

CCN RESEARCH

Newsletter
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Faculty Spotlight

Dr. Mercy Ngosa Mumba is an Associate Professor at the Capstone College of Nursing. She is noted as an award-winning scientist and philanthropist. She graduated with her PhD from the University of Texas at Arlington College of Nursing and Health Innovation in December 2016 and with her Honors Bachelor of Science in Nursing in December 2010.

Dr. Mumba has an impressive research portfolio of publishing in numerous peer-reviewed scientific journals. Her research focuses on substance use disorders, addictive behaviors, and their comorbid mental health conditions. Furthermore, her interests include the impact of social determinants of health coupled with the role of health disparities in preventing, treating, and managing the conditions enumerated above.

Dr. Mumba has received extensive intramural and extramural funding of over 12 million dollars from a variety of funding agencies, including the National Institutes of Health (NIH), Substance Abuse and Mental Health Services Administration, Health Resources and Services Administration, Centers for Medicare and Medicaid, and the United States Department of Veterans Affairs. Dr. Mumba's federal grants funding rate is approximately 75 percent which far exceeds the national average. Her role as a grant reviewer began in 2019 through a competitive Early Career Reviewer Program at the Center for Scientific Review. She currently serves as a grant reviewer for one of the study sections at NIH.

"I have always been passionate about research and improving the human condition through evidence-based interventions. I have been very blessed to have had mentors who took me under their wings and walked me through the process of grant writing."

-Dr. Mercy Mumba

As a part of CCN's Research Colloquia Series, Dr. Mumba presented "Demystifying the NIH Proposal Development & Submission Process." Dr. Mumba explained, "In speaking to many early career scientists, I noticed a common thread—people want to apply for grant funding so that they can support their programs of research, they just don't know where to start. With that, I decided to conduct this seminar series to help other early career investigators with understanding the NIH grant writing and submission process." Recordings of this four-part Colloquia Series can be accessed on the CCN website under the "Research" tab.

Dr. Mumba's passion for improving the human condition through evidence-based initiatives and interventions is evident in her work. The Capstone College of Nursing is fortunate to have her as an advocate for increasing research productivity, infrastructure, and human capital globally. She is recognized for promoting holistic wellness and quality of life among individuals and communities while becoming involved in numerous initiatives that improve health care outcomes.



Dr. Mercy Mumba



Capstone College of
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Doctor of Nursing Practice Program

The Capstone College of Nursing's Doctor of Nursing Practice (DNP) prepares its graduates to excel at the highest level of nursing practice. The program focuses on providing care with an emphasis on improving quality and access of health care to underserved and diverse populations. CCN's DNP Program equips all graduates to advocate for reasonable, rational, and data-driven health regulations, standards, and practices; to sustain collaborative and strategic relationships; to promote innovative, effective health care programs; and to form partnerships with diverse groups to address health disparities.

Ginger Phillips is a current DNP student completing a quality improvement (QI) project on *Improving Adherence to Public Health Follow-Up Care Standards for Underserved Women with Abnormal Cervical Cytology*. Data suggests that low-income, minority women who receive cervical cancer screenings from rural public health clinics in Alabama often fail to keep recommended follow-up appointments for diagnostic resolution of abnormal cervical cytology findings. The purpose of the QI project was to improve adherence to follow-up care standards in women with abnormal screening cervical cytology from rural public health clinics that serve this vulnerable population group. The PRAPARE-guided method, a patient navigation program, was implemented in four rural public health colposcopy clinics. Show rates were measured and compared at three intervals (pre-COVID, COVID, and post-implementation) using Chi-Square analysis. PRAPARE-guided patient navigation took place by phone and mail, allowing the primary investigator to recognize and respond to social determinants of health reported by the women that may have prevented them from adhering to follow-up care standards. The overall analysis of the four county health clinics revealed statistical significance ($p < .05$) χ^2 (6.182, $p = 0.012903$) for pre-COVID show rates (71%) versus post-implementation show rates (87%). The overall COVID show rates (71%) versus post implementation show rates (87%), χ^2 (5.0173, $p = 0.024301$) were also statistically significant. The individual clinic show rates were clinically significant in that there was notable improvement in the percentage of post-implementation show rates for each of the four county colposcopy clinics after the implementation of PRAPARE-guided navigation. Adherence to recommended follow-up was improved in the patient cohort following implementation of evidence-based patient navigation. Patient navigation programs in the public health setting have the potential to improve cervical disease outcomes, reduce the incidence and mortality rates of cervical cancer, and reduce costs associated with treatment. Mrs. Phillips looks forward to publishing the findings from her QI project enumerated above. Mrs. Phillips stated, "By obtaining my DNP from UA, I feel that I am well prepared to take on leadership roles within my facility and perform other QI projects while implementing evidence into practice." Mrs. Phillips credits her advisor (Dr. Amy Lee), faculty, and staff for their professionalism and abundance of knowledge.

Dr. Michael Turturro graduated with his DNP in December 2020. He currently serves as the Chief Nursing Officer of Baylor Scott and White Ambulatory Clinics in Texas. Dr. Turturro's evidence-based practice project, *Treating Chronic Disease Patients at Home with a Mobile Integrated Health (MIH) Team*, is featured in the following article.



Capstone College of
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DNP Publication Highlight

Treating Chronic Disease Patients at Home with a Mobile Integrated Health (MIH) Team

Dr. Michael Turturro, DNP, MBA, MHSA, MSM, RN-BC, VP/CNO, Ambulatory Clinics, Baylor Scott & White

Dr. Todd Smith, Assistant Professor, Vice-Chair, The Capstone College of Nursing

Abstract

In today's healthcare arena, hospitals struggle to meet established Medicare reimbursement requirements for providing safe and comprehensive care. Revenue losses occur when hospitals are penalized financially for any cause readmissions within 30 days of discharge. One method of readmission reduction gaining the attention of hospital leaders is called mobile integrated healthcare. Published research discusses the benefits of home care conducted by Paramedics resulting in improved patient outcomes through monitoring, education, and faster access.

Background

Mobile Integrated Health (MIH) has its roots in rural health care, which has always included underserved populations, but now expands into the urban environment where unnecessary patient transports occur. This Emergency Department (ED) overuse as an urgent care center has become a symptom of inefficient education provided to these patients on how to manage their disease process, lack of support at home from a family member, and lack of social interaction (Rasku, Kaunonen, Thyer, Paavilainen, & Joronen, 2019). To maximize revenue and reduce loss, hospitals and EMS companies have partnered to develop MIH programs in their communities to reduce the volume of these high-utilizing populations.

Project Design

This project was a retrospective review of an MIH program. Phase I started solely as a paramedic home visit program in central Texas, and Phase II added a nursing component for telephone follow-up visits to augment the MIH team. Overall, the number of ED visits, admissions, and primary care visits, both prior to and post MIH program enrollment across the two phases of the program, were tracked to study the effectiveness of the MIH program on the CHF population in reducing hospital dependency. The additional layer of clinicians not only assisted in capturing eligible patients across all points of entry into the hospital system but also provided another point of contact to coordinate communication between the care teams.

References

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- Rasku, T., Kaunonen, M., Thyer, E., Paavilainen, E., & Joronen, K. (2019). The core components of community paramedicine - integrated care in primary care setting: A scoping review. *Scandinavian Journal of Caring Sciences*, 33(3), 508-521. doi:10.1111/scs.12659

Evidence Based Practice

Since inception in 2017, the initial MIH team made up of four paramedics focused on monitoring 500 CHF patients where they provided 2,000 home visits over the course of one-year. This resulted in the 30-day readmission rate for this group to drop from 45% to 16%, saving the hospital \$9,158,400.00 in expenditure savings based on the yearly per patient readmission expense. Studies have shown that close to 78% of chronic disease patients can successfully be cared for in their own home without trips to the ED if they recognize their symptoms early (Abrashkin et al., 2016).

Results

A three-way ANOVA was used to compare the three groups: baseline treatment with EMTs only, new treatment group with nursing added, and the control group were those who refused the program. The final comparison between the baseline treatment group and the new treatment group showed that the new treatment group experienced a greater decrease in inpatient admissions and an increase in primary care provider visits after the MIH program compared to the baseline treatment group with a p-value of 0.0001.

Conclusion

This limited study has shown the positive effect that an MIH team had on reducing 30-day readmissions and improving primary care visits with their physician. The six months of data clearly showed increased patient involvement in their own care by doubling outpatient visits to their primary care provider and reduced hospitalizations with the added care team members' involvement. As the population grows and physician access becomes more limited, especially in rural areas where the population to physician ratio is high, system integration should be considered to utilize community paramedics with the support of other providers and community resources (Cameron & Carter, 2019). EMS and MIH teams are a viable resource to relieve the ED burden, be the bridge between patients and provider access, which will improve patient outcomes, and have an impact on the quality of life for these fragile groups.



CCN Research Society

The purpose of the CCN Research Society is to create a culture of undergraduate nursing students engaged in research related activities by providing an avenue to engage students with faculty through a research mentorship. The ultimate goal is to increase the number of students who develop their own research projects. The research society meets once a month and students in both lower division and upper division are encouraged to join the club.

Several CCN students presented poster presentations at the Undergraduate Research and Creative Activity (URCA) Conference. The conference was held March 31, 2021 at the Bryant Conference Center and was hosted by the Office for Undergraduate Research.

Senior members of the CCN Research Society who attend meetings regularly and are in good standing, will be wearing an honor cord to recognize their membership during graduation ceremonies. A sincere thank you goes out to the club leadership during this challenging academic year: Kate Thompson, Nicole Schoonhen, Lilly Buchholz, Josie Niedermeier, Lilly Apperson, and Allyson James.

One of CCN Research Society's fall 2020 officers, President Josie Niedermeier, received the CCN Leadership Award. We would like to offer her a big congratulations on receiving this prestigious award and thank her for all her leadership.

If you are an undergraduate student who would like to become involved with the CCN Research Society and would like more information, please email ccnresearchsociety@gmail.com.



Josie Niedermeier

"I feel so fortunate as a new nurse to have graduated from the Capstone College of Nursing. The CCN provided me with faculty who encouraged my curiousness and supported my goals. As a new nurse, I believe it is so important to continue to be excited about learning and to make new goals in your career."

-Josie Niedermeier



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Publication Highlight

In *Use of an Evidence-Based Teaching Strategy to Improve Sexual Health Assessment Among Nurse Practitioners in the Retail Health Environment*, Sheddan and Capstone College of Nursing's Felecia Wood noted strategies for addressing high-priority health concerns such as reproductive and sexual health strategies that are necessary for improving the health and wellness for Americans. According to the Center for Disease Control and Prevention (CDC) Sexually Transmitted Disease Surveillance 2018 report, approximately 20 million new sexually transmitted infections (STIs) occur every year which accounts for more than 16 billion in annual health care costs. This exemplifies that STIs are a significant health challenge facing the United States.

Sheddan and Wood's literature review comprised numerous studies that stated primary care providers and nurse practitioners (NPs) are assessing and screening patients for STIs 16% to 55% of the time. The project assessed the use of an STI assessment tool by NPs who received education on evidence-based strategies for obtaining a sexual history compared to NPs who received email reminders to use the assessment tool. The 5 Ps assessment tool, selected for use in this project, was produced by the US Department of Health and Human Services (DHHS) and CDC to guide taking a sexual history by addressing partners, practices, prevention of pregnancy, protection from STIs, and past history of STIs. This tool guides the assessment by identifying the gender and number of partners, need for and discussion of sites to collect specimens for STI testing, risk-reduction strategies, and exploring the patient's general risk for STIs. Furthermore, the tool helps to identify risk level for protection, past history of STIs, and parenting desires. The retail clinic organization that served as the project site used the 5 Ps assessment tool in 11% of STI visits during the 2018 fiscal year despite the tool being integrated into the electronic medical record and titled the *HIV Risk Survey*.

Providers at Knoxville clinics were invited to participate in a webinar on evidence-based practice strategies for obtaining a sexual history, which followed DHHS and CDCs "Guide to Taking a Sexual History" and the 5 Ps assessment tool. Furthermore, the leader discussed why taking a sexual history is important, when a sexual history should be taken, and how to create a safe and trusting environment. Participants received a post-webinar survey to assess the effectiveness of the education, use of the *HIV Risk Survey*, and barriers faced by providers. Providers at Memphis clinics only received email reminders each month requesting that they complete the *HIV Risk Survey* on all relevant patients. At the end of the three months, the email reminder group and the webinar class group received the same evaluation to assess the use of the *HIV Risk Survey* and potential barriers.

The results demonstrate that the webinar evidence-based education on how to approach taking a sexual history did not positively affect provider practices by increasing the percentage of *HIV Risk Survey* completion during STI visits. There was an increase in the use of the *HIV Risk Survey* following email reminders which indicated that a periodic reminder approach may lead to improved sexual health assessment completion rates. Although the desired outcome was not achieved with the webinar, the desired outcome did occur with the email reminder group. Some barriers that participants identified as preventing them from being able to complete the *HIV Risk Survey* include not having enough time, provider embarrassment, patient refusal, and provider forgetting to do the survey. The results suggest the need for strategies to improve provider use of the existing survey.

NPs play a significant role in promoting organization change. Sheddan and Wood encourage NPs to lead evidence-based initiatives such as those implemented in this project. The researchers note that future efforts to improve quality outcomes by NPs should consider using email

Reference

Sheddan, A. J., & Wood, F. (2021) Use of an evidence-based teaching strategy to improve sexual health assessment among nurse practitioners in the retail health environment. *The Journal for Nurse Practitioners*, 17(2), 222-224. doi: 10.1016/j.nurpra.2020.11.012

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