

The Pulse

College of Health Sciences e-Newsletter

ODU
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Vigilance during a Virus

Administrators, faculty, staff mobilize to ensure online alternatives

By Irvin B. Harrell

CCOVID-19. This virus has made a ghost town of our campus. We have confronted the sobering reality that life on all universities and colleges nationwide – and even globally – has been forced to change dramatically to weather this crisis.

But as a virtual institution, it has made us more versatile and stronger.

In the face of the virus' unpredictability, most of our administrators, faculty, staff, and students now are

working remotely for the remainder of the semester. Going fully online for the spring semester has had its bumps, but education at Old Dominion University and the College of Health Sciences goes on.

Besides online instruction, many of our events have either been canceled, postponed, or reconfigured. Among them, the Faye Coleman Blood Drive, which was scheduled for March 24, was canceled. The YWCA Women of Distinction Awards Luncheon – which will celebrate the accomplishments of Associate Dean Rich-

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ardean Benjamin – has been postponed until June 3. ODU’s Day of Giving, planned for March 17, has been indefinitely postponed. Admitted Students Day, which was set for Saturday, April 4, has been canceled. And commencement options for the spring semester are still being sorted out.

Since School of Dental Hygiene students will not be returning for face-to-face courses, the college’s Dental Hygiene Care Facility has suspended services for this semester.

“In addition, only emergency dental treatment is recommended by the American Dental Association (ADA) right now due to high probability of transmission of COVID-19 during dental treatment,” said Ann Bruhn, chair of the School of Dental Hygiene.

As for ODU Monarch Physical Therapy Clinic, its services have been suspended as well.

We have embraced and are adapting to our new normal. Resiliency and sustainability steady our course as we navigate unknown territory. Stay safe and well, and best of luck this semester and others going forward.

I will continue to bring you exciting news from the college during this crisis, detailing stories of perseverance on behalf of our students, faculty and



The School of Dental Hygiene’s Dental Hygiene Care Facility will be closed during the spring semester.

staff in an atmosphere of uncertainty.

Until then, go Monarchs!

COLLEGE OF HEALTH SCIENCES

College hires Director of Financial Operations

Shawnda Green, who has worked for the state of Virginia since 1993 in various capacities, was hired this year as the Director of Financial Operations at the College of Health Sciences.

Green has been at Old Dominion University since February 2000, and worked in the budget office most of that time. She has an MBA from George Mason University and a BBA from James Madison University.

Her duties at the college include the oversight and maintenance of all financial transactions, as well as providing assistance as needed, assessing policies/procedures for efficiency, providing forecasting and analyzing of our operations.

“I am thankful for the warm reception I have received since my arrival in health sciences and I am very excited to improve our college’s fiscal operations,” she said.



Shawnda Green

Telehealth proves vital in during crisis

By Irvin B. Harrell

Our nation is facing an unprecedented public health crisis as a result of COVID-19. Healthcare providers and systems are striving to implement methods to address the health and wellbeing of our nation while preventing the spread of the virus. Telehealth has emerged as a primary modality for addressing our nation's healthcare needs. Telehealth enables providers and patients to remain separate from each other while participating in healthcare delivered virtually. It includes videoconferencing health visits, remote patient monitoring with devices to collect physical data, and behavioral health counseling. In addition, it allows providers to consult with other providers/experts at a distance.

At the 2019 State of the College address, President John R. Broderick officially announced Old Dominion University's Center for Telehealth Innovation, Education & Research (C-TIER). Carolyn Rutledge and Tina Gustin – both faculty members for ODU's School of Nursing – are co-directors for the center. For Rutledge and Gustin, the center couldn't be available at a better time.

An immediate goal of C-TIER has been to provide guidance to those who are rapidly establishing telehealth programs. Providers must understand steps for successful, safe delivery of telehealth while maintaining as much security



Michele Bordelon, left, is the Center for Telehealth Innovation, Education & Research telehealth manager and Tina Gustin is one of the center's co-directors.

and protection of patients and their information as possible, Rutledge says. "We have developed training videos that are being used nationally by providers, hospitals, and educational programs to assist in the implementation of telehealth."

This week we are producing additional videos that focus on conducting physical exams through videoconferencing when touch is

not an option.

"We are consulting nationally as a result of COVID-19 to help develop and implement telehealth delivery programs, provide clinical education opportunities for students, and develop educational programs for students and providers," Rutledge said.

Telehealth is a good way to
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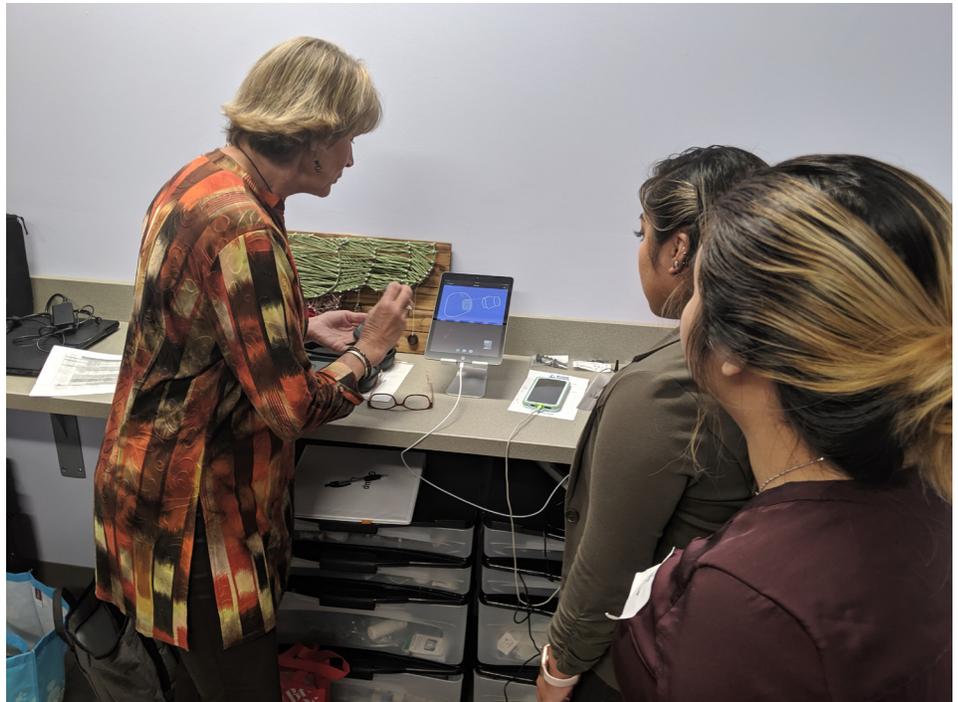
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deliver health care in a time of crisis. For years, it has been used to provide care to patients in under-served regions. Gustin states, “This is an exciting time for Telehealth in that providers who have been reluctant to ‘try’ Telehealth are now using it to assure that their patients receive necessary care. Hospitals that had only 20 Telehealth providers now have 400 providers delivering Telehealth services. This type of service line has occurred in less than one week. Changes in health-care delivery have never experienced this type of growth.”

According to Rutledge, “At least 33 percent of our students in the Doctor of Nursing Practice (DNP) programs conduct research studies on telehealth and many have developed telehealth delivery programs in cardiac, dermatology, primary care, stroke education, diabetes, etc.”

But now, she says, with the need for isolation during this pandemic, telehealth is being used to:

- Provide care to patients quarantined at home including the elderly and immunocompromised,
- Address acute and chronic patient issues without having patients come to clinical sites,
- Diagnose and care for those with COVID-19 symptoms without exposing others,
- Address patients with behavioral health needs as well as



Co-director Carolyn Rutledge says the long-term goal of the center is to expand its research, educational programs and innovations.

those with stress/anxiety that is mounting with the crisis, and

- Provide care in our hospitals while protecting our providers.

Rutledge and Gustin have been keeping providers at both the national and state level aware of the rapidly changing federal and state guidelines regarding telehealth. This includes the emergency waivers executed by Trump at the federal level and Governor Northam at the State level. Previous restrictions placed on telehealth have been removed with the goal of improving access to care through telehealth. Rutledge and Gustin sit on State and National telehealth boards that have lobbied for these changes.

Michele Bordelon, C-TIER’s telehealth manager, coordinates and

oversees C-TIER’s training, telehealth equipment, and marketing.

C-TIER has telehealth devices that include a robot, automated medication dispensers, electronic stethoscopes and EKG via the iPhone.

“We have a ‘travel kit’ or ‘disaster kit’ used to demonstrate how care can be provided in remote situations (rural populations, free clinics, and disaster sites),” Bordelon said. “We also use a multi-purpose camera device that can be connected to the telepresence unit so that a real-time visit with a specialist at a distance can be used to see the images coming from the camera device.”

Bordelon is a huge proponent of this cutting-edge technology

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and is excited about the future of C-TIER.

“Telehealth is a vital conduit for people to connect efficiently, effectively and timely to healthcare, bringing it to where they live and work,” she said. “The more we have simple/efficient ways to manage our health and stay healthy where we live, the better our lives are and the stronger, more efficient our healthcare system is.”

C-TIER took several years to develop and a series of grants, Rutledge says.

“We started developing a telehealth curriculum in 2012 and received funding by the Health Resources and Services Administration (HRSA) to move advanced practice curriculum to interprofessional education,” she said. “We were one of the first schools in the country to teach an interprofessional team of healthcare professionals to collaborate using telehealth.”

ODU received at least four more grants, Rutledge said, that

“We were one of the first schools in the country to teach an inter-professional team of healthcare professionals to collaborate using telehealth.”



Carolyn Rutledge

enabled ODU to develop interprofessional telehealth training with 10 professions: nurse practitioners and clinical nurse specialists, physical therapy, athletic training, dental hygiene, speech and language pathology, and clinical counseling at ODU; pharmacy at Hampton University; fourth-year medical students at Eastern Virginia Medical School (EVMS); and social work students at Virginia Wesleyan University.

“We have educated more than 2,100 students and of these more than 1,000 medical students,” she said.

Rutledge spearheaded the position paper on educating nurse practitioner students in telehealth for the National Organization of Nurse Practitioner Faculty (NON-PF). It was the first position paper written for education on telehealth for healthcare professionals. She gave a nationwide webinar titled, “Dealing with COVID-19 by Implementing a Telehealth Program” on Tuesday, March 31.

Gustin states, “I believe that following this crisis, care will never be delivered in the same way again. Schools will be expected to teach healthcare students how to deliver this type of care. Providers will have telehealth as an option for future healthcare delivery.” As C-TIER continues preparing more faculty, students, and healthcare professionals to use telehealth, Rutledge says, it plans to expand its research, educational programs, and innovations.

“We want to develop a funding mechanism to make C-TIER self-sustaining without dependency on grant funding,” she said. “I would like to see it state-supported.”

Gustin chosen for AACN innovation bootcamp

Tina Gustin, a faculty member in the School of Nursing, was recently selected among 30 nursing faculty across the nation to participate in the 2020 American Association of Colleges in Nursing (AACN) Apple Digital Innovation Bootcamp: From Content to Action, which will be held July in Austin, Texas.

AACN launched this initiative to provide new opportunities for nursing faculty to leverage the latest technology to enhance learning in the classroom, labo-

ratory, online, and clinical settings. Those invited will enjoy sessions on preparing digital content, developing iOS mobile apps and multi-touch books, and creating an engaging learning environment.

“Nurse educators must be open to embracing new technology and exploring fresh approaches to teaching in order to satisfy the diverse learning needs of today’s nursing student,” said AACN President and Chief Executive Officer Deborah Trautman.

Couple takes offensive during virus outbreak

Duo tackles face shield shortage by enlisting team with 3D printers

By Irvin B. Harrell

When the going gets tough, the tough sometimes roll up their sleeves.

That's at least what Assistant Professor Brittany Samulski and her husband did when they realized that area health-care providers were short on personal protective equipment (PPE). There have been shortages of PPE worldwide as countries struggle to battle the COVID-19 pandemic.

Brittany is a faculty member in the Doctor of Physical Therapy Program in the School of Rehabilitation Sciences at Old Dominion University. Her husband, Chris Samulski, is director of business intelligence and analytics at Arbela Technologies, Inc., an Irvine, Calif.-based software company. He leads a group of consultants that helps manufacturing, biotechnology and other industries leverage their data to make better business decisions.

Putting their heads together, the Samulskis have been using their 3D printer to produce face shields for local healthcare workers from their home - and donate them free of charge.

"We both work from home now, so we start a print and go in to restart it every three hours," Brittany said. "We managed to print 20 face shields on the first day of full production."

The couple's concept has caught fire. They organized a group of local makers through Facebook contacts and have 10 3D printers running.

"We were contacted by 757 Makerspace (Thursday) to be part of a greater coordinated effort to get supplies to our frontline medical professionals," she said. "We are working on getting the design approved by Sentara and other medical PPE groups."

Also on Thursday, researchers at ODU's Virginia Modeling, Analysis, and Simulation Center (VMASC)



Assistant Professor Brittany Samulski wears a face shields she helped create.



offered to join the Samulskis' printing group, Brittany said.

The Samulskis have been 3D printing since 2013. Brittany got Chris his machine in 2018, which is an original Prusa i3 Mk3. The creator of the print-

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er, Joseph Prusa, is one of the leaders in Europe for 3D-printed face shield design, Brittany said.

Chris was connecting with others who have 3D printers on his usual forums and YouTube videos, and thought it looked like a cool idea, Brittany said.

“I was seeing a bunch of my friends (nurses, therapists, physicians, physician assistants, emergency medical technicians) who were complaining about re-wearing PPE,” she said. “I even heard about nursing staff who were wearing swim goggles as PPE. I thought, ‘We can do better for these folks who are sacrificing to take care of our friends and family during this pandemic.’”

So the two developed a prototype within 12 hours that would meet the needs of the area, using designs from Italy and from Prusa, who is from the Czech Republic. Chris blended the two designs resulting in a shield headband that can be printed in less than an hour per shield. Four shields can be produced on an average printer in 3½ hours.

The Centers for Disease Control and Prevention (CDC) recommends use of face shields as an additional barrier to normally disposable PPE, such as n95 respirators, surgical masks and cloth masks, Brittany said.

“This design of shield is NOT intended to be primary PPE with-



This is the 3D printer the Samulskis have been using to create face masks.

out eye or mouth protection,” she said. “Our masks can be cleaned in up to 10% bleach solution safely and reused.”

The Samulskis’ mask-making group consists of friends Eric Rohlfs, Jim Setzer, Kevin Griffin, Sam Ross, Sharon Rome, Jessica Prebor (an ODU kinesiology and rehabilitation student) and Jessica Suedbeck (a faculty member of ODU’s School of Dental Hygiene). They are also partnering with Beau Turner at 757 Makerspace.

“We are also working with Sentara Infection Control to get the

design approved for use,” Brittany said. “If the hospitals want modifications to the design, then we will work to make those. The current shields would also be great for people working in food service and grocery stores. We will find a home for them to help keep our community safe.”

Local health-care outlets have been extremely receptive. Sentara Healthcare, which is asking for fog-free face shields, asked Brittany to drop off one of her masks last Thursday for the hospital to look over. Chesapeake General told her to email the hospital as soon as they were ready to donate. And Brittany’s Lake Taylor Transitional Care Hospital contact is asking for 100 masks.

“Right now, we are hoping to put out 1,000 this week in our small group. We plan to distribute them equally among hospitals, then move on to skilled nursing, home health and outpatient facilities, then on to food service workers and cashiers at grocery stores,” Brittany said. “We will continue to produce them as long as we have the necessary materials and a need.”

By the way, the Samulskis sourced materials to make the face shields from Amazon, JOANN Fabrics and Crafts and Virginia Public Schools.

“The schools gave us old transparencies,” Brittany said. “Remember the overhead slides from the pre-PowerPoint era?”



Truckload of assistance

On March 26, the College of Health Sciences pulled together its first donation from the college and I delivered gloves and masks to Lake Taylor Transitional Hospital in Norfolk. Dean Bonnie Van Lunen met with hospital CEO Tom Orsini (pictured at right) and some of his staff to unload the items. They were super appreciative! Orsini has been on the college's Advisory Board for the past few years and the work that is being done for the patients at Lake Taylor is outstanding.

