Robot Joins Nursing Institute to Address Faculty Shortage

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The Remote Presence Robotic System (RP-7™) is an innovative way to address the shortage of nursing faculty. The Nursing Institute, headquartered at Wright State University, Dayton, Ohio, is the first in the nation to use the RP-7 for nursing education.

Developed by InTouch Health® from Santa Barbara, California, the RP-7 will allow nursing faculty members to interact with students in remote locations. The RP-7 weighs about 200 pounds and stands five and a half feet tall, with a flat-screen monitor mounted on the top. When in use, the professor’s face is displayed on the robot’s monitor.

The robot is linked to the Internet by a broadband connection, and a camera serves as the eyes to capture images of the students that are then transmitted to the professor. All the professor needs at the remote site is a laptop computer and self-contained software package from InTouch Health.

The RP-7 will be used in a year-long pilot project to determine how it enhances the teaching environment. It will allow the professor to move, see, hear and talk as though he/she was actually onsite interacting with the students. As baby boomer nurses in education approach retirement, this technology will provide them with a new option to extend their careers.

InTouch Health.

A robot joins the regional nursing education community—a robot.

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Practice Breakdown—NCSBN’s Analytical Approach

Nurses are on the front lines of patient safety because as the last possible juncture of prevent- ing errors in health care they are responsible for the monitoring of patients and delivery of the most therapies. NCSBN has studied the role of nurses in patient safety since 1999 with the launch of its national initiative entitled the Practice Breakdown Advisory Panel (PBAP). The PBAP’s objective was to study nursing practice breakdown, to identify common themes related to those events, and most importantly, to recom- mend strategies to individuals, teams, and organizations to correct unsafe conditions and practices. This work assists boards of nursing in shifting the focus from blame and punishment to remediation and correction.

Over the next seven years NCSBN devel- oped an instrument, the Taxonomy of Error, Root Cause Analysis and Practice-responsibility (TERCAP™), designed to distinguish human and system errors from wilful negligence and intentional misconduct, while identifying the area of actual nursing practice breakdown in relation to core goals and standards of good nursing practice. An additional and equally important aim is to serve as a guide to increase the skills and competence of regulatory profes- sionals in addressing practice breakdowns.

As of February 2007, NCSBN member boards of nursing can input investigative case data into the TERCAP electronic tool, which allows analysis of causal relationships and similarities among instances of nurse practice breakdown across all participating jurisdic- tions. Prior to TERCAP’s creation, no system existed for a board of nursing to transmit its data into a central source, leaving untapped invaluable data that can add to the body of knowledge surrounding medical error and influence regulations that ensure public safety. Once a sufficient number of cases are submit- ted, the data will be compiled, analyzed and formally reported by NCSBN.

TERCAP has the potential to be an im- portant mechanism by which to study practice breakdown in order to deconstruct why an error happened. Its focus is not on placing “blame,” but rather seeking to uncover the circumstances and situations that created the practice break- down to prevent such occurrences in the future. Ultimately, determining the cause of practice breakdown will aid in the transforma- tion of health care into a safer delivery system and practice environment for patients and the nurses that care for them.

disabilities (e.g., mobility limitations) to continue to contribute to nursing education. Additionally, it provides a seasoned faculty with an option to work during an absence or in retirement from anywhere in the world. This nursing faculty research study was created based on studies of physician and other health care providers’ applications of the InTouch Health robot. The company has deployed more than 100 robots to hospitals nationally and internationally. The value of the robotic system in these situations is supported by studies showing patients would rather talk with their doctor through the robot than be attended to by a physician they do not know.

Innovation for Nursing Educators

“The plan is to take the key learning from the physicians’ experiences and bring that success into nursing,” said Yulun Wang, PhD, chair and CEO of InTouch Health.

“We are excited that the Nursing Institute has chosen our technology to extend their expert nursing resources to a new arena. The remote nursing education application is the first of its kind using remote presence to address the shortage of health care professionals. The RP-7 truly brings innovation to those who teach and train nurses.”

The faculty robot extender program is a one-year study with nursing faculty and students from eight nursing programs. The study incorporates the use of RP-7 in a human patient simulation clinical setting with the overall goal to explore how technology may play a role in extending experienced nurses’ contributions to the profession.

The results of this first study will also further the understanding of the use of this technology with faculty and students. The students’ opinions, reactions and experiences will be incorporated into the findings. Students’ encounters will be measured in the clinical assessment skills lab, in focus group settings and through chance encounters in the halls. The faculty’s experiences with the robot and computer technology, ease of training, efficiencies of delivering curriculum and enhancing students’ experiences will be evaluated in the study.

The robot is also being tested for its usefulness with long-distance faculty recruitment, retention of retiring faculty, mobility-impaired individuals and those with chronic health limitations. Future plans include testing the robot in clinical settings with remote monitoring and bedside training.

Patricia Martin, PhD, dean of the Wright State University–Miami Valley College of Nursing and Health, said this robotic technology puts the Nursing Institute ahead of the curve. She commented, “I am very excited about the unlimited potential and futuristic possibilities of the RP-7. It provides us with a glimpse of how technologically-savvy faculty can continue to be engaged in nursing education. The RP-7 will provide a means for faculty to try new teaching approaches, expand their technological skills and explore the world of different health care modalities that may be incorporated in future delivery sites.”

Meeting a Regional Need

Studies commissioned by the Nursing Institute of West Central Ohio have indicated that the 16-county region of west central Ohio will continue to experience a downward trend of available nurses and faculty. The results also indicated that the west central Ohio nursing workforce is aging two years ahead of the nation. In response to these workforce indicators, the Nursing Institute of West Central Ohio established a strategic initiative titled “Fast Track to Faculty.” The initiative explained how to develop a faculty recruitment program, the development of a computer program to improve faculty competency and a faculty robot extender program. The Nursing Institute of West Central Ohio was developed to bring together local health care providers and educational institutions in a 16-county service area, with the goal of improving the supply and satisfaction of nurses in the area in order to continue providing quality care to patients.

For more information contact Debi Sampsel, director of the Nursing Institute, at debi.sampsel@wright.edu or 937.775.3940.

Please see the accompanying article (page 3) about NCSBN’s upcoming Faculty Shortage: Implications for Regulation conference, where Debi Sampsel will talk about this innovative approach to the faculty shortage and demonstrate the robot for the audience.
The nursing faculty shortage has increasingly become an issue of concern for boards of nursing; some have been asked to waive, or sometimes to even lower, their standards for faculty. Further, when nursing programs have faced the challenges of the faculty shortage and the lack of clinical space, they have investigated using other teaching strategies, such as simulation, or using preceptors and adjunct faculty, or using clinical placement software. As these strategies are implemented, boards of nursing and nursing faculty are asking important questions, including: Can simulation be used to replace clinical experiences? How much simulation is too much? Are preceptors or adjunct faculty effective clinical instructors? How many precepted experiences are too many? Mindful of this situation, the NCSBN Board of Directors chartered the Faculty Qualifications Committee with advising staff on content for a faculty shortage conference and reviewing and presenting recommendations for future nursing faculty qualifications and roles. The committee will present NCSBN’s Board of Directors with recommendations for faculty qualifications and roles in 2008.

Over the last year, committee members surveyed all of NCSBN’s member boards of nursing about their experiences with the faculty shortage in their states. Thirty-six boards replied to the survey, with the majority having faculty shortage issues across the state that are manageable (20) or very bad (12). No state reported having no faculty shortages and no state reported “severe” shortages. Several states indicated that they have statewide initiatives in place to address the faculty shortage.

The common action taken to lower faculty standards was for states to allow waivers for faculty qualifications. Boards of nursing often have rules that limit the percentage of waivers allowed in programs; a majority allow waivers for fewer than 10 percent of the faculty in their state. Besides allowing limited numbers of waivers, it is rare for a state to lower faculty standards. Some survey responses regarding lowering faculty qualifications included:

- “A faculty shortage is not a reason to decrease faculty requirements. With the increasing technology and acuity of patient care, the requirements are increasing. More energy needs to be applied to looking at sharing of resources between programs, between program and agency.”
- “It is essential that boards of nursing maintain standards for faculty education, while at the same time supporting efforts to recruit new faculty.”
- “It is a real problem, but it would seem that to lower the educational require- ments would be the same as saying that if we have a shortage of brain surgeons that it would be okay for general practitioners to do brain surgery.”

Most of the boards of nursing reported they did not have rules that limit the use of preceptors; only one reported limits. Few boards have established rules regarding the use of simulation; five reported that they allow its use instead of clinical experiences. Most boards do not have rules that address the percentage of simulation that can be used for clinical experiences. Those boards of nursing that have rules addressing the percentage of simulation to be used in lieu of clinical experiences have set percentages ranging from 15 to 30 percent.

- The respondents often identified low faculty salaries as a major problem. The need for more creative and innovative nursing education was also identified.

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The data that were collected last year, along with this year’s work, will be used to develop recommendations for the boards of nursing on faculty qualifications and future roles of faculty. At the September 2007 meeting, the committee members held a conference call with external nursing organization representatives. Participants discussed their views on faculty qualifications and education backgrounds for nurse educators in the future. They also shared with the group the impact of the faculty shortage on their members and described some initiatives designed to address the faculty shortage.

On March 26, 2008, the committee members will host a conference, entitled Faculty Shortage: Implications for Regulation, and all officers, before they enter upon the execution of the duties of their respective offices, and all members of the bar, before they enter upon the practice of their profession, shall take the following oath or affirmation: I do solemnly swear (or affirm, as the case may be) that I will support the Constitution of the United States and the Constitution of this Commonwealth, and be faithful and true to the Commonwealth of Kentucky so long as I continue a citizen thereof, and that I will faithfully execute, to the best of my ability, the office of ... according to law, and I do further solemnly swear (or affirm) that since the adoption of the present Constitution, I, being a citizen of this State, have not fought a duel with deadly weapons within this State nor out of it, nor have I sent or accepted a challenge to fight a duel with deadly weapons, nor have I acted as second in carrying a challenge, nor aided or assisted any person thus offending, so help me God.

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Regulatory Considerations When Educators Move

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Frequently nurse faculty and program administrators take new positions, which necessitates moving to a different state or regulatory jurisdiction. Having just made such a move, my attention has been heightened to what every new administrator or faculty member should review regarding each state board of nursing’s (BON) regulations for education programs. Most states have regulatory approval authority for nursing programs leading to initial licensure. This is seen as a fundamental regulatory principle in protecting the public—both consumers and students in the program. Several areas of educational regulations and rules should be considered immediately before and upon moving to the new job.

Once contractual arrangements are finalized, the administrator/faculty needs to initiate licensure by endorsement, a process that must be complete by the time the position begins. Each state has its own process that takes some time to complete. While some states may be able to provide a temporary work permit within a short period, others may not. Be prepared to share the license with the appropriate individuals at the new institution. Some states also require that the BON be notified in writing of any change in faculty and program administrator positions. Some BONs have started orientation programs for new administrators to highlight the educational regulations. For administrators, contacting the state educational consultant or other assigned person is helpful.

Many states now have their current regulations and rules posted on their Web site. Reviewing these sites for basic content related to the governance of nursing educational programs is essential for an administrator and strongly recommended for the faculty member as well. General questions to research include investigating if there are any visits pending from the BON, when annual reports are due, and if the BON has oversight over the RN-BSN and the MSN programs. Another question to ask is whether the BON accepts national accreditation in lieu of visits by the BON. I have found that often faculty are not sure exactly what regulations specify regarding educational program oversight. Other specific areas to check on include requirements for faculty, students and curriculum.

Each jurisdiction has specified educational preparation for nursing faculty. Many states require specific clinical expertise as well as current clinical experience. Administrators need to know if preceptors are allowed, what their qualifications need to be and at what level of the program they can be used. Many states mandate the faculty/student ratio in the clinical and laboratory area. Some states require a certain number of faculty for the overall number of students. Other requirements might include approval of each new clinical site and a written annual renewal of contractual agreements.

I am aware of only one jurisdiction that has regulatory authority directly over students and that is the Louisiana State Board of Nursing. However, many BONs specify admission requirements as well as how many students can be admitted. Some states require that a nursing program educate new students on licensure requirements, which may include mandatory criminal background checks.

Another area to become familiar with is how the BON requires application for licensure to be submitted by the graduating students—some states request that they be “batched” and sent by the school and others allow the individual student to make the application. Although most BONs have general requirements for curriculums in their states, there may be very specific regulations. For instance, Kentucky requires all programs to include a 120-hour clinical practicum in the last quarter/semester of the program. Other states may require a certain number of hours for specific nursing subjects. The process to get approval for curricular changes is an area that needs to be explored to determine the time frame and written requirements.

Taking any new position is challenging and leads to new career paths. Keeping oneself aware of the pertinent nursing regulations early in the position will assist in a smooth transition.