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Abstract

Nursing is an ever-changing field. Issues exist. Healthcare is at a crossroads and nursing is at the forefront of influencing change. Many obstacles challenge prelicensure nursing programs today. One prominent issue is the lack of inpatient clinical sites to prepare students for nursing practice. Many factors contribute to this worsening problem including, but not limited to, a looming nursing shortage, faculty shortage, lack of collaboration between nurses in academic and practice settings and with other healthcare professionals, cost, and safety and liability issues. This paper examines the impact of limited clinical sites on the preparation of nurses for professional practice and proposes recommendations that emphasize service-learning and community-based practice learning experiences, which are viable options for many nursing programs.

Keywords: nursing shortage, clinical sites, prelicensure nursing programs, service learning, simulation, faculty shortage

The Impact of Limited Clinical Sites on Prelicensure Nursing Education Programs:

Current Issues and Recommendations for the Future

Nursing students in prelicensure programs must complete clinical education in order to graduate. This is a universal requirement, even though many states do not specifically identify the number of clinical hours or how those hours should be distributed (American Association of Colleges of Nursing [AACN], 2008; MN State Board of Nursing, 2013). The pressing issue that exists today is the lack of inpatient clinical sites to educate these students. This makes it more difficult for faculty to ensure that students develop the needed skills before they graduate and begin practice as registered nurses (RNs).

Many factors contribute to this shortage of clinical sites including a shortage of RNs; a shortage of educated, qualified nursing faculty; safety and liability issues with hospitals; sometimes strained relationships between RNs in the practice setting and nursing students; lack of collaboration with other healthcare professionals; and the competition that exists for securing the limited clinical sites available. According to the AACN, "42,866 qualified applicants were turned away from baccalaureate schools of nursing in 2006 primarily because of a shortage of nursing faculty, clinical placement sites, and classroom space" as cited in Benner, Sutphen, Leonard, and Day (2010, p. 5). A picture of the problem as it exists today will be drawn so that the breadth of this dilemma can be appreciated.

Current Issues

Nursing practice has been profoundly impacted by the many changes in the healthcare industry in recent years. Numerous factors in nursing are changing and evolving. Responding to these changes has been very challenging to accommodate. These factors have also contributed to

the current shortage of inpatient clinical sites. This shortage will be explored and explained in depth.

Nursing Shortage

A nursing shortage has already commenced in some parts of the United States and is looming in others (see Figure 1). This shortage threatens to impact many levels of patient care. It also affects the education of nursing students in prelicensure programs.   According to Kline and Hodges (2006), the competition that exists for clinical sites is expected to become more severe. It is a vicious cycle. There is a shortage of practicing RNs, which means nursing programs are trying to graduate more nurses to deal with the RN shortage. However, there is also a faculty shortage. Not enough teachers and clinical sites to educate future nurses means fewer nurses graduating (MacIntyre, Murray, Teel, & Karshmer, 2009).

By the year 2020, an estimated shortage of over 340,000 RNs will exist in the United States (MacIntyre et al., 2009). This shortage is currently causing unit and hospital closures. It is also partially responsible for heavy workloads and burn-out among RNs (Doucette, Brandys, Canapi, Davis, DiNardo, & Imamedjian, 2011).   Many organizations are calling for the majority of RNs to hold bachelor's degrees (AACN, 2008; Institute of Medicine, 2010). This means currently practicing RNs who do not hold a bachelor's degree will need to return to school to complete their education, further exacerbating the nursing shortage. The goal of nursing programs is to educate high quality RNs as quickly as possible to ease this shortage and meet the need for baccalaureate prepared nurses.

Nursing Faculty Shortage

Many reasons exist for the current nursing faculty shortage including the aging of the faculty population, fewer master's and doctoral prepared nurses available to teach,

noncompetitive salaries, and high workloads (see Figure 2). As stated previously, these issues

are also why more students cannot be admitted to nursing programs which contributes to the

shortage of qualified RNs.   Both the AACN (2008) and the IOM (2010) have indicated that the

faculty shortage is a major obstacle in the issue of decreased clinical sites.

Nursing faculty are aging and retiring. According to MacIntyre et al. (2009), faculty are

retiring at a faster pace than new faculty are being hired. Therefore, the ability to enroll new

students is inadequate. It also limits the amount of faculty available to provide clinical

instruction at inpatient sites.

Another issue impacting the faculty shortage is the lack of RNs with master's and

doctoral degrees who are qualified to teach. Livsey, Campbell, and Green (2007) paint the

picture that these advanced degree nurses are not only needed as clinicians but also as educators.

They describe the lack of nurses with advanced degrees as one of the primary factors influencing

the current nursing shortage. They also propose that nursing schools can meet the challenge of

the nursing shortage if they increase the number of graduates by 90%. This cannot happen with

the current shortage of faculty.

A third issue regarding the faculty shortage is the lack of competitive salaries for those

nurses who choose to teach. Not only does the salary for professors fall short of that for other

professions, it cannot compete with the earning potential for a hospital-based RN (MacIntyre et

al., 2009). Prelicensure nursing programs must offer competitive faculty salaries in order to

attract highly qualified professionals to teach the next generation of nurses. This means money

for salaries must come from somewhere. Does it mean increasing the tuition that students pay?

Nursing is already an expensive major, and charging more for tuition may turn some students

away, furthering the shortage.

The final reason for the faculty shortage relates to workload when educating nursing

students in prelicensure programs. This is viewed as a "crucial problem in the recruitment and

retention of nurse faculty" (Benner et al., 2010, p. 61). Not only do other professionals not

understand the capacity to which nursing faculty manage their workload, nurse educators who do

not teach in the clinical setting do not understand the extreme workload of clinical nursing

educators (Benner et al., 2010). Benner et al. also suggest that schools of nursing need to give

appropriate teaching credit for educators who teach in the clinical arena.

Safety and Liability

Safety and liability are often cited as reasons why there are limited inpatient clinical sites.

Acute care settings sometimes do not want the added stress and liability that nursing students

bring. The RNs employed by the hospitals are already overworked and stretched thin. As

preceptors, these RNs would be stretched even further, possibly compromising the care they are

already stretched to provide. Many hospitals recognize this and the fact that students who are

unlicensed are a potential safety and liability issue.

The establishment of a relationship between a school of nursing and a hospital-based

clinical site requires some sort of legal contract. Some of these are simple, some are complex. A

legal agreement is necessary and essential before any student enters a facility (Pruchnicki,

Janeski, Mitchell, & Fetten, 2008). Bette-Jo Johnson, MS, BSN, RNC, an Allina Learning and

Development Specialist, stated that in order for students to participate in clinical at Abbott

Northwestern Hospital (ANW), Allina must have a contract with the school of nursing. That

contract is valid for three years. Obtaining a contract can take months, and a school is not

guaranteed that it will get the clinical experiences in the area they want. The school must then

apply for approval for that certain area and await approval from Allina. Once the site has been

approved, the school must submit a list of students' names and ensure that all students have met

the facilities' requirements before they are allowed to begin clinical experiences. This process is

called on-boarding, and can be extremely time-consuming (personal communication, January 10,

2013).

        In addition to legal agreements, other safeguards are in place to protect patients, the

practice setting, nursing students, and the nursing school. MacIntyre et al. (2009) make some

interesting points regarding the safety of student clinical experiences in the hospital setting.

First, in the interest of patient safety, the number of nursing students on a unit at any time must

be limited. Second, the relationships among students, staff RNs, instructors, and other members

of the health care team need to be nurtured. Thirdly, many hospitals enforce faculty-to-student

ratios required by state regulating bodies. Most hospitals expect one faculty member for every

eight to ten students in a setting (AACN, 2008). All of these factors, even though they are safety

related, can limit the number of clinical sites available and the number of students who can be

admitted.

        Benner et al. (2010) claims that even though students do better when caring for fewer

patients, some employers are encouraging larger patient loads while students are in their nursing

programs.   This way, it is hypothesized, nurses are more efficient once they graduate and enter

the workforce. Prospective employers want graduates who can immediately take on a full

patient load, hopefully without compromising patient safety. This is a desired outcome, but not

realistic.

        Sullivan (2010) describes the importance of integrating the quality and safety

competencies for nursing identified by Quality and Safety Education for Nurses ([QSEN], 2013)

into clinical nursing education. She states that the integration of these competencies is necessary

to promote safe care delivery. She describes an education-practice gap. Students are learning

the theory related to the QSEN competencies in the classroom, but not applying it in the clinical

setting. Clinical experiences need to be revamped so that students can practice and implement

QSEN competencies (Benner et al., 2010; IOM, 2010). Nurses must be prepared with the

knowledge, skills, and attitudes necessary to promote quality and safety. This means that there

must be dedicated, committed faculty and students who want to make this a priority and a reality.

That is the goal of the QSEN Institute. However, faculty and nurse shortages are affecting the

effective implementation of the QSEN competencies in many areas.

Strained Relationships

Nursing students who arrive on hospital inpatient units to care for patients are often

viewed as visitors. Staff RNs, who are already overworked and tightly staffed, frequently see

nursing students as a burden and interference with their very busy work. The first priority of

staff RNs is patient care, not mentoring or teaching nursing students in clinical. The idea that

students are bothersome and "in the way" further limits the quality and effectiveness of clinical

learning experiences nursing students engage in. The fact that staff RNs are not as involved with

students as they could be implies that faculty have to be more available for the students, limiting

how many students can be on a unit at any time (MacIntyre et al., 2009). The AACN (2008)

further states that nursing faculty do not foster mentoring between staff nurses and nursing

students which can perpetuate a decreased involvement by clinical nursing staff.

Lack of Collaboration

An essential part of success in any setting is collaboration. According to Benner et al.

(2010), healthcare professions faculty often, "educate their students in academic silos, isolated

from one another and hence largely ignorant of the expertise of those with whom they will need

to work closely and seamlessly" (p. 22). Nursing, medicine, physical therapy, social work, and other health professions do not work collaboratively to educate their future practitioners. Pooling resources and integrating training could alleviate some of the strain on any one profession. Michelle Gobrecht, an independent quality improvement consultant who is working with St. Catherine University and the Henrietta Schmoll School of Health as the project manager for infrastructure for clinical education, stated that more interprofessional relationships are needed to enhance clinicals. According to Gobrecht, the trend of clinical site shortage will continue unless collaborative partnerships among health professions educators are strengthened (personal communication, August 29, 2012).

Process of Securing Sites

The process of securing clinical sites is time-intensive and competitive. Rivalry among prelicensure programs has resulted from increased enrollments and the increase in the number of programs (Burke & Craig, 2011). The process of securing a clinical site for practice can last months. Competition for sites is also exacerbated by tradition and favoritism. If an institution has a relationship with a hospital that has been established for years, that institution is likely to maintain a monopoly on that site (Kline & Hodges, 2006). Gobrecht adds that many schools use an antiquated, unorganized system for securing sites and advocates for a systematized process when obtaining sites (personal communication, August 29, 2012). The AACN (2008) states that the most frequent barriers to acquiring clinical sites are the lack of sites, the fact that sites limit the number of students accepted, and the stiff competition between prelicensure programs seeking clinical placements for their students.

As an example of the complexity of the process of procuring clinical sites, ANW in Minneapolis was examined. According to Bette-Jo Johnson, MS, BSN, RNC, Abbott

Northwestern uses a system called StudentLink. This system allows schools of nursing to

request access to ANW for clinical learning experiences. ANW then decides whether to accept

the school or not. Extended negotiations are needed between the school and ANW before a final

decision for clinical placement is made. Johnson also stated that ANW, a part of Allina Health,

now prefers baccalaureate degree nursing students for all of their job openings. Consequently,

they have decreased the number of associate degree schools they accept for clinical experiences.

They have accepted more bachelor's, master's, and post-baccalaureate programs for clinical

(personal communication, January 7, 2013).

Summary

Benner et al. (2010) summarized the problem of lack of clinical sites very succinctly,

asserting that the problem of lack of clinical sites does not have a quick fix. The importance of

education and education-practice partnerships has to be stressed. The solution lies in using

resources wisely and implementing solutions that are efficient, cost-effective, and promote

student learning through collaborative, intra- and interprofessional learning experiences.

Recommendations for the Future

When there is a problem, it is helpful to identify and propose solutions. Through

research, creativity, and commitment to student learning, many solutions exist to address this

problem of lack of clinical sites. The solutions that will be presented focus on service-learning

and giving back to the community while still fulfilling clinical requirements for graduation.

Examples of solutions that will be explored include (a) replacing inpatient clinical hours with

simulation learning experiences; (b) using Dedicated Education Units (DEUs); (c) innovative

programs such as the Accelerated Online Bachelor's to BSN (ACCEL) at the University of

Wisconsin, Oshkosh; (d) using alternative sites for mental health clinical; (e) partnering with

Head Start Programs and K-12 schools; (f) collaborating with other health care professionals;

(g) exploring opportunities in rural clinics; (h) developing practice learning sites in assisted

living facilities and nursing homes; (i) expanding community-based learning experiences; and

other creative options.

It is imperative for nursing to focus on identifying nontraditional clinical sites because

traditional sites are not as readily available. This is due, in part, to the fact that there is an

increased emphasis on health promotion and disease prevention, with more and more care

provided outside of the acute care setting. Also, the goal in health care is to prevent disease and

keep patients healthy. This means much of health care no longer takes place in traditional sites.

Some nontraditional sites are already being used, and their universality for many programs will

be examined. By envisioning relationships, enhancing staff development, redefining the faculty

role and the practice environment, and utilizing evidence-based practice, change is possible

within this challenging atmosphere (MacIntyre et al., 2009). Many of the recommendations will

include exemplars to further identify their usefulness and functionality.

The nurse educator has a very influential role in the future of nursing education,

specifically in clinical education. By examining the National League for Nursing's (NLN, 2012)

The Scope of Practice for Academic Nurse Educators, the responsibility of the nurse educator is

clearly defined. Eight core competencies are identified, however competencies I, II, and V are

most pertinent to the issue at hand. First, Competency I states that the nurse educator must

"facilitate learning" (NLN, 2012, p. 14). The nurse educator must use various forms of teaching

to encourage curiosity and critical thinking. Second, Competency II describes the nurse educator

must "facilitate learner development and socialization" (p. 16). This implies that the nurse

educator needs to introduce the nursing student to the role of the RN, and all the facets of that

role. Mentoring must be encouraged. Cottingham, DiBartolo, Battistoni, and Brown (2011)

describe the Partners in Nursing (PIN) program, in which mentoring relationships between new

graduate RNs, staff RNs, and nurse educators fostered an environment of inclusion and retention.

The hope for this program was to retain new nurses and improve the socialization of all RNs.

This model could be implemented for students as well and thus fulfill Competency II.

Competency V states that the nurse educator must be "a change agent and leader" (p. 20). Nurse

educators must keep their eyes on the future of nursing and healthcare, encouraging originality

and adaptation to an ever-changing environment.

      The climate of nursing has changed. The emphasis of nursing care is shifting from the

inpatient setting to the community. According to the IOM (2010), the focus of nursing care and

education needs to be "community health, public health, primary care, geriatrics, disease

prevention, health promotion . . . beyond the provision of nursing care in acute care settings" (p.

168). The IOM also describes that patient care in the community is becoming more complicated.

Nurses need to be more educated and be able to collaborate with other health professionals.

According to the IOM, nurses must

> coordinate care among a variety of clinicians and community agencies; to help patients
>
> manage chronic illnesses, thereby preventing acute care episodes and disease
>
> progression; and to use a variety of technological tools to improve the quality and
>
> effectiveness of care. (p. 170)

The Institute of Medicine (IOM, 2010) also states that "nurses must be prepared to meet diverse

patients' needs; function as leaders; and advance science that benefits patients and the capacity

of health professionals to deliver safe, quality patient care" (p. 164). The future of nursing is

changing, and nursing education, specifically clinical education, must adapt to the needs of

patients. It seems the majority of those needs are in the community collaborating with other health care professionals.

Simulation as Clinical

Using simulations to teach students is not a new concept. Aviation has been using simulation successfully since before World War II. Pilot students learn normal procedures and operations of the aircraft, and are gradually introduced to abnormal and emergency situations. Students are taught to figure out if something happening in the airplane is wrong. From there, they must determine if the malfunction is abnormal or emergent, which present two very different thought processes. According to Antonio Rodriguez, a 15-year veteran pilot from the United States Air Force and AirTran Airways, shared that, "having a frame of reference, or similar scenario to draw upon, helps the student more efficiently deal with the situation presented" (personal communication, December 2, 2012).   He also stated that by simulating the stress of emergencies, a student can learn how to deal with the shock of the situation and minimize the delay of responding to the emergency. Airlines use the simulator as the only training for new pilots. Their first "real" flight is an actual scheduled flight with passengers. Much can be learned from aviation and how they utilize simulation as legitimate training and qualification for pilots (personal communication, December 2, 2012).

A steadily decreasing supply of clinical sites has prompted some educators to suggest that simulation experiences could be used to replace some clinical hours. Most have recommended the use of high-fidelity simulation and/or standardized patients to make the simulations as realistic and close to the clinical environment as possible. MacIntyre et al. (2009) supports the idea that increasing the time spent in simulations could decrease the amount of time students

need to spend in the clinical setting, and thus decreasing the need for so many sites and
instructors.

Many benefits come from using simulation as clinical. Partin, Payne, and Slemmons
(2011) conducted a study to find out students' opinions about simulation. First, the setting
promotes critical thinking and observation in a safe atmosphere. Secondly, studies have shown
that students involved in high-fidelity simulation have a better clinical judgment than those who
have not participated in high-fidelity simulations. Most students also state a high level of
satisfaction with the learning that simulations offer. Finally, the combination of these factors
increased the abilities and self-confidence of students.

In 2010, the National State Boards of Nursing conducted a National Simulation Survey.
They found that over one-third of nursing programs in the United States utilize standardized
patients in their curriculum. Most schools stated that they are implementing simulation and
standardized patients as an alternative to the lack of clinical sites for students. The survey also
found that programs are using scenarios developed by the National League of Nursing (NLN)
and Medical Education Technologies Incorporated (METI), and reported that student evaluations
were the best gauge of the efficacy of the simulation.

A survey of the boards of nursing in all 50 states, the District of Columbia, and Puerto
Rico was conducted in 2008 to determine the extent of the use of high-fidelity patient simulators
for clinical time in prelicensure nursing programs (Nehring, 2008). In her article, Nehring
(2008) states that

> outside forces, such as faculty shortages, decreasing numbers of clinical sites available at
> specific dates and times, costs for clinical sites, patient acuity and length of stay, and
> increasing technology in the hospitals and other health care facilities, are affecting the

quality and quantity of clinical experiences for prelicensure nursing students, making it

necessary to add this technology as an adjunct to clinical nursing education. (p. 110)

Most state boards that responded to the survey had made regulation changes to allow some kind

of simulation education. Five states and Puerto Rico have made definite regulation changes, and

Florida has made very specific changes including the amount of hours for simulation. 16 states

give permission to substitute simulation for clinical, and 17 states are considering doing so (see

Figure 3).

Negative aspects related to the use of simulation and standardized patients were also

uncovered by the National State Boards of Nursing (2010). First, the cost of high-fidelity

simulators, standardized patients, and faculty training is very high. Second, simulation does not

lend itself well to learning certain skills, such as communication, body mechanics, bedside

manner, and some patient safety issues. However, the authors of the survey did offer a solution

to the budget issue for schools. A suggestion was that schools of nursing could combine their

ability to facilitate simulations and share the cost (Kardong-Edgren, Willhaus, Bennett, &

Hayden, 2012).

Several sources cite the efficacy of using low-fidelity simulations for students completing

their mental health clinical. Kardong-Edgren et al. (2012) and Christofferson, Barron, Lynch,

and Caroline (2010) state that this is a straightforward, inexpensive way for students to practice

the skills needed in mental health. Role play is a simple way to engage students and faculty need

little to no training on how to implement it.

The Simulation Innovation and Resource Center (SIRC) is a partnership that has been

developed between the NLN and Laerdal Medical. The partnership developed in 2007 to

encourage nurse educators to utilize simulation in teaching. It is also a source of support for

these educators and provides information, an opportunity for dialogue, and encourages the

expansion of simulation (2012).

Innovative Programs

   The Dedicated Education Unit. An inventive solution to limited clinical sites is a

concept known as the dedicated education unit (DEU). The DEU is a hospital unit, no matter the

specialty, where staff nurses serve as the clinical instructors for students on that unit. The staff

nurses are employed by the school of nursing and receive education about how to precept the

students. These nurses usually precept two students at a time for about 6 weeks (Burke & Craig,

2011).

   The University of Portland and Providence Health Services has developed a DEU model

that addresses many problems facing nursing education today, including the need to increase the

number of students being educated, the need to shift faculty workload, and the ability to allow

students to receive instruction from nurses who are active in the clinical setting. Also, students

receive instruction at a ratio that is much more conducive to learning than the current ratios of

one faculty to eight to twelve students.

   According to MacIntyre et al. (2009), there is more than just patient care learning and

skills acquisition happening in the DEU. There are relationships being formed between students

and nurses. These relationships allow the students to understand the role of the RN and be

socialized into the RN role. These relationships foster a feeling of safety and comfort which may

contribute to fewer errors and patient harm. By incorporating the DEU model into more

undergraduate nursing programs, theoretically it would be possible to open up an almost endless

supply of clinical sites.

The DEU model has other positive aspects. The Robert Wood Johnson Foundation (RWJF) is currently studying the DEU and its effectiveness. According to the RWJF, the cost to schools of nursing is minimal because the hospital pays the RNs on staff. Second, faculty are freed up to spend more time educating and evaluating students. Third, the students educated on the DEU are potential new hires for the hospital after graduation. The students are already knowledgeable about the facility and culture and tend to assimilate well after graduation, impacting their retention. Fourth, the students have a consistent clinical experience and that can allow greater learning to take place. Finally, the RWJF has found that the DEU fosters an increase in evidence-based practice (RWJF, 2010).

Moscato, Miller, Logsdon, Weinberg, and Chorpenning (2007) describe the DEU created by the University of Portland and Providence Health Services and resulting outcomes (see Figure 4). These outcomes included the fact that the DEU model allowed more students to receive clinical experiences in a resourceful manner. Students had high satisfaction ratings, stating that they felt assimilated to the unit and were able to socialize to the RN role. Staff nurses felt a renewed sense of purpose and achievement, and many returned to school to further their own education. Clinical faculty and staff nurses agreed that communication was the key to the success of the DEU. However, the cost of the DEU was not reported and further research needs to be done to determine if the model is cost-effective. When discussing cost and whether or not the DEU is feasible, another DEU model used at Pacific Lutheran University reported that the DEU, "allowed increased enrollment that contributed to increased revenue, increased recruitment and decreased orientation time for new graduates" and increasing retention for new graduates (Moscato et al., 2007, p. 36).

Accelerated online bachelor's to BSN (ACCEL). The University of Wisconsin Oshkosh has developed its own unique and innovative way to tackle the nursing shortage and also the shortage of clinical sites. Faculty have created an accelerated BSN program for students who already hold a bachelor's degree in another discipline. The program is 12 months in length and is rigorous and intense. Students take online theory courses and complete clinical in their own communities with preceptors identified by the school of nursing. Students are encouraged not to work during the year they are completing the program. ACCEL incorporates technology, hybrid learning, and clinicals to educate students who are well-prepared to meet the challenges of nursing practice. I had the pleasure of precepting an ACCEL student at ANW in the Birth Center in the spring of 2010. The student was highly motivated, mature, and extremely competent in the skills and communication needed to care for patients.

Mental health clinical. Mental health can offer some nontraditional experiences for students as well as increasing possible clinical sites, including prisons, homeless shelters, group homes, courtrooms, and meetings such as Alcoholics Anonymous or Narcotics Anonymous. Practice learning experiences in mental health are often enriching learning experiences for students and also increase clinical site possibilities and collaboration with other health care professionals and agencies.

Pharez, Walls, Roussel, and Broome (2008) suggest creating mental health clinicals that incorporate conventional inpatient clinicals followed by an experience that is nonconventional. The idea of introducing these nontraditional sites "challenges [students] to be creative, culturally sensitive, nonbiased, and innovative" (p. 102). Students start to see patients with a holistic view and are exposed to the various needs of all people.

Partnering with schools. As with all aspects of nursing today, school nurses are greatly affected by the economy. With a decrease in funding available to pay for school nurses, many schools share nurses or go without a school nurse. This means that many children either do not get the care they need or get sporadic care. A solution to that problem, and the problem of decreased pediatric clinical sites, would be for schools of nursing to partner with elementary and high schools to provide the much needed care that would fill in some of the gaps.

Schwartz and Laughlin (2008) discuss this proposition and describe a model used by Creighton University in Omaha, Nebraska. Creighton formed a partnership with schools in their community. This collaboration allowed the school of nursing to, "meet [its] mission by providing service-learning opportunities for students and access to needed health promotion and prevention activities in the community" (p. 280). This is an obviously mutually beneficial endeavor. Nursing students are able to conduct vision and hearing screenings, give immunizations, and provide teaching on healthy living. They also receive another experience in the community, and are able to partake in more service learning.

Another example of partnering with schools is by utilizing Head Start programs. Kulewicz (2001) described the idea of students dealing with preschool-aged children and providing much needed services in Head Start programs. Her recommendations are extremely similar to Schwartz and Laughlin, but with a younger population. Again, services can be provided by students that might otherwise not be available. Kulewicz also recommends that her suggestions could be implemented in pediatric clinics, day cares, and after school programs.

Collaboration with other disciplines. Another possible solution to the problem of limited inpatient clinical sites is collaborating with other healthcare disciplines and agencies and

pooling resources. Benner et al. (2010) recommends creating schools of health and educating all

healthcare disciplines in a more mutually respectful fashion.

From (2000) suggests that schools of nursing can "collaborate with other healthcare team

members to promote the effective allocation of resources to foster optimal health of individuals,

families and communities" (p. 68). Not only would this idea help with the dilemma of a shortage

of clinical sites, but it would also encourage what health care is trying to promote: collaboration

and sharing resources. By collaborating, the potential for a decrease in competition for sites is

possible.

Keller, Schaffer, Schoon, Brueshoff, and Jost (2011) describe another collaborative

venture (see Figure 5). The Henry Street Consortium was a partnership of "five baccalaureate

schools of nursing, 13 local health departments, and the [public health nursing] section of the

Minnesota State Health Department" (p. 261). The purpose of the collaboration was to broaden

and educate nurses working in public health. Nurses entering the public health sector are

generally not well prepared. This affiliation created a greater ability for students to participate in

care, nurses who could mentor students, preceptorships, and the chance for students to be a part

of providing public health services. A huge result of this joint venture was that these agencies

did not vie for sites, they worked in partnership with each other.

Nursing students must be able to work with other healthcare professions students if they

are expected to work together as professionals. According to the Interprofessional Education

Consortium (IPEC, 2011), the *Core Competencies for Interprofessional Collaborative Practice*

discuss this necessity in education. This report looks at establishing competencies for the

healthcare professions so that collaborative care will be the norm when delivering patient care.

This will hopefully ensure, "safe, high quality, accessible, patient-centered care" (p. i). This is

achievable if changes occur in education.

The report also states

> in many instances, interprofessional learning activities are still aimed primarily at
>
> *exposure* to students from other professions. Educators assess interprofessional
>
> experiences at the level of learner reactions, attitudes and perceptions, knowledge or skill
>
> . . . Mainly 'college led' activities produced these results, which suggest that some of the
>
> elements that make up competency development can be achieved in educational settings.
>
> (p. 26)

An example of interprofessional education being implemented in the academic setting is the

Urban Service Track at the University of Connecticut. Students studying medicine, nursing,

dentistry, and pharmacy are invited to become Urban Health Scholars. These students work in

community health agencies for two years and offer preventative care and education to patients.

Their work at these agencies, "incorporate(s) advocacy skills and the delivery of prevention and

health promotion activities" (IPEC, 2011, p. 29). Like many other recommendations, this Urban

Service Track uses service learning to give back to the community while at the same time

fulfilling educational goals for students.

  Caring for the aging population. Utilizing nursing homes and assisted living facilities

(ALF) as clinical sites is not a novel idea for clinical sites. However, it is not an idea that is used

often in many nursing programs. The population in the United States is aging. Residents of

nursing homes and ALFs are sicker and need more skilled care. By forming affiliations between

schools of nursing and nursing homes and ALFs, cost-effective, quality care can be delivered

(Chen, Melcher, Witucki, & McKibben, 2002). Students are able to interact with patients and

families. Many residents of these facilities benefit from increased caregiving and from the

human interaction and companionship of these students (Pruchnicki et al., 2008). An unforeseen

benefit of using nursing homes and ALFs is that students have a more positive mind-set in regard

to the aging population.

Other Solutions

The solutions presented thus far may be implemented without great difficulty. The following

solutions presented in this section are more unique or may be more challenging to implement.

Intensive care units. The intensive care unit (ICU) is rarely used in clinical. Sometimes

it is utilized as a senior year capstone clinical. However, Doucette et al. (2011) suggest using the

ICU for undergraduates by pairing them with a preceptor RN. Students are able to form a

relationship with their preceptor and care for one to two patients in a fast-paced, highly skilled,

technical environment. While the ICU can be overwhelming at first, this environment provides

students with the opportunity to think critically, care for patients and their families, and deal with

a very challenging environment while being supported by a consistent preceptor. The students

who are placed in this clinical must be up to the challenge that this experience brings. The

preceptors must also be prepared and engaged because this is an extremely fast-paced,

demanding area.

Rural clinics and underserved communities. Many clinics offer care to underserved,

rural populations. These clinics are often in need of nurses because of their location or the

populations they serve. Many of these clinics are nurse-managed, meaning they are run by

advanced practice registered nurses (APRNs). Schools of nursing partner with these clinics to

allow students to gain needed skills and the clinics receive much needed services from the

students. Many of the patients at these clinics have undiagnosed conditions and may be

immigrants who do not speak English. Students work with these patients and give culturally-sensitive care while working alongside an advanced practice nurse (Richards, O'Neil, Jones, Davis, & Krebs, 2011). An added bonus is that these sites expose students to the role of the APRN and may motivate these students to explore that role in the future.

Camps as clinical. College-aged students often work during the summer as camp counselors. The idea of utilizing nursing students to give care to youngsters at camp has opened up a whole new area of clinicals. Many camps utilize nurses to give care, specifically camps that are conducted for children experiencing certain chronic conditions. Praeger (1997) presents the idea of allowing nursing students to complete a clinical rotation at a camp for children. Students can give cares around-the-clock, allowing students to gain the experience of living with a chronic disease. Also, under the supervision of RNs and physicians, students can practice skills and learn about growth and development, socialization of young people, and critical thinking skills.

Scheduling. Many of the potential solutions presented thus far involve coordinating clinical sites that are under-utilized or inventive. Additional sites that could be explored are prisons, homeless shelters, and surgery centers. Instead of just creating new clinical sites, innovative ways to engage sites already in use is necessary. Thinking "outside the box" needs to continue. For example, more clinical rotations may need to be scheduled on "off" shifts, evenings, nights, and weekends. Also, it would be possible to schedule some clinical experiences during holidays or over the summer. MacIntyre et al. (2009) suggest "offering an elective clinical course" to allow students exposure to certain specialty areas in nursing (p. 451). Another idea is to increase the collaboration of all health professions and form schools of health to educate nurses, doctors, therapists, and other professions in an atmosphere of sharing (Benner et al., 2010). Finally, clinical experiences that encourage nursing students to work with nurses in

specialties such as, "infection control, quality and safety improvement, and discharge planning"

also need to be explored and encouraged (Benner, et al., 2010, p. 220).

      Increasing nursing faculty. More faculty can potentially mean more clinical

experiences. Nurses need to be encouraged to pursue advanced nursing degrees and to bring

their knowledge and experience into the classroom to teach the next generation of nurses.

Incentives are needed to attract these nurses into the classroom. More scholarships and grants

need to be available to make graduate education possible to prepare future faculty. One such

option is the federal Nurse Faculty Loan Program. This is a loan payback program funded by the

federal government that allows students to attend graduate school and have 85% of their loans

forgiven after they teach in the academic setting for four or more years after graduation (Health

Resources and Services Administration, 2013). The college receives the loan, the student

completes a graduate degree, and then teaches at a school of nursing. Many universities receive

funding for the federal Nurse Faculty Loan Program and hopefully this program will be

successful in increasing the number of nursing faculty.

<div align="center">

Conclusion

</div>

      The reality of limited and declining numbers of clinical sites is daunting. The solution to

this dilemma is equally overwhelming. However, keeping in mind a few key concepts make this

issue more surmountable. First, more research is necessary if best practices are going to be

utilized. Currently, students find a gap between theory taught and clinical practice (Sullivan,

2010). By basing solutions on evidence-based practice, the outcomes will be positive and

helpful. Second, collaboration is essential if resources are going to be shared and optimal

learning is going to occur. Third, innovation must happen. Thinking "outside of the box" will

move nursing forward to educate our future practitioners. Finally, service learning helps many

different populations and instills a sense of community and worth for students. The future of

nursing, not just education, depends on the ability of today's nurse educators to be pioneers and

solve the problem of decreased clinical sites by expanding our notion of "clinical" to embrace

interprofessional learning communities engaged in collaborative practice beyond the acute care

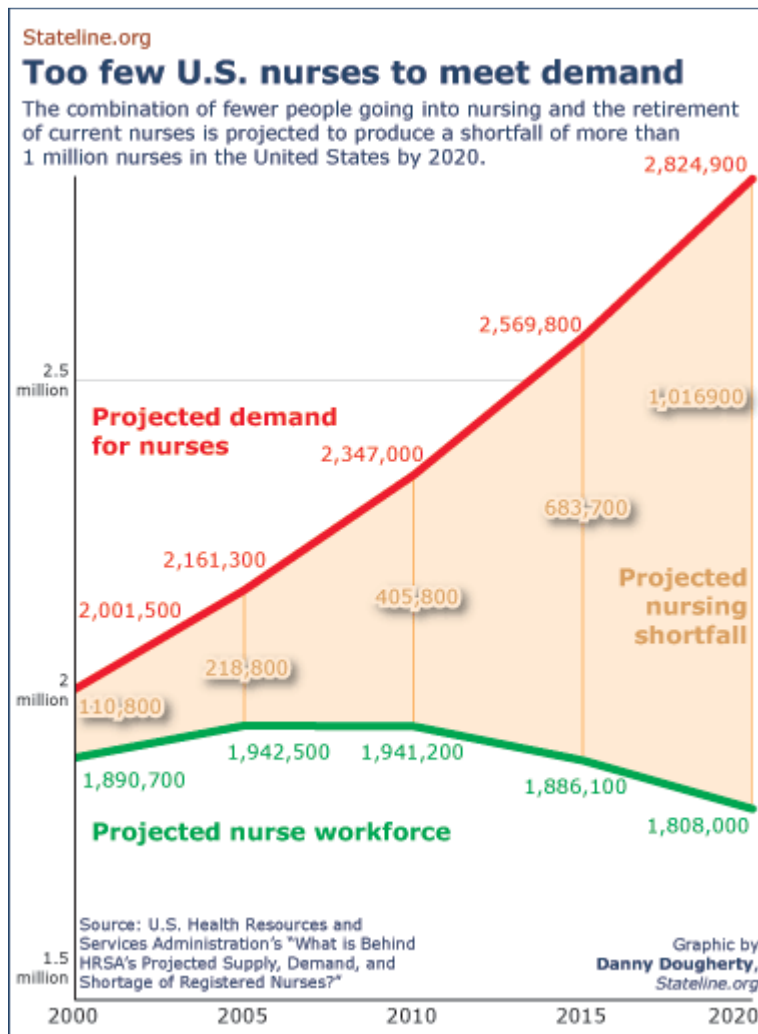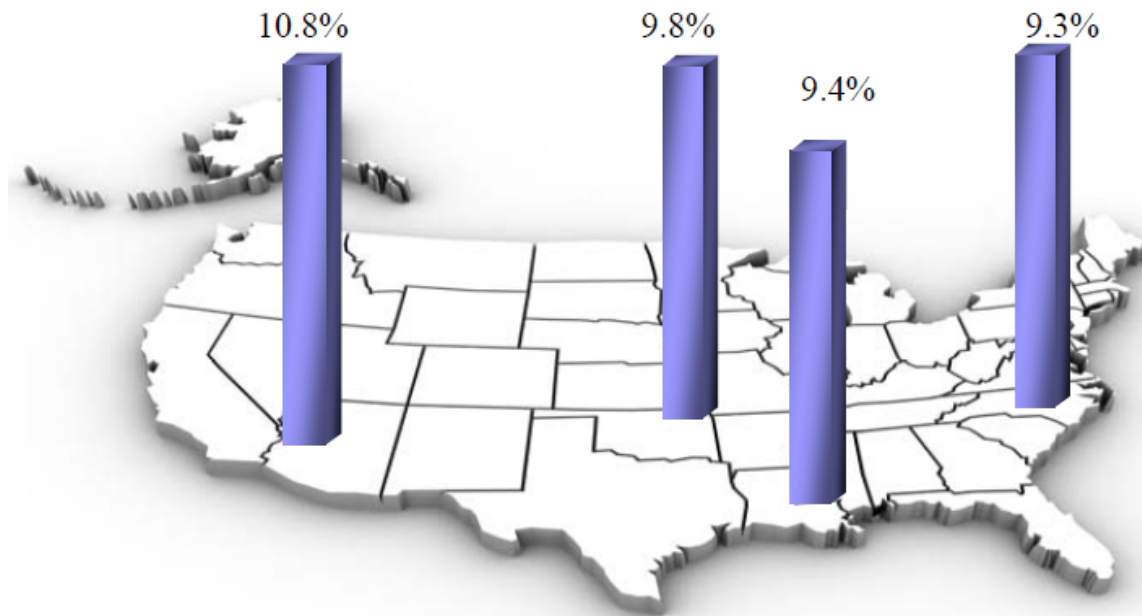setting. This is a challenging time that can be the dawn of a new era in nursing education.

Figure 1.   The United States nursing shortage (Dougherty, 2008).

Figure 2. The United States nursing faculty shortage (AACN, 2010).

Table I. Survey Outcomes of Boards of Nursing Regarding the Use of High-Fidelity Patient Simulators in Nursing Education Programs for Clinical Time

State	Clinical Ratio (Faculty:Student)/ Clinical Hours	Changes in Regulations for Percentage of Clinical Time With Simulators	Percentage That Simulators Can be Used for Clinical Hours	Permission for Use of Simulators for Clinical Hours	Percentage of Simulators for Clinical Hours	Stipulate Use of Simulators for Clinical Hours in Future Regulations
Alabama	1:8	No	N/A	Hours not specified	No limits for simulation	Under review*
Alaska †	1:10	No	N/A	Hours not specified ‡	N/A	–
Arizona	1:10	No	N/A	Hours not specified "with live patients"	N/A	No
Arkansas	1:10	No	N/A	No	N/A	Has not been discussed
California	810 hours	No	N/A	Yes	Case-by-case basis	Yes
Colorado	750 hours	No	N/A	Yes	10–20	Considering
Connecticut	1:10	Yes §	Not specified	–	–	–
Delaware	–	No	N/A	No, Board has not been approached	N/A	Possibly
District of Columbia	1:10	No	N/A	No	N/A	No
Florida †	1:12–18 depending on setting; ≥50% of program in clinical	Yes ‖	10	–	–	–
Georgia	1:10	No	N/A	No	N/A	Perhaps
Hawaii	1:8; ≥40% of program in clinical or laboratory	No	N/A	Regulations are silent ¶	–	–
Idaho	1:10	No	N/A	Regulations are silent #, but yes	Case-by-case basis	–
Illinois	1:10	No	N/A	Regulations do not address simulation	–	No
Indiana †	1:10	No	N/A	Regulations do not address simulation	–	–
Iowa	1:8	No	N/A	No approval needed unless take clinical time	–	Possible
Kansas	1:10	No	N/A	Yes	Recommend reasonable percentage	Not at this time
Kentucky	1:10	Clinical hours not specified	N/A	By report**	–	No
Louisiana	1:10	Yes, definition includes live patients and laboratory	N/A	–	–	No
Maine	1:8	No	N/A	Yes, hours not specified	N/A	June 2006 meeting
Maryland	–	No, but see definitions ††	N/A	Yes	–	–
Massachusetts	1:10	No, but not prescriptive of number of clinical hours	N/A	Cannot replace clinical	N/A	Under revision ‡‡
Michigan†	1:10	No	N/A	Hours not specified ***	N/A	–
Minnesota	–	No	N/A	Hours not specified	N/A	No
Mississippi †††	–	No	N/A	Yes	Not specified	No
Missouri	–	No	N/A	Hours not specified	N/A	Not sure
Montana	1:10	No	N/A	Hours not specified	N/A	May look at in the future
Nebraska	–	No	N/A	Yes	Not defined	Perhaps
Nevada	1:8	No	N/A	Regulations do not address simulation	–	Perhaps
New Hampshire	1:8	No	N/A	Hours not specified, but yes	–	No
New Jersey	1:10	No	N/A	No ‡‡‡	N/A	No
New Mexico	1:8	No	N/A	Yes	Schools decide	No
New York	–	No	N/A	Yes	Not identified	No
North Carolina	1:10	Yes ****	Not specific	Hours not specified	–	No
North Dakota	–	No	N/A	Hours not specified ††††	N/A	–
Ohio †	–	No	N/A	Hours not specified	N/A	–
Oklahoma	–	No	N/A	No	N/A	Subcommittee of Nursing Education and Practice Advisory Committee looking at this issue
Oregon	1:9	Not specific in regulations	Would not approve ≥50	Not necessary but will advise and direct	Would not approve ≥50	Under consideration
Pennsylvania	–	No	N/A	Regulations do not address simulation	–	No
Puerto Rico	–	Yes	Must request	–	–	No
Rhode Island	–	No	N/A	Regulations are silent, but yes	Not identified	No
South Carolina	1:8–10 depending on setting	No	N/A	Exploring use	N/A	N/A
South Dakota	1:8	No	N/A	Hours not specified	–	Simulation as innovative teaching
Tennessee	–	No	N/A	Hours not specified	No requests	Not at this time
Texas	1:12; 2:15 with student assistant	Yes ‡‡‡‡	Not specified	–	–	Yes, but not in the near future and as research becomes clearer
Utah †	–	No	N/A	–	–	–
Vermont	–	No	N/A	Hours not specified, but yes	Not identified	April 2006 meeting to discuss
Virginia	1:10	No	N/A	Yes	Must have some hands-on experiences	Under discussion
Washington	1:10	No	N/A	Yes	Not stated	No
West Virginia	–	No	N/A	Regulations do not address simulation	–	–
Wisconsin	–	No	N/A	Yes *****	–	Perhaps
Wyoming	1:8	No	N/A	No	N/A	No

Figure 3. Survey outcomes of Boards of Nursing regarding the use of high-fidelity patient simulators in nursing education programs for clinical time (Nehring, 2008, p.112-113).
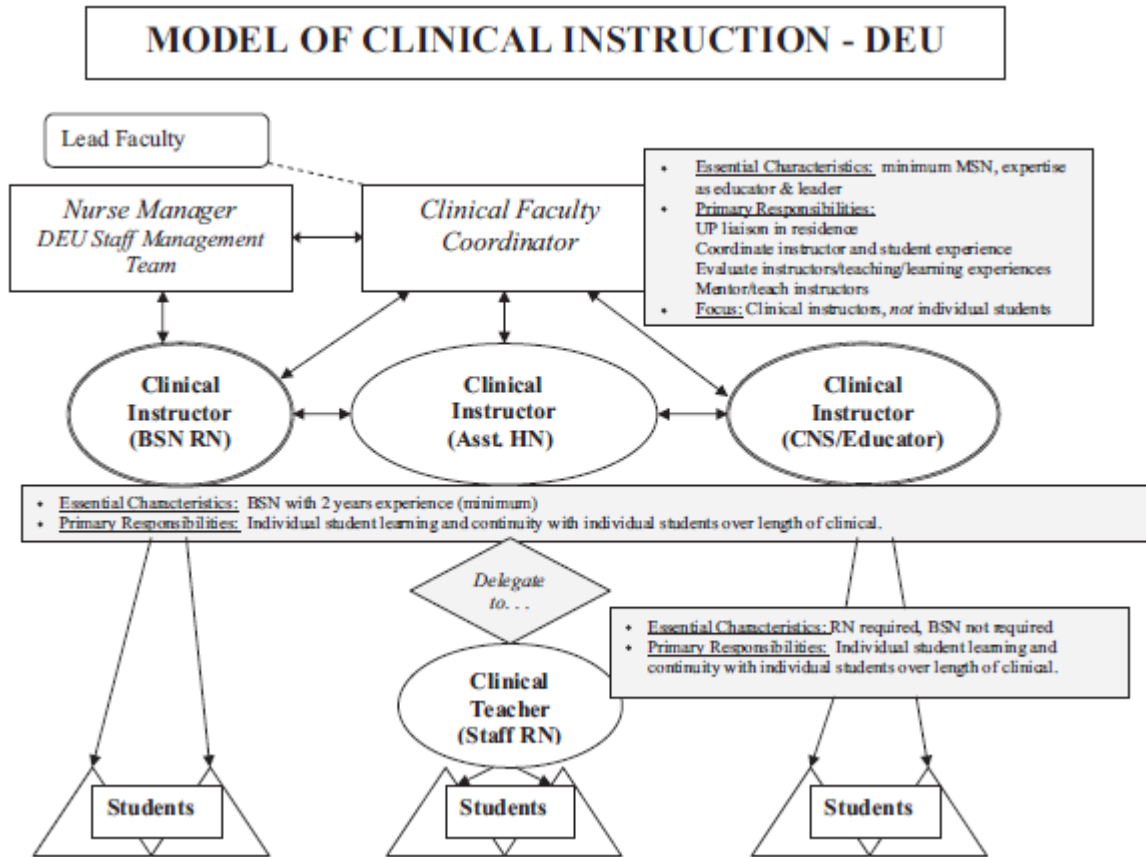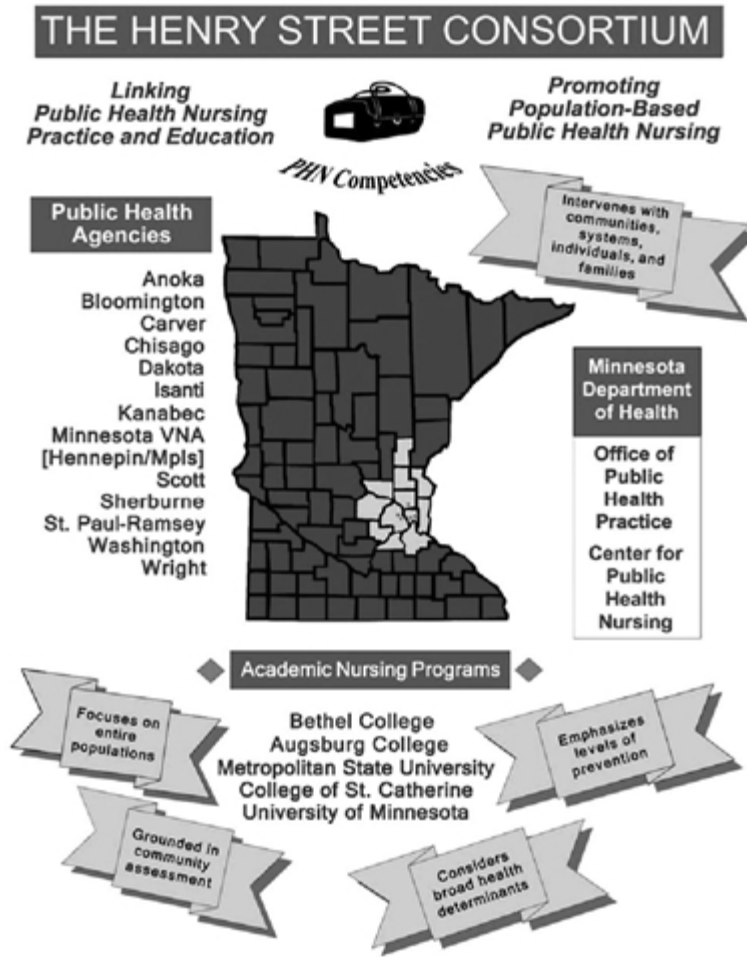
Figure 4. Model of clinical instruction—Dedicated Education Unit (Moscato et al., 2007, p. 34).

Figure 1. Henry Street Consortium Poster

Figure 5. The Henry Street Consortium (Keller et al., 2011, p. 265).

References

American Association of Colleges of Nursing. (2008). The Essential Clinical Resources for

> Nursing's Academic Mission. Retrieved from http://www.aacn.nche.edu/education-
>
> resources/essential-clinical-resources

American Association of Colleges of Nursing. (2010). Addressing the Nursing Shortage: A

> Focus on Nursing Faculty. Retrieved from http://www.aacn.nche.edu/government-
>
> affairs/archives/NrsShrtgStrats.pdf

Benner, P., Sutphen, M., Leonard, V., & Day, L. (2010). *Educating nurses: A call for radical*

> *transformation.* San Francisco: Jossey-Bass.

Burke, K. M., & Craig, C. (2011). The dedicated educational unit: Innovating within the

> regulatory framework. *Journal of Nursing Regulation, 1*(4), 9-12.

Chen, S., Melcher, P., Witucki, J., & McKibben, M. (2002). Nursing home use for clinical

> rotations: Taking a second look. *Nursing & Health Sciences*, *4*(3), 131-137.

Christoffersen, J., Barron, A., Lynch, M., & Caroline, H. (2010). Integrating psychosocial skills

> into a medical-surgical curriculum in a baccalaureate nursing program. *Journal of*
>
> *Nursing Education*, *49*(10), 573-577. doi:10.3928/01484834-20100730-03

Cottingham, S., DiBartolo, M. C., Battistoni, S., & Brown, T. (2011). Partners in

> nursing: A mentoring initiative to enhance nurse retention. *Nursing Education*
>
> *Perspectives*, *32*(4), 250-255. doi:10.5480/1536-5026-32.4.250

Doucette, E., Brandys, D., Canapi, B., Davis, A., DiNardo, J., & Imamedjian, I. (2011). The

> intensive care unit as an untapped learning resource: A student perspective. *Dynamics*,
>
> *22*(1), 19-23.

Dougherty, D. (2008). Too few US nurses to meet demand. Retrieved from

> http://www.pewstates.org/projects/stateline/headlines/states-work-to-avert-nurse-
>
> shortage-85899387075

From, M. (2000). Creating clinical experiences in a social work agency on aging. *Holistic*

> *Nursing Practice, 14*(4), 67-76.

Health Resources and Services Administration. (2013). *Federal Nurse Faculty Loan Program.*

> Retrieved from http://www.hrsa.gov/grants/nflp/default.htm

Institute of Medicine of the National Academies. (2010). *The future of nursing: Leading change,*

> *advancing health.* Retrieved from http://www.thefutureofnursing.org/IOM-Report

Interprofessional Education Consortium. (2011). Core Competencies for Interprofessional

> Collaborative Practice. Retrieved from http://www.aacn.nche.edu/education-
>
> resources/ipecreport.pdf

Kardong-Edgren, S., Willhaus, J., Bennett, D., & Hayden, J. (2012). Results of the National

> Council of State Boards of Nursing National Simulation Survey: Part II. *Clinical*
>
> *Simulation In Nursing*, *8*(4), e117-23. doi:10.1016/j.ecns.2012.01.003

Keller, L., Schaffer, M., Schoon, P., Brueshoff, B., & Jost, R. (2011). Finding common ground

> in public health nursing education and practice. *Public Health Nursing, 28* (3), p. 261-
>
> 270.

Kline, K., & Hodges, J. (2006). A rational approach to solving the problem of competition for

> undergraduate clinical sites. *Nursing Education Perspectives*, *27*(2), 80-83.

Kulewicz, S. (2001). Service learning: Head Start and a baccalaureate nursing curriculum

> working together. *Pediatric Nursing*, *27*(1), 37-43.

Livsey, K., Campbell, D., & Green, A. (2007). Yesterday, today, and tomorrow: Challenges in

      securing federal support for graduate nursing education. *Journal of Nursing Education*,

      46(4), 176-183.

MacIntyre, R., Murray, T., Teel, C., & Karshmer, J. (2009). Five recommendations for

      prelicensure clinical nursing education. *Journal of Nursing Education*, *48*(8), 447-453.

      doi:10.1088/0957-4484/20/36/365707

Minnesota Board of Nursing. (2013). *Minnesota Board of Nursing laws and rules*. Retrieved

      from http://mn.gov/health-licensing-boards/nursing/laws-and-rules/

Moscato, S., Miller, J., Logsdon, K., Weinberg, S., & Chorpenning, L. (2007). Dedicated

      education unit: An innovative clinical partner education model. *Nursing Outlook*, *55*(1),

      31-37.

National League for Nursing. (2012). *The scope of practice for academic nurse educators*. New

      York: National League for Nursing.

Nehring, W. (2008). U.S. Boards of Nursing and the use of high-fidelity patient simulators in

      nursing education. *Journal of Professional Nursing*, *24*(2), 109-117.

Partin, J. L., Payne, T. A., & Slemmons, M. F. (2011). Students' perceptions of their learning

      experiences using high-fidelity simulation to teach concepts relative to obstetrics.

      Nursing Education Perspectives, *32*(3), 186-188. doi:10.5480/1536-5026-32.3.186

Pharez, M. C., Walls, N. D., Roussel, L. A., & Broome, B. A. (2008). Combining creativity

      and community partnership in mental health clinical experiences. *Nursing Education*

      Perspectives, *29*(2), 100-104.

Praeger, S. (1997). Establishing camps as clinical sites. *The Journal of Nursing Education*, *36*(5),

      236-237.

Pruchnicki, A., Janeski, J., Mitchell, E., & Fetten, E. (2008). Teaching at an assisted living

      facility. *Care Management Journals*, *9*(4), 186-191.

Putting Innovations in Nursing Education to the Test. Retrieved from

      http://www.rwjf.org/content/rwjf/en/about-rwjf/newsroom/newsroom-

      content/2010/02/putting-innovations-in-nursing-education-to-the-test.html

Quality and Safety Education Institute Initiative. (2013). Pre-licensure KSAS. Retrieved from

      http://qsen.org/competencies/pre-licensure-ksas/

Richards, E., O'Neil, E., Jones, C., Davis, L., & Krebs, L. (2011). Role of nursing students at

      rural nurse-managed clinics. *Journal of Community Health Nursing*, *28*(1), 23-28.

      doi:10.1080/07370016.2011.539086

Robert Wood Johnson Foundation. (2010). *Putting innovations in nursing education to the test.*

      RWJF program funds evaluations of creative new approaches to address the nurse

      faculty shortage. Retrieved from http://www.rwjf.org/en/about-

      rwjf/newsroom/newsroom-content/2010/02/putting-innovations-in-nursing-education-to-

      the-test.html

Schwartz, M., & Laughlin, A. (2008). Partnering with schools: A win-win experience. *Journal of*

      Nursing Education, *47*(6), 279-282. doi:10.3928/01484834-20080601-09

      Simulation Innovation Resource Center. Retrieved from http://sirc.nln.org/

Sullivan, D. (2010). Connecting nursing education and practice: A focus on shared goals for

      quality and safety. *Creative Nursing*, *16*(1), 37-43. doi:10.1891/1078-4535.16.1.37