

CCN RESEARCH

Newsletter
Fall 2021

THE UNIVERSITY OF
ALABAMA[®] | Capstone College of
Nursing
Office of Scholarly Affairs

Message from the ADR - Dr. Robin Bartlett

Welcome to the fall 2021 edition of our biannual research newsletter! CCN faculty have been busy developing proposals to seek funding for their important research and scholarship activities and carrying out their funded (and unfunded) projects. The faculty have also worked hard to disseminate their work through presentations and posters at professional meetings and through publishing their research and scholarly products in journals. Some of this is highlighted in this edition, and as you will see, our faculty are productive scholars.

In this edition, you can read about Dr. Shameka Cody's scholarly trajectory and how she has moved her work forward quickly since graduating from her doctoral program only a few short years ago.

Please take note of various events sponsored by the Office of Scholarly Affairs. Our Scholarship Showcase series has featured incredible scholars over recent months, and next semester's calendar promises to be equally populated with useful presentations. The various upcoming showcase opportunities include a session on building collaborative relationships with community partners and a session on mentoring. The Office of Scholarly Affairs also collaborated with the Alabama Life Research Institute and the College of Engineering to host an interprofessional luncheon and with the Office for Research and Economic Development on a resource fair. We will continue these collaborative events in the spring and hope to see you there!

Also, in this issue, please read about our CCN 2021 Summer Seed Grant Saxon Endowment recipients. Drs. Haley Townsend and Sara Kaylor were funded for a project entitled "Barriers to Sexual and Mental Health Services in Rural Alabama," and Dr. Teresa Welch was funded for her project entitled "Competency Assessment and Development: A Needs Assessment for Nursing Leadership in Rural Hospitals in the Alabama Black Belt Region."

On page 8 of this issue you can "meet" our various grant staff. I'm guessing you've seen some of these faces in our college and might not have known their roles. Now you will!

Please read about Dr. Amy Lee's publication from the *AORN* journal. She has received accolades for this important scholarly work! Finally, read about the ongoing scholarship happenings with some of the CCN Research Society members.



Faculty Spotlight

Dr. Shameka Cody is an Assistant Professor at the Capstone College of Nursing and a board-certified Adult and Geriatric Nurse Practitioner. She obtained her Master of Science in Nursing in 2011 and her PhD in Nursing in 2017 from the University of Alabama at Birmingham (UAB). Dr. Cody completed her undergraduate studies at Jacksonville State University and Jefferson State Community College.

We recently interviewed Dr. Cody about her journey as an early career nurse scientist.

Tell us about your research interests.

My research interest is working with people with HIV, particularly those 50 and older. I am doing quite a bit of research in rural Alabama looking at social determinants of health. I also do quite a bit of work in HIV. Sleep is my primary focus, and my secondary focus is opioid use. We do know that people with HIV can have several challenges that are very different from the general population, so they are at higher risk for sleep disorders as well as other comorbidities.

Tell us about your current and upcoming projects.

We are doing community engagement activities in Greene, Sumter, and Pickens Counties. We are working on a HRSA grant which looks at expanding existing services for individuals with a substance use disorder in those rural counties. We are particularly focusing on youth, since that is a gap that we've identified in our needs assessment for these counties.

One of our initiatives is strengthening and building character among youth in hope that will translate to better decision-making in the future. We currently have a TikTok challenge, and the purpose of that challenge is to stimulate peer-to-peer influence on saying "no" to opioids. We also have quite a number of youth that are treated for pain conditions. It's not just having easy access to

opioids, but it is also knowing that you should take the dose prescribed by your physician.

You serve as the chair of Behavior and Prevention Research Core. What motivated you to take on this role?

I am probably one person who sometimes doesn't realize my ability to lead because I am an early-career faculty member. I kind of see myself as a lifelong learner so taking on the chair position for the Behavior and Prevention Research Core was something that I was excited about, and I was also encouraged by the Associate Dean for Research. I'm very honored to serve in that position. Sometimes people can see things in you that you really can't see yourself, and I'm always grateful for that.



Dr. Shameka Cody

How has this role impacted your work and the College?

It has opened doors for new collaborations with my colleagues within the College. A lot of us collaborate with people outside of the College, but I think it's very important to facilitate growth within the College with the people that you see every day. I probably spend more time here at the College than I do at home, so now that I'm the chair of the Behavior and Prevention Research Core, it's more than just sitting with this group of



people. We have a shared interest in improving behavior outcomes for populations across the lifespan.

It also opened my eyes to the strengths of my leadership abilities and ways in which I can improve my leadership abilities. I've done a lot of self-reflection of how I can become a better leader for the College by being a chair. This group has been very instrumental in my professional development.

“Dr. Cody is an extremely thoughtful scientist, and I enjoy collaborating with her immensely.”

Dr. Burel Goodin

University of Alabama at Birmingham

What do you see as your greatest achievement thus far?

I have to say my greatest achievement thus far would be my ability to coordinate community and academic partners. The reason why I say that is that I am a clinician. I am a board-certified Adult Geriatric Nurse Practitioner, so I still practice. In my role as the program director for my HRSA grant, I do a lot of coordination between community partners, clinics, stakeholders, and academic partners. That's probably been my greatest achievement. Being able to navigate those different organizations and figure out what their individual needs are and then coordinate a group so we can meet the ultimate goal of increasing these services for prevention, treatment, and recovery for those with substance use disorders.

I think that is a skill that has to be learned over time. It's not easy for early-career scientists to learn that. That is more of a senior-level skill, but

I've done that through a lot of listening, being available, and communicating.

What do you hope to achieve in the future?

My passion is HIV and older adults. In 2020, I was recognized as a distinguished geriatric educator, and my ultimate goal is to continue to move forward in the field of aging and to look at chronic conditions and how they may look different in the aging population. We have a lot of people that are living longer with chronic conditions. One of my goals is to increase students' interest in working with people who are older. A lot of our students want to do pediatrics which is wonderful, but we definitely have a great need for students to work with aging populations, especially with those who have complex chronic diseases and COVID-19.

I would also like to continue to use my expertise in the field of aging to encourage junior faculty like myself to pursue funding in this field, and that can be challenging. I hope to continue to use my expertise in the College in that way.

What advice do you have for other researchers, especially nurse scientists?

Research is more than just gathering numbers. It is more than gathering data. Research is about getting to know the population that you want to serve. It's about hearing their voices and actually finding their needs and not assuming that you as the nurse scientist knows what they need. One of the biggest things I tell people is research is about community engagement. Submerge yourself in the environment of your population. Actually do a boots-on-the-ground approach and go see what they have access to.

Research now is not just about changing lifestyle behaviors, which, to me, used to be the foundation of research. In clinical nursing, a person has a problem, you educate them on how to change their lifestyle behaviors, whether they're smoking, eating the wrong foods or a bad diet, or have a lack



of physical exercise; it was always kind of “this is what you do to change your lifestyle behavior,” but it's more than that now.

Even with change of lifestyle behaviors, there are still barriers to why people cannot achieve and optimize their health, and those are called social determinants of health. We have to be aware of those barriers, and we have to actually develop innovative ways to target specific groups and specific populations. I think the only way you can do that is to actually submerge yourself in their environment. Visit their community, visit some of these counties, visit their home, and actually see what they have access to.

I think that's the only way in which you can develop the research. It's not about just gathering numbers and data, but it's about truly understanding that lived experience of the population that you want to serve.

You are only a few years out of your own PhD program. What recommendations do you have for new PhD graduates?

One recommendation I have is to start building your mentorship team. I think that's very important. Mentors serve different purposes. You may have a mentor that can help you navigate your field of study, or you may have a mentor that can help you navigate your academic education if you want to go further in your career. I think it's very important to start building a team of mentors early on, and that should really happen before you leave your PhD program.

Another thing is that dissemination of work is very important. The work that we do in the communities and the research that we do has to reach the most important people, and you do that by publishing in high-impact journals and by presenting your work at local, national, and international conferences. Dissemination of the work we do is very important in building your program of research, but it's also important in letting people know exactly the population that you served and the purpose of your program.

As a new PhD graduate, it is also important to consider whether you want to pursue a postdoc or whether you want to go into academia. Right now, we have a shortage of underrepresented faculty in academia. My word of advice for any underrepresented PhD graduates that are considering going into academia is that it is an excellent opportunity, and there is definitely a need. As we continue to serve our diverse student population, we have to diversify the expertise of our faculty, and we also have to make sure we are leaving a pathway for these underrepresented PhD graduates to interact within.

“I thoroughly enjoy working with Dr. Cody. Dr. Cody has given me impactful advice on how to navigate academia as an underrepresented minority, with emphasis on concepts like professionalism, email etiquette, and conflict resolution amongst many others.”

Joanna Hobson
University of Alabama at Birmingham



OSA Events

The Office of Scholarly Affairs (OSA) offers events throughout the semester to enhance the scholarly efforts of the College. OSA works with faculty to provide a way to disseminate work to peers and across campus and collaborates with other research offices across campus to provide faculty with interdisciplinary opportunities.

Interprofessional Luncheon

The Capstone College of Nursing, College of Engineering, and Alabama Life Research Institute hosted an interprofessional luncheon on Monday, October 11. This was an opportunity to collaborate with faculty from across campus to address healthcare needs and get to know researchers in other colleges. The goal was to foster collaborations between clinical researchers/clinicians, engineers, and other professionals.

There were representatives from almost all the colleges across the University. Drs. Michael Callihan, Daniel Gibson, and Dario Martelli spoke to attendees about their research interest areas and how different disciplines can work together using their specific expertise to advance collaborative projects. Attendees then broke into collaborative groups focused on implementation science, sensor/technology use, and big data/data mining/secondary data analysis. CCN is hopeful that our faculty members will partner with faculty from other disciplines to create collaborative research for the University.

Scholarship Showcases

OSA offered several Scholarship Showcases over the semester. Ashley Green of the *All of Us* Research Program presented to faculty about their diverse health database and strategies for data analysis. Dr. Edward Sazonov presented on “From Wearable Sensors to Behavioral Informatics.” Dr. Michael Callihan and two undergraduate research assistants presented to faculty on “Measuring the Impact of Secondary Stressors on Patient outcomes through Simulation.” Dr. Kay Scott presented on “Stroke and Importance of Health Literacy to Develop Patient Education Material for Post-Stroke Patients.” Dr. Abby Horton presented on “Exploring the Enneagram: A Clinical Teaching Tool.” The Behavior and Prevention Research Core brought Dr. Wanda Burton to present to faculty on “Making the Invisible Visible: The Use of Focus Groups within a Transformative Mixed Methods Approach.” In December, the CCN 2021 Summer Seed Grant Saxon Endowment recipients will present on their research projects.

Faculty interested in presenting at a Scholarship Showcase should contact Courtney Greene (cegreene1@ua.edu).



Dr. Scott presenting at a Scholarship Showcase.



CCN Writing Retreat

The Behavior and Prevention Research Core hosted a writing retreat for CCN faculty on October 28 and 29. This was an opportunity to set aside a few days to focus on writing in a supportive environment. The CCN Writing Retreat provided a space for faculty to work on all types of scholarly products and seek statistical or GRA assistance. Several faculty members attended, and CCN is looking forward to hearing about their finished scholarly products.

Office for Research and Economic Development Resource Fair

The Office for Research and Economic Development (ORED) piloted a new program at CCN where members of their various offices come to the College to provide support. ORED held a presentation and panel discussion on Tuesday, November 2nd. Representatives from the Office for Research & Proposal Development, Office for Sponsored Programs, Office for Research & Technology Agreements, Office for Innovation & Commercialization, Office for Research Compliance, and Office for Contract & Grant Accounting spoke to faculty about what each office offers. The following week, ORED representatives returned to CCN to hold office hours for faculty and staff so they could access services more easily. CCN hopes that this program helps facilitate our work with ORED moving forward.



Jennifer Camp presenting at the ORED Resource Fair.

CCN Research Society

The purpose of the CCN Research Society is to create a culture of undergraduate nursing students engaged in research related activities. Students are paired with faculty mentors and begin to learn the various phases of the research process. The ultimate goal is to increase the number of students who develop and conduct independent research projects.

The CCN Research Society holds monthly meetings where faculty and students share about ongoing research and clinical practice projects. Senior members of the CCN Research Society who attend meetings regularly and are in good standing, wear an honor cord at graduation to recognize their membership and efforts in promoting a culture of research and scholarship at CCN.

This year's officers are Stella Rogers, Megan Butterworth, Hillary Strong and Nicole Schoonhen.

If you are interested in serving as a mentor or if you are interested in speaking about your research at a club meeting, please contact Dr. Paige Johnson (ptjohnso@ua.edu). If you are an undergraduate student who would like to become involved with the CCN Research Society or would like more information, please email ccnresearchsociety@gmail.com.



CCN 2021 Summer Seed Grant Saxon Endowment



Dr. Haley Townsend



Dr. Sara Kaylor



Dr. Teresa Welch

Barriers to Sexual and Mental Health Services in Rural Alabama

Drs. Haley Townsend and Sara Kaylor implemented a project to increase the provision of sexual and mental health screenings in rural Alabama. The research team included a group of undergraduate nursing students, social work students and community partners. CCN faculty, Drs. Michael Callihan and Jill Hobbs also assisted in the efforts. The team took a community-based approach to implementing a holistic health fair in Uniontown, AL in July. This health fair served members of the community while focusing on the intersectionality of sexual and mental health, situated in less stigmatized health indicators such as vital signs and cholesterol levels. A total of eight community resource facilities were on hand to facilitate immediate referral for sexual, mental and other health concerns. Nursing students screened for anxiety and depression, Chlamydia and Gonorrhea, HIV, and collected other biometric data of participants. With the funding, the team was able to acquire a point-of-care testing system that detects Chlamydia and Gonorrhea in 30 minutes or less allowing treatment to be offered on-site. In addition, Dr. Hobbs served as the provider for the health fair allowing the team to treat any sexually transmitted infections detected. The health fair was held at C.H.O.I.C.E. Resource Center and served a total of 55 participants.

Drs. Townsend and Kaylor have already sought additional funding for the expansion of these health fairs through ALRI and are awaiting results of the application period. They are also working on multiple manuscripts to disseminate findings from the health fairs.

Competency Assessment and Development: A Needs Assessment for Nursing Leadership in Rural Hospitals in the Alabama Black Belt Region

Dr. Teresa Welch conducted a pilot study to assess the competency needs of nursing leaders in Critical Access Hospitals and rural hospitals located in the Alabama Black Belt Region. These hospitals are essential to the health and sustainability of rural communities. They not only provide access to healthcare, which contributes to the wellness and quality of life for local residents, but they also support the overall strength of the community's economy. The value of a local hospital cannot be underestimated for those living in rural areas, yet 88% of Alabama rural hospitals are operating in the red. Nursing leadership is strategically and uniquely positioned to have a significant impact on the viability of these facilities by having a direct impact on controlling the quality and cost of healthcare in these facilities while meeting operational demands and thin margins.

Findings from Dr. Welch's study have been submitted for publication and will be used to guide future research projects on a broader scale aimed at identifying leadership competency needs and the most effective means of providing educational opportunities designed to meet them. Research findings will inform the development and delivery of continuing education and professional development opportunities designed to address identified nurse leader competency needs in rural hospitals.



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Publication Highlight

Lee, A. (2019). Conversion to Chlorhexidine Gluconate for Perioperative Vaginal Preparation: An Evidence Based Process Improvement Project. *AORN*, 110(2), 145-152. <http://doi.org/10.1002/aorn.12747>

In *Conversion to Chlorhexidine Gluconate for Perioperative Vaginal Preparation: An Evidence Based Process Improvement Project*, Capstone College of Nursing's Dr. Amy S. D. Lee demonstrated exceptional use of the evidence base to prevent surgical site infections during gynecologic surgery. Surgical site infections (SSI) are healthcare associated infections that occur after a surgical procedure. In the United States, SSIs are associated with a significant financial burden, bearing annual costs of \$3.5 to \$10 billion. Yet, 55% of SSIs are preventable using appropriate skin preparation procedures. Thus, Lee described a process improvement project that employed the pertinent evidence base to significantly reduce the financial burden associated with SSIs.

In this multi-dimensional process improvement project, Lee first describes the review of the available evidence by interdisciplinary groups of medical professionals at academic medical facilities. Most notably, research groups found that the American College of Obstetricians and Gynecologists recommends the off-label use of 4% Chlorhexidine Gluconate (CHG) with low alcohol content as an alternative to previous use of povidone-iodine (PI), given CHGs superior antimicrobial efficacy. These findings propelled the research groups to assemble a new vaginal prepping operative kit with the aim of reducing SSI incidence after gynecologic surgery. In collaboration with sterile supply vendors, the research group streamlined and replaced existing PI kits with CHG kits, effectively reducing the cost per kit from \$10.42 to \$5.70.

Following the conversion from PI to CHG vaginal preparation kits, the research team sought to revise policy on vaginal preparation and formulated educational material to orient medical staff regarding the kit conversion. A video presentation modeling proper vaginal preparation procedure using the CHG kits was developed to orient medical staff. Moreover, an accessible PowerPoint presentation was developed for medical staff to enable easy reference to appropriate SSI prevention procedures. Given that the change in policy and procedures did not affect staffing structure, the educational component of this project did not significantly burden medical staff and increased their confidence and self-efficacy in performing vaginal preparation.

After policy conversion and the educational component were completed, the research group conducted a risk-benefit analysis and evaluated the results of the project. As Lee describes, there were low risks associated with the project and numerous benefits. Although the policy and procedures revisions included an off-label use of CHG, the benefits far outweighed this off-label use. For instance, overall rates of SSIs declined from 20% to 3%, readmission after SSI declined from 13% to 3%, and after concurrent colon and ovarian cancer surgery, SSI rates dropped from 33% to 7%. Dr. Lee's findings demonstrate the utility of evidence-based policy revision and the efficacy of potent educational components in improving patient outcomes and reducing healthcare expenditures associated with SSIs.

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