

BIG IDEAS BRING BIG RESULTS

Carolina nurses are innovators in

HEALTH CARE
REFORM

DIVERSITY

EDUCATION AND
PATIENT CARE

DEBRA J. BARKSDALE: MAKING HER MARK ON HEALTH CARE REFORM

Dr. Debra J. Barksdale, an associate professor at the UNC Chapel Hill School of Nursing, is on the cutting edge of advanced practice nursing. Her expertise and experience has led to appointments to positions that will allow her to improve health care and nursing education on a national level.

This fall she was the only nurse appointed to the Board of Governors for the new Patient-Centered Outcomes Research Institute. This national institute was established under the Patient Protection and Affordable Care Act, part of the federal government's health-care reform legislation signed into law earlier this year. The institute will 1) identify research priorities of the nation, 2) establish the research project agenda for the nation, and 3) carry out the research project agenda, which will include systematic reviews, primary research such as randomized control clinical trials, and other methodologies. Its efforts will help guide patients, clinicians, purchasers and policymakers to make informed health decisions.

As a researcher, nurse practitioner and educator, Dr. Barksdale will bring knowledge and skill to the board. "There are some major needs regarding health and health care in our country, and I hope to be able to make a difference," she said. "I will also be an advocate for the disadvantaged, underserved and underrepresented in regard to issues of health and research."

Dr. Barksdale is also the president-elect of the National Organization of Nurse Practitioner Faculties. This organization promotes quality nurse practitioner education at the national and international levels by providing curriculum development guidance, entry-level competencies and national guidelines for nurse practitioner educational programs.



Dr. Barksdale will have an impact at the national level with her recent appointment to a federal health care reform board.

“I am a family nurse practitioner because I tend to have broad perspectives,” she said. “Whatever I am working on at the time is what I love the most.”

Several times a month, Dr. Barksdale volunteers as the primary health care provider at the Robert Nixon Clinics for the Homeless, which serves the Chapel Hill area. “I believe in giving back,” she said. “It is a win-win because I provide a service and get to help people while satisfying my clinical practice requirements.”

She involves students in the clinics and in community activities as much as possible. At the clinic she has mentored nurse practitioner and pharmacy students as well as students interested in both nursing and medicine. She tries to link students with agencies like the homeless clinic, health department and, most recently, a daycare center in Chapel Hill so that they can give back, serve and meet program requirements such as the master’s paper at the same time. “This fulfills educational needs while giving back to the community and gives the students skills they need to really help people,” she said.

Dr. Barksdale’s research involves studying hypertension in Black Americans. “Hypertension is a huge problem in our community. I have seen it in my family and my patients,” she said. “I started out thinking about the relationship between stress and hypertension and have gradually gotten more sophisticated in my study of these phenomena.”

With a grant from the National Institute of Nursing

Research, she is studying cardiovascular and neuroendocrine responses during the sleep period in Black Americans. These responses indicate a person’s allostatic load — the physiological costs of chronic exposure to stress. Her work is so unique that instruments did not exist for the necessary 24-hour ambulatory monitoring. With support from the SON’s Biobehavioral Laboratory, she worked with a company to adapt an impedance cardiograph for 24-hour ambulatory monitoring of various cardiovascular parameters such as cardiac output, stroke volume and total peripheral resistance. She is now ready to make those measurements and to measure the cortisol awakening response.

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These data will provide information on how blood pressure and total peripheral resistance vary throughout the day and particularly during sleep. Dr. Barksdale’s findings might just shed light on a mystery that vexes clinicians and researchers alike: Why do so many heart attacks and strokes occur early in the morning?

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Dr. Durham, clinical professor, was awarded a HRSA grant that will increase the use of human patient simulators in nurse practitioner education.

CAROL DURHAM: EDUCATING TOMORROW'S NURSES

Dr. Carol Durham doesn't shy away from challenges, whether she is securing funding, finding new ways to implement simulation technology in teaching or tackling safety issues through education.

Dr. Durham, a clinical professor at the SON and the director of its Education Innovation Simulation Learning Environment (EISL), first implemented simulation technology when she brought virtual reality venipuncture to the SON over two decades ago. In 2000 she introduced human patient simulation technology, which uses computerized mannequins. She has expanded this technology throughout the decade and has assisted undergraduate faculty in implementing simulation in courses across the curriculum.

Students entering nursing school are excited about being a nurse and want to make a difference in people's lives. Early in their curriculum, undergraduate nursing students learn basic skills on static mannequins and task trainers before progressing to human patient simulators to work within the context of a patient care scenario.

"I believe that unless the fundamental skills are well honed, students cannot move to higher level thinking skills such as using clinical judgment to consider all the variables necessary to arrive at a patient-centered plan of care," Dr. Durham stated. "Applying what they have learned in a simulated clinical environment provides them an opportunity to synthesize what they have learned."

Dr. Durham's most recent accomplishment is receipt of a Department of Health and Human Services Health Resources and Services Administration (HRSA) grant for just under \$300,000. It will upgrade the ten-year-old adult simulator, add another adult simulator, replace the pediatric simulator and add an infant simulator. The grant also supports the purchase of a Web-based electronic health record system for training students in electronic charting, ordering and management of patient data.

Initially, use of human patient simulators was focused on undergraduate training. More recently, graduate faculty have worked with Dr. Durham to develop simulation cases that assist graduate nurses in transitioning from nurse to nurse practitioner. The equipment obtained with the HRSA grant will allow nurse practitioner students to interact with, assess, and determine treatment plans for multiple patients. They will be able to use the electronic health record system to prescribe, learn billing codes and complete electronic documentation.

Dr. Durham is a Quality and Safety Education for Nurses (QSEN) consultant and has provided faculty development to schools across the nation in the areas of integrating QSEN competencies into lab and simulation experiences. Dr. Linda Cronenwett, immediate past dean of the SON, is the principal investigator on the QSEN project, which was funded by the Robert Wood Johnson Foundation.

Dr. Durham believes interprofessional education is important for the nurses of tomorrow. She co-coordinates a course with the UNC Schools of Medicine and Pharmacy that provides a variety of experiences enhanced with simulation. Additionally, Dr. Durham and Clinical Associate Professor Dr. Kathy Alden provide an interprofessional simulation experience that immerses obstetric nursing students and pediatric medical students in a birthing scenario focused on neonatal resuscitation.

Communication is the primary cause of medical errors, Dr. Durham notes, and is a problem that can be addressed through the type of education provided by interprofessional simulations. She would like to see this type of interprofessional collaboration advanced through the creation of a center focused on training all types of health care professionals. "It is important to teach students strategies for teamwork, collaboration and communication for optimal patient safety."

"Applying what they have learned in a simulated clinical environment provides them an opportunity to synthesize what they have learned."

RUMAY ALEXANDER: ADVOCATING FOR DIVERSITY AND INCLUSION IN NURSING

The UNC Chapel Hill SON is one of only a handful of nursing schools in the country with an internal office devoted to diversity and inclusion. At the helm of the school's Office of Multicultural Affairs is Director Dr. Rumay Alexander.

Dr. Alexander, a registered nurse, is a pioneer in more ways than one. "Many times I find that I am forging new paths," she said. "I am constantly giving architecture to new positions and roles because the times in which we live require this."

In 2009, she was promoted to the rank of clinical professor, becoming the first African-American in the SON to achieve the rank of professor. As a clinical scholar, her achievements bridge the three missions of the school: teaching, research and service.

"The wonderful message is that the School of Nursing has created, and continues to work on, an environment that allows people across a broad spectrum of expertise, strengths and abilities to flourish, and that is something to celebrate," stated

In the classroom, she provides teachers with culturally relevant materials and ideas to help students become practitioners and providers of care that is sensitive to the lives of patients, their families and the communities from which they come. The number of minority students entering the school has increased over recent years, but Dr. Alexander knows that the work cannot stop there. "You can bring people in the

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Dean and Alumni Distinguished Professor Kristen Swanson.

Using a systemic approach, Dr. Alexander threads diversity and inclusion into the School's environment, curriculum, retention efforts and recruitment. Her courageous dialogues model is an organizational intervention for attacking anti-flourishing mechanisms and power elements that perpetuate, accentuate, create and tolerate inequities. The courageous dialogues are structured conversations that occur regularly and include all faculty and staff in the SON. The conversations are launched after participants are exposed to a diversity or inclusion issue through reading material, viewing a film or listening to a panel.

front door, but if the environment is not nurturing then you have done more harm than good," she said. "I want to attract you, keep you, and for you to be successful."

Her success at the SON has led others to seek her expertise. She is now the special assistant on multicultural affairs to Dr. Mary Tonges, the senior vice president and chief nursing officer of UNC Healthcare and clinical professor in the School of Nursing. Dr. Alexander helped UNC Healthcare form a diversity council and to work on diversity and inclusion within the organization. In recognition of this work she received the Faculty of the Year award for 2010 from UNC Hospitals' Nursing Division.

On the national level Dr. Alexander is a member of the National League for Nursing's Board of Governors and Executive Committee as well as a Trustee for the National Student Nurses' Association Foundation Board. In addition, she worked for years with the American Organization of Nurse Executives (AONE) in the area of diversity, helping them develop an organizational position statement, for example. National organizations must prioritize diversity, she said, because they set the example for their members. The 2010 AONE Prism Award went to Dr. Alexander in acknowledgment of her work with the organization.

"I believe that success is transferable. If I'm able to be successful I can take what I learned and how I did it and pass it on to someone else so they can be successful too," she said.

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Dr. Palmer's team is developing simulations that will allow nurses and physicians to learn together about how to address sudden or acute changes in older adults.

MARY HAPPEL PALMER: BETTER CARE FOR OLDER ADULTS

Dr. Mary Happel Palmer, the Helen W. & Thomas L. Umphlet Distinguished Professor in Aging at the UNC Chapel Hill SON, has been focused on improving care for older adults for her entire career. Her doctoral dissertation on incontinence was the first longitudinal study in the U.S. on the incidence, prevalence and remission of urinary incontinence in newly admitted nursing home residents.

She has since studied incontinence in various groups, most recently focusing on heart failure patients. She is examining the urinary symptoms these patients experience, how much the symptoms bother them, as well as how they seek help and manage the problem.

Geriatric research and education are increasingly important as the boomer generation ages. The first of this generation will turn 65 on January 1, 2011. "With more older adults in the population, we will need more preventative and chronic health services," Dr. Palmer said. "We won't have enough specialists in geriatrics, so it will be important to integrate geriatrics into basic nursing education and into each nursing specialty."

On the education front, Dr. Palmer and a dedicated project team has developed geriatric clinical simulations for the UNC Chapel Hill SON's human patient simulators as well as for an online electronic library at <http://geroclinsim.org>. This work

has been funded since 2003 by grants from the Health Resources and Services Administration that also allowed purchase of a portable human patient simulator used in continuing nursing education workshops and at an international geriatric nursing education conference in Durham, N.C. last year.

"Unlike other types of geriatric education, these simulations focus on sentinel events and acute exacerbations of diseases rather than on chronic disease management," she said. Caregivers may see small but important changes in an older adult, but because they don't recognize the significance of these changes they don't act quickly enough to head off a crisis. For example, sudden appetite changes or confusion could indicate a developing infection. The cases in the electronic library can help nurses better assess the older adult and communicate findings to the health care team.

The online format allows users to progress through the unfolding cases at any time from any location. The clinical simulations cover the scope of practice for RNs, LPNs, and nursing assistants with cases on urinary tract infections, urinary incontinence, delirium, falls, pressure ulcers and other prevalent conditions that can lead to sudden changes in health status. "For example, if urinary incontinence starts suddenly, there is usually an underlying reason," said

Dr. Palmer. "Urinary incontinence is not caused by aging alone."

Dr. Palmer's grant will allow her team to develop two interdisciplinary geriatric simulations for the human patient simulators. "These clinical simulations will be developed in collaboration with the UNC School of Medicine Division of Geriatric Medicine. The simulations will allow nurses and physicians to learn together about how to address sudden or acute change in the health status of older adults, especially frail elders," she said.

"With more older adults in the population, we will need more preventative and chronic health services."

She is also advancing aging initiatives as the interim co-director of the UNC Institute on Aging. The institute has a mission to enhance the well-being of older people in North Carolina by fostering state-wide collaboration in research, education and service. In October, the Institute held the Governor's Conference on Aging, during which attendees had the opportunity to participate in discussion about strategies to prepare North Carolina for an aging population.

GREGORY SIMPSON: SUPPORTING MILITARY HEALTH

Gregory Simpson cares deeply about the mental and physical health of soldiers and has been involved in military screening on several fronts. In the face of problems such as suicides and soldiers deployed with injuries, the military has given more attention to soldier screening before and after deployment.

Simpson, a family nurse practitioner, received his master of science from the UNC Chapel Hill SON in 2001 and completed a two-year term as president of the school's Alumni Board in the fall of 2010.

In 2009, he retired from the National Guard after 22 years of service. As a full-time mobilization medical liaison officer and deputy state surgeon in the National Guard, he improved pre-deployment screening of soldiers and advocated for Military Reserve and National Guard soldiers returning from war.

Previously, returning Reserve or Guard soldiers were usually told to go home first and to visit the VA hospital later. "I advocated for soldiers to speak up when they had issues and spoke to people at demobilization sites to be sure that our soldiers received the care they needed before they went home."

Soldiers need education about the importance of early health care support, Simpson explained. Their eagerness to see friends and family causes them to delay treatments. "But later never comes," he said. "We briefed soldiers on taking care of problems before they go home, which produced a much healthier force returning to civilian life."

Thanks to Simpson and other advocates, the Department of Defense and the National Guard Bureau now require Guard and Reserve soldiers to receive the same post-deployment screening as active duty soldiers.

"We had to show that this screening didn't cost more and didn't slow down the demobilization process," Simpson said. "It did save money on VA claims and prevented disabilities that were not taken care of or tracked."

Simpson still serves the military today as the clinical director of Onsite Health, which performs health assessments on soldiers before and after deployment. He trains the company's full-time and

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"Taking care of people that have been where I've been or are going where I've been is very rewarding."

contracted clinical staff and maintains clinical standards. Under Simpson's watch the company has improved military screening, which he attributes to better skills validation, improved training, and setting a personal example. "I always thought it was important to see the unit manager work a shift periodically," he said. "So I go out and mentor the providers."

Simpson makes it a priority to see patients at least once a month. He talks with soldiers, takes their health history, and does their health assessment. "Taking care of people that have been where I've been or are going where I've been is very rewarding." ■

