

Enhancing Research Capacity in Sports Medicine within the PM&R Department at JHU: A Collaborative Approach to Academic Excellence

Mohammed Emam MD*, Alexis Coslick DO*

Internal Mentor: Preeti Raghavan, MD* External Mentor: Justin Hata, MD**

*Physical Medicine and Rehabilitation, Johns Hopkins University School of Medicine, Baltimore, MD, USA

** Physical Medicine and Rehabilitation, Loma Linda University, CA, USA

Background

- The sports medicine program at JHU was established in 2021 with two full-time clinical physicians and has since expanded to four clinical physicians.
- Despite growth, original research productivity has been limited due to the absence of protected time for research.

Aims

A strategic initiative aims to:

- Enhance original research productivity by leveraging resources, engaging medical professionals, and fostering interdisciplinary collaborations.

Objective

- Increase the number of IRB-submitted projects led by sports medicine faculty to at least four within 6 months bet. Mar 2024-Dec 2024 (baseline 3 projects from 9/21-2/24)
- Establish a sustainable research framework and eventually enhance original research publications.

Plan

Map out existing research resources

“PM&R Specific Aims Workshop” lead by PM&R research faculty who could serve as mentors to Sports Med faculty navigating IRB submission and research design process.

Biostatistics Epidemiology and Data Management (BEAD) Core, a program at JHU that provides research support services to faculty and trainees.

Initiate a Sports Medicine Research Interest Group

A meeting invitation was sent out to undergrad Students, medical students and residents interested in sports medicine research to attend a meeting with faculty, a virtual meet and greet was set-up.

A survey was then sent to the attendees investigating their interests within sports medicine to match these with appropriate faculty and form specific research teams.

Example topics included:
Regenerative medicine

Protect Fellow Research Time

10% of Sports fellows’ research time was built into their weekly schedule towards research and scholarly activities.

Cross-Departmental Collaboration

Partnership was formed with performing arts physical therapy, pelvic floor physical therapy, and department of pediatrics.

Engaged orthopedics and neurology faculty for future project collaboration development.

Outcome

- A sports Medicine Research Interest Group was initiated, including 3 PM&R faculty, 2 sports fellows, 4 residents, 8 medical students, and 4 undergrad students.
- A formal Sports Medicine MSIG founded at JHU. and a sports medicine PM&R faculty (A.C.) was appointed as an advisor. The group were encouraged to engage in research activities.
- As baseline, from Sep. 2021 to Feb. 2024: 3 IRB projects were submitted. From Mar. 2024- Dec. 2024; a total of 7 IRB projects were submitted, an increase of 133%

Future Steps

- Institutionalize quarterly research meetings with a defined agenda and follow-up action items.
- Maintain the sports medicine MSIG and research interest group as a platform for engaging students and residents.
- Focus on manuscript preparation and submission to enhance original research output.
- Track and report on long-term outcomes, such as published research and explore external funding for projects.