
Trevor Mordhorst
Providence

Sanmeet Kaur
Providence

Dan Tappan
Providence

Dillon Dalton
Providence

Otto Bucholz
Providence

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Authors
Trevor Mordhorst, Sanmeet Kaur, Dan Tappan, Dillon Dalton, Otto Bucholz, Katrina Taylor, Garth Babcock, Alicia Hegie, and Frank Jackson

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Trevor Mordhorst, MD, MS; Sanmeet Kaur, PhD; Dan Tappan, PhD; Dillon Dalton, BCS; K. Otto Buchholz, PhD; Katrina Taylor, PhD; Garth Babcock, PhD; Alicia Hegie, PsyD; Frank Jackson, DO

The goals of this presentation:
1. Present a common problem experienced by residents and anyone attempting to perform complex multi-disciplinary research at a non-academic medical center.
2. Present an effective solution to this problem with emphasis on residency programs in Spokane.

Problem:
We had an idea for a pragmatic and novel intervention for a relatively common problem in our population and in the general public, however due to the complexity of the project and lack of resources available at a non-academic center the task became daunting.

Solution:

Methodology/Collection
Due to the complexity and multi-disciplinary requirements of conceptual design, software design, data collection/validation, statistical analysis, and access to pertinent populations a multi-organization, multi-departmental and multi-disciplinary approach was required.

2. Software design: St. Luke's and EWU computer sciences students and faculty
3. Data Collection/Validation: St. Luke's and EWU Department of Wellness and Movement Sciences via Athletic Training and Exercise Science
4. Statistics: EWU Department of Wellness and Movement Sciences
5. Initial Application: EWU student-athlete population

After validation goal for multiple concurrent arms in different populations, utilizing the access to multiple distinct populations via St Lukes/EWU collaboration.

Potential Applications: TBI and PTSD agitation treatment/prevention, monitoring and manipulating preperformance stress in non-injured athlete population, pre and post concussion investigation, among others.

Citations

Conclusion
This project is pertinent to the innovation in medical education category due to extensive interdisciplinary collaboration required. This project takes advantage of the rich academic environment present in Spokane, and has established an avenue of collaboration between the EWU computer sciences department students and faculty, the EWU Health and Wellness Sciences department faculty, and St Luke's Cardiac Rehab., Rehab. Psychology, Brain Injury department and St. Luke's PM&R residency.

This project serves as a proof of concept to address the difficulty of undertaking multidisciplinary research at a non-academic medical center through outreach to local academic institutions.