



HANDS-On Childhood Health Education: PhysioCamp Early STEM Engagement in Pitt County



Micah Lee
Brody School of Medicine
Service-Learning Distinction Track
leemi19@students.ecu.edu

The Mission

PhysioCamp

👋 **PhysioCamp** is a teaching organization that promotes health sciences and hands-on STEM education to K-12 students.

Why PhysioCamp?:

- 👋 Increased science exposure *beginning in elementary school* impacts positive viewpoints on careers in STEM.¹
- 👋 Students from rural communities with STEM enrichment programs are more likely to view careers in science as attainable goals and more likely to choose STEM majors in college.²
- 👋 Hands-on learning opportunities provide motivation for long-term STEM engagement.³
- 👋 PhysioCamp provides STEM enrichment tools and long-term mentorship programs with health science professionals *to set students on a path of success.*



ACKNOWLEDGEMENTS

Special thanks to Dr. Holly Ingram, Dr. Robert Carroll, Dr. Jennifer Crotty, and Micah Furr for their mentorship, resources, and PhysioCamp involvement.

The Project

HANDS-On Health Education

Early PhysioCamp Engagement Initiative:

- 👋 **Host** PhysioCamp events targeted for ages 5-13, expanding community partnerships.
- 👋 **Adapt** and expand curriculum for additional hands-on learning experiences with young participants, adding healthy lifestyles curriculum and physical activity opportunities.
- 👋 **Nurture** positive, long-term relationships to encourage future STEM engagement.
- 👋 **Discover** new volunteers and community partners.
- 👋 **Seek** opportunities to expand in underserved and rural areas through virtual and in-person programs.

Young children exposed to hands-on STEM education are more likely to love science and pursue careers in medicine.

The Purpose

Outcome Results

👋 **Project expansion** involved serving as a PhysioCamp programming coordinator for Pitt County, developing curriculum activities, and teaching at community partnership sites

👋 **Project sites** included Boys and Girls Club, Joy Soup Kitchen, Bethel Youth Center, Falcon Youth Camp and Operation Sunshine.

👋 **Learning Outcomes:**

	Pre-Test	Post-Test
👋 Factual Knowledge:	7.25/10	9/10
👋 Lifestyle Choices:	10/10	10/10
👋 Love for Science:	7.75/10	9.6/10

👋 **Qualitative Outcomes:**

- 👋 "I never want to smoke!"
- 👋 "I want to be a nurse practitioner when I grow up, and I think I can do it!"



References:
1. Ashimwe, J., DeWeert, J., Davenport, C., Padwick, A., Sanderson, J., & Strachan, R. (2021). Scientist of the week: evaluating effects of a teacher-led STEM intervention to reduce stereotypical views of scientists in young children. *Research in Science & Technological Education*, DOI: [10.1080/02635143.2021.1941840](https://doi.org/10.1080/02635143.2021.1941840)
2. Thrig, L. M., Lane, E., Duhita, M., & Assouline, S. G. (2018). STEM excellence and leadership program: Increasing the level of STEM challenge and engagement for high-achieving students in economically disadvantaged rural communities. *Journal for the Education of the Gifted*, 41(1), 24-42. DOI: <https://doi.org/10.1177/0162353217745158>
3. Julià, C., & Antolí, J. O. (2019). Impact of implementing a long-term STEM-based active learning course on students' motivation. *International Journal of Technology and Design Education*, 29(2), 303-327. DOI: <https://doi.org/10.1007/s10798-018-9441-8>