

graduates elevate nation's standard of nursing care



Dr. Denise Roubion-Johnson, DNP '10, works to improve health outcomes related to the early detection of breast cancer for women in New Orleans, post-Hurricane Katrina.

BY AMANDA LEFF RITCHIE





Assessing the risk of sleep apnea in surgical patients

Concerned about the care of surgical patients with obstructive sleep apnea (OSA), alumna Dr. Linda Lakdawala, DNP '10, used her experience in Chatham's Doctor of Nursing Practice (DNP) program to affect positive change in the care administered to these patients.



As part of her capstone project in the DNP, Linda, a medical surgical advanced practice nurse at UPMC Presbyterian Shadyside Hospital, sought to determine how nurses can use screening tools to create a safer perioperative environment for patients with episodes of apnea. Thanks to the results of her research, published in the February 2011 issue of the *Journal of PeriAnesthesia Nursing*, surgical apnea patients can breathe easier.

The DNP capstone project requires students to tackle evidence-based practice (EBP) change. Critical to improving healthcare outcomes, EBP relies on the integration of an individual's clinical expertise with the best available external clinical evidence, resulting from systematic research.

"Chatham's DNP program enrolls advanced practice nurses from all over the country," says Dr. Susan Sterrett, assistant professor of nursing. "Already clinical experts, the DNP program prepares them to take a clinical issue, appraise the research available on that issue, and implement a change of practice to improve the quality of care.

"It is my privilege to work with these clinical experts and help them evolve into leaders in improving patient care," says Susan.

"The program has helped me to gain an in-depth understanding of the EBP process, which is so vital to nursing quality and outcomes," says Linda. "Nurses truly need to live and breathe their practice through evidence-based practice approach."

Beginning with a literature review, followed by a detailed plan for practice change, and culminating with the implementation and evaluation of an actual project, students who complete



"The program has helped me to gain an in-depth understanding of the EBP process, which is so vital to nursing quality and outcomes."

Chatham's DNP capstone project emerge with results that can immediately improve nursing care provided throughout the world.

Linda's research advocates for the use of the "STOP-Bang" screening tool assessment: eight yes-or-no questions on such topics as snoring, fatigue, blood pressure, and BMI, which assess if the patient is at high or low risk of OSA. According to Linda's findings, the STOP-Bang scoring model demonstrated a positive predictive value with 95 percent reliability.

This assessment tool is now used at UPMC Presbyterian Shadyside Hospital as part of a pilot project that Linda presented to the facility's Risk Management Board. Linda's findings indicated that using the STOP-Bang scoring model, the hospital had a 14 percent increase in high-risk sleep apnea patients. When an assessment indicates a high risk of apnea, a follow-through process is initiated to monitor and educate

patients on sleep apnea and encourage follow-up care with primary care physicians, says Linda.

Following the publication of her quality improvement research, Linda has been contacted by perianesthesia nurses from multiple hospitals throughout the country thanking her for paving the way for the better monitoring of sleep apnea patients. Linda's evidence-based practice change project is just one example of how Chatham University students can work to improve patient care far and wide throughout the course of the DNP program.

Standardizing the care of patients with central lines

Alumna Dr. Dorothy (Dottie) Mathers, DNP '11, used her capstone project to examine a healthcare issue that had concerned her for years.

“I have access to different healthcare institutions and have always wondered why policy regarding flushing central lines (central venous catheters) differed between each hospital, and how these varying policies related to best practice,” says Dottie, a faculty member at the Pennsylvania College of Technology in Williamsport, Pa. “Certain hospitals would use heparinized saline, while others would use non-heparinized saline to flush central lines.” (Heparin is an injectable anticoagulant.) The outcome of her research on that topic was recently accepted for publication in the *Journal of the Association for Vascular Access*.



“We have to reinforce education for the staffing nurses to make sure we are adhering to the proper procedures.”

Dottie’s extensive literature review showed that the non-heparinized saline was just as effective as heparinized saline, and was safer for the patient. She showed her findings to administration at Susquehanna Health, where she works per diem, and the hospital was receptive – changing their policy to reflect the outcome of Dottie’s evidence-based practice change project.

Dottie’s capstone project also addressed how to improve patency (openness) in the central line through proper flushing technique, which she determined is dependent upon the kind of cap that is on the end of the central line.”

As an educational component to her capstone project, Dottie spoke to about 120 registered nurses at Susquehanna Health and taught them the reason behind the policy change, as well as proper flushing technique. “We have to reinforce education for the staffing nurses to make sure we are adhering to the proper procedures,” says Dottie.



Championing early detection of breast cancer

Alumna Dr. Denise Roubion-Johnson, DNP '10, tackled an issue that she is extremely passionate about for her Doctor of Nursing Practice capstone project – improving health outcomes related to the early detection of breast cancer for women in New Orleans, post-Hurricane Katrina.

Denise is the clinical director of the Louisiana Breast and Cervical Cancer Program

(LBCHP) in New Orleans, where each week, she provides care and screenings to 30–40 low-income, uninsured women with breast problems.

With her sights set on increasing breast cancer awareness and the number of women receiving screening mammograms, it was a logical choice for the topic of Denise's EBP project. Her paper "Effects of Educating Women on Breast Cancer and Early Detection Post-Katrina" was recently accepted for publication in *Clinical Scholars Review*.

"My change project at Chatham has opened up all kinds of doors for me," says Denise. "It has given me a platform for me to talk about what I feel is important – early detection – and gives credibility to what I have to say to my patients. My Chatham education was invaluable to me."

After Katrina's violent destruction of all of the city's hospitals, the LBCHP was dismantled for several years. Her own home completely destroyed by eight feet of water, Denise left town – returning to New Orleans in 2005 to restart the LBCHP program alone. Initially paying out-of-pocket to provide screening services to women, Denise eventually connected with the Susan G. Komen Foundation and the Key 2 Life Foundation – both of which provided funding until an annex of the hospital was again up and running in 2007.

Now six years post-Katrina, Denise's biggest challenge is getting women who detect lumps in their breasts to come in early for treatment. "They don't know that they can come in free of charge," says Denise.

Publicizing the free services available at LBCHP is easier said than done. "We don't have money to do a media blitz because the program is federally funded," says Denise.



Unfortunately, many women delay seeking treatment. "The women come in so late that treatment options are limited," says Denise. "Where some women might have been able to have a lumpectomy, they end up needing to have a full mastectomy because they waited too long to come in."

In order to spread the message of the importance of early treatment, Denise takes it to the streets. "I volunteer a lot," she says. "I go out to churches, health fairs, anywhere that there might be women who need to know about breast cancer detection services. I tell them, if they find a lump, don't wait to get services."

Denise's volunteering caught the attention of the American Cancer Society last year – awarding her the Community Volunteer of the Year award for her dedication to informing women of the importance of screening mammograms and early breast cancer detection. In addition, Denise was named a Healthcare Hero in 2010 by *New Orleans CityBusiness* in recognition of the

physical and spiritual support that she provides to her patients battling breast cancer. "I offer to pray with patients to let them know that we are concerned with their spiritual well-being as well as their physical well-being," she says.

She also invites breast cancer survivors to come to the center to speak to newly diagnosed women and let them know "there is hope and that they are not going to be in this battle alone," she says.

"My change project at Chatham has ... given me a platform for me to talk about what I feel is important – early detection – and gives credibility to what I have to say to my patients."

Preparing novice nurses through simulation

A practicing nurse for 30 years, alumna Dr. Sharon Stanke, DNP '11, says “bringing a higher standard of expertise to the bedside” was her motivation in pursuing Chatham’s Doctor of Nursing Practice degree.

With 28 years of her career dedicated to providing care in the intensive care unit, Sharon’s evidence-based practice change capstone project was aimed at better preparing novice nurses (less than one year of critical care experience) to care for acutely critically ill patients. Her project had such incredible results that it even caught the eye of the U.S. undersecretary for health.

“I believed that our traditional education left the novice nurse unprepared,” says Sharon, who is a critical care educator at the Minneapolis Veteran’s Affairs Health Care System and an adjunct faculty member in the Bachelor of Science in Nursing program at Globe University/Minnesota School of Business.

With a focus on improving the management of hemodynamics (blood flow) and pharmacology, Sharon wanted to increase the stability of open-heart patients under the care of novice nurses. She found that under the care of an experienced nurse, the patient was unstable 30 percent of the time, compared to being unstable 52 percent of the time under the care of a novice nurse. “My goal was to get the novice nurse to improve 50 percent, or to have the patient instability at 40 percent of the time,” she says.

There is a fine art to achieving effective simulation learning, Sharon explains. The learners must be put into an uncomfortable zone that requires them to stretch – yet they should be kept out of a zone that makes them feel like failures.

“Simulation is becoming the education trend,” says Sharon. “I think it’s going to end up being the gold standard of education.” Sharon also raises the issue of ethics in simulation. She notes that it is ethically wiser to practice errors on a simulated patient, rather than a real one.

Sharon designed four scenarios that provided novice nurses with the opportunity to integrate and use theory taught in the

traditional orientation plan. The first scenario was designed to simply familiarize participants with the simulation environment, presenting novice nurses with a standardized cardiac arrest or code scenario. The second scenario helps participants learn how changing the patient’s medication dosage affects vital signs. The

third scenario requires participants to wean the stable post-operative open-heart patient off all pharmacology agents. And the final scenario presents the participant with a complicated open-heart patient, requiring aggressive changes to the pharmacology medicines and vital signs to try to save the patient. A team-centered debriefing followed the simulation.

Following the simulation, open-heart surgical patient outcomes demonstrated a 172 percent improvement in hemodynamic stability while under the care of novice nurses, compared to the baseline numbers. Post-simulation, patient hemodynamic instability was measured at 16 percent of the time, down from 52 percent, while on vasoactive medication, which affects blood pressure and heart rate. These results were so positive that word quickly spread throughout the nursing community – and one trail of e-mails eventually made its way to Washington, D.C., where the undersecretary for health took notice – and even requested that Sharon give a presentation on her evidence-based practice change project.

Going forward, Sharon will be designing simulations to train nurses on a national level in order to have standardization in its implementation.

“If we invest in good quality education, we will obtain good patient outcomes,” says Sharon. “The tradition of on-the-job training gives us average patient outcomes.”



“If we invest in good quality education, we will obtain good patient outcomes. The tradition of on-the-job training gives us average patient outcomes.”