

Jacob J M Kay, PhD, MSc, CBIS

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 Department of Pediatrics
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EDUCATION

January 2017 –
 December 2020

Doctor of Philosophy – Exercise Science
 Concentration: Rehabilitation Science
 University of South Carolina – Columbia
 Committee Chair: R. Davis Moore, PhD, MSc
 Co-Mentor: Toni Torres-McGehee, PhD, SCAT, ATC
 External: Steven P. Broglio, PhD, ATC
 External: Jeffrey P. Holloway, MD

September 2013 –
 August 2016

Master of Science – Health Psychology
 Concentration: Behavioral Neuroscience
 University of Wisconsin—Milwaukee
 Mentor: Dr. Rodney A. Swain, PhD, MSc

September 2008 –
 December 2012

Bachelor of Arts – Psychology
 University of Wisconsin – Milwaukee
 Commencement *Cum Laude*
 Honors Mentor: Rodney A. Swain, PhD, MSc

RESEARCH EXPERIENCE

January 2021 –
 Present

Rehabilitation Scientist, Department of Pediatrics, Prisma Health – Midlands;
 Dept. of Exercise Science, Arnold School of Public Health, University of South Carolina
 Active Projects:

- PI; *Carolina Concussion Consortium Registry* (Pro1989081)
 - Effects of caffeine on measures of clinical outcome and recovery following mild traumatic brain injury in adolescents (Mentee: Jacob Eade)
 - Evaluating the relationship between sex-based hormones and outcomes following sports-related concussions in adolescents and young adults (Mentee: Samantha Kanny)
 - Symptomatic and functional recovery from concussion in youth with a history of psychiatric disorder (Mentee: Kiersten Mangold)
 - The influence of headache history on recovery from pediatric concussion (Mentee: Kiersten Mangold)
 - Hierarchical analysis of the predictive factors of pediatric concussion recovery: Emphasis on socioeconomic constructs (Mentee: Jaimeen Shah)

- Impact of parental knowledge, attitudes, and beliefs on mental health outcomes following pediatric concussion (Mentee: Cameron Phan)
- Clinical profiles of concussion: Understanding recovery characteristics across differing injury etiologies (Mentee: Adam Harrison)
- Site-PI; *A Wrist-Worn Nerve Stimulator for Remediating Autonomic Dysfunction Associated with Persistent Post-Concussive Symptoms in Adolescents* (Pro1926452; **NCT05685121**)
- Site-PI; *A Wrist-Worn Nerve Stimulator for Remediating Autonomic Dysfunction Associated Chronic Migraine/Headache and Mood Disturbance in Adolescents* (Pro1933744; **NCT05702528**)
- Co-I; *Pupillometry in Adolescent Post-concussion Syndrome Before and After Exercise as a Biomarker of Autonomic Dysfunction* (Pro1931879)

Completed Projects:

- Sub-I; *Feasibility and Effectiveness of an Exercise Medicine Program for Individuals with Cancer* (Pro1852637)

January 2017 –
December 2020

Doctoral Student, Concussion and Health Neuroscience Laboratory
Department of Exercise Science, University of South Carolina

Dissertation: [*Sex-based Differences in Concussion Outcomes Among Adolescents and Young Adults*](#)

Completed projects:

- Co-I; *The Influence of Hormonal Contraceptives on Concussion Outcomes in Female Athletes: Data from the NCAA-DOD CARE Consortium* (RDM75a275)
- Co-I; *The Evaluation of a Comprehensive Clinical Examination for Concussive Injuries and Return-to-activity Management* (Pro00075286)
- Co-I; *Investigation of Predictive Factors for Concussion and Prolonged Recovery in Adolescents and Young Adults* (Pro00071750)
- Co-I; *Biofeedback Intervention and Objective Biomarkers for PCS* (Pro00112047)
- Co-I; *The Assessment of Progressive Exercise, Biofeedback, and Combined Therapy in the Rehabilitation of Post-concussion Syndrome* (Pro00071742)
- Sub-I; *Comparison of FitBit to Actigraph Accelerometers in Whitewater Kayaking* (Pro00085896)

August 2016 –
January 2017

Research Specialist I, Concussion and Health Neuroscience Laboratory
Department of Exercise Science, University of South Carolina

Dedicated responsibilities:

- Collect, compile, and analyze research data.
- Assist in planning, developing, coordinating, and administering research projects.
- Authorship-level contribution on manuscripts aimed for scientific publication.
- Technical support (e.g., assist in designing and creating computer programs for research applications; assembly and maintenance of electrophysiological monitoring systems).

October 2015 –
August 2016

Research Assistant (Public Health), Center for Urban Initiatives & Research
University of Wisconsin—Milwaukee

Program support & evaluation:

- Wisconsin Tobacco Prevention and Control Program
- Paul Coverdell National Acute Stroke Program

September 2015 –
June 2016

Research Assistant (Applied Gerontology), Peck School of the Arts
University of Wisconsin—Milwaukee

Completed projects:

- *TimeSlips: Enriching the Lives of Those with Alzheimer's Disease Through Community-based Service Learning.*

September 2013 –
June 2016

Graduate Research Assistant, Swain Behavioral Neuroscience Laboratory
Department of Psychology, University of Wisconsin—Milwaukee

Thesis: [*Spectral Domain-Optical Coherence Tomography \[SD-OCT\] for the Assessment of Cerebrovascular Plasticity*](#)

September 2011 –
September 2013

Undergraduate Research Assistant, Swain Behavioral Neuroscience Laboratory
Department of Psychology, University of Wisconsin—Milwaukee

- Honors Project: *Exercise, Learning, and the Expression of HIF-1 α in the Adult Rat*

January 2011 –
June 2012

Undergraduate Research Assistant, Stress and Coping Laboratory
Department of Psychology; University of Wisconsin—Milwaukee

Completed projects:

- *Emotion Regulation Deficits and Three-Hour Ambulatory Cardiovascular Activity in Generalized Anxiety Disorder*

CLINICAL EXPERIENCE

September 2017 –
Present

Concussion Specialist, Prisma Health Children's Hospital, Department of
Pediatrics; University of South Carolina – School of Medicine

Dedicated responsibilities:

- Comprehensive evaluation of pediatric and young adult TBI, including psychological screening, computerized cognitive assessments, vestibular and ocular motor testing, cardio-autonomics (heart rate variability), physical performance/balance and exercise testing.
- Conduct clinical research to develop new treatment/rehabilitative methods for patients recovering from concussion/mTBI.
- Collaborate with health care professionals to develop treatment plans to address all areas of need (e.g., physical, visual, occupational therapies; school athletics).
- Prisma Health Concussion Program operations management (e.g., development & implementation of satellite/multidisciplinary clinics, community outreach).
- Clinical & research mentorship (medical/doctoral, masters, undergraduate level).

TEACHING EXPERIENCE

- September 2021 – Present **Graduate Faculty**, Department of Exercise Science, Arnold School of Public Health, University of South Carolina
- Post-professional MS Advanced Athletic Training Program: *Thinking Beyond the Field – A Critical Approach to Complex Concussion Case Management* (11.16.2023)
- January 2022 – Present **Invited Lecturer**, School of Medicine, University of South Carolina
Department of Pediatrics, Prisma Health – Midlands
- Department of Pediatrics – Grand Rounds: *Concussion, COVID, and Confusion* (03.16.2022)
 - UofSC SoM Physician Assistant Program: *Concussion 101: Perspectives in Primary Care* (04.05.2022; 04.13.2023; 04.11.2024)
 - SC HOSA Future Health Professionals – 2022 State Leadership Conference: *Careers in Concussion Management* (10.13.2022)
- August 2017 – January 2019 **Teaching Assistant**, Arnold School of Public Health
University of South Carolina; Department of Exercise Science
- Exercise, Sport, and Nutrition – Spring 2019
 - Physical Activity, Exercise, & Cognition Across the Lifespan:
 - *Animal Models of Exercise–Brain Interactions* (09.07.17)
 - *Acute Exercise and Cognition: Effects of Cerebral Oxygenation and Blood Flow* (09.28.17)
 - *Chronic Exercise and Cognition in Humans: A Review of the Evidence for a Neurochemical Basis* (10.12.17; 09.18.18)
 - *Chronic Exercise–Cognition Interaction: fMRI Research* (10.26.17)
 - *The Reticular-Activating Hypofrontality (RAH) Model of Acute Exercise: Current Data and Future Perspectives* (10.09.18)
 - Acquisition of Motor Skills:
 - *Connecting Mind & Body for Optimal Performance* (04.24.18)
 - *Neural Mechanisms for Motor Control* (10.16.18)
- September 2013 – June 2015 **Teaching Assistant**, College of Arts and Sciences
University of Wisconsin—Milwaukee; Department of Psychology
- Advanced Physiological Psychology

CONTINUING EDUCATION AND CERTIFICATIONS

- January 2021 – Present Certified Brain Injury Specialist; Certification #: 27445
Academy of Certified Brain Injury Specialists
Brain Injury Association of America
- November 2022 Grant Writing Certificate Program
USC Office of Continuing Education and Conferences

May 2017	Preparing Future Faculty Certificate Center for Teaching Excellence University of South Carolina
December 2016	MRI Safety Technician, Level I McCausland Center for Brain Imaging University of South Carolina
September 2016	Objective Brain Function Assessment Certification Field Testing & Data Collection Division BrainScope Company, Inc.
May 2016	Graduate Certificate – Applied Gerontology Center for Aging and Translational Research University of Wisconsin – Milwaukee

GRANTS, SCHOLARSHIPS, & AWARDS

April 2023	Press Award for Outstanding Poster Presentation American Academy of Neurology, Annual Meeting (Boston, MA): <i>A combined heart rate variability biofeedback and progressive aerobic exercise intervention for remediating persistent post-concussive symptoms.</i> (P7-1.006)
December 2020 – Present	Role: Co-Investigator; Double-blind Randomized Placebo-Controlled Trial of Apollo to Remediate Post-Concussion Syndrome. Research costs only; Funded: \$100,000
March 2019	Doctoral Student International Travel Grant The Graduate School; University of South Carolina Funded: \$1400.00
September 2018 – August 2019	Role: Doctoral Candidate Researcher; Evaluation of a Comprehensive Clinical Examination for Concussive Injuries and Return-to-Activity Management; Funded: \$20,000
July 2018	Graduate Student Travel Award Arnold School of Public Health; Department of Exercise Science University of South Carolina Funded: \$500.00
August 2017	Norman J. Arnold Fellowship Arnold School of Public Health; University of South Carolina Funded: \$10,000.00
April 2014	Sigma Xi: The Scientific Research Honor Society Funded: \$1000.00

November 2013

Graduate Student Travel Grant
 College of Arts and Sciences; Department of Psychology
 University of Wisconsin—Milwaukee
 Funded: \$450.00

October 2012

Undergraduate Research Travel Award
 College of Arts and Sciences; Office of Undergraduate Research
 University of Wisconsin-Milwaukee
 Funded: \$400.00

May 2012

Student Undergraduate Research Award
 College of Arts and Sciences; Office of Undergraduate Research
 University of Wisconsin-Milwaukee
 Funded: \$5000.00

PUBLISHED MANUSCRIPTS

1. Moore, R.D., **Kay, J.J.M.**, Harrison, A., Coffman, C., Torres-McGehee, T., & Pontifex, M. (2023). Increased anxiety and depression among collegiate athletes with comorbid ADHD and history of concussion. *Psychology of Sport and Exercise*, 68:102418.
2. **Kay, J.J.M.**, Mangold, K., Lapointe, A., McAllister, T., Arent, S.M., McCrea, M., Broglio, S.P., Torres-McGehee, T., & Moore, R.D. (2023). Hormonal contraceptives do not influence concussion recovery in collegiate athletes: Data from the NCAA-DoD CARE Consortium. *Medicine & Science in Sports & Exercise*, 55(8):1375-1381.
3. **Kay, J.J.M.**, Coffman, C.A., Harrison, A.T., Tavakoli, A.S., Torres-McGehee, T.M., Broglio, S.P., & Moore, R.D. (2022). Frequency of concussion exposure modulates suicidal ideation, planning, and attempts among U.S. high school students. *Journal of Athletic Training*, 58(9) 000-000.
4. Bullard, L., Coffman, C., **Kay, J.J.M.**, Holloway, J., Moore, R., & Pontifex, M. (2021). Attention-Deficit/Hyperactivity Disorder-related self-reported symptoms are associated with elevated concussion symptomatology. *Journal of Sport & Exercise Psychology*, 44(2):116-126.
5. Coffman, C.A., Harrison, A.T., **Kay, J.J.M.**, Holloway, J.P., & Moore, R.D. (2021). The influence of family history of neurodegenerative disease on pediatric concussion recovery. *Journal of Clinical Medicine*, 10(3):528.
6. Coffman, C.A., **Kay, J.J.M.**, Saba, K.M., Harrison, A.T., Holloway, J.P., La Fontaine, M., & Moore, R.D. (2021). Predictive value of acute heart rate variability for determining outcome following adolescent concussion. *Journal of Clinical Medicine*, 10(1):161.
7. Callahan, C.E., Moore, R.D., Crew, A., Vesia, M., Register-Mihalik, J.K., **Kay, J.J.M.**, & Broglio, S.P. (2021). Postconcussion depressive symptoms and clinical assessment associations in adolescents. *Translational Journal of the American College of Sports Medicine*, 6(2):e000159.

8. Tavakoli, A.S., **Kay, J.J.M.**, & Tavakoli, N.S. (2020). Using GENMOD to calculate prevalence ratio for concussion and suicidal behaviors among U.S. high school students. *Conference Proceedings from the Southeast Regional SAS Users Group*, 111, 1-13.
9. Stevenson, M., **Kay, J.J.M.**, Atry, F., Wickstrom, A.T., Krueger, J., Pashaie, R., & Swain, R.A. (2019). Wheel running for 26 weeks is associated with sustained vascular plasticity in the rat motor cortex. *Behavioural Brain Research*, 380, e112447.
10. Ellemborg, D., Sicard, V., Harrison, A. R., **Kay, J.J.M.** & Moore, R. D. (2019). The role of neuropsychology in understanding, assessing, and managing sport-related concussions. In Bloom, G. & Caron, J. (Eds): *Psychological Aspects of Sport-related Concussions*. Routledge, New York, NY.
11. Moore, R.D., **Kay, J.J.M.**, & Ellemborg, D. (2018). The long-term outcomes of sport-related concussion in pediatric populations: An updated perspective. *International Journal of Psychophysiology*, 132(Pt A), 14-24.
12. Moore, R. D., **Kay, J. J.**, & Drollette, E. S. (2017). The integrative neuroscience of physical activity, fitness, and academic proficiency. In *Physical Activity and Educational Achievement: Insights from Exercise Neuroscience* (ed., R. Meeusen, S. Schaefer, P. Tomoporowski, & R. Bailey), 230-246.
13. Berggren, K.L., **Kay, J.J.M.**, Swain, R.A. (2014). Examining cerebral angiogenesis in response to physical exercise. In *Methods in Molecular Biology: Cerebral Angiogenesis* (ed., R. Milner), p139-154.

PUBLISHED ABSTRACTS

1. **Kay, J.J.M.**, Mangold, K.I., Locke, M., Weitkamp, A., Holloway, J.P., Wagner, A., & Moore, R.D. (June 2023). Assessing a peripheral nerve stimulator for remediating cognitive and executive dysfunction in adolescents with persistent post-concussion symptoms. North American Society for the Psychology of Sport and Physical Activity – in *Journal of Sport and Exercise Psychology*, 45(1), S87.
2. Mangold, K.I., Locke, M., Weitkamp, A., Holloway, J.P., Wagner, A., Moore, R.D., & **Kay, J.J.M.** (June 2023). Assessing a peripheral nerve stimulator for improving cardio-autonomic and clinical outcomes in adolescents with persistent post-concussion symptoms. North American Society for the Psychology of Sport and Physical Activity – in *Journal of Sport and Exercise Psychology*, 45(1), S93.
3. Moore, R.D., Gunn, B., & **Kay, J.J.M.** (April 2023). A combined heart rate variability biofeedback and progressive aerobic exercise intervention for remediating persistent post-concussive symptoms. *American Academy of Neurology Annual Meeting*, 100(17 Suppl 2), P7-1.006.
4. Mangold, K.I., **Kay, J.J.M.**, Wagner, A., Holloway, J.P., & Moore, R.D. (April 2023). Symptomatic and functional recovery following concussion in adolescents with and without history of psychiatric disorder. *American Academy of Neurology Annual Meeting*, 100(17 Suppl 2), P7-1.003.
5. Eade, J.M., Weitkamp, A., Baniewicz, E., **Kay, J.J.M.**, Holloway, J.P., Wagner, A.M., & Moore, R. D. (June 2022). Effects of caffeine on subjective measures of clinical outcome and recovery following concussion in adolescents. *Journal of Neurotrauma*, 39(11-12), DBA-14.
6. Eade, J.M., Weitkamp, A., Baniewicz, E., **Kay, J.J.M.**, Holloway, J.P., Wagner, A.M., & Moore, R. D. (June 2022). Effects of caffeine on vestibular-ocular motor function and objective measures of

- clinical outcome and recovery following concussion in adolescents. *Journal of Neurotrauma*, 39(11-12), P262.
7. Holt, E., **Kay, J.J.M.**, Holloway, J.P., Wagner, A., Moore, R.D., & Herter, T. (June 2022). Influence of family history of migraine on patient reported outcome measures following adolescent concussion. *Journal of Neurotrauma*, 39(11-12), P264.
 8. Holt, E., & **Kay, J.J.M.** (June 2022). Family history of migraine does not influence cognitive performance following adolescent concussion. *Journal of Neurotrauma*, 39(11-12), P265.
 9. Mangold, K.I., **Kay, J.J.M.**, Lapointe, A., McAllister, T., McCrea, M., Broglio, S., Torres-McGehee, T., Moore, R.D., and CARE Consortium Investigators (June 2022). The influence of hormonal contraceptives on concussion recovery in collegiate athletes: Data from the NCAA-DoD CARE Consortium. *Journal of Neurotrauma*, 39(11-12), P258.
 10. Shea, D.C, **Kay, J.J.M.**, Baniewicz, E.P., Weitkamp, A.M., Holloway, J., Wagner, A., & Moore, R.D. (June 2022). The effect of self-reported level of sleep disturbance on functional outcomes in pediatric concussion. *Journal of Neurotrauma*, 39(11-12), P235.
 11. Shea, D.C., **Kay, J.J.M.**, Baniewicz, E.P., Weitkamp, A.M., Holloway, J., Wagner, A., & Moore, R.D. (June 2022). The effect of self-reported level of sleep disturbance on symptoms severity in pediatric concussion. *Journal of Neurotrauma*, 39(11-12), P234.
 12. Weber, S.R., Torres-McGehee, T., Goins, J., Bailey, T., Moore, E., & **Kay, J.J.M.** (2020). Examination of low energy availability and sleep in high-intensity functional exercise program athletes. *Session D-66: Energy Availability in Athletes: Medicine and Science in Sports and Exercise* 52(5). Annual Meeting of the American College of Sports Medicine.
 13. **Kay, J.J.M.**, Coffman, C., & Moore, R.D. (July 2019). History of concussion and nonfatal suicidal behaviors in U.S. high school students: Findings from the 2017 National Youth Risk Behavior Survey. *Neurology*, 93(14 Suppl. 1).
 14. **Kay, J.J.M.**, Lapointe, A.T., McAllister, T., McCrea, M., Broglio, S.P., Moore, R.D., & CARE Consortium Investigators. (July 2019). The influence of hormonal contraceptives on cognitive recovery in concussed collegiate athletes: Data from the NCAA-DoD CARE Consortium. *Neurology*, 93(14 Suppl. 1).
 15. Saba, K., **Kay, J.J.M.**, Morrison, C., Coffman, C., Holloway, J.T., & Moore, R.D. (July 2019). Differential effects of injury etiology on pediatric concussion recovery. *Neurology*, 93(14 Suppl. 1).
 16. Coffman, C., **Kay, J.J.M.**, Saba, K., Holloway, J.T., & Moore, R.D. (July 2019) Association between autonomic nervous system function and outcomes following pediatric concussion. *Neurology*, 93(14 Suppl. 1).
 17. Sweeney, J., Torres-McGehee, T.M., Weber, S.R., Moore, R.D., & **Kay, J.J.M.** (May 2019). Examination of mental health risks and injury prevalence in NCAA Division I collegiate athletes. *Session F-14: Mental Health & Athletic Performance: Medicine and Science in Sports and Exercise* 51(5). Annual Meeting of the American College of Sports Medicine.
 18. **Kay, J.J.M.**, Lapointe, A.T., McAllister, T., McCrea, M., Broglio, S.P., Moore, R.D., & CARE Consortium Investigators. (March 2019). The influence of hormonal contraceptives on concussion outcomes in collegiate athletes: Data from the NCAA-DoD CARE Consortium. *Session 2b.291 Traumatic Brain Injury - case reports, case series, observational studies, treatment studies*. 13th World Congress on Brain Injury – International Brain Injury Association.

19. **Kay, J.J.M.**, Coffman, C., Wagner, A., Holloway, J., & Moore, R.D. (March 2019). Sex differences in executive functions following pediatric concussive brain injury. Session 2b.785 *Traumatic Brain Injury - case reports, case series, observational studies, treatment studies*. 13th World Congress on Brain Injury – International Brain Injury Association.
20. Gunn, B., **Kay, J.J.M.**, Torres-McGehee, T., & Moore, R.D. (December 2018). Attention deficit hyperactivity disorder is associated with increased anxiety and depression in concussed college athletes. *Neurology*, 91(Suppl 2), S27-S28.
21. Harrison, A.T., Gunn, B., **Kay, J.J.M.**, & Moore, R.D. (December 2018). The influence of concussion on cardio-autonomic function during cognition before and after exercise. *Neurology*, 91(Suppl 2), S9.
22. **Kay, J.J.M.**, Melton, C., Holloway, J.P., & Moore. (December 2018). Gender differences in outcome following pediatric concussion. *Neurology*, 91(Suppl 2), S23.
23. **Kay, J.J.M.**, & Moore, R.D. (December 2018). Determining aerobic capacity at symptomatic threshold in individuals with persistent concussion symptoms. *Neurology*, 91(Suppl 2), S21-S22.
24. Goins, J.M., Torres-McGehee, T.M., Bailey, T., Weber, S., & **Kay, J.J.M.** (May 2018). Effects of performance foam on perceived exertion and recovery in high-intensity functional exercise. *Session B-60: Perception: Medicine and Science in Sports and Exercise 50(5)*. Annual Meeting of the American College of Sports Medicine.

PRESENTATIONS

1. Locke, M., Mangold, K., Weitkamp, A., Wagner, A., Holloway, J.P., Moore, R.D., & **Kay, J.J.M.** (April 2023). Evaluation of a wrist-worn nerve stimulator for remediating persisting post-concussion symptoms in pediatric patients. *Discover USC Symposium* (accepted – pending assignment).
2. Benedict, C., Holloway, J.P., & **Kay, J.J.M.** (October 2021). Examination of sex-based differences and adolescent concussion recovery. Session 74 - *Prisma Health Research Showcase*.
3. **Kay, J.J.M.**, Coffman, C., Tavakoli, A. & Moore, R.D. (November 2020). Association between concussion frequency and nonfatal suicidal behaviors among U.S. high school students. *10th Annual Traumatic Brain Injury Conference*.
4. Coffman, C., **Kay, J.J.M.**, Edwards, I., Holloway, J.P. & Moore, R.D. (November 2020). Influence of biological sex on symptom burden, vestibular function, and cardio-autonomic regulation following adolescent concussion. *10th Annual Traumatic Brain Injury Conference*.
5. Edwards, I., Coffman, C., Gunn, B., **Kay, J.J.M.**, Holloway, J.P., & Moore, R.D. (November 2020). Influence of ADHD medication status on clinical symptoms and executive function in adolescents following concussion. *10th Annual Traumatic Brain Injury Conference*.
6. Holt, E.C., Coffman, C., **Kay, J.J.M.**, Holloway, J.P., Herter, T., & Moore, R.D. (November 2020). Influence of family history of migraine and biological sex on outcomes following adolescent concussion: A prospective cohort study. *10th Annual Traumatic Brain Injury Conference*.
7. Harrison, A.T., **Kay, J.J.M.**, Gunn, B., Saba, K., Coffman, C., Holloway, J., & Moore, R.D., (November 2020). The impact of injury mechanism on symptom burden, mental health, and cognitive performance following pediatric concussion. *10th Annual Traumatic Brain Injury Conference*.

8. Coffman, C., **Kay, J.J.M.**, & Moore, R.D. (April 2019). Association between concussion and suicidality in adolescents: A population-based study. Session 65 – *Discover USC Symposium*.
9. Landwehr, F., **Kay, J.J.M.**, Holloway, J.P., & Moore, R.D. (April 2019). Acute autonomic dysfunction predicts long-term cognitive function following pediatric concussive brain injury. Session 80 – *Discover USC Symposium*.
10. Melton, C., **Kay, J.J.M.**, Holloway, J.P., & Moore, R.D. (April 2019). Examining the influence of socioeconomic status on concussion recovery in a pediatric population. Session 86 – *Discover USC Symposium*.
11. Morrison, C., **Kay, J.J.M.**, Holloway, J.P., & Moore, R.D. (April 2019). Examining the effect of injury modality on pediatric concussion recovery. Session 39 – *Discover USC Symposium*.
12. Saba, K., Gunn, B.S., **Kay, J.J.M.**, & Moore, R.D. (April 2019) Progressive Sub-symptom Threshold Exercise and Biofeedback Intervention for Persistent Concussion Symptoms. Session 87 – *Discover USC Symposium*.
13. Wagner, A, **Kay, J.J.M.**, Coffman, C., Moore, R.D., & Holloway, J. (April 2019). Rivermead Post-Concussion Symptom Questionnaire as a Screening Tool for Clinically Significant Depression in Pediatric Patients with Concussions. Session 144 – *Discover USC Symposium*.
14. Hirschhorn, R.M., **Kay, J.J.M.**, Moore R.D., & Yeargin, S.W. (April 2018). Comparison of self-reported concussion symptoms and scores on the Beck Depression Inventory-II, Beck Anxiety Inventory, and the Anger Index. Session 47 – *Discover USC Symposium*.
15. Melton, C., **Kay, J.J.M.**, Holloway, J.P., & Moore, R.D. (April 2018). Influence of sex differences in concussion recovery in a pediatric population. Session 89 – *Discover USC Symposium*.
16. **Kay, J.J.M.**, Atry, F., Wickstrom, A.T., Pashaie, R., & Swain, R.A. (November 2016). SD-OCT for the assessment of cerebrovascular plasticity. Session 560 – *Optical Methods: Real-Time Imaging at the Meeting of the Society for Neuroscience*.
17. Basting, A.D., Glaser, N., & **Kay, J.J.M.** (April 2016). TimeSlips: Enriching the Curricular Experience Through Community-based Service Learning. *Wisconsin Campus Compact – Civic Engagement Institute at the Medical College of Wisconsin*.
18. Wickstrom, A.T., & **Kay, J.J.M.** (April 2015). Cerebrovascular Plasticity Assessed by Spectral Domain Optical Coherence Tomography. Poster presentation: *11th Annual UW System Symposium for Undergraduate Research and Creative Activity*.
19. Berggren, K.L., **Kay, J.J.M.**, Pochinski, B.R., Hoell, A.R., & Swain, R.A. (November 2013). Voluntary exercise or manipulation of HIF-1 α expression increases hippocampal capillary density and promotes behavioral flexibility in adult rats. Session 092 – *Associative, Non-associative, and Skill Learning at the Meeting of the Society for Neuroscience*.
20. Berggren, K.L., Ahuja, B.A., **Kay, J.J.M.**, Pochinski, B., & Swain, R.A. (October 2012). Treadmill exercise rapidly induces HIF-1 α in the hippocampus of the adult rat. Session 903 - *Energy Metabolism at the Meeting of the Society for Neuroscience*.
21. Levine, J.C., Fleming, R., & **Kay, J.M.** (May 2012). Emotion regulation deficits and three-hour ambulatory cardiovascular activity in Generalized Anxiety Disorder. Poster representation: *24th Annual Meeting of the Association of Psychological Science*.

ACADEMIC & COMMUNITY SERVICE

- March 2023 **Invited Community Educator**, Prisma Health Flourish Podcast: [*How Sports Injuries Impact Mental Health*](#), in company with Shea Fontana, MD
- September 2017 – Present **Student Mentorship**, Department of Exercise Science, Arnold School of Public Health, UofSC; School of Medicine-Columbia
- Alicia Smalls (PhD Student; UofSC; 2023-27)
 - Cameron Phan (MS Athletic Training, UofSC; 2023-25)
 - Zaina Salah (Pre-medical Undergraduate; UofSC; 2023-25)
 - Samantha Kanny (PhD Candidate, Clemson University; 2023-24)
 - Kim Nardi (MS Athletic Training; UofSC; 2023-24)
 - Hannah Miller (MS Athletic Training, UofSC; 2022-24)
 - Malone Locke (Medical Student; UofSC; 2023-25)
 - Jaimeen Shah (Honors College; UofSC; 2022-24)
 - Abby Weitkamp (Honors College; UofSC ExSci; 2022-23)
 - Chelsea Benedict (Medical Student; SOAR Program; 2021-22)
 - Emily Baniewicz (Undergraduate Student; UofSC ExSci; 2021-22)
 - Colt Coffman (PhD Student; U of Michigan; 2020-21)
 - Alicia Starr (Undergraduate Practicum; UofSC ExSci; 2019-20)
 - Isabelle Edwards (Undergraduate Student; UofSC ExSci; 2019-20)
 - Jennifer Grimm (Medical Student; SOAR Program; 2018-19)
 - Jane Sweeney (MS Student; Athletic Training; 2017-18)
 - Chandler Melton (Magellan Scholar; UofSC Ex Sci; 2017-18)
- August 2022 – December 2022 **Invited Reviewer**, Journal of Clinical Medicine
Special Issue: *Traumatic Brain Injury (TBI): Recent Trends and Future Perspectives*
- January 2019 – June 2019 **Executive Planning Committee**, Institute for Mind and Brain
Neuroscience Community Retreat
University of South Carolina
- September 2016 – September 2018 **Invited Reviewer**, International Journal of Psychophysiology
Special Issue: *Sport-related Injury*
- October 2015 – June 2016 **Executive Committee Member**, Student Association
University Recreation Advisory Board
University of Wisconsin—Milwaukee
- January 2016 – June 2016 **Advocacy Committee Member**, Commission on Aging and Wellness
Milwaukee County Department on Aging

REFERENCES

Furnished upon request.