

How Innovative Rural Nursing Will Reduce Rural Opioid Use and Transform Global Nursing Scholarship

Tami L. Thomas, PhD, RN, CPNP, FAANP, FAAN; Derrick C. Glymph, DNAP, CRNA, APRN, COL., USAR; Michelle Caldera, BA
Nicole Wertheim College of Nursing and Health Sciences, Florida International University, Miami, FL

Introduction

In the United States, the opioid epidemic due to over-prescription of opioid analgesics and misuse has significantly amplified over the last two decades.¹ Sadly, the opioid epidemic is attributed to the limited provider training in opioid use disorder (OUD) and appropriate prescription of pain medication, combined with minimal understanding of non-drug alternatives for pain management within a primary care setting.² Rural communities have higher rates of opioid drug use coupled with limited access to healthcare such as limited (OUD) and/or substance abuse disorder (SUD) resources, prevention programs, treatment, and recovery support services. Moreover, mental health resources in rural areas for patients with OUD/SUD is limited.³ Increases in OUD/SUD support, mental health resources, and healthcare provider/staff training within rural underserved communities will assist in drug prevention and monitoring, patient recovery, reduction in risks related to opioid drug use, and address social stigma surrounding OUD/SUD.^{3,4}

Purpose

The purpose of this program is to address the present and urgent need for opioid use disorder and mental health resources in relation to proper pain management for rural communities. Selected Advanced Practice Nurse Practitioner students specializing in anesthesiology, adult, family, and pediatric practice are trained to address rural OUD and mental health within a primary and emergency healthcare setting. Simultaneously, this program examines attitudes and beliefs of nurse practitioner students regarding opioid drug use and mental healthcare clinical training for rural areas.

Innovation

Trainings provided an innovative approach to learning using hybrid teaching and multidisciplinary interaction. Online training consisted of a pre and post assessment and 8 modules featuring assessments after each module completion before continuing to the next module. Additionally, in person focus groups were completed at the middle and end of training highlighting student feedback, experience, integration of knowledge gained and application during clinical rotation, and discussion of current research on OUD.^{5,6}

Results

The graduate nursing students who completed the online trainings on pain management and opioid misuse learned to define and classify pain, factors affecting patient response to pain (gender, age, ethnicity, religion, culture, genetics, patient perception and expectations, past experiences, socioeconomic) and psychiatric factors influencing pain. Evaluation measures include pre and post evaluation assessments with a total of 3,838 data points. Introduction to the pain assessment and management has provided basic principles of pain management in the emergency care setting such as introduction, recognition, and assessment.

Table 1. demonstrates initial and final assessment of graduate nursing student knowledge on opioid use disorder, pain management, and mental health. Preliminary results have shown a 100% improvement rates for graduate nursing student's knowledge following completion of the online trainings.

Table 1. Pre and Post Test Assessment Results Comparison

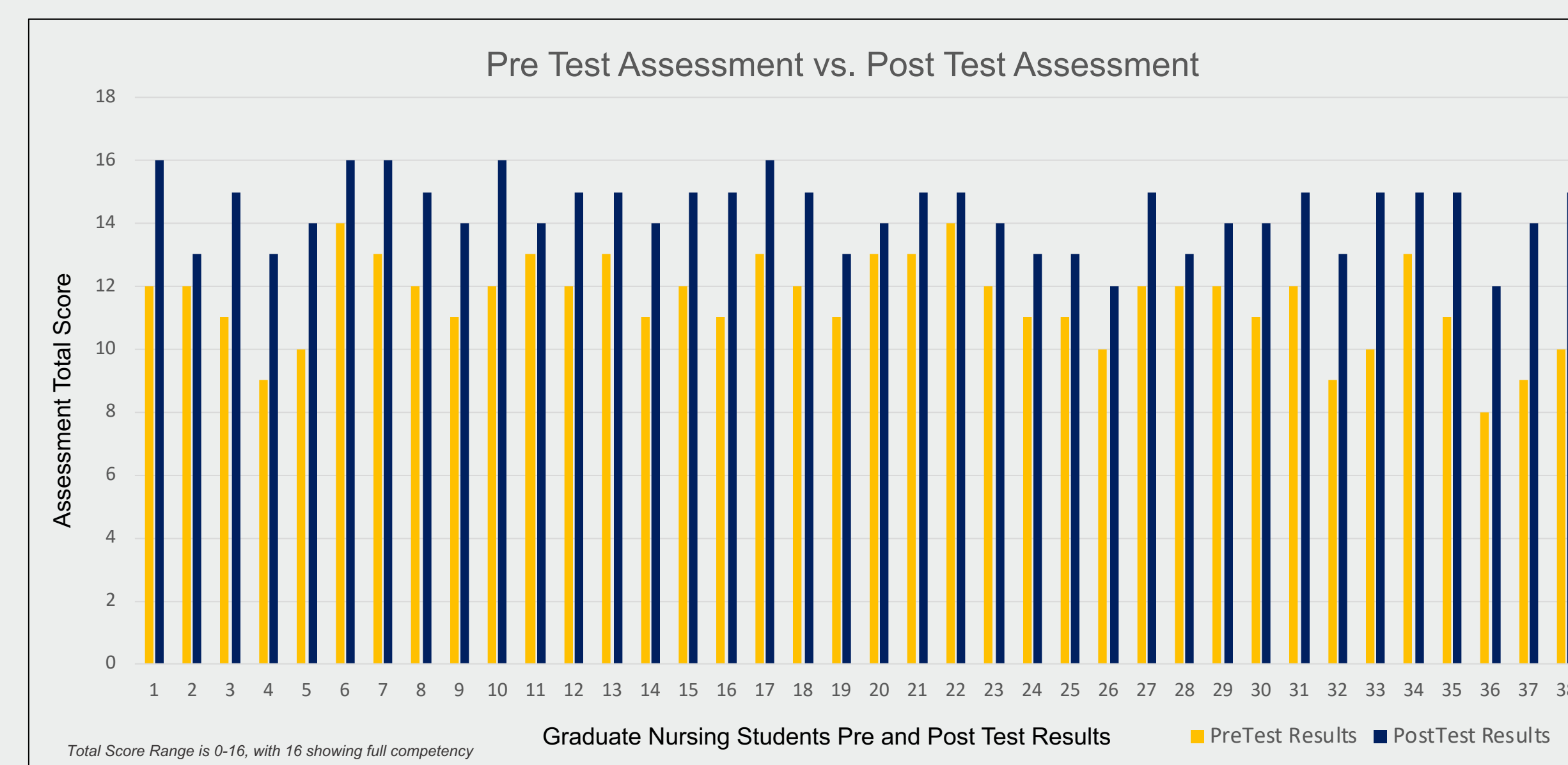


Table 2. Qualitative Results Post OUD training

Semester	Graduate Nursing Student Focus Group Feedback	Nursing Discipline
Spring 2019	I believe this course needs to be offered to all students.	Adult
Spring 2019	OUD is very present in my clinical rotation, every module training I have applied in my clinical rotation.	Adult
Summer 2019	I have learned so much about how to be a better provider to my patients.	Family
Summer 2019	I have been able to recognize patients who might suffer from OUD or other drug related issues.	Family

100% of students have stated the importance of broadening course trainings and assignments to all graduate nursing, medicine, and public health students.

Discussion

Comprehensive training on OUD/SUD and pain management for healthcare providers is crucial to addressing the nation's opioid epidemic.^{2,6} Training at the clinical and educational level increased understanding of non-pharmacological alternatives to pain and prevent over prescription of pain medication to patients. Continuous development on innovative teaching strategies to enhance student clinical leadership skills, team building and collaborative problem-solving, culturally appropriate care, integration of telehealth and IT assisted patient learning and care management into students' clinical practice is essential to comprehensive care and treatment of OUD.^{5,6} Understanding drug alternatives and recognizing OUD symptoms can increase clinical competency skills in relation or primary care and emergency care for patients suffering from SUD.

Next Steps:

Presently, due to the impact of COVID-19 focus group meetings will be completed remotely. We will continue to provide online trainings to graduate nursing students and will provide MAT certification for all students who complete training modules. Moving forward, we plan to expand course offerings to all nursing disciplines and train and certify more nursing students to recognize and treat opioid use disorder and reduce over-prescription of pain medication.

Funding

This project is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) as part of an award totaling \$1.39Million **Grant # T94HP30893** with 0% percentage financed with non-governmental sources. The contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement, by HRSA, HHS or the U.S. Government.

References

1. Cicero, T.J., Ellis, M.S., & Harney, J. (2015). "Shifting patterns of prescription opioid and heroin abuse in the United States." *New England Journal of Medicine*, 373(18):1789-1790.
2. Clark, A.K., C.M. Wilder, and E.L. Winstanley, A systematic review of community opioid overdose prevention and naloxone distribution programs. *J Addict Med*, 2014, 8(3): p. 153-63.
3. Thomas, T., DiClemente, R. & Snell, S., Overcoming the triad of rural health disparities: How local culture, lack of economic opportunity, and geographic location instigate health disparities. *Health Education Journal*, 2014, 73(3): p. 285-294.
4. Fornili, K.S. and S.A. Fogger, Nurse Practitioner Prescriptive Authority for Buprenorphine: From DATA 2000 to CARA 2016. *J Addict Nurs*, 2017, 28(1): p. 43-48.
5. Levin, F.R., et al., A review of a national training initiative to increase provider use of MAT to address the opioid epidemic. *Am J Addict*, 2016, 25(8): p. 603-609.
6. Kampman, K. and M. Jarvis, American Society of Addiction Medicine (ASAM) National Practice Guideline for the Use of Medications in the Treatment of Addiction Involving Opioid Use. *J Addict Med*, 2015, 9(5): p. 358-67.