ABSTRACT

The acute shortage of RNs is both well established and projected to continue. Two primary factors contributing to the nursing shortage are insufficient numbers of faculty and insufficient clinical sites for students. Innovative academic-service partnerships are realigning these scarce resources to improve the quality of clinical education and build cultures of safety. Relationships among students, staff nurses, faculty, and the institutions where they practice are central to students' socialization, professional role development, and transition to practice. Five recommendations to strengthen these professional relationships are suggested to reenvision nursing student-staff nurse relationships, reconceptualize the clinical faculty role, enhance development for school-based faculty and staff nurses working with students, reexamine the depth and breadth of the clinical component, and strengthen the evidence for best practices in clinical nursing education. Five key outcomes are suggested to evaluate both traditional and emerging approaches to clinical nursing education.

The shortage of RNs in the United States in the past decade is both well established and projected to continue. By 2020, there will be a shortfall of 340,000 RNs (Auerbach, Buerhaus, & Staiger, 2007). Although demand usually is met by increasing supply, that solution is not readily achievable in the current environment. More than 40,000 qualified applicants were denied admission to baccalaureate and graduate programs in 2007 because of limited faculty and clinical educational sites (American Association of Colleges of Nursing [AACN], 2008). When associate degree programs are included, the National League for Nursing (NLN) (2008b) reports this number as 88,000.

The inadequate supply of nursing faculty may be the most pressing problem facing nursing education (Robert Wood Johnson Foundation, 2005). The unprecedented shortage of nurses prepared at the master's and doctoral levels who are qualified to teach in undergraduate and graduate nursing programs is, in part, related to retirements that outpace faculty replacements and compensation that compares unfavorably with other employment sectors (Kaufman, 2007; NLN, 2005, 2006; Tanner, 2005). The need to build capacity in prelicensure programs is well documented (Hofler, 2008), and the faculty shortage severely limits expansion of student enrollment.

A limited availability of sites for student clinical experiences is further restricting expansion of nursing programs (AACN, 2008; California Institute for Nursing and Health Care, 2008). The expansion of simulated clinical experiences may reduce the time students spend caring for patients in real settings, thus relieving some of the pressure on our clinical sites. Opportunities for students to care for real people in predictable and unpredictable situations also are essential. However, RNs are not always actively involved with the students on their units, and therefore the number of students must be limited to maintain patient safety. Stronger, more structured relationships be-
between students and staff nurses are part of the solution to nursing's capacity problem.

The Robert Wood Johnson Foundation (2005) recommended increasing faculty and school capacity through community partnerships that ensure mutual accountability and enhance the safety and quality of care. Mutual accountability that enhances safety and quality depends on structured professional relationships among students, staff nurses, faculty, and the health care team. Strategies and structures that better integrate students into the clinical practice setting are needed (Jacobson & Grindel, 2006).

Several organizations are calling for improvements in nursing education. The California Institute for Nursing and Health Care (2008) published a white paper with strategic priorities identified for nursing education. The Carnegie Foundation for the Advancement of Teaching (2008) is disseminating findings from a national nursing education study in which effective teaching strategies are identified. According to Dr. Patricia Benner (personal communication, April 18, 2008), expert coaching and situated learning is a distinctive strength of clinical nursing education; however, the variability within and between schools leaves much room for improvement.

The need for an expanded workforce, coupled with the shortages of faculty and clinical education sites, means that new approaches to clinical nursing education must be considered. This article offers five recommendations to stimulate local, state, and national conversations on new approaches to clinical nursing education:

- Reenvision nursing student-staff nurse relationships.
- Reconceptualize the clinical faculty role.
- Enhance development for school-based faculty and staff nurses working with students.
- Reexamine the depth and breadth of the clinical component.
- Strengthen the evidence for best practices in clinical nursing education.

In addition, five outcome criteria by which traditional and innovative educational approaches may be evaluated also are presented. These outcome criteria are satisfaction, transition to practice, recruitment and retention costs, patient safety, and student capacity. Although schools of nursing prepare graduates to assume positions as RNs in multiple settings, many new graduates take staff nurse positions; therefore, the term staff nurse rather than RNs working with students is used throughout this article.

**REENVISON THE NURSING STUDENT-STAFF NURSE RELATIONSHIP**

Many clinical settings will be unable to absorb more nursing students unless the relationship between nursing students and staff nurses is restructured. The biggest obstacle is a long postdiploma program tradition that connects nursing students to faculty members and patients but not to the staff nurse responsible for patients' care. Restructuring the nursing student-staff nurse relationship has the potential to improve four of the five suggested outcomes: satisfaction of both the student and the nurse, transition to practice, patient safety, and student capacity at clinical sites.

With the recent exception of simulated experiences, traditional approaches to clinical education in nursing have not been altered substantially for decades. In this traditional model, faculty instructors direct and evaluate learning for a small group of students (usually 8 to 10 students) and function as clinical experts and supervisors for students in the clinical area. Students often receive patient assignments in advance and then plan for the clinical experience by reviewing pathology, procedures, medications, and nursing interventions. Students focus on how their individual actions affect their assigned patients. Staff nurses interact with students through the patients assigned by instructors. The priority for staff nurses is patient care, with student learning a secondary concern.

Because students' assignments often include patients from more than one nurse's assignment, students' primary relationship is with faculty members. Staff nurses may work simultaneously with several students as well as different students each day. Adding to the challenge, students may attend different schools, each of which has different learning objectives for the clinical experience. As currently structured, clinical nursing education provides a series of patient experiences and professional interactions. Although these experiences often are organized from simple to complex, they are not conducive to building professional relationships over time. As currently structured, the presence of students on the unit can be perceived as burdensome and interfere with nurses' ability to provide patient care.

Staff nurses make a "tremendous difference" and their contribution to "helping students acquire clinical competence and skill is well documented" (Raines, 2006, p. 8). Yet opportunities for students to build professional working relationships with staff nurses during clinical rotations are limited or haphazard. An innovative response to this dilemma has been to pair students with staff nurses for an entire term rather than just in the final course of the curriculum. Some academic-service partnerships are formalizing the role of staff nurses as preceptors teaching throughout the program (Joynt & Kimball, 2008). Others are creating dedicated education units where all staff nurses function in roles as clinical educators for a single nursing school (Moscato, Miller, Logsdon, Weinberg, & Chorpenning, 2007). When nurses consistently work with students, they have a better sense of the students' clinical reasoning and learning needs, what students are capable of doing independently, and the areas where students need more encouragement or closer supervision. A consistent working relationship helps nurses to more easily identify the learning needs of students.

The focus of students' clinical experience is being reexamined as well. Because most clinical experiences are
organized around individual patients, students rarely are engaged with the full scope of nursing decision making. By concentrating on individual patients and the immediate impact of individual actions, students can miss how patient outcomes are interconnected with the nursing unit and larger systems issues (Raines, 2006). When students are assigned to staff nurses rather than patients, they begin to appreciate the full scope of professional nursing roles and responsibilities, and transition to the professional nursing role is facilitated.

Many nursing programs have developed a clinical experience in which students are linked with a consistent staff nurse during the last semester of study. The goal of this experience is for students to develop the clinical decision making and time management skills essential to successful nursing practice. To maintain a consistent working relationship, students usually work the nurse’s schedule. However, this approach is not the norm early in the nursing program. Instead, professional roles and responsibilities are taught primarily in a classroom setting and discussed in clinical conferences with nursing faculty.

O’Rourke (2006) argues that skill competence and clinical practice competence are both “dependent on role competence” (p. 30). She contends that professional role development is grounded in decision making, both independently and as part of interdisciplinary teams, and should commence on day one of the educational program.

To strengthen the nursing student-staff nurse relationship earlier in the educational experience, the formidable obstacle of tradition must be overcome together with three practical constraints. The first constraint is the availability of nurses who are both qualified and willing to function in these expanded teaching roles. Creating opportunities for consistent relationships with particular nursing students can influence staff nurses’ willingness to accept these additional responsibilities. A second constraint is the number and scheduling of didactic courses that students often take with their clinical rotations. In response to this challenge, faculty at the University of Delaware revised the curriculum so that most clinical rotations were scheduled at the end of the nursing program as an immersion experience (Diefenbeck, Plowfield, & Herrman, 2006). In some states, regulations about what kind of nurse can serve as a preceptor constitute a third constraint. The NLN (2003) challenged educators to rethink traditional approaches to clinical education, such as traditional student groups that are supervised onsite by clinical faculty. However, excessive regulatory environments can inhibit the development and testing of innovative models in clinical education.

The value of restructuring the nursing student-staff nurse relationship in any clinical setting can be determined by assessing student and staff nurse satisfaction, new graduate and employer evaluations of transition to practice, patient safety measures, and student capacity at the site.

RECONCEPTUALIZE THE CLINICAL FACULTY ROLE

Nurses with graduate education are a valuable and scarce resource for both schools and clinical settings. The need to maintain patient safety has caused some faculties to stipulate that faculty members supervise a small number of students and that they be physically present whenever any student passes a medication or performs a procedure. Although this is an understandable reaction, it is not a solution with potential for widespread implementation in the midst of a faculty shortage. At the same time, using nurses with a graduate degree to physically supervise students passing medications and performing procedures may not be the best way to use a scarce resource.

Because schools of nursing depend on limited clinical sites, students and faculty often get the message, either explicit or implicit, that they are visitors and as such should not challenge the status quo. Consequently, when students and faculty witness practices that are not consistent with current guidelines or research, these often are discussed behind close doors in clinical conferences and not shared with clinical staff. As schools and clinical sites work together to build cultures of safety, faculty will be invited to share these observations with clinical staff in ways that also will demonstrate collegial relationships and professional integrity to students. Restructuring the clinical faculty role has the potential to improve four of the five suggested outcomes: satisfaction of students, staff nurses, and faculty; transition to practice; patient safety; and student capacity at clinical sites.

When structures are in place to support stronger relationships between staff nurses and students, the faculty role also can be reenvisioned. When clinical staff nurses work with nursing students in a one-on-one relationship over time, the staff nurses function as clinical experts (Freheim, Casey, & Krugman, 2006). Clinical expertise is not confined to a patient’s unique situation but includes knowledge of the nursing care system in which the care is delivered. Staff nurses are in the best position to develop and share this expertise with students. Staff nurses also can be prepared to supervise student work, including administration of medications and performance of nursing procedures. Not only does this reduce the nonproductive time students spend waiting for clinical faculty members to supervise procedures, it frees faculty members to focus on relationships between students and staff nurses providing patient care and to interact more with nurses in management, clinical specialist, and staff development roles. Experienced faculty learn to successfully balance all of these roles, especially if they are able to teach students in the same facility over time. However, new faculty members are more likely to learn an expanded role when they are not running from student to student to supervise tasks.

One innovative academic-service partnership is changing the individuals in the faculty role rather than the role itself. This innovation involves using staff nurses as clini-
cal faculty who supervise traditional groups of students during a clinical rotation. In a proactive response to the shortage, hospitals are releasing experienced staff nurses to function as faculty for partner schools. This arrangement not only recruits experienced nurses into faculty positions but also helps integrate students into the patient care team. Nurses who serve as faculty in their own facilities have well-established working relationships with the rest of the staff, as well as with patients and families. Whether employed by the institution or not, formal arrangements that help instructors to participate and to be invested in one or more of the institution's priorities may help them transition from guests to engaged professional partners. At the minimum, clinical faculty should be involved in the preparation and ongoing development of staff nurses who work with nursing students.

By reenvisioning clinical faculty roles, additional clinical sites will become available. Small facilities can provide outstanding learning experiences, yet may not be used because a full group of 8 to 10 students cannot be accommodated. New roles for clinical faculty and staff nurses are necessary for smaller sites to participate in the educational partnership. Depending on the regulatory environment, clinical faculty can supervise students across units or facilities.

Restructuring the clinical faculty role should not be expected to reduce the need for faculty positions, especially in the short term. Establishing relationships, preparing staff nurses to teach, and participating in the ongoing professional development of staff nurses will quickly fill the time created by fewer tasks to supervise. However, when clinical faculty work with staff nurses who have received appropriate education and who have developed experience working with students, it will be possible to increase the number of students in some clinical groups, thereby expanding instructional capacity. For example, increasing clinical groups from 8 to 10 students to 12 students would represent a 20% to 50% increase in instructional capacity.

The value of restructuring the clinical faculty role can be determined by: assessing student, staff nurse, faculty, and clinical site satisfaction; new graduate and employer evaluations of transition to practice; patient safety measures; and student capacity at the site.

ENHANCE DEVELOPMENT FOR SCHOOL-BASED FACULTY AND STAFF NURSES WORKING WITH STUDENTS

The first two recommendations address two primary factors contributing to the nursing shortage: insufficient numbers of faculty and insufficient capacity for students at clinical sites. Our third recommendation provides essential support for the first two recommendations.

Staff nurses and faculty who are new to the teaching role usually need help to be successful (Cangelosi, 2006). Although many hospitals offer programs to prepare clinical nurses to function as preceptors for new hires and new graduates, some nurses have been recruited to precept students without adequate exposure to learning styles or teaching principles (Altmann, 2006). Similarly, in the midst of the faculty shortage, schools sometimes hire adjunct faculty who are excellent clinicians yet require additional knowledge to become effective teachers. A combination of face-to-face and online programs can build local relationships by highlighting regional expertise while leveraging emerging resources available on the Internet.

Many resources are being developed to help staff nurses and clinical faculty acquire teaching skills. For example, the University of Portland School of Nursing (2007) developed a DVD featuring simulated scenarios to build clinical teaching skills. Online modules designed specifically for new clinical nursing faculty are available through 4Faculty.org. The NLN (2008b) has developed a certification program for experienced faculty. The Missouri Preceptor Academy and Clinical Faculty Academy were established to increase the supply and support the development of preceptors and nursing faculty (Missouri Hospital Association, 2007). These academies provide professional development for nurses who serve as preceptors or clinical instructors for nursing students. Each respective academy consists of classroom activities designed to help nurses learn the art and science of clinical teaching and ensure that students meet the learning objectives of their clinical experiences.

Structured professional development opportunities that help clinicians learn effective pedagogical principles and practices are needed to educate the next generation of nurses. The value of enhanced professional development for school-based faculty and staff nurses who work with students can be determined by: assessing staff nurse and faculty satisfaction, and patient safety measures.

REEXAMINE THE DEPTH AND BREADTH OF THE CLINICAL COMPONENT

This fourth recommendation is aimed at maximizing the use of clinical sites as a professional community. The number of required clinical hours and the number of clinical facilities that students visit during their program affects the number of students that can be educated in any given community.

The total number of clinical hours required in associate and baccalaureate nursing programs varies widely (National Council of State Boards of Nursing, 2008). Most state boards of nursing do not specify a minimum number of clinical hours in prelicensure programs. Published evidence correlating the number of clinical hours with outcomes, including NCLEX-RN® pass rates or employer satisfaction with performance, is lacking.

The number of clinical hours students spend in each specialty rotation also varies. Arranging for appropriate clinical sites for all students in each specialty area has become a major curricular challenge. The limited number of sites limits the capacity of educational programs to accept additional qualified applicants. Requiring more than the necessary number of clinical hours in specialty areas
creates enrollment barriers and perpetuates the shortage of nurses. Because most graduates never practice in many of the specialty areas, the total number of clinical hours required and the approach to each specialty (e.g., simulation, inpatient, outpatient) should be reconsidered in light of expected competencies that generalists need in each specialty area. Offering an elective clinical course is another approach to preserve specialty experiences for students most likely to seek employment in these areas.

The pros and cons of students rotating through a large or small number of clinical facilities during their programs require closer examination. Gubrud-Howe and Schoessler (2008) have called for substantial changes in our clinical education model and offer suggestions for approaching these changes, such as creating scaffolded learning experiences that are integrative, based on concepts, cases, or skills, and focused on direct care.

In many nursing programs, students work with patients in public and private settings, academic health centers, small community hospitals, and community-based clinics. Exposure to a variety of patients across diverse settings provides a beneficial range of experiences. However, some forms of professional socialization depend on relationships established over an extended period of time. In each new clinical facility, students must be reoriented to policies, procedures, processes, documentation systems, and institutional philosophies. Orientation to multiple facilities consumes valuable clinical time. Students also are less likely to develop an awareness of the organizational issues that affect nursing and patient care. Similarly, rotating students through several facilities may interfere with the development of strong affiliations with the organizations where nurses work.

An alternative to rotating students through numerous facilities is creating student cohorts that remain in one or two health systems for several clinical experiences. In addition to freeing orientation time for patient care, students have more opportunities to learn about a particular organization in depth, attend to the climate, live the philosophy, and develop relationships with the staff. Several universities across the nation are already using this structure for prelicensure clinical education (Joynt & Kimball, 2008).

The value of the depth or breadth of the clinical component of any nursing program can be determined by: student, staff nurse, faculty, and clinical site satisfaction; new graduate and employer evaluations of transition to practice; recruitment and retention costs; patient safety measures; and student capacity at clinical sites.

STRENGTHEN THE EVIDENCE FOR BEST PRACTICES IN CLINICAL TEACHING

Most educators agree that delivery of a quality academic nursing education requires both clinical expertise and a solid grounding in pedagogical science and theory (Tanner, 2005). Despite this value, approaches to didactic and clinical teaching continue to be based largely on tradition rather than educational research findings (AACN, 2005; Oermann, 2004). With little evidence to support the standard model for clinical education, more research is needed to evaluate outcomes and guide the design of alternate models (Long & Johnson, 2002; Schmitt, 2002; Tanner, 2004). Udlis (2008) reviewed 16 studies of preceptor experiences up to 17 weeks in undergraduate programs and found 56% of the studies supported the use of preceptors, with 44% reporting no significant differences in empirical outcomes. Although the research supports the assumption that preceptor experiences are at least equal to traditional approaches, further studies are needed to clarify factors that facilitate and impede learning with this approach.

Diekelmann and Ironside (2002) raised concern about the quality of students’ academic experiences considering the absence of a nursing education research base to support current clinical teaching practices. In the absence of credible evidence, educators use their judgment, often based on tradition or innovative but untested approaches (Ferguson & Day, 2005). Without an adequate research base, best practices are elusive, undefined, and remain anecdotal at best. Research is needed to uncover the best practices in nursing education so that the risks of untested ideas are reduced while the benefits of innovation can be disseminated.

FRAMEWORK FOR RESEARCH AND OUTCOME MEASURES

The quality of the professional relationships in clinical nursing education provides a robust framework that can guide research into best practices. For example, studies can be designed to compare outcomes between students who work with one or two staff nurses for a term versus students who work under the direct supervision of a school-based faculty member, and students who work in a small or a large number of clinical settings. Other studies, focused on the role of the clinical faculty, can assess the degree to which faculty members are an integrated member of the health team. An ongoing evaluation of both traditional and innovative practices in clinical nursing education is needed.

Key outcomes measures may vary across regions and academic-service partnerships but should encompass indicators for both the educational and practice setting. Minimally, outcomes should include:

- Satisfaction of students, staff nurses, faculty, and employers.
- Professionalism and success in transition to practice.
- Recruitment and orientation costs.
- Patient safety.
- Capacity of clinical sites and schools to accommodate students.

Satisfaction

Satisfaction is a key outcome variable for all participants: students, faculty, clinicians, and employers. For
example, staff nurse participation in and satisfaction with the clinical education of nursing students on a unit must be assessed. When students are not well integrated into the patient care team, staff nurses may be dissatisfied with the experience. If staff nurses are required to work with large numbers of students, they may be less able to meaningfully participate in the students’ education, which may in turn reduce the number of students that can be accommodated in the facility. Outcomes of redesigning clinical nursing education to more fully integrate students into the care team should be assessed. If this integration is accomplished through staff nurse preceptors, the preceptors must be prepared and acknowledged for this role, and their needs and satisfaction should be evaluated.

Transition to Practice

Del Bueno (2005) reported only 35% of new RN graduates met entry expectations for clinical judgment. According to O’Neil (2007), hospital nurse executives have expressed frustration that:

educational programs do not adequately reflect the current realities of nursing practice from the care demands to exposure to information and care management technologies, and that the time from point of hiring to independence in practice is growing. (p. 1)

Many new graduates face a “reality shock” because the practice environment differs dramatically from their clinical rotations where students did not build sustained working relationships with other clinicians, were closely supervised by faculty, and rarely worked with a full patient load. Oermann and Moffitt-Wolff (1997) found that new graduates experienced a moderate amount of stress during orientation in areas of interprofessional interactions, organizational skills, and new situations.

The successful transition of new graduates often influences whether these new nurses remain in the profession. Godinez, Schweiger, Gruver, and Ryan (1999) identified five needs of new graduates who had recently transitioned from the role of student to novice professional nurse: support, guidance, experience, recognizing institutional idiosyncrasies, and negotiating the interpersonal dynamics on the unit. Preparation for this transition starts in nursing school. Schools usually try to collect student and employer evaluations of readiness to assume the novice professional nursing role, although the quality of data for individual schools often is limited by poor return rates.

Recruitment and Orientation Costs

If students who work more consistently with staff nurses develop superior clinical competence and judgment, orientation costs may be reduced, even if they are hired by organizations they never worked in as students. When a prospective applicant has completed a number of clinical rotations in a single facility and is already known there, both recruitment and orientation costs may be reduced. Although many hospitals and health care organizations invite students from schools serving wide regional areas who are not likely to ever become employees, staff nurses may be more willing to invest time in nursing students when at least some of them are likely to be future colleagues. Interviews with staff nurses and nurse executives may illuminate factors related to success in recruitment, orientation, and retention.

Patient Safety

Patient safety concerns have led some hospitals to impose even more restrictive faculty-to-student ratios than are required by the state regulatory body, although no data are available to support that the presence of students contributes to negative patient outcomes. Because of the lack of available data about these important issues, concerns about supervision ratios and how different clinical educational practices are related to patient safety should be addressed through research. One approach to answering these questions would be to examine patient incident reports involving nursing students. Faculty, staff nurse, and nurse executive perceptions of patient safety should be assessed continuously.

The Institute of Medicine (2004) report on transforming the work environment of nurses emphasizes the need to build and sustain cultures of safety. Developing cultures of safety in nursing will require structures that support effective professional relationships and communication between nursing students and staff nurses. The traditional model for clinical education does not foster these relationships.

Student Capacity

The first two outcomes above, satisfaction and transition to practice, are related to the quality of the clinical education program and reflect the combined efforts of the academic-service partnership. The third and fourth outcomes, costs and patient safety, are potential benefits to clinical sites. The final outcome, student capacity, should be assessed against each clinical agency’s goals for clinical nursing education. Although maintaining capacity while piloting new models may be necessary, it is hoped most agencies will strive to increase their capacity for educating nursing students and balance the other four outcomes at the same time.

MOVING FORWARD

Despite the time and effort spent in recruiting more individuals into the profession, little attention is given to the disparity between service needs and the educational product. The time has come to reconsider long-held, traditional academic practices and examine innovative approaches to clinical nursing education. Now, more than ever, Porter-O’Grady’s (2001) cautionary advice is applicable:

Holding on to old notions and practices that no longer characterize the demands of the time will do nothing but exacerbate the conditions which facilitate the demise of nurses and nursing work. (p. 183)

There is no need to introduce change for the sake of change. However, where the numbers of clinical faculty
and appropriate clinical sites are inadequate and where students are insufficiently integrated into the professional care team, incremental changes within existing models may not be enough. These five recommendations for clinical nursing education and research are offered to strengthen the profession by guiding efforts to build more capacity and quality into our educational programs.

REFERENCES


