Taking In-Service Learning Technologies into Nursing Homes: 
The Duke Endowment Supports Patient Care Simulator Training in North Carolina Skilled Nursing Facilities

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Long-term care facilities depend on several levels of nursing personnel to accomplish their goals of providing the highest levels of medical and nursing care to residents, while at the same time making certain that the life experiences of these residents are of the highest possible level of quality. In addition to registered nurses (RNs), many of the nursing care providers in these facilities are licensed practical nurses (LPNs) and nursing assistants (NAs or CNAs). Several North Carolina nursing homes are beginning to hire nurse practitioners to augment their overall medical-nursing care and to provide a more highly specialized level of care for residents under their care.

Residents of most North Carolina nursing homes are often older and require caregivers with gerontological skills. The specialized needs of older adult patients are a major concern for nursing care providers in these facilities, where residents require 24-hour skilled nursing care.

Given the preponderance of persons with serious physical or cognitive impairments, the acuity of nursing observational skills is critical to the assurance of both patient safety and quality of care in these facilities. The complexity of the nursing skills required, and the frequency with which new and more effective ways to manage common health conditions in such populations are developed, necessitates that these facilities find ways to offer in-service or extramural skill enhancement training. However, because of limited staff in most long-term care facilities, it is difficult for these facilities to arrange for lengthy absences of any substantial number of nursing care staff in order to take advantage of training offered at extramural sites (e.g., AHEC facilities or at one of the nursing schools in our state). It would be most useful to have some reliable means of offering sound instructional programs in clinical nursing relevant to long-term care that could be offered on-site for all levels of nursing personnel, thus eliminating the need for extended absences from normal responsibilities in these facilities.

The FutureCare of North Carolina Project: An Itinerant Model Simulator-Based Training Program

FutureCare of North Carolina, a new educational and research foundation created to advance the level and quality of care in North Carolina’s skilled nursing facilities, is addressing this need in partnership with the University of North Carolina (UNC) School of Nursing. With support from The Duke Endowment, FutureCare of North Carolina launched a two-year demonstration project through which the most advanced simulation technologies in health science education (the METI Emergency Care Simulator, or ECS) is used in an itinerant and modularized training program for nursing personnel that can be implemented at skilled nursing facilities throughout the state. Using curricula developed by the UNC School of Nursing, this instructional technology is being transported to nursing care facilities for short, four-five day visits, thus enabling all nursing personnel working on different shifts at each facility to gain both information and direct experience in the fundamental observational and interventional skills essential to the provision of high quality care for typical patients served in these facilities. The program:

- Offers the directors of nursing (DONs) in North Carolina skilled nursing facilities the opportunity to schedule the placement of the METI patient simulator, the ad hoc scheduling of facility nursing personnel for instruction and simulated patient care practice, and relevant curricula for its use.
- Transports the METI patient care simulator (PCS) to the nursing facility.
- Allows for the implementation of multiple modules of instructional material at each site using curricula already developed by the UNC School of Nursing and software provided by the METI developer.

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- Enables DONs at each facility to use the results of instructional modules, including end-of-course examinations, to institute follow-up educational programs on-site after the METI PCS has been moved to another facility.
- Makes it possible to address statewide standards of care in long-term care in a manner never before possible in North Carolina’s skilled nursing facilities.
- Provides nursing personnel at every level the experience of learning the basic and advanced skills most relevant to serving the state's growing population of persons requiring this level of care.

Overall Reactions to Simulator Use in These Facilities

A director of nursing (DON) at a participating facility remarked: “The spark generated among our staff for this particular educational program was unusual. It is hard to get this type of reaction through any other type of educational format.” Another offered the comment that, “This program made our CNAs actually feel like they were part of a team.” A third commented that the reaction to the simulator experience was “unexpected” and that “conversation about this experience went on for a couple of days afterward.” Finally, one DON reported that “We had a code last week, and at that moment, everyone (including CNAs) knew exactly what to do. Without this experience, it might have been a different situation.”

One of the DONs reported that she had observed more frequent reporting by nurse aides of drops in blood pressure or problems with positioning of residents after exposure to the simulation exercise. Another added “nurses are clearer in the instructions and information they give to nurse aides and focus on patient-specific symptoms and needs. Power dynamics are being disassembled.” Additionally, a DON offered that “My nurses are now realizing that they are ‘educators’ and that with some encouragement and on-the-job training, CNAs under their supervision can helpfully contribute to overall nursing care.”

Mandy Richards, RN, a FutureCare of North Carolina nurse educator who travels with the mannequin and its associated equipment, explained during some of her debriefing sessions how CNAs can be more “assertive.” One of the DONs reported that her CNAs who experienced these educational sessions approached their supervisory nurses more frequently and were more assertive when reporting observed changes in patient status.

Initial experience with the first of these facilities participating in the project have offered us the opportunity to learn a great deal about how to introduce and set up the simulator for use with nursing teams in long-term care facilities. Prior visits to each facility to arrange for the smooth implementation of the technology on-site have proven to be very useful.

Initial reactions to the instructional modules have been extremely positive, with multiple expressions of appreciation for what this experience has meant to nurse staff interactions in each participating facility. These facilities have each seen positive results from the use of this technology and the logistical complexity of placing this technology in any particular facility seems to have been offset by the overwhelming positive response once it has been implemented.

North Carolina nursing homes are the first in the nation to have access to this type of instructional technology, and the results are likely to have considerable benefit for both residents of these facilities and their nursing personnel.