardiopulmonary resuscitation (Nadkarni et al., 2006).

Inexperienced nurses may also omit care, according to Kalisch (2006). Using focus groups, she identified seven reasons for missed care, including poor use of existing staff resources and ineffective delegation. The focus group members reported too many inexperienced nurses with inadequate orientations. They also reported inconsistent assignments, meaning that novice nurses do not have the opportunity to get to know their patients well enough to recognize changes.

When interviewing new graduates about near misses and adverse events, Ebright et al. (2004) identified the phenomenon of novices assisting novices. Four of the eight interviewees described this phenomenon as a factor that limits safe patient care. Orsolini-Hain and Malone (2007) predict that increasingly novice nurses will assist novices, creating situations in which errors in judgment will not be corrected by more experienced colleagues.

Proposed Solution

NCSBN reviewed published and unpublished data on the first year of practice and related issues, such as specific transition programs. Published data were retrieved from CINAHL, ERIC, and Medline databases, using keywords such as transition, internship, residency, preceptor, and mentorship. Conference calls and in-person meetings were held with those who have worked on transition to practice to learn about their unpublished experiences. The data were categorized into an evidence grid that is available at https://www.ncsbn.org/1603.htm. After a review of the evidence and input from the state boards of nursing (BONs) and the nursing community, an evidence-based transition model was developed. The model was presented to more than 35 stakeholders, who expressed their concerns and suggestions. Collaboration with BONs and stakeholders will continue as this work continues The following is a description of the model, along with the evidence that supports it.

A Robust and Flexible Model

The Transition-to-Practice regulatory model was designed to be robust, that is, it includes all health-care settings that hire newly licensed nurses and all educational levels of nurses. The literature and research on long-term settings and licensed and vocational nurses are not as strong as those on acute-care settings and RNs.

FIGURE 1

Transition to Practice Model
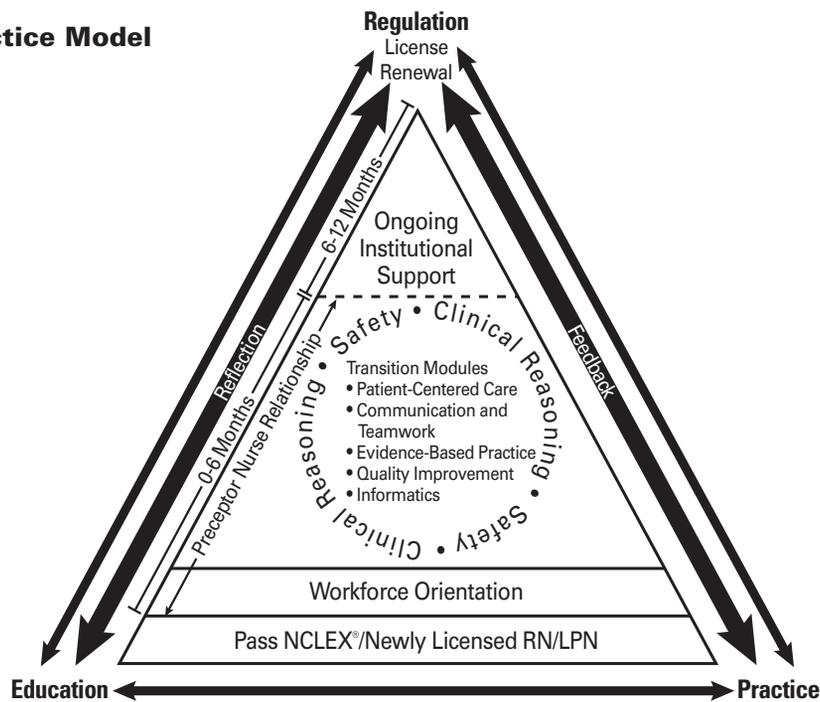
One study found that practical nurse transition programs averaged 4.72 weeks (NCSBN, 2006c), a time period so short that the study most likely would not provide insight into the effect of the program. Another study focused on discipline in nursing homes and concluded that improved LPN transitioning is needed (Board of Registration in Nursing, 2007). A national survey on the nursing home workforce (My InnerView, 2008) calculated priority ratings on areas for improvement: 1) lower job stress, 2) management that listens, 3) management that cares, and 4) training to deal with difficult residents. If new nurses in long-term care received more support through a standardized transition program, these priority areas could be addressed.

The flexibility of the model allows many existing standardized transition programs to meet its standards. Practice settings could develop their own programs and partnerships of practice settings with each other or with education programs could be established to deliver the standardized transition program.

Preceptorships

The model is strongly dependent on a well-developed, preceptor-nurse relationship. The model promotes preceptors working with the new graduates throughout the 6-month transition program. All successful programs we reviewed incorporated preceptorships (NCSBN, 2009a). The evidence also supports that preceptors must be skilled in the role. Often, preceptors feel unprepared and unsupported for the preceptorship role. In one study of 86 preceptors, many reported they were unprepared and needed more support and recognition (Yonge, Hagler, Cox, & Drefs, 2008).

Many transition programs incorporate preceptor training,

but the Vermont Nurses in Partnership (2010) is an exemplary model of preceptor education. The model has been developed since the beginning of their initiative in 1999, and the program now awards credentials to all their preceptors. Other models are available in the literature (Nicol & Young, 2007). An online preceptor course, with credentialing, also has been successful (Phillips, 2006). Evidence also suggests that team preceptorships are successful (Beecroft, Hernandez, & Reid, 2008).

Five Modules for Experiential Learning

The five transition modules for this model are supported by the evidence (NCSBN, 2009a) and based on the Institute of Medicine (IOM) (Greiner & Knebel, 2003) competencies and the Quality and Safety for Nursing Education initiative (Cronenwett et al., 2007): Patient-centered care, communication and teamwork, evidence-based practice, quality improvement, and informatics.

Module standards were developed with objectives, content, exercises, and supporting sources, based on the literature. It is expected that the new nurse will successfully complete the modules during the 6-month preceptorship. Below are the highlights of the modules.

Patient-centered care will emphasize specialty content and the skills of prioritizing and organizing care. Specialty content in a transition program has been linked significantly to self-reports of lower practice errors (NCSBN, 2003a). Other research supports integrating specialty practice into transition programs (Beecroft et al., 2001; Benner et al., 2010; Beyea, von Reyn, & Slattery, 2007; Flying Start, 2010; Halfer, 2007; Joint Commission White Paper, 2002; Keller et al., 2006; Pine & Tart, 2007;

Vermont Nurses in Partnership, 2010). Strategies were developed for employers to support the integration of specialty care. Prioritizing and organizing work are emphasized in this module because they are often weaknesses of novice nurses (Berkow et al., 2008; Halfer et al., 2008; NCSBN, 2004a, 2006a; Williams et al., 2007), most likely because of lack of experience. Caring for a diverse patient population is also a focus of this module.

Communication and teamwork is essential in any regulatory model. The 2003 IOM report on Health Professions Education (Greiner & Knebel, 2003) stressed the importance of teaching health-care students to collaborate across professions. McKay and Crippen (2008) report that in hospitals where collaboration occurred, the mortality rate was 41% lower than would be predicted. McKay and Crippen (2008) also report that in hospitals where collaborative communication did not take place, mortality rates were 58% higher than would be predicted. Similarly, enhanced communication in hospitals has been linked to nurse satisfaction, lower costs, and greater responsiveness of health-care providers (McKay & Crippen, 2008). Yet, Benner et al. (2010) report that pre-licensure nursing programs provide their students with few opportunities for interprofessional communication. Transition programs we reviewed recommended a purposeful integration of communication, including interprofessional relationships, into these programs (Beecroft et al., 2001; Beyea et al., 2007; Flying Start, 2010; Keller et al., 2006; Pine & Tart, 2007; Williams et al., 2007; Wisconsin Nurse Residency Program, 2010).

The communication and teamwork module will also incorporate role socialization strategies. New nurses must have a good understanding of their scope of practice as well as that of others on the health-care team. Role socialization was an integral element of many transition programs we reviewed (Flying Start, 2010; Keller et al., 2006; Pine & Tart, 2007; Vermont Nurses in Partnership, 2010; Williams et al., 2007). Closely related to this is the need for new nurses to develop a better understanding of delegating and supervising. Since 2002, NCSBN studies have consistently found that new nurses report a lack of understanding of delegation (NCSBN, 2004b, 2006b, 2009b), as do others (Berkow et al., 2008).

Evidence-based practice is an essential experiential module because nurses are expected to base their practice on the evidence (Cronenwett et al., 2007; Greiner & Knebel, 2003). Yet, studies (Berkow et al., 2008; NCSBN, 2006a, 2006b) indicate that new nurses are weak in this area. Evidence-based practice was integral to most of the programs we reviewed (Beecroft et al., 2001; Flying Start, 2010; Pine & Tart, 2007; Williams et al., 2007; Wisconsin Nurse Residency Program, 2010). In the Launch into Nursing program in Texas, for example, new nurses participate in an evidence-based project and present the results to the hospital unit on which they work (Keller et al., 2006).

Quality improvement is a focus in practice settings for promoting patient safety and improving the systems of the set-

tings. Novice nurses need experiential learning related to quality improvement processes, such as understanding lean thinking (Joosten, Bongers, & Janssen, 2009). In a study of new nurses, Berkow et al. (2008) found that quality improvement (as well as priority setting and delegation) was not emphasized enough in nursing education and concluded it is best learned in a practice setting with experiential learning. Additionally, Barton, Armstrong, Preheim, Gelmon, and Andrus (2009) conducted a national Delphi to determine the progression of quality and safety competencies and identified the following knowledge and skills (p. 329) for introduction into the advanced phase of a nursing curriculum, which also would include transition-to-practice programs:

- Give examples of tension between professional autonomy and system functioning.
- Explain the importance of variation and measurement in assessing quality care.
- Describe approaches for changing processes of care.
- Participate in a root cause analysis of a sentinel event.
- Practice aligning the aims, measures, and changes involved in improving care.
- Evaluate the effect of change.

Informatics will teach newly licensed nurses how to identify the electronic information available at the point of care and how to access information that is not readily available but is needed. The Technology Informatics Guiding Educational Reform initiative (TIGER, 2010) was used as a resource when developing this module. Confidentiality of information is also stressed.

Module Characteristics

Safety and clinical reasoning are integrated throughout the experiential learning of the modules. Johnstone and Kanitsaki (2006, 2008) in Australia have reported on the importance of experientially teaching risk management to new nurses, and most successful transition programs focus on safety (Beecroft et al., 2001; Beyea et al., 2007; Flying Start, 2010; Pine & Tart, 2007; Williams et al., 2007; Wisconsin Nurse Residency Program, 2010). Likewise, clinical reasoning will be integrated throughout the five modules. The Dartmouth program (Beyea et al., 2007) is exemplary in promoting clinical reasoning, using simulation to help novice nurses make decisions during common and uncommon but life-threatening clinical events. Interviews with project managers of transition programs indicated that all programs examined attempt to integrate clinical reasoning.

Feedback and reflection are important threads in this model and should be formally maintained during the 6-month transition program and the 6 months that follow. Bjørk and Kirkevold's (1999) longitudinal study showed the importance of feedback and reflection. If new nurses do not receive feedback on their practice, along with an opportunity to reflect, their practice will not improve. Without those opportunities for feedback and reflection, new graduates are at risk for making the same mistakes repeatedly. Preceptors must be taught how to provide

constructive feedback and how to foster reflective practice. Many transition programs we reviewed provided opportunities for feedback and reflection (Beyea et al., 2007; Flying Start, 2010; Halfer, 2007; Keller et al., 2006; Pine & Tart, 2007; Williams et al., 2007; Wisconsin Nurse Residency Program, 2010).

The modules were designed to integrate experiential and active learning and do not incorporate relearning of content already learned in nursing programs.

Institutional Support

In the UHC/AACN study of their yearlong residency program (Williams et al., 2007), investigators found that although stress decreased over the yearlong residency program, both control over practice and satisfaction measures started high, dipped at 6 months, and then increased. The authors believe this is because during the first 6 months in practice many new nurses have specialty classes and may be feeling overwhelmed by the amount they must learn, similar to Kramer's findings (1974). Because of this evidence and because a regulatory program should reflect minimum requirements, it was decided that an effective transition program should last at least 6 months with institutional support for 1 year. Interestingly, even in programs that are less than 1 year (Beecroft, 2001; Vermont Nurses in Partnership, 2010), project directors indicate that often support continued after the program ended, and in some cases, the preceptorships continued.

Formalized support systems should be built into the last 6 months of the new nurse's transition program, and strategies were devised for helping employers support newly licensed nurses during their second 6 months in practice. Johnstone, Kanitsaki, and Currie (2008) from Australia define support as "a process that aids, encourages, and strengthens and thereby gives courage and confidence to a new graduate nurse or a group of new graduates to practice competently, safely, and effectively in the levels and areas they have been educationally prepared to work" (p. 53). Some of the components of support, according to Johnstone et al. (2008), include being available and approachable; being able to ask questions without being ridiculed; being prompted to engage in best practices; providing benevolent surveillance, which is keeping an eye on the new graduate; providing constructive feedback and reflection; and having backup when there are problems.

Cost

Cost to practice settings of implementing a transition program is often cited as a barrier to developing programs for new graduates. Yet, the return on investment (ROI), a comparison of net financial improvements with the cost of the program, has been very positive when transition programs are implemented. One study found an ROI of 884.75% (Pine & Tart, 2007); another found an ROI of 67.3% (Beecroft et al., 2001). The 6-month Mississippi Nurse Residency Program (2010) reported a savings of over $4 million resulting from the elimination of agency and travel nurses. Further, the program saved $1.1 million through decreased turnover. Similarly, the Children's Memorial Hospital (Chicago) yearlong residency (Halfer, 2007) saved $707,608 per year. As reported earlier, the estimated cost of replacing a nurse is about 1.2 to 1.3 times the nurse's salary (Kovner et al., 2009). No published studies of transition programs were found that reported a negative ROI.

Conclusion

Currently, no national standard exists for transitioning new nurses from education to practice, and only one state (Kentucky Board of Nursing, 2010) has a regulation in place for the process of developing novice nurses as they enter the practice arena. Yet, internationally in nursing, and nationally in other health-care professions, standardized transition programs are being implemented. Now is the time for nursing to develop a standardized transition-to-practice program and to seek funding to support it.

References

Advisory Board Company. (2006). *Transitioning new graduates to hospital practice: Profiles of nurse residency program exemplars.* Washington, DC: Author.

Aiken, L., Clarke, S. P., Sloane, D. M., Sochalski, J., & Silber, J. H. (2002). Hospital nurse staffing and patient mortality, nurse burnout, and job satisfaction. *Journal of the American Medical Association, 288*(16), 1987–1993.

American Association of State Colleges and Universities. (2006). Teacher induction programs: Trends and opportunities. *Policy Matters, 3*(10), 1–4. Retrieved from http://www.aascu.org/media/pm/pdf/v3n10.pdf

American Health Care Association. (2008). *Report of findings: 2007 AHCA survey nursing staff vacancy and turnover in nursing facilities.* Retrieved from http://www.ahcancal.org/research_data/staffing/Documents/Vacancy_Turnover_Survey2007.pdf

American Nurses Association. (2000). *Scope and standards of practice for nursing professional development.* New York, NY: Author.

Ashcraft, A. S. (2004). Differentiating between pre-arrest and failure-to-rescue. *Medsurg Nursing, 13*(4), 211–216.

Barton, A. J., Armstrong, G., Preheim, G., Gelmon, S. B., & Andrus, L. C. (2009). A national Delphi to determine developmental progression of quality and safety competencies in nursing education. *Nursing Outlook, 57*, 313–322.

Beecroft, P., Hernandez, A. M., & Reid, D. (2008). Team preceptorships: A new approach for precepting new nurses. *Journal for Nurses in Staff Development, 24*(4), 143–148.

Beecroft, P., Kunzman, L., & Krozek, C. (2001). RN internship: Outcomes of a one-year pilot program. *Journal of Nursing Administration, 31*(12), 575–582.

Benner, P. (2004). Using the Dreyfus model of skill acquisition to describe and interpret skill acquisition and clinical judgment in nursing practice and education. *Bulletin of Science, Technology & Society, 24*(3), 188–199.

Benner, P., Sutphen, M., Leonard, V., & Day, L. (2010). *Educating nurses: A call for radical transformation.* San Francisco, CA: Jossey-Bass.

Berens, M. J. (2000, September 10). Nursing mistakes kill, injure thousands: Cost-cutting exacts toll on patients, hospital staffs series: Dangerous care: Nurses' hidden role in medical error. First of three parts. *The Chicago Tribune,* p. 20.

Berkow, S., Virkstis, K., Stewart, J., & Conway, L. (2008). Assessing new graduate nurse performance. *Journal of Nursing Administration, 38*(11), 468–474.

Beyea, S. C., von Reyn, L., & Slattery, M. J. (2007). A nurse residency program for competency development using patient simulation. *Journal for Nurses in Staff Development, 23*(2), 77–82.

Bjørk, I. T., & Kirkevold, M. (1999). Issues in nurses' practical skill development in the clinical setting. *Journal of Nursing Care Quality, 14*(1), 72–84.

Board of Registration in Nursing, Division of Health Professions Licensure, Massachusetts Department of Public Health. (2007). *A study to identify evidence-based strategies for the prevention of nursing errors.* Boston, MA: Author.

Cronenwett, L., Sherwood, G., Barnsteiner, J., Disch, J., Johnson, J., Mitchell, P., … Warren, J. (2007). Quality and safety education for nurses, *Nursing Outlook, 55,* 122, 131.

Del Bueno, D. (2005). A crisis in critical thinking. *Nursing Education Perspectives, 26*(5), 278–282.

Dracup, K., & Morris, P. E. (2007). Nursing residency programs: Preparing for the next shift. *American Journal of Critical Care, 16*(4), 328–330.

Ebright, P. R., Urden, L., Patterson, E., & Chalko, B. (2004). Themes surrounding novice nurse near-miss and adverse-event situations. *Journal of Nursing Administration, 34*(11), 531–538.

Elfering, A., Semmer, N. K., & Grebner, S. (2006). Work stress and patient safety: Observer-rated work stressors as predictors of characteristics of safety-related events reported by young nurses. *Ergonomics, 49*(5–6), 457–469.

Fink, R., Krugman, M., Casey, K., & Goode, C. (2008). The graduate nurse experience: Qualitative residency program outcomes. *Journal of Nursing Administration, 38*(7/8), 341–348.

Flying Start. (2010). Retrieved from http://www.flyingstart.scot.nhs.uk/

Goode, C. J., Lynn, M. R., Krsek, C., & Bednash, G. D. (2009). Nurse residency programs: An essential requirement for nursing. *Nursing Economics, 27*(3), 142–147.

Greiner, A. C., & Knebel, E. (Eds.). (2003). *Health professions education: A bridge to quality.* Washington, DC: National Academies Press.

Halfer, D. (2007). A magnetic strategy for new graduates. *Nursing Economics, 25*(1), 5–11.

Halfer, D., Graf, E., & Sullivan, C. (2008). The organizational impact of a new graduate pediatric mentoring program. *Nursing Economics, 26*(4), 243–249.

Hofler, L. D. (2008). Nursing education and transition to the work environment: A synthesis of national reports. *Journal of Nursing Education, 47*(1), 5–12.

Ironside, P. M. (2009). Embedding quality and safety competencies in nursing education. *Journal of Nursing Education, 48*(12), 659–660.

Johnstone, M. J., & Kanitsaki, O. (2006). Processes influencing the development of graduate nurse capabilities in clinical risk management: An Australian study. *Quality Management in Health Care, 15*(4), 268–278.

Johnstone, M. J., & Kanitsaki, O. (2008). Patient safety and the integration of graduate nurses into effective organizational clinical risk management systems and processes: An Australian study. *Quality Management in Health Care, 17*(2), 162–173.

Johnstone, M. J., Kanitsaki, O., & Currie, T. (2008). The nature and implications of support in graduate nurse transition programs: An Australian study. *Journal of Professional Nursing, 24*(1), 46-53.

Joint Commission White Paper. (2002). Health care at the crossroads: Strategies for addressing the evolving nursing crisis. Retrieved from http://www.jointcommission.org/NR/rdonlyres/5C138711-ED76-4D6F-909F-B06E0309F36D/0/health_care_at_the_crossroads.pdf

Joosten, T., Bongers, I., & Janssen, R. (2009). Application of lean thinking to health care: Issues and observations. *International Journal for Quality in Health Care, 21*(5), 341–347.

Kalisch, B. J. (2006). Missed nursing care: A qualitative study. *Journal of Nursing Quality Care, 21*(4), 306–313.

Keller, J. L., Meekins, K., & Summers, B. L. (2006). Pearls and pitfalls of a new graduate academic residency program. *Journal of Nursing Administration, 36*(12), 589–598.

Kentucky Board of Nursing. (2010). Retrieved from http://kbn.ky.gov/education/pon/entry/

Kovner, C. T., Brewer, C. S., Greene, W., & Fairchild, S. (2009). Understanding new registered nurses' intent to stay at their jobs. *Nursing Economics, 27*(2), 81–98.

Kovner, C., & Djukic, M. (2009). The nursing career process through the first 2 years of employment. *Journal of Professional Nursing, 25*(4), 197–203.

Kramer, M. (1974). *Reality shock: Why nurses leave nursing.* St. Louis, MO: CV Mosby.

McKay, C. A., & Crippen, L. (2008). Collaboration through clinical integration. *Nursing Administration, 32*(2), 109–116.

Mississippi Nurse Residency Program. (2010). Retrieved from http://www.monw.org/residency

My InnerView. (2008). *2008 National survey of consumer and workforce satisfaction in nursing homes.* Retrieved from http://www.ahcancal.org/research_data/staffing/Documents/MIVConsumerWorkforceSatisfaction2008.pdf

Nadkarni, V. M., Larkin, G. L., Peberdy, M. A., Carey, S. M., Kaye, W., Mancini, M. E., … Berg, R. A. (2006). First documented rhythm and clinical outcome from in-hospital cardiac arrest among children and adults. *Journal of the American Medical Association, 295*(1), 50–57.

NCSBN. (2002a). *Report of findings from the 2001 employers survey.* Chicago, IL: Author.

NCSBN. (2002b). *Report of findings from the practice and professional issues survey: Spring 2001.* Chicago, IL: Author.

NCSBN. (2003a). *Models of effective programs that transition students to practice.* Chicago, IL: Author. Retrieved from https://www.ncsbn.org/1247.htm

NCSBN. (2003b). *Report of findings from the practice and professional issues survey: Spring 2002.* Chicago, IL: Author.

NCSBN. (2004a). *Report of findings from the 2003 employers survey.* Chicago, IL: Author.

NCSBN. (2004b). *Report of findings from the 2003 practice and professional issues survey: Spring 2003.* Chicago, IL: Author.

NCSBN (2006a). *Evidence-based nursing education for regulation (EBNER).* Chicago, IL: Author. Retrieved from https://www.ncsbn.org/Final_06_EBNER_Report.pdf

NCSBN. (2006b). *A national survey on elements of nursing education.* Chicago, IL: Author.

NCSBN. (2006c). *Transition to practice: Newly licensed registered nurse (RN) and licensed/vocational nurse (LPN/VN) activities.* Chicago, IL: Author.

NCSBN. (2007). *2006 LPN/VN practice analysis linking the NCLEX®PN examination to practice.* Retrieved from https://www.ncsbn.org/vol28_web.pdf

NCSBN. (2009a). *Evidence grid.* Retrieved from https://www.ncsbn.org/Evidence_Grid_2009.pdf

NCSBN. (2009b). Post-entry competence study. Retrieved from https://www.ncsbn.org/09_PostEntryCompetenceStudy_Vol38_WEB_final_081909.pdf

NCSBN. (2009c). *2008 RN practice analysis: Linking the NCLEX®RN examination to practice.* Retrieved from https://www.ncsbn.org/08_Linking_the_NCLEX_to_Practice_Vol36.pdf

Nicol, P., & Young, M. (2007). Sail training: An innovative approach to graduate nurse preceptor development. *Journal for Nurses in Staff Development, 23*(6), 298–302.

Orsolini-Hain, L., & Malone, R. E. (2007). Examining the impending gap in clinical nursing expertise. *Policy, Politics, & Nursing Practice, 8*(3), 158–169.

Phillips, J. M. (2006). Preparing preceptors through online education. *Journal for Nurses in Staff Development, 22*(3), 150–156.

Pine, R., & Tart, K. (2007). Return on investment: Benefits and challenges of a baccalaureate nurse residency program. *Nursing Economics, 25*(1), 13–18.

Scott, E. S., Engelke, M. K., & Swanson, M. (2008). New graduate transitioning: Necessary or nice? *Applied Nursing Research, 21,* 75–83.

TIGER. (2010). The TIGER initiative. Retrieved from http://www.tigersummit.com/Home_Page.php

Townsend, L. B. (1931). Teaching the classes following the physician's lecture. *American Journal of Nursing, 31*(10), 1183–1186.

Vermont Nurses in Partnership. (2010). Retrieved from http://www.vnip.org/

Williams, C. A., Goode, C. J., Krsek, C., Bednash, G. D., & Lynn, M. R. (2007). Postbaccalaureate nurse residency 1-year outcomes. *Journal of Nursing Administration, 37*(7/8), 357–365.

Wisconsin Nurse Residency Program. (2010). Retrieved from http://wnrp.org/

Yonge, O., Hagler, P., Cox, C., & Drefs, S. (2008). Listening to preceptors. *Journal for Nurses in Staff Development, 24*(1), 21–26.

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