TACSM Abstract

Broadening the Impact of Course-Based Research Experiences: Integration of Clinically-Based Research into Undergraduate Kinesiology Education

CANDICE G. FRENCH

Health and Human Performance; Fort Hays State University; Fort Hays, KS

Category: Masters
Advisor / Mentor: Long, Mellisa (mdl16a@acu.edu)

ABSTRACT

Course-Based Research Experiences (CBREs) have demonstrated significant benefits in undergraduate science education across various disciplines. **PURPOSE**: This study integrates insights from Shaw JM et al.'s investigation into engaging undergraduate kinesiology students in clinically-based research, with earlier findings from Jordan TC et al. and Brownell SE et al., to evaluate the multidisciplinary impact of CBREs on student learning, skills, and perceptions of scientific research. **METHODS**: Shaw JM et al. extended the CBRE model into kinesiology, focusing on clinically-based research to engage students in hands-on, practical investigations relevant to human health and exercise science. This approach was analyzed alongside the phage discovery program by Jordan TC et al. and a high-enrollment CBRE's impact on scientific thinking by Brownell SE et al., using pre- and post-course assessments to measure changes in students' abilities, engagement, and perceptions. **RESULTS**: Findings from Shaw JM et al. indicate that clinically-based research within a kinesiology curriculum significantly enhances students' clinical skills, understanding of research methodologies, and ability to apply scientific knowledge to real-world health scenarios. Similar to the outcomes reported in the phage discovery and high-enrollment CBRE studies, students demonstrated increased engagement, improved scientific literacy, and a stronger inclination towards pursuing further research or careers in science. **CONCLUSION**: The integration of CBREs across diverse scientific fields, including the novel application to clinically-based kinesiology research, underscores the versatility and effectiveness of this educational approach. CBREs not only enhance undergraduate education by improving scientific skills and literacy but also by fostering a deeper connection to the real-world applications of science, thereby supporting the development of a well-prepared and motivated workforce for the future of scientific research and healthcare.