Researchers in the College of Nursing and Health Innovation are zeroing in on a major killer: heart disease.
CARING

Department of Kinesiology graduate research assistant Meghan Humphrey leads a weekly group fitness class at a research center for seniors on the UTA campus. The focus on aerobics and other exercises promotes an active lifestyle for seniors who want to increase muscle strength and flexibility.

All Heart
With new research and innovative collaborations, the Department of Kinesiology is fighting cardiovascular disease.

Filling the Growing Need
The College of Nursing and Health Innovation is leading the charge to correct a nationwide shortage of registered nurses.
“We recognize that our work will change the lives of others.”

In their 1994 book, *Competing for the Future*, authors Gary Hamel and C.K. Prahalad discuss strategic intent and using it to bring dreams to life.

Last year, The University of Texas at Arlington joined the elite ranks of R-1 Carnegie Classification “highest research activity” universities, fulfilling a long-sought goal. Through strategic intent, the College of Nursing and Health Innovation is supporting the University, thriving as a major research destination and leader in teaching and learning excellence.

Strategic intent has three main components: direction, discovery, and destiny. A sense of direction gives a unifying purpose to everything in the organization. For the College, that direction is the advancement of one of UTA’s four strategic themes: improving health and the human condition.

We recently added a Ph.D. in kinesiology. This addition sets the stage for enhanced discovery in the future of health and science. This spring we expanded our master’s in nursing programs online to increase access to highly qualified health care practitioners. We are also taking steps to expand our doctorate in nursing practice program online.

Our faculty and staff have a sense of destiny. We recognize that our work will change the lives of others. To that end, there is another important aspect of strategic intent present in our College: sharing. We empower people to use their knowledge and expertise to achieve the best outcomes. Our faculty and staff regularly work in teams to ensure that a diverse range of perspectives helps us arrive at the best decisions.

As you will see in this issue, together we have mobilized this concept of strategic intent and helped transform our College into one of the nation’s leading producers of health care professionals.

Anne R. Bavier, Ph.D., RN, FAAN
Dean, College of Nursing and Health Innovation

Many nursing programs around the country struggle to fill faculty vacancies. Indeed, the American Association of Colleges of Nursing estimates there is a 6.9 percent faculty vacancy rate. This faculty shortage makes it harder to produce a sufficient number of registered nurses to meet the nation’s rising demand.

The College of Nursing and Health Innovation is bucking the trend. Nearly 30 full- and part-time faculty members joined the College at the beginning of the 2016-17 academic year. At the same time, the number of new full-time faculty has risen while that of part-time or adjunct faculty has dipped. In fall 2016, the College had 95 full-time, on-campus faculty members, up from 92 during the 2015-16 academic year and 87 in 2014-15. Meanwhile, the number of part-time, on-campus instructors has fallen over the last two years, with 45 in 2014-15, 43 in 2015-16, and 41 in fall 2016.

“We have an excellent reputation in the community, and many individuals interested in faculty positions seek us out,” says Beth Masani, senior associate dean and head of undergraduate programs. “When we have a specific need, we typically use word-of-mouth combined with targeted national recruiting.”

Dean Anne Bavier says the College has also been strategic about grooming graduate students for the possibility of careers in academia. The College offers two doctorate nursing degrees. The Ph.D. is geared toward a career in academia. And while the DNP is more industry-oriented, many students still end up teaching.

“When I was hired, I saw terrific national certification rates,” Dr. Bavier says. “I saw a budget that was adequate to do the work and had some flexibility in it. I saw leaders who, if challenged with a conceptual model or out-of-the-box thinking in any arena, sat back, thought about it, and went there.”
**Public health program debuts**

The nation’s rapidly aging population creates a growing emphasis on prevention rather than treatment, is spurring demand for public health professionals trained in injury prevention, wellness, and disease control.

The University of Texas at Arlington (UTA) expanded its College of Nursing and Health Innovation in August 2016. “This is a huge priority in the health care space.”

“Mitigating the burden of disease—its rising incidence and cost—is one of the most powerful levers we have to improve health outcomes and reduce health care costs,” says Dr. Rebecca Gardner, clinical professor of epidemiology and director of the college.

“There is a dearth of well-trained public health professionals with the skills and competencies to lead this effort,” she says. “This is an enormous gap in our health system.”

The college’s expansion includes the development of a new master’s in public health program in its College of Nursing and Health Innovation. This is the nation’s first stand-alone bachelor’s degree program in public health.

The program is designed to prepare highly skilled public health professionals for leadership positions in the public and private sectors and the health care field.

According to the National Cancer Institute, about 17,000 men and women were diagnosed with esophageal cancer in 2016. Nearly 57,000 live with the disease today. Esophageal cancer is difficult to treat. The five-year survival rate is less than 20 percent.

“The research effort in the United States on this deadly disease is not as intense as it should be,” says Associate Professor Zui Pan, a noted esophageal cancer researcher who joined the College of Nursing and Health Innovation in August 2016. “This is a huge priority in the health care space.”

“Part of her interest is personal, as Dr. Pan has lost friends and relatives to the disease. Her background fuels her high priority in the health care space.”

Dr. Pan and her team have identified a protein, Orai1, that is strongly associated with esophageal tumor progression. The researchers are currently focused on understanding how the protein contributes to tumor initiation and development.

Pan plans to evaluate the protein as a potential biomarker for esophageal cancer detection and prognosis. She hopes that this will lead to the development of more effective therapeutic interventions for esophageal cancer patients.

“Health care research is a major priority for both the College and UTA,” says Paul Patel, the College’s associate dean for research. “As a result, we’ve declared war on some deadly diseases, including cancer. Zui is an important contributor to the fight.”

In the body’s vast network of interconnected systems, the function of one can impact the function of another in many ways—some of which have yet to be discovered. Uncovering those ways is an important focus of the research for Rhonda Prisby. The associate professor and rising star in the Department of Kinesiology is working on a discovery that could shed light on the causes of some strokes, heart attacks, or other instances of cardiovascular disease.

Dr. Prisby found in 2014 that blood vessels in bone marrow progressively convert to bone tissue with advancing age. When that happens, there could be a loss of blood supply to the bone, which negatively affects the health of bone tissue. More recently, she discovered what appeared to be bone particles in the blood of every person in a small sample of people aged 26 and older. The nation’s rapidly aging population creates a growing emphasis on prevention rather than treatment, is spurring demand for public health professionals trained in injury prevention, wellness, and disease control.

The U.S. Bureau of Labor Statistics projects there will be 250,000 job openings for public health professionals by 2028. The public health field encompasses a variety of roles, including health educators, health policy analysts, and industrial hygiene officers.

The College of Nursing and Health Innovation has responded to this demand by creating an undergraduate track in public health. Classes began in fall 2016.

Initially, students will receive a bachelor’s degree in exercise science with an emphasis in public health.

“This track addresses two overarching issues,” says Rebecca Gardner, clinical professor of kinesiology and director of the program. “One is to train a diverse and competent public health workforce and the other is to help students develop an appreciation for population health, creating an informed populace.”

Dr. Prisby discovered what appeared to be bone particles in the blood of every person in a small sample of people aged 26 and older. The nation’s rapidly aging population creates a growing emphasis on prevention rather than treatment, is spurring demand for public health professionals trained in injury prevention, wellness, and disease control.

If you have these small particles of bone circulating in your blood, and some of them are large enough to clog up your smallest blood vessels, the question is, ‘Are they contributing to strokes or heart attacks?’” Prisby says. “That’s what we will look at next. First we have to confirm that it is bone. We believe it is.”

Prisby’s research on vascular function in bone is critical now because it relates to health issues that are prevalent in older populations. Over the next 10 years, the population of people age 65 and older throughout the world will increase by 236 million, according to the U.S. Census Bureau.

David Keller, associate dean and chair of the Department of Kinesiology, says Prisby’s research—which largely involves animals—uses elegant techniques that are unique worldwide.

“Her study on the impact of vasculature on bone disease or the potential role it plays in extraordinary,” he says. “She’s really becoming a world leader in that area. She definitely complements our department, and we’re excited to have her.”

**Helping develop nursing leaders**

Early in 2016, the College of Nursing and Health Innovation joined an elite group of U.S. nursing programs when it was selected by the Jonas Center for Nursing and Veterans Healthcare to participate in its nurse leaders program. The program is part of a nationwide effort to increase the number of nursing faculty with doctoral degrees. Less than 10 percent of nursing faculty in the nation have doctorates, according to the American Association of Colleges of Nursing. As part of the program, doctoral students at each participating school are selected as Jonas Scholars. The scholars each receive an annual stipend of $30,000 a year for two years from the center.

“These scholarships help nurse educators like me reach the top of our profession as we prepare the next generation of care providers,” says Ruth Bargainer, one of the four Ph.D. students chosen to join the College’s inaugural Jonas Scholars.

In addition to Bargainer, who is studying the impact of simulation as an educational technique in nursing curricula, other scholars include Megan Harper, whose research interest is the success of simulation in undergraduate education; Cecilia Lijauco, who is studying disparities in cardiovascular health and outcomes among African-American women; and Elesha Roberts, who is researching the quality of life of older hypertensive African-Americans.

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**Publicly funded research for Rhonda Prisby.** The associate professor and rising star in the Department of Kinesiology is working on a discovery that could shed light on the causes of some strokes, heart attacks, or other instances of cardiovascular disease.

**Rhonda Prisby was one of the nearly 35 new faculty that joined the College of Nursing and Health Innovation in August 2016.**
Robotic Assist

Nurses’ aide of the future could be a robot

One year into the three-year partnership, the team has developed a machine that does not yet look like a person, but resides in a lab resembling a hospital room. The robot is being designed to take on functions such as sitting with confused patients, pushing a bed down the hall, fetching water for patients, lifting and turning patients with the nurse, and pushing an IV pole for a patient post-surgery while charting the event in the electronic health record.

“All of these functions could help nurses continue working without injury, ensuring greater care to patients,” Beth Mancini, senior associate dean for education innovation, says the collaboration could encourage more research across departments at UTA.

“This is not replacing nurses. It’s about assisting nurses,” says Deborah Behan, a clinical associate professor in the College of Nursing and Health Innovation. “Workplace injuries are very common for nurses because they are constantly pushing and pulling, and their backs can easily be injured. A robot may be able to prevent back injuries.”

Dr. Behan is developing the robot with a team of researchers. Her collaborators include Texas Health Resources, the UTA Research Institute, and former UTA faculty member Dan Popa, who is now with the University of Louisville. The team’s work is funded by a $999,946 National Science Foundation Partnerships for Innovation grant.

Most everyone is familiar with post-traumatic stress disorder (PTSD) in war veterans or police officers. But few people are aware that new mothers may experience PTSD, particularly mothers of premature and low birth-weight infants.

“Because symptoms suggesting later PTSD are missed, treatment is misdirected,” says Anderson.

Two faculty members, Cheryl Anderson, associate professor of nursing, and Priscila Caçola, assistant professor of kinesiology, are working to tackle this malady. They are developing a pilot study for an intervention that will be tested on 40 new adult mothers and infants. The two will make home visits and perform assessments of the mothers and infants over an 18-month period.

“Mothers with premature infants often develop symptoms of depression and potential PTSD. Their babies are also more likely to have developmental delays, says Dr. Caçola, an expert on infant motor skills."

Numerous published studies have focused on PTSD among adult childbearing women, but only a few studies have tested interventions to reduce symptoms of birth trauma and PTSD.

“We anticipate that the intervention will reduce the mothers’ PTSD symptoms and improve the infants’ developmental skills,” says Caçola.

Dr. Anderson, who has published articles in several scholarly journals on birth trauma and depression among adolescents and adults, says a few hospitals are starting to look for symptoms of depressions in new mothers, but not for symptoms that could lead to PTSD.

“Because symptoms suggesting later PTSD are missed, treatment is mis-directed,” says Anderson.

Eventually, this study could help adolescent and teenage mothers. If the intervention works successfully with adults, it will be tested on a group of adolescents for improvement in their mental health.
Taylor Smith remembers very little about from playing nurse to becoming one and a women’s health nurse practitioner at a DFW-area hospital and plans to return to graduate school to pursue a master’s degree.

Smith, whose mother Pamela has worked at the College for nearly 20 years, decided to become a nurse when she was in sixth grade. Her mother was hospitalized following surgery, and Smith was impressed by the professionalism and empathy of the nurses. “The nurses she had were really nice,” she says. “They had a lot of compassion. They interacted regularly with my mom, dad, and grandmother.”

Before graduation, Smith worked part-time as a patient care assistant in the oncology unit at Parkland Medical Center in Fort Worth. The experience, while emotionally trying, has only heightened her love for the nursing profession. “I go in and help patients and families,” she says. “I love the fact that I can make a big difference by doing simple things like talking to people and giving them medication.”

Grown-Up Goals
From playing nurse to becoming one
Taylor Smith remembers very little about making a print ad for UTA’s nursing program when she was 5.

“I remember my mom and other people telling me what to do,” she says. “I didn’t know it was going to be an ad.”

The ads show little Taylor, a stethoscope draped around her neck, listening to the heartbeat of another child.

Smith didn’t see the black-and-white ad until the fourth grade at her school’s nursing day. Her mother was hospitalized following surgery, and Smith was impressed by the professionalism and empathy of the nurses. “The nurses she had were really nice,” she says. “They had a lot of compassion. They interacted regularly with my mom, dad, and grandmother.”

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Increasing diversity in nursing
At Denton Regional Medical Center, Saul Castillo works as a registered nurse in the Intensive Care Unit. He is one of only two bilingual health care professionals there.

“Increasing diversity in the Dallas-Fort Worth area has a more diverse staff, there still exists a great need for bilingual nurses, particularly Hispanic nurses, says Castillo, president of the Dallas chapter of the National Association of Hispanic Nurses (NAHN).”

Castillo, who enrolled in the College of Nursing and Health Innovation’s RN to BSN program, is working with members of NAHN to attract more Latinos to the profession.

At a gala last fall, the association gave $1,000 scholarships to three nursing students. The association hosts community events and plans to spend more time in high schools, talking to students about opportunities in health care, particularly in nursing.

“An aspiring nurse anesthetist, he decided to do something about it and formed the Male Student Nursing Association. The group has nearly 50 members. At least once a month, they gather to hear speakers from the health care industry and connect with upperclassmen and mentors who are registered nurses.

Although nursing remains an overwhelmingly female-dominated field, the number of men in the profession has risen sharply in recent decades, and men make up nearly 10 percent of registered nurses.

Thomas Dombrowsky, a clinical assistant professor of nursing who advises the association, says the group is an important resource for male nursing students. “Nursing is traditionally considered to be a female profession,” Dr. Dombrowsky says. “We can work to dispel that notion and to show the public and other students at UTA that there are men nursing.”

Serving the Underserved
Schwartz Fellow empowers a vulnerable community
Early in 2016, doctoral student Eloisa Roberts became the College of Nursing and Health Innovation’s first Schwartz Fellow, an honor bestowed on outstanding graduate health care students around the country. Fellows are required to spend hundreds of hours addressing the health needs of underserved populations.

Roberts spent much of last year clocking these hours working with hypertensive elderly African-Americans in a San Antonio community where health care resources and savvy are in relatively short supply.

She conducted workshops on topics ranging from the rights of patients to probe doctors about the finer points of medicine to how eating and exercising with a partner can keep a person on a path toward optimal health.

“Eloisa saw a problem that we may think we’ve addressed in acute care—assuming people will follow through at home—only to find out that in that community, the follow-through isn’t happening at all,” says Deborah Bohan, a clinical associate professor of nursing who advises Roberts on her Schwartz Fellowship projects. “We have to think about the walls of [medical] institutions where there is acute care and move out from there: How do we relate to people? How do we help them improve their health in their own communities?”

Roberts says the fellowship has sparked ideas for broadening her horizons as a health care provider. It has also transformed her into a researcher. She is now trying to determine how her work as a Schwartz Fellow can become the catalyst for a full-fledged—and fully funded—scientific study.

“I can really see this going into other vulnerable communities,” says Roberts, a registered nurse with 13 years’ experience and a clinical assistant professor of nursing at the University of Texas San Antonio Health Center. “I’ve put together a template that can easily be adapted.”
Stalking a Killer

Cardiovascular Disease is the leading cause of death worldwide, and the risk is higher for certain populations. For example, heart disease is the number one killer of women, and hypertension-related ailments account for 20 percent of all deaths among African-Americans. Over one-third of adult Americans are obese and face increased risk of cardiovascular disease.

Whether it’s hypertension, heart attack, or stroke, the College’s Department of Kinesiology has built a team of researchers who are working to better understand the mechanisms underlying these cardiovascular diseases. The team’s ultimate goal is to discover novel therapeutic strategies that combat these life-threatening conditions.

“We’ve got the cardiovascular system covered,” says Michael Nelson, assistant professor of kinesiology. Dr. Nelson joined the department last year and is studying root causes of heart disease in women. The new and growing team also includes Associate Professor Matthew Brothers, who joined the college last year from UT Austin. His work focuses on mechanisms of impaired vascular function known to be present in populations with cardiovascular disease. And in 2015, the department hired Paul Fadel, a prominent integrative physiology researcher and expert in neural cardiovascular control. Dr. Fadel also serves as the College’s associate dean for research and director of clinical translational science. In 2016, he was awarded a $1.7 million grant by the National Institutes of Health to study the role of the autonomic nervous system in cardiovascular disease.
The Vascular Expert

The cardiovascular system has thousands of miles of arteries and veins that deliver oxygen and nutrients to every cell, and high blood pressure in patients with chronic kidney disease. Fadel is also working with David Keller, associate dean and chair of the Department of Kinesiology, on a study that investigates differences in vascular responses in blacks and whites in blood pressure regulation. The Kinesiology Department’s recent recruit, Rhonda Prisby, studies the interaction between blood vessels and bone. Recently she received an American Heart Association grant to investigate how inflammation in the bone marrow contributes to blood vessel dysfunction, loss of patency, and arterial emboli.

These experts work individually and collaboratively, making a team that together has been awarded millions of dollars in grants from sources such as the National Institutes of Health and the American Heart Association. It’s kind of innovative research that contributes to one of the pillars of UTAs Strategic Plan 2020: Bold Solutions | Global Impact: improving health and the human condition.

The Heart Expert

Dr. Michael Nelson is particularly interested in the heart. Nelson—who is also an adjunct professor of bioengineering and a visiting faculty scientist at Cedars-Sinai Medical Center in Los Angeles—and his research team focus on the interaction between blood vessels and bone. His research has contributed to understanding of biological mechanisms associated with hypertension in African-Americans. Prisby, also an adjunct professor of bioengineering, is conducting research that could aid in the treatment of diseases with low bone mass and impaired fracture healing by examining how blood vessels contribute to bone health or bone decline. A recent study, he says, “This research is extremely exciting and may alter our understanding of the development of heart and strokes.”

The Bone Expert

Skeletal tissue is highly vascularized and Dr. Rhonda Prisby is deciphering the interaction between blood vessels and bone. Her research is focusing on how blood vessels function and implications in a variety of conditions, such as strokes, hypertension and Type-2 Diabetes.

There are many reasons for heightened risk, says Brothers. “We’re trying to identify the potential reason why blood vessels aren’t functioning properly. The next step is to identify some lifestyle interventions to delay the progression and hopefully reverse this dysfunction.”

African-Americans and obese individuals experience higher rates of heart disease. A primary problem for these populations is dysfunction of blood vessels in the brain and other vascular beds. Brothers’ research focuses on how blood vessels function and what makes vessels dilate or not. Impaired dilation of vessels can lead to hypertension, stroke, atherosclerosis and heart attacks.

An ongoing area of investigation in Brothers’ lab is the role of oxidative stress in impaired brain and peripheral blood vessel function. Work recently published by his group shows the therapeutic potential of antioxidant therapy in at-risk individuals. This work has led to several collaborations between Brothers and Nelson. One such collaboration focuses on the effect of a high-fat meal on a vascular function. Another study, funded by the Center for Translational Medicine at University of Texas Southwestern Medical Center, is investigating the effect of obesity and subsequent bariatric surgery on brain vascular health and cognitive function.

The Nerve Experts

The sympathetic branch of the autonomic nervous system plays a crucial role in controlling the peripheral vasculature. Importantly, impairments in this system contribute to hypertension. Nearly half of African-American adults are at risk of developing hypertension, a rate significantly higher than that of any other group in the United States. Keller and Fadel, both experts in neural control of the circulation, are working to address this important issue. Last year, they were awarded a $276,000 National Institutes of Health grant, with which they will investigate differences in vascular responses in blacks and whites in blood pressure regulation both at rest and during exercise. Keller and Fadel say insights gained through their studies will help to better understand the underlying causes contributing to the greater occurrence of hypertension in African-Americans. This work will hopefully contribute to reducing the prevalence of hypertension in this group.

An important aim of this study is to examine the role of family history of high blood pressure. Keller says a thorough understanding of biological mechanisms associated with hypertension in African-Americans would have significant ramifications for all racial and ethnic groups.

The addition of these integrative physiologists in the Department of Kinesiology puts UTA on the cutting edge of basic and applied cardiovascular research in health and disease.

“When you look at what type of work is being funded, there’s much more attention and allocation of resource to teams of investigators working together to solve common problems,” says Keller. “Through our alignment with the University’s strategic themes, our researchers are extremely well-situated for continued success and contribution to the understanding of health and disease across the lifespan.”

From left: David Keller, Paul Fadel, Rhonda Prisby, Michael Nelson, and Matthew Brothers.
In the face of a national shortage, UTA works to put the number of nurses back at a healthy level.

BY ASHLEY FESTA

When Shirley Martin went to college, she never considered nursing because she had a needle phobia as a kid. But after she started the engineering program at Texas A&M, a friend encouraged her to become a nurse. The idea of taking care of people appealed to her, and when she enrolled at The University of Texas at Arlington to pursue her Bachelor of Science in Nursing (BSN), she knew she was where she was meant to be.
The Nursing Shortage

It's been a problem for decades, and it could get worse. The U.S. Census Bureau reported there were more than 46 million people age 65 or older as of 2014. By 2042, the youngest baby boomers will reach their 60s, continuing to burden the health care system with the chronic illnesses that comes with old age. And not only is the general population growing, so is the nursing workforce. The vast majority of nurses are female, and many entered the field decades ago when women had fewer career options. Today, more than half of registered nurses are 50 or older, and the average age of Texas nurses is 45. As more RNs reach retirement, the shortage may increase.

The employment of RNs is expected to grow 16 percent by 2024 according to the Bureau of Labor Statistics, a much faster rate than other occupations. That growth will put the number of new nursing jobs in the millions.

But it's not a lack of women and men desiring to become nurses that will cause jobs to go unfilled. A critical component of addressing the shortage is the ability of colleges and universities to prepare enough nurses to fill those vacancies. The two biggest hurdles these institutions face.

Like Martin, many nurses feel called to the profession. According to the American Association of Colleges of Nursing, 85 percent of hospital CEOs expect the shortage in nurses to continue for at least the next five years.

While there will always be more work to do, UTA continues to respond to the challenge head-on.

Responding to the Problem

Along with other universities across the country, UTA also faces the task of finding enough doctoral-prepared faculty to educate the number of students who apply. Nationally, almost 70,000 qualified applicants were turned away from nursing schools because there weren’t enough faculty to teach them, according to the 2014 AACN report. To combat this problem, the College of Nursing and Health Innovation—UTA's College of Nursing and Health Innovation—the largest nursing program in Texas and the largest nonprofit nursing school in the country—rose to the challenge. UTA has created pathways to help more nurses further their education. Technology is playing a big role in making that happen, with both online programs and simulated training experiences, allowing nontraditional and nonlocal students opportunities to earn nursing degrees. The College also offers two doctoral nursing degrees, so nurses wanting to further advance their knowledge have the option to pursue research and science or specialized practice and leadership in the field.

While there will always be more work to do, UTA continues confronting the challenge head-on.
In the beds lie programmable manikins—mannequins that talk, get fevers, vomit, deliver babies, and simulate many other human bodily functions. As the nurses care for their patients, faculty observe from a one-way window and remotely adjust the manikins’ settings to respond to the students’ actions. While online students don’t have access to the Smart Hospital, the facilities where they earn their clinical hours offer simulation opportunities.

“This technology doesn’t replace clinical experience, but it makes it go more smoothly,” Dr. Mancini says. “When the students get into the clinical experience, they don’t need as many exposures to a situation to demonstrate competency. They can interact more confidently with real patients.”

UTA also has established partnerships with hospitals to create flexible schedules for clinical hours. Working weekends or evenings allows students to log the same number of hours in fewer months. These partnerships also extend to underserved areas, allowing long-distance students to avoid time-consuming commutes.

ACCELERATING ADVANCED EDUCATION

Nurses who advance their education bring many benefits to the workplace and the health care system, according to a 2015 report by the Robert Wood Johnson Foundation. Improved patient outcomes have been linked to nurses with a bachelor’s degree or higher, the report found.

UTA’s nursing programs make it easier for working nurses to advance their education, says Cell Flores, assistant dean of the College of Nursing and Health Innovation. The RN-to-BSN and RN-to-MSN programs allow licensed, working nurses to earn a degree using their professional working experience as credit for clinical hours. UTA also offers MSN-to-Ph.D. and BSN-to-Ph.D. options to facilitate advancement to the doctoral level.

The Doctor of Nursing Practice (DNP) is also a doctoral degree, but instead of focusing on research, it aims to prepare nurses to improve health policy, and specialized clinical practice. In some cases, nurses with DNP degrees opt for careers in academia.

Bavier stresses the importance of determining which doctoral course is appropriate for students wishing to pursue terminal degrees.

“People go into nursing with a passion for helping others,” she says. “Part of what we do in the admission process is help people determine how to make an impact in a way that’s most aligned with their life goals.”

HANDS-ON TRAINING SOLUTIONS

Because UTA increased its ability to enroll more students, it also had to find a way to accommodate the need for clinical training. Again the University turned to technology, with a Smart Hospital that includes simulators for students to practice their skills before working with real people. This groundwork reduces the number of hours needed in clinical placements.

“With a simulated experience, you don’t have to touch a patient the first time you try a new skill,” says Beverly Malone, CEO of the NLN. “It’s like with pilots—you can crash the plane without anyone getting hurt. With the virtual simulation, you’ve experienced all types of scenarios by the time you get to a hospital. You have also had the opportunity to reflect on what you did wrong without anyone losing their life.”

During simulations, students encounter events such as a patient going into cardiac arrest or having a baby. Such experiences prepare them to make good judgments during clinicals, Dr. Malone says.

The Smart Hospital also integrates technology into the curriculum. UTA was one of the first schools to build a virtual hospital setting which includes emergency, surgery, adult ICU, neonatal ICU, pediatric care, and delivery rooms.

Salary remains a barrier to enticing nurses into the classroom. The average salary of a nurse practitioner is more than $90,000, according to a 2014 American Association of Nurse Practitioners report. But the average salary for a master’s-prepared assistant professor is less than $75,000. It’s a problem for universities across the country, and Mancini says finding money to hire new faculty remains a challenge for UTA. But the University is still moving forward. The administration has provided funding to make new hires for the past three years, allowing about 20 professors to be added to the faculty, Bavier says.

Some educators, like Martin, are drawn to expanding evidence-based practice in nursing. Even before she was employed at UTA, she led a scientific study theorizing that children could be positively influenced by therapeutic suggestions while under anesthesia. She received funding of more than $50,000 to conduct her study on children who had just received a tonsillectomy, a procedure that often caused young patients to wake up screaming in pain.

“Patients are still sleeping under anesthesia, so we used that window of time to speak soothing phrases to the child,” Martin says. “We discovered that intervention significantly lowered pain scores 30 minutes after removal.”

Now, in addition to her full-time job at Cook Children’s Medical Center, Martin teaches an online course and continues her research interests, including post-operative pain in children, bio-behavioral interventions in the perioperative setting and obesity in children.

A VERSATILE CAREER

Besides getting to conduct original research, there are other reasons nurses decide to earn advanced degrees and go into teaching. Some nurses feel burned out by the stress of working nurses and may prefer more consistent working hours with weekends and holidays off. Many also enjoy educating future health professionals.

“I love getting to mold the next generation of nurses and watch the transformation from the first day you meet them to the last day after clinicals,” education. Flores says. “They learn from me.” Mancini, with over 40 years’ nursing experience and 13 as an educator, agrees. “That’s one of most wonderful aspects of nursing—you can do all sorts of things,” she says. “As a nurse, I loved my job because I could make an immediate impact. As an administrator, I made an impact by leading nurses who are caring for patients. Now as an educator, it’s the best job in the world. The faculty are teaching nursing students who are going to go out and provide that care that I used to give. I’ve loved each aspect of being a nurse.”
Kinesiology degree offers flexibility

When Brandon Esianor matriculated at UTA in fall 2010, he was certain he wanted to become a physical therapist. An avid sportsman, he figured physical therapy would be a natural fit for him. But after learning about how far an exercise science degree could take him, he decided to pursue a career in medicine.

Esianor graduated from the College of Nursing and Health Innovation with an honors degree in exercise science and a minor in chemistry in 2014. He also received the Wayne Duke Outstanding Student Leadership award, which goes to one student each year and comes with a scholarship.

“Brandon is such a unique and exceptional young man,” says Brad Heddins, a clinical assistant professor of kinesiology and one of Esianor’s former instructors. “He has such a strong sense of gratitude. He loves UTA and attributes his success to the education he received here.”

Esianor says he developed relationships with several of his instructors, including Dr. Heddins, Professor Mark Ricard, and Associate Professor Judy Wilson. “They made us aware of the different ways you could go with this degree,” he says. “Dr. Heddins in particular was helpful in teaching clinical skills like stress testing and blood pressure monitoring.”

Now a third-year student at Montgomey Medical School at the University of Texas Health Science Center at Houston, Esianor says he has classmates from places like Harvard and he’s holding his own. His goal is to become an otolaryngologist. “A kinesiology degree gives you so many options,” he says. “There are so many routes you can take.”

Kristin Posey Wallis, a registered nurse and research nurse coordinator. In her role, she has screened about 300 donors and participated in the womb transplant team.

As part of the womb transplant team, Wallis serves as the uterine transplant coordinator. In her role, she has screened about 300 donors and recipients. She also coordinates and completes all appointments with physicians in preparation for surgery and after. Much of her work centers on patient care: educating the patients and the staff caring for them and supporting patients from screening and intake through surgery and recovery.

“I was excited to be chosen and honored to work with some of the brightest physicians at Baylor,” she says. “I had to hit the ground running as we worked quickly to open the study up for screening. At times there is more work than hours in the day, but I really enjoy what I’m doing.”

The team has completed the first four living donor uterine transplants in the United States. One patient is progressing well and shows no signs of rejection. “It’s been such an amazing opportunity to be part of something so innovative and new,” Wallis says. “I learn so much each day about research, transplants, and myself.”

Alumna Helps Provide Hope

New research initiative supports women struggling with infertility

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Scores of College of Nursing and Health Innovation faculty, staff, and alumni attended the Homecoming 2016 tailgate party and cheered on the basketball team.

Shaping the future of health care

In 20 years as a nurse, Sayda Major (‘06 MSN) has developed another passion: teaching.

Each semester, Major, an acute-care nurse practitioner at Parkland Hospital, serves as a preceptor to two nursing students. In the summer, she takes on four.

“Most preceptors take on one student,” explains Major, who is also a clinical instructor in the College of Nursing and Health Innovation. “I take two at a time because there’s such a need.”

Last September, in recognition of her devotion to mentoring and teaching students, the Texas Nurse Practitioner Association named Major Preceptor of the Year.

“I love to see a student who is completely green at the beginning learn to be a provider,” she says. “They have the confidence and understanding to become a unit provider and are actually functioning like seasoned providers and practitioners. These people are going to take care of me later.”
A scholarship could transform health care a world away

When that day comes, it will be in part because of the generosity of donors. While a student in the College of Nursing and Health Innovation, Stephen distinguished herself academically and earned a prestigious Dream Makers scholarship.

Since 2002, the Dream Makers Scholarship Program has benefited promising students who go on to positively impact the lives of their patients and effect change in the health care industry.

Stephen spoke at last year’s Dream Makers Scholarship Luncheon, held annually the first Monday in March. The event is an opportunity for students to meet the donors who have helped enable them to make their dreams come true.

“Through this scholarship offer, I found inner joy and extra motivation to keep striving for my dreams,” says Stephen, who along with her twin graduated last May. “I am inspired by the fact that many individuals—specifically our donors—are potential in my schoolmates and me and strongly bet on our success.”

Worldwide Impact

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Follow UP

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Kendra Stephen speaks at the 15th annual Dream Makers Scholarship Luncheon.

Follow UP

SPOTLIGHT ON

LIZ JOHNSON

Lashesha Putman (79 BSN, Nursing) was recognized as a Top Nurse by the International Nurses Association. She currently serves patients at the Shepherd Center in Atlanta. The Shepherd Center specializes in spinal cord and brain injury rehabilitation along with medical research as the top rehabilitation hospital in the nation.

Laura Mattone (83 BSN, Nursing) served as a member of the board of the Dallas chapter of the National Association of Hispanic Nurses.

Jash Rader (74 BS, Exercise Physiology) is offering the Fit-STEP Program for Life exercise program for cancer patients at his fitness center in Arlington.

Coretta Sigler (79 BSN, Nursing) received an outstanding nursing graduate award from the Ethel Ransom Humanitarian and Cultural Club at the organization’s 35th anniversary gala.

Kaitlyn Smith (79 BSN, Nursing) joined Cook Children’s Health Care System in 2015, where she works as a nurse in the neonatal ICU in Fort Worth.

CLASS NOTES

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Making cancer patients stronger for the fight

A couple of times each week, several cancer patients make their way to a lab at the Maverick Activities Center on the UTA campus. There, graduate students and a professor work closely with them on a range of exercise strategies designed to help patients get their strength and health back.

Known as FitSTEPS for Life, the program is a customized nutrition and exercise regimen that helps cancer patients increase endurance and mobility while overcoming the debilitating effects of chemotherapy treatment. FitSTEPS is tailored to the individual and includes aerobic exercise, strength training, and stretching techniques.

The initiative is the first of its kind in the Fort Worth-Arlington area. Although the services are free, patients must be referred by their physicians. Gary Kimmel, a physician and emeritus board chairman of the Cancer Foundation in Tyler, Texas, founded FitSTEPS for Life, which has 15 centers statewide.

“Cancer patients tend to have very low fitness to the extent that performing activities of daily living can become quite difficult,” says Mark Haykowsky, a professor of nursing and a renowned cardio-oncology researcher who oversees the FitSTEPS program on the campus. However, studies show that exercising during chemotherapy may be an effective method for targeting cancer cells and may also mitigate the damage that some of these drugs could potentially have on patients’ hearts.

“Research has shown massive benefits from exercise for cancer groups, and not just for the body,” says Rhys Beaudry, a kinesiology doctoral student and FitSTEPS trainer. “There are benefits in sleep, dietary habits, mood, and how you deal with chemotherapy.”

Although FitSTEPS began operating on the UTA campus in February 2016, the University has had a relationship with the program for years. Undergraduate kinesiology students have completed their required internships at various FitSTEPS sites in the area.

“This is a good opportunity for the community, our students, and our faculty,” says David Keller, associate dean of the College of Nursing and Health Innovation and kinesiology chair. “If you live in the Arlington, Grand Prairie, or Mansfield areas and are in need of this program, we offer a much more convenient option.”

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JAECA FLANAGAN

Jae has big plans. First, a master’s degree in nursing. Then, a job as a nurse practitioner. She says it wouldn’t be possible without the support she received from a Dream Makers Scholarship as an undergraduate. “My scholarship has helped me bridge the financial gap between school and family,” she says. “It has allowed me to devote my full attention to being a student without having to get a job. It’s important to invest in my future. We are the nurses of the future, and scholarships like these help make our dreams a reality.”
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