

Kayla M. Baker, PhD, CSCS

Western Kentucky University
College of Health and Human Services
School of Kinesiology, Recreation, and Sport
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Education

- 2016 – 2019 **PhD, Exercise Physiology**
School of Kinesiology and Physical Therapy, Division of Kinesiology
University of Central Florida, Orlando, FL
Major Advisor: Dr. Jeanette M. Garcia
*Dissertation: A Mixed-Methods Approach to Understanding the
Relationship between Mental Toughness and the Effect of Music on
Exercise Performance*
GPA: 4.0
- 2014 – 2016 **MS, Exercise Science (Applied Physiology track)**
School of Kinesiology and Physical Therapy, Division of Kinesiology
University of Central Florida, Orlando, FL
Major Advisor: Dr. David H. Fukuda
*Thesis: Methods to Determine Heart Rate Deflection Point and Their
Relation to Respiratory Compensation Point and 5000m Treadmill
Running Time*
GPA: 3.8
- 2012 – 2014 **BS, Sport and Exercise Science (Human Performance track)**
School of Kinesiology and Physical Therapy, Division of Kinesiology
University of Central Florida, Orlando, FL
- 2009 – 2012 **AA, General Education**
Valencia College, Orlando, FL

Academic and Professional Appointments

2019 – Present	Assistant Professor of Exercise Science , Western Kentucky University, School of Kinesiology, Recreation, and Sport, Bowling Green, KY
2015 – 2019	Graduate Teaching Associate , University of Central Florida, School of Kinesiology and Physical Therapy, Orlando, FL
2014 – 2019	Graduate Assistant , University of Central Florida, School of Kinesiology and Physical Therapy, Orlando, FL
2016	Adjunct Teaching Instructor , University of Central Florida, School of Kinesiology and Physical Therapy, Orlando, FL
2014	Research Intern , Human Performance Laboratory, University of Central Florida, School of Kinesiology and Physical Therapy, Orlando, FL
2012 – 2014	Research Assistant , Human Performance Laboratory, University of Central Florida, School of Kinesiology and Physical Therapy, Orlando, FL

Teaching and Advising

Western Kentucky University, Bowling Green, KY ***School of Kinesiology, Recreation, and Sport***

Primary Instructor

DPT 783	Research in Physical Therapy III <i>Summer 2020</i>
KIN 501	Research Methods <i>Fall 2020, Fall 2021</i>
EXS 498	Capstone Research Experience <i>Spring 2020</i>
EXS 325	Applied Exercise Physiology <i>Fall 2021</i>
EXS 296	Practicum <i>Spring 2020, Spring 2021</i>
EXS 223	Intro to Exercise Science <i>Fall 2019, Spring 2020, Fall 2020, Spring 2021</i>

EXS 122 **Foundations of Kinesiology**
Fall 2019, Spring 2020, Fall 2020, Spring 2021, Summer 2021, Fall 2021

Guest Lecturer

EXS 122 **Foundations of Kinesiology**
Topic: Careers in Mental Health and Exercise
Fall 2019

University of Central Florida, Orlando, FL
School of Kinesiology and Physical Therapy

Primary Instructor

PET 4550 **Assessment and Evaluation in Exercise Science**
Summer 2016, Fall 2016, Spring 2017, Summer 2017, Spring 2018,
Summer 2018, Fall 2018, Spring 2019, Summer 2019

APK 4110 **Exercise Physiology**
Fall 2017

PET 3097 **Health and Wellness**
Summer 2015, Fall 2015, Spring 2016, Summer 2016

Teaching Associate

PET 6990 **Exercise Prescription for Special Populations**
Summer 2018

APK 4110 **Exercise Physiology**
Fall 2016

PET 4088 **Physical Activity and Preventative Medicine**
Fall 2017, Fall 2018, Spring 2019

PET 4050 **Motor Development and Learning**
Spring 2017, Summer 2017

PET 3005 **Introduction to Sport and Exercise Science**
Spring 2018

Guest Lecturer

- PET 4088 **Physical Activity and Preventative Medicine**
Topic: Mental Health and Exercise as Medicine
Fall 2017, Fall 2018, Spring 2019
- PET 3005 **Introduction to Sport and Exercise Science**
Topic: Careers in Higher Education
Spring 2018

Research and Scholarship

Grants/Funding

Internal Research Grants

- 2019 **Faculty-Undergraduate Student Engagement Grant (FUSE), \$3,000.**
The effects of a Buddy Walking Program on physical activity levels in
adults with lower body disabilities. (*submitted October 2019, funded*)
(*primary investigator*)
- 2019 **WKU Sisterhood Grant, \$20,000.** Bridging the gap between classroom
and home-based learning. (*submitted September 2019, not funded*) (*co-*
investigator)

External Research Grants

- 2019 **NCAA Innovations in Research and Practice Grant, \$25,000.** Player
development: The efficacy of the Birkman Method Personality
Assessment and Programming. (*submitted November 2019, not funded*)
(*co-investigator*)

Peer-Reviewed Journal Manuscripts

In Progress

1. Baker, K., Garcia, J. (2020). **Reliability of Time-to-Exhaustion Trials Utilizing a Speed Corresponding to a Percentage of VO_{2max}.**
2. Baker, K. & Garcia, J. (2020). **Aerobic Fitness Impacts Exercise Performance Regardless of Mental Toughness.**

3. Mack, M., **Baker, K.**, & Tinius, R. (2021). **The Effect of Warmup Protocols on the Prevalence of Medial Tibial Stress Syndrome in High School Cross Country Athletes.**
4. Elder, M., **Baker, K.**, & Schafer, M. (2021). **The Effects of Manual Therapy on Stroke Patients who have Upper Extremity Impairment.**

Published Manuscripts

1. Stone, W., & **Baker, K.** (2020). **A Roadmap: Social distancing physical activity data collection to protect those with intellectual disabilities.** *Journal of Intellectual Disability Research.*
2. **Baker, K.**, Healy, S., Rice, D., & Garcia, J. (2018). **Adolescent weight and health behaviors and their associations with individual, social, and parental factors.** *Journal of Physical Activity and Health.*
3. Beyer, K. S., Stout, J. R., Redd, M. J., **Baker, K. M.**, Church, D. C., Bergstrom, H. C., Hoffman, J. R., Fukuda, D. H. (2020). **Effect of Somatic Maturity on the Aerobic and Anaerobic Adaptations to Sprint Interval Training.** *Physiological Reports*, 8(9), e14426.
4. Garcia, J., **Baker, K.**, Diaz, M., Tucker, J., Kelchner, V., & Rice, D. (2018). **Implementation fidelity of a mindfulness-based yoga program for children with Autism Spectrum Disorder and their families: A pilot study.** *Advances in Neurodevelopmental Disabilities.*
5. Beyer, K., Stout, J., Redd, M., **Baker, K.**, Bergstrom, H., Hoffman, J., & Fukuda, D. (2018). **Maturity-related differences in systemic and localized fatigue threshold amongst adolescent male athletes.** *Pediatric Exercise Science.*
6. Garcia, J., Sirard, J., Whaley, D., Rice, D., **Baker, K.**, & Weltman, A. (2018). **The influence of friends and psychosocial factors on physical activity and screen time in normal and overweight adolescents: a mixed-methods analysis.** *American Journal of Health Promotion*, 39(4), 610-623.
7. Barkley, L., Taliaferro, L., **Baker, K.**, & Garcia, J. (2018). **The holistic athletic healthcare model: Addressing the development, social, and cultural needs of collegiate athletes.** *Journal of Higher Education Athletics & Innovation*, 1(3), 26-47.
8. Coker, N., Varanoske, A., **Baker, K.**, & Hahs-Vaughn, D. (2018). **Predictors of competitive success of national-level powerlifters: A multi-level analysis.** *International Journal of Performance Analysis in Sport.*
9. Varanoske, A., Hoffman, J., Church, D., Coker, N., **Baker, K.**, Dodd, S., Harris, R., Oliveira, L., Dawson, V., Wang, R., Fukuda, D., & Stout, J. (2018). **Comparison of sustained-release and rapid-release β -alanine formulations on changes in skeletal muscle carnosine and**

histidine content and isometric performance following a muscle-damaging protocol.
Amino Acids.

10. **Baker, K.,** Fukuda, D., Church, D., La Monica, M., Beyer, K., Hoffman, J., & Stout, J. (2017). **Mathematical modeling and expression of heart rate deflection point using heart rate and oxygen consumption.** *International Journal of Exercise Science*, 10(4), 592-603.
11. Varanoske, A., Hoffman, J., Church, D., Wang, R., **Baker, K.,** Dodd, S., Coker, N., Oliveira, L., Dawson, V., Fukuda, D., & Stout, J. (2017). **Influence of skeletal muscle carnosine content on fatigue during repeated resistance exercise in recreationally-active women.** *Nutrients*, 9(9), 988.
12. Varanoske, A., Hoffman, J., Church, D., Coker, N., **Baker, K.,** Dodd, S., Oliveira, L., Dawson, V., Wang, R., Fukuda, D., and Stout, J. (2017). **β -Alanine supplementation elevates intramuscular carnosine content and attenuates fatigue in men and women similarly, but does not change muscle L-Histidine content.** *Nutrition Research*, 48, 16-26.
13. Wells, A., Jajtner, A., Varanoske, A., Church, D., Gonzalez, A., Townsend, J., Boone, C., **Baker, K.,** Beyer, K., Mangine, G., Oliveira, L., Fukuda, D., Stout, J., & Hoffman, J. (2017). **Post-resistance exercise ingestion of milk protein attenuates plasma TNF α and TNFr1 expression on monocyte subpopulations.** *Amino Acids*, 1-12.
14. Church, D., Hoffman, J., Varanoske, A., Wang, R., **Baker, K.,** La Monica, M., Beyer, K., Dodd, S., Oliveira, L., Harris, R., Fukuda, D., & Stout, J. (2017). **Comparison of two β -alanine dosing protocols on muscle carnosine elevations.** *Journal of the American College of Nutrition*, 2017, 1-9.
15. Townsend, J., Stout, J., Jajtner, A., Church, D., Beyer, K., Oliveira, L., La Monica, M., Riffe, J., Muddle, T., **Baker, K.,** Fukuda, D., Roberts, M., & Hoffman, J. (2016). **Resistance exercise increases intramuscular NF- κ b signaling in untrained males.** *European Journal of Applied Physiology*, 116(11-12), 2103-2111.
16. Wells, A., Hoffman, J., Jajtner, A., Varanoske, A., Church, D., Gonzalez, A., Townsend, J., Boone, C., **Baker, K.,** Beyer, K., Mangine, G., Oliveira, L., Fukuda, D., & Stout, J. (2016). **The effect of post-resistance exercise amino acids on plasma MCP-1 and CCR2 expression.** *Nutrients*, 8(7), 409.
17. Wells, A., Hoffman, J., Jajtner, A., Varanoske, A., Church, D., Gonzalez, A., Townsend, J., Boone, C., **Baker, K.,** Beyer, K., Mangine, G., Oliveira, L., Fukuda, D., & Stout, J. (2016). **Monocyte recruitment following high-intensity and high-volume resistance exercise.** *Medicine and Science in Sports and Exercise*, 48(5), 393.
18. Gonzalez, A., Hoffman, J., Townsend, J., Jajtner, A., Boone, C., Beyer, K., **Baker, K.,** Wells, A., Mangine, G., Robinson, E., Church, D., Oliveira, L., Fukuda, D., & Stout, J. (2016). **Intramuscular MAPK signaling following high volume and high intensity**

resistance exercise protocols in trained men. *European Journal of Applied Physiology*, 116(9), 1663-1670.

19. Boone, C., Hoffman, J., Gonzalez, A., Jajtner, A., Townsend, J., **Baker, K.**, Fukuda, D., & Stout, J. (2015). **Changes in plasma aldosterone and electrolytes following high-volume and high-intensity resistance exercise protocols in trained men.** *The Journal of Strength and Conditioning Research*, 30(7), 1917-1923.
20. Gonzalez, A., Hoffman, J., Townsend, J., Jajtner, A., Boone, C., Beyer, K., **Baker, K.**, Wells, A., Mangine, J., Robinson, E., Church, D., Oliveira, L., Willoughby, D., Fukuda, D., & Stout, J. (2015). **Intramuscular anabolic signaling and endocrine response following high volume and high intensity resistance exercise protocols in trained men.** *Physiological Reports*, 37(7), e12466.
21. La Monica, M., Fukuda, D., Beyer, K., Hoffman, M., Miramonti, A., Riffe, J., **Baker, K.**, Fragala, M., Hoffman, J., & Stout, J. (2015). **Altering work to rest rations differentially influences fatigue during repeated sprint ability testing.** *Journal of Strength and Conditioning Research*, 30(2), 400-406.
22. Gonzalez A., Hoffman J., Jajtner A., Townsend J., Boone C., Beyer K., **Baker K.**, Wells A., Church D., Mangine, G., Oliveira L., Moon J., Fukuda D., & Stout J. (2015). **Protein supplementation does not alter intramuscular anabolic signaling or endocrine response after resistance exercise in trained men.** *Nutrition Research*, 35(11), 990-1000.
23. Church, D., Hoffman, J., La Monica, M., Riffe, J., Hoffman, M., **Baker, K.**, Varanoske, A., Wells, A., Stout, J., & Fukuda, D. (2015). **The effect of an acute ingestion of Turkish coffee on reaction time and time trial performance.** *Journal of the International Society of Sports Nutrition*, 12(1), 1.

National and Regional Presentations

1. Stone, W. & **Baker, K.** **A Roadmap: Social distancing physical activity data collection to protect those with intellectual disabilities.** 2021 Southeast ACSM Regional Conference. (*Virtual Conference.*)
2. Dolan, A., Arnett, S., **Baker, K.**, & Stone, W. **Taekwondo Training Effects on Adults with Down Syndrome.** 2021 Southeast ACSM Regional Conference. (*Virtual Conference.*)
3. Mack, M., **Baker, K.**, & Tinius, R. **The Effect of Warm-Up Protocols on the Occurrence of Medial Tibial Stress Syndrome in High School Cross Country Athletes.** 2021 Southeast ACSM Regional Conference. (*Virtual Conference.*)
4. Elder, M., **Baker, K.**, & Schafer, M. **The Effects of Manual Therapy on Stroke Patients who have Upper Extremity Impairment.** 2021 Southeast ACSM Regional Conference.

(Virtual Conference).

5. Mack, M., **Baker, K.**, & Tinius, R. **The Effect of Warm-Up Protocols on the Occurrence of Medial Tibial Stress Syndrome in High School Cross Country Athletes.** 2021 WKU Student Research Conference. Bowling Green, KY *(Virtual Conference).*
6. Dolan, A., Arnett, S., **Baker, K.**, & Stone, W. **Taekwondo Training Effects on Adults with Down Syndrome.** 2021 WKU Student Research Conference. Bowling Green, KY *(Virtual Conference).*
7. Elder, M., **Baker, K.**, & Schafer, M. **The Effects of Manual Therapy on Stroke Patients who have Upper Extremity Impairment.** 2020 WKU Student Research Conference. Bowling Green, KY *(Virtual Conference).*
8. **Baker, K.**, Tolusso, D., & Garcia, J. **The Relationship between Mental Toughness and the Ergogenic Effects of Music during Exercise.** 2020 ACSM Annual Conference. San Francisco, CA *(Virtual Conference).*
9. **Baker, K.**, Tolusso, D., & Garcia, J. **The Relationship between Mental Toughness and the Ergogenic Effects of Music during Exercise.** 2020 Southeast ACSM Regional Conference. Jacksonville, FL.
10. Forsythe, S., Upright, P., **Baker, K.**, and Tolusso, D. (2020). **Player Development: The Efficacy of the Birkman Method Personality Assessment and Programming.** Professional Association of Athlete Development Specialists Summit. New York, New York.
11. **Baker, K.**, Tolusso, D., & Garcia, J. **The Relationship between Mental Toughness and the Ergogenic Effects of Music during Exercise.** 2020 Southeast ACSM Regional Conference. Jacksonville, FL. **(Rapid Fire Competition Oral Presentation)**
12. **Baker, K.**, Garcia, J., & Belity, T. **Emotional Influence of Music in Relation to the Effect of Music on Exercise Performance.** 2019 ACSM Annual Conference. Orlando, FL.
13. Renziehausen, J., Rivera, P., **Baker, K.**, Leahy, N., & Garcia, J. **Physical Activity, Sleep, and Stereotypic Behaviors in Youth with Autism Spectrum Disorder.** 2019 ACSM Annual Conference. Orlando, FL.
14. Rivera, P., Renziehausen, J., **Baker, K.**, Leahy, N., Garcia, J., & Xu, L. **The Examination of Judo on Physical Activity and Sleep in Children with Autism Spectrum Disorder.** 2019 ACSM Annual Conference. Orlando, FL.
15. **Baker, K.**, Garcia, J., Renziehausen, J., & Rivera, P. **Reliability of Time-to-Exhaustion Trials Utilizing a Speed Corresponding to a Percentage of VO₂max.** 2019 Southeast ACSM Regional Conference. Greenville, SC. **(Oral Presentation)**

16. Renziehausen, J., Rivera, P., **Baker, K.**, Leahy, N., & Garcia, J. **Physical Activity and Sleep Quality in Youth with Autism Spectrum Disorder.** 2019 Southeast ACSM Regional Conference. Greenville, SC.
17. Rivera, P., Renziehausen, J., **Baker, K.**, Leahy, N., & Garcia, J. **The Examination of Judo on Physical Activity and Sleep in Children with Autism Spectrum Disorder.** 2019 Southeast ACSM Regional Conference. Greenville, SC.
18. **Baker, K.**, Garcia, J. **Feasibility of a Collaborative Intervention to Improve Healthy Behaviors in Teachers and School Staff: A Pilot Study.** 2018 Southeast ACSM Regional Conference. Chattanooga, TN.
19. Coker, N., Varanoske, A., **Baker, K.**, Hahs-Vaugh, D., & Wells, A. **Predictors of Competitive Powerlifting Success: A Multi-Level Analysis.** 2018 NSCA Annual Conference. Indianapolis, IN.
20. Beyer, K., Stout, J., Redd, M., **Baker, K.**, Church, D., Bergstrom, H., Hoffman, J., & Fukuda, D. **Maturity-Related Differences in the Adaptations to Anaerobic Capacity Following Sprint Interval Training in Youth Male Athletes.** 2018 NSCA Annual Conference. Indianapolis, IN.
21. Magee, M., Beyer, K., Stout, J., Redd, M., **Baker, K.**, Arroyo, E., Church, D., Bergstrom, H., Hoffman, J., & Fukuda, D. **Maturity-Related Differences in Muscle Hypertrophy Following Sprint Interval Training in Youth Male Athletes.** 2018 NSCA Annual Conference. Indianapolis, IN.
22. Best, J., **Baker, K.**, Garcia, J. **Feasibility of a Collaborative Intervention to Improve Healthy Behaviors in Teachers and School Staff: A Pilot Study.** 2018 Council for Exceptional Children Convention & Expo. Tampa, FL.
23. **Baker, K.**, Healy, S., Rice, D., Garcia, J. **The Effect of Bullying on Health Behaviors in Adolescents.** 2017 ACSM Annual Conference. Denver, CO.
24. Garcia, J., **Baker, K.**, Rice, D., & Healy S. **Comparison of Physical Activity and Sports Participation in Children with and Without Autism Spectrum Disorder.** 2017 ACSM Annual Conference. Denver, CO.
25. Stout, J., Beyer, K., Fukuda, D., Redd, M., **Baker, K.**, & Hoffman, J. **Reliability of the Neuromuscular Fatigue Threshold Measurement across Maturity Status in Boys.** 2017 ACSM Annual Conference. Denver, CO.
26. Beyer, K., Stout, J., Redd, M., **Baker, K.**, Fukuda, D., & Hoffman, J. **Maturity Related Differences in Systemic and Localized Fatigue Thresholds Amongst Adolescent Male Athletes.** 2017 Experimental Biology Conference. Chicago, IL.

27. Redd, M., Fukuda, D., Beyer, K., **Baker, K.**, Garcia, J., Hoffman, J., & Stout, J. **Evaluating the Relationship between Physical Performance and Mental Toughness in Youth Athletes.** 2017 ACSM Annual Conference. Denver, CO.
28. Wells, A., Hoffman, J., Jajtner, A., Varanoske, A., Church, D., Gonzalez, A., Townsend, J., Boone, C., **Baker, K.**, Beyer, K., Mangine, G., Oliveira, L., Fukuda, D., & Stout, J. **Post-Resistance Exercise Ingestion of Amino Acids Attenuates the Initial Increase in Plasma TNF α and TNFr1 Expression on Monocyte Subpopulations.** 2017 Experimental Biology Conference. Chicago, IL.
29. Church, D., Hoffman, J., Varanoske, A., Wang, R., **Baker, K.**, La Monica, M., Beyer, K., Dodd, S., Oliveira, L., Fukuda, D., & Stout, J. **Comparison of Two β -alanine Dosing Protocols Using a Sustained Release Formulation on Muscle Carnosine Elevations.** 2017 Experimental Biology Conference. Chicago, IL.
30. **Baker, K.**, Hoffman, J., Jajtner, A., Townsend, J., Varanoske, A., Beyer, K., Boone, C., Fukuda, D., Stout, J. **Effect of Muscle-Damaging Exercise on Circulating TNF- α and TNFR1 Expression in Monocytes and Neutrophils.** 2016 ACSM Annual Conference. Boston, MA.
31. Boone, C., Fukuda, D., Wells, A., **Baker, K.**, Varanoske, A., Hoffman, J. **The Influence of Biological Age on Muscle Morphology in Youth Judo Athletes.** 2016 ACSM Annual Conference. Boston, MA.
32. Fukuda, D. Wang, R., Beyer, K., La Monica, M., Boone, C., Church, D., **Baker, K.**, Varanoske, A., Muddle, T., Riffe, J., Hoffman, J., & Stout, J. **Maturity Status May Influence Plyometric Ability in Youth Judo Athletes.** 2016 ACSM Annual Conference. Boston, MA.
33. Varanoske, A., Fukuda, D., Boone, C., Beyer, K., **Baker, K.**, Stout, J., and Hoffman, J. **Echogenicity Quantified by Ultrasonographic Panoramic Scans Compared to Still-Images in Collegiate Men.** 2016 ACSM Annual Conference. Boston, MA.
34. Townsend J., Stout J., Jajtner A., Church D., Oliveira L., Beyer K., La Monica M., Riffe J., Muddle T., Wang R., **Baker K.**, Boone C., Varanoske A., Redd M., Fukuda D., Hoffman, J. **The Effects of Acute Resistance Exercise on Apoptotic Signaling in Untrained Males.** 2016 ACSM Annual Conference. Boston, MA.
35. Gonzalez A., Hoffman J., FASCM, Townsend J., Jajtner A., Boone C., Beyer KS, **Baker K.**, Wells A., Mangine G., Robinson E., Church D., Oliveira L., Fukuda D., Stout J. **Intramuscular MAPK Signaling Following High Volume and High Intensity Resistance Exercise Protocols in Trained Men.** 2016 ACSM Annual Conference. Boston, MA.
36. Wells, A., Hoffman, J., FASM, Jajtner, A., Varanoske, A., Church, D., Gonzalez, A., Townsend, J., Boone, C., **Baker, K.**, Mangine, G., Oliveira, L., Fukuda, D., Stout, J.,

FASCM. Monocyte Recruitment Following High-Intensity and High-Volume Resistance Exercise. 2016 ACSM Annual Conference. Boston, MA.

37. **Baker, K., Fukuda, D., La Monica, M., Stout, J., Hoffman, J. Individual vs. Generalized Lower Limit Cutoff Points when Estimating Heart Rate Deflection Point from Two Different Mathematical Models. 2015 NSCA National Conference. Orlando, FL.**
38. **Boone, C., Hoffman, J., Gonzalez, A., Jajtner, A., Townsend, J., Baker, K., Fukuda, D., Stout, J. Changes in Plasma Aldosterone and Electrolytes Following High-Volume and High-Intensity Resistance Exercise Protocols in Trained Men. 2015 NSCA National Conference. Orlando, FL.**
39. **La Monica, M., Fukuda, D., Beyer, K., Hoffman, M., Miramonti, A., Riffe, J., Baker, K., Fragala, M., Stout, J., Hoffman, J. Alteration of Work to Rest Ratios Influence Repeated Sprint Ability Performance. 2015 ACSM Annual Meeting. San Diego, CA.**

Oral Presentations

1. **Baker, K. Presenting Research Online & How to Give a Talk. Western Kentucky University 2021 Student Research Conference. Bowling Green, KY.**
2. **Mack, M., Baker, K., & Tinius, R. The Effect of Warm-Up Protocols on the Occurrence of Medial Tibial Stress Syndrome in High School Cross Country Athletes. Western Kentucky University Undergraduate Honors Thesis Defense. Bowling Green, KY. 2021. (First Reader).**
3. **Baker, K., Tolusso, D., & Garcia, J. The Relationship between Mental Toughness and the Ergogenic Effects of Music during Exercise. 2020 Southeast ACSM Regional Conference Rapid Fire Competition. Jacksonville, FL.**
4. **Baker, K. Careers in Higher Education: Mental Health and Exercise. Western Kentucky University: Guest Lecture. Bowling Green, KY. 2019.**
5. **Baker, K. A Mixed-Methods Approach to Understanding the Relationship between Mental Toughness and the Effect of Music on Exercise Performance. University of Central Florida Doctoral Dissertation Defense. Orlando, FL. 2019.**
6. **Baker, K. Mental Health and Exercise. University of Central Florida: Guest Lecture. Orlando, FL. 2019.**
7. **Baker, K., Garcia, J., Renziehausen, J., & Rivera, P. Reliability of Time-to-Exhaustion Trials Utilizing a Speed Corresponding to a Percentage of VO₂max. 2019 Southeast ACSM Regional Conference Oral Presentation. Greenville, SC.**

8. **Baker, K.,** Garcia, J., & Belity, T. **Emotional Influence of Music in Relation to the Effect of Music on Exercise Performance.** University of Central Florida Graduate Research Forum. Orlando, FL. 2019.
9. **Baker, K. Mental Health and Exercise.** University of Central Florida: Guest Lecture. Orlando, FL. 2018.
10. **Baker, K. A Mixed-Methods Approach to Understanding the Relationship between Mental Toughness and the Effect of Music on Exercise Performance.** University of Central Florida Doctoral Dissertation Proposal. Orlando, FL. 2018.
11. **Baker, K.,** Goldstein, E., Renziehausen, J., Rivera, P., & Garcia, J. **Effect of Physical Activity on Depression and Resiliency in Adolescents.** University of Central Florida Graduate Research Forum. Orlando, FL. 2018.
12. Goldstein, E., **Baker, K.,** Renziehausen, J., Rivera, P., & Garcia, J. **Effect of Physical Activity, Sleep Quality, and Family Meal Frequency on Academic Engagement in Youth.** University of Central Florida Graduate Research Forum. Orlando, FL. 2018.
13. Coker, N., Varanoske, A., **Baker, K.,** Hahs-Vaughn, D., & Wells, A. (2018). **Predictors of Competitive Powerlifting Success: A Multi-level Analysis.** University of Central Florida Graduate Research Forum. Orlando, FL. 2018.
14. **Baker, K. & Goldstein, E. Physical Activity in the Elderly.** University of Central Florida: Guest Lecture. Orlando, FL. 2017.
15. **Baker, K. Strength and Conditioning in Youth.** University of Central Florida: Guest Lecture. Orlando, FL. 2017
16. **Baker, K. Physical Activity and Mental Health.** University of Central Florida: Guest Lecture. Orlando, FL. 2017.
17. **Baker, K. Preventive Medicine, Physical Activity Assessment Methods, and Obesity and Weight-Loss.** University of Central Florida: Guest Lecture. Orlando, FL. 2017.
18. **Baker, K. Thyroid Disorders and Medications.** University of Central Florida: Guest Lecture. Orlando, FL. 2017.
19. **Baker, K. Exercise, Physical Activity, and Strength Training for Youth.** University of Central Florida: Guest Lecture. Orlando, FL. 2017.
20. **Baker, K. The Use of Activity Monitors: Accelerometers.** Edgewater High School. Orlando, FL. 2017.

21. **Baker, K., Rice, D., Healy, S., Garcia, J. Comparison of Physical Activity and Sports Participation in Children with and without Autism Spectrum Disorder.** University of Central Florida Graduate Research Forum. Orlando, FL. 2017.
22. **Baker, K. Methods to Determine Heart Rate Deflection Point and Their Relation to Respiratory Compensation Point and 5000m Treadmill Running Time.** University of Central Florida Master's Thesis Defense. Orlando, FL. 2016.
23. **Baker, K., Hoffman, J., Jajtner, A., Townsend, J., Varanoske, A., Beyer, K., Boone, C., Fukuda, D., Stout, J. Effect of Muscle-Damaging Exercise on Circulating TNF- α and TNFR1 Expression in Monocytes and Neutrophils.** University of Central Florida Graduate Research Forum. Orlando, FL. 2016.
24. **Baker, K. Methods of Calculating Heart Rate Deflection Point in Relation to 5000m Treadmill Run Time.** University of Central Florida Master's Thesis Proposal. Orlando, FL. 2015.
25. **Baker, K. Fitness and Fun.** Special Education for Young Adults with Disabilities. University of Central Florida. Orlando, FL. 2015.
26. **Baker, K., Fukuda, D., La Monica, M., Stout, J., Hoffman, J. Individual vs. Generalized Lower Limit Cutoff Points when Estimating Heart Rate Deflection Point from Two Different Mathematical Models.** University of Central Florida Graduate Research Forum. Orlando, FL. 2015.

Service

Service to the College

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|------|---|
| 2021 | Physical Education Teacher Education Search Committee, Member. Western Kentucky University, School of Kinesiology, Recreation, and Sport, Bowling Green, KY |
| 2021 | Thesis Committee, Committee Member. <i>Do Changes in Navy Fitness Testing Protocols Impact Service Members Performance?</i> Western Kentucky University, School of Kinesiology, Recreation, and Sport, Bowling Green, KY |
| 2020 | Honors Thesis, Chair. <i>The Effects of a Novel Prevention Method on the Reduction of Medial Tibial Stress Syndrome Symptoms.</i> Western Kentucky University, School of Kinesiology, Recreation, and Sport, Bowling Green, KY |
| 2020 | Honors Thesis, Second Reader. <i>The Effects of a Buddy Walking Program on Physical Activity Levels in Adults with Lower Body</i> |

Disabilities. Western Kentucky University, School of Kinesiology, Recreation, and Sport, Bowling Green, KY

- 2020 **Capstone Research, Chair**, *The Effects of Manual Therapy Techniques on Stroke Patients with Upper Extremity Impairment*, Western Kentucky University, School of Kinesiology, Recreation, and Sport, Bowling Green, KY (*Faculty-Undergraduate Student Engagement Grant*)
- 2019 – 2021 **Thesis Committee, Committee Member**, *The Effects of a Taekwondo on Physical Activity Levels in Adults with Down Syndrome*, Western Kentucky University, School of Kinesiology, Recreation, and Sport, Bowling Green, KY
- 2019 – 2021 **Faculty-Undergraduate Student Engagement Grant, Chair**, *The Effect of a Walking Buddy Program on Physical Activity and Social Wellness*, Western Kentucky University, School of Kinesiology, Recreation, and Sport, Bowling Green, KY
- 2018 – 2019 **Undergraduate Honors in the Major Thesis, Graduate Student Mentor**, *Short Term Examination of Physical Activity and Sleep Quality with Children with Autism Spectrum Disorder*, University of Central Florida, School of Kinesiology and Physical Therapy, Division of Kinesiology, Orlando, FL
- 2018 – 2019 **Undergraduate Honors in the Major Thesis, Graduate Student Mentor**, *The Effects of an 8-Week Judo Program on the Psychosocial Factors of Children Diagnosed with Autism Spectrum Disorder*, University of Central Florida, School of Kinesiology and Physical Therapy, Division of Kinesiology, Orlando, FL
- 2017 – 2019 **Master's Thesis, Graduate Student Mentor**, *The Effects of Judo on Cortisol Production and Stress Response in Children with Autism Spectrum Disorder*, University of Central Florida, School of Kinesiology and Physical Therapy, Division of Kinesiology, Orlando, FL
- 2017 – 2019 **Master's Thesis, Graduate Student Mentor**, *The Impact of Judo on Aggressive Behaviors in Youth with Autism Spectrum Disorder*, University of Central Florida, School of Kinesiology and Physical Therapy, Division of Kinesiology, Orlando, FL
- 2015 – 2016 **Undergraduate Honors in the Major Thesis, Graduate Student Mentor**, *The Difference in Ventilatory Threshold among Adolescent Males Based on Maturity Status*, University of Central Florida, School of Kinesiology and Physical Therapy, Division of Kinesiology, Orlando, FL

Service to the University

- 2020 – Present **Student Research Council, Member**
Western Kentucky University
- 2020 – Present **School of Kinesiology, Recreation and Sport, Tenure and
Promotion Review Committee, Member**
Western Kentucky University
- 2020-2021 **Faculty Undergraduate Student Engagement Grant, Reviewer**
Western Kentucky University
- 2020-2021 **Student Research Conference, Judge**
Western Kentucky University
- 2019 – Present **WKU Mountain Bike Club, Co-Founder and Faculty Advisor**
Western Kentucky University
- 2019 – Present **WKU Exercise Science Club, Faculty Advisor**
Western Kentucky University
- 2019 – Present **WKU Exercise Science Advisory Board, Member**
Western Kentucky University

Service to the Profession

- 2019 – 2021 **Abstract Review Committee, Reviewer**
Southeast American College of Sports Medicine
- 2020 **Student Quiz Bowl, Judge**
Southeast American College of Sports Medicine
- 2019 – Present **ICSK Run Outside the Lines, Director**
International Community of Scholars in Kinesiology

Manuscript Reviews

Journal of Strength and Conditioning Research, 2021. Effect of bench stepping training on strength and functional mobility in three age groups of healthy women.

International Journal of Exercise Science, 2021. Accumulated Oxygen Deficit During Arm Cranking in Hypoxia: A Bayesian Perspective and Methodological Considerations.

Journal of Strength and Conditioning Research, 2021. Does varying resistance exercises for the same muscle group promote greater strength gains?

Journal of Strength and Conditioning Research, 2020. Aerobic Training with Blood Flow Restriction for Endurance Athletes: Potential Benefits and Considerations of Implementation

Journal of Strength and Conditioning Research, 2020. Six weeks of hip joint training using a novel multi hip joint board improves sprint performance in competitive collegiate male sprinters.

International Journal of Environmental Research and Public Health, 2020. Is the Coronavirus Pandemic Going to 'Kill' the Physical Activity of Young People?

International Journal of Environmental Research and Public Health, 2020. Limiting the environment in university students modifies physical activity and sedentary behaviour patterns.

Journal of Strength and Conditioning Research, 2020. Mud pack with menthol and arnica montana accelerates recovery following a high-volume resistance training session for lower-body in trained men.

Journal of Physical Activity and Health, 2019. I play, You play, We play: Concurrent play at Play Streets.

Journal of Strength and Conditioning Research, 2019. Setting kinematic parameters that explain youth basketball behavior: Influence of relative age effect according to playing position.

International Journal of Exercise Science, 2019. Gender differences in academic performance of high school students: The relationship with cardiorespiratory fitness, muscle endurance, and test anxiety.

Journal of Strength and Conditioning Research, 2019. Listening to fast-tempo music delays the onset of neuromuscular fatigue.

International Journal of Exercise Science, 2019. Hydration status and perception of fluid loss in rugby players.

Annals of Behavioral Medicine, 2019. Enjoyment of self-efficacy for physical activity as mediators of the friendship network and children's physical activity.

Health Education & Behavior, 2018. Are parental rules regarding screen behaviors associated with youth' sedentary behavior? The UP&DOWN study.

Nursing Research, 2018. Validation of activity trackers in a laboratory setting with young adults.

Journal of Autism and Developmental Disorders, 2018. Virtual reality-based training for the motor development of people with intellectual and multiple disabilities.

Journal of Strength and Conditioning Research, 2015. A high intensity interval training (HIIT)-based running plan improves athletic performance by improving muscle power.

Service to the Community

- 2021 – Present **Volunteer Firefighter, Alvaton Fire Department**
Alvaton, KY & Bowling Green, KY
- 2021 – Present **Project Appleseed, Marksmanship and American History Instructor**
Kentucky area
- 2020 **League of American Bicyclists, (in training) Certified League Cycling Instructor**
Bowling Green, KY
- 2020 **Kentucky Bike-Walk Coalition, Leadership Team Member**
Bowling Green, KY
- 2018 **USA Powerlifting (USAPL), Scoring Manager**
USAPL Greater Tampa Open Championships, Tampa, FL
USAPL Sunshine State Championships, Orlando, FL
7th Annual USAPL Central Florida Open Championship, Orlando, FL
- 2018 **USA Powerlifting (USAPL), Spotting and Loading Manager**
Special Olympics Florida State Championships, Orlando, FL
- 2012 – 2014 **Front Running Sports, Running Gait Analyst**
Front Running Sports, Lake Mary, FL
- 2009 – 2012 **Aiguille Rock Climbing Center, Coach**
Aiguille Rock Climbing Center, Orlando, FL

Professional Development

- 2020 **Online Teaching: The Essentials 5-Week Online Course**
Western Kentucky University, Bowling Green, KY
- 2020 **Effective Lecturing Workshop**
Western Kentucky University, Bowling Green, KY
- 2020 **New Academic Advisor Training**
Western Kentucky University, Bowling Green, KY
- 2020 **CITL Workshop: Strategies for Discussion Teaching during COVID-19 in Your T&P and Continuance Documents**

Western Kentucky University, Bowling Green, KY

- 2020 **Birkman Assessment Method Training Seminar**
Western Kentucky University, Bowling Green, KY
- 2019 – Present **Collaborative Institutional Training Initiative (CITI) training**
Conflicts of Interest, Social and Behavioral Responsible Conduct of Research, Social/Behavioral Research, Western Kentucky University, Bowling Green, KY
- 2019 **Exercise Science/Kinesiology Grow & Enhance Meeting**
Western Kentucky University, Bowling Green, KY
- 2019 **Research & Creative Activities Program (RCAP) Panel Discussion**
Western Kentucky University, Bowling Green, KY
- 2019 **Introduction to External Grants Seminar**
Western Kentucky University, Bowling Green, KY
- 2019 **First Fall 2019 Faculty Senate Meeting**
Western Kentucky University, Bowling Green, KY
- 2019 **McChesney Field Tour**
Western Kentucky University, Bowling Green, KY
- 2019 **WKU M.A.S.T.E.R. Plan**
Transition program for new undergraduate students, Western Kentucky University, Bowling Green, KY
- 2019 **Head for the Hill**
Open house event for students and families, Western Kentucky University, Bowling Green, KY
- 2019 **Active Learning Classroom Workshops**
Western Kentucky University, Bowling Green, KY
- 2019 **Preparing Tenure Packets with Microsoft Word & Adobe Acrobat**
Western Kentucky University, Bowling Green, KY
- 2014 – 2019 **Collaborative Institutional Training Initiative (CITI) training**
Good Clinical Practice, Conflict of Interest, Biomedical Responsible Conduct of Research, Biomedical Research Investigators and Key Personnel, University of Central Florida, Orlando, FL

Awards, Honors, and Achievements

- 2021 **Nomination for Teaching Honor**
Center for Innovative Teaching and Learning, Western Kentucky University
- 2020 **Nomination for Teaching Honor**
Center for Innovative Teaching and Learning, Western Kentucky University
- 2020 **1st Place, Convince Me In 3 Competition (Student Award)**
Student Research Week, International Community of Scholars in Kinesiology
- 2020 **Finalist for Rapid Fire Competition for Assistant Professors**
Southeast American College of Sports Medicine Annual Meeting 2020
- 2019 **Research Abstract chosen for SEACSM 2020 Abstract Example**
Southeast American College of Sports Medicine 2020 Regional Conference
- 2019 **College of Graduate Studies Presentation Fellowship**
University of Central Florida
- 2018 **College of Graduate Studies Presentation Fellowship**
University of Central Florida
- 2017 **NSCA Foundation Women’s Scholarship**
National Strength and Conditioning Association
- 2016 **NSCA Foundation Women’s Scholarship**
National Strength and Conditioning Association
- 2016 **College of Graduate Studies Presentation Fellowship**
University of Central Florida
- 2015 – 2019 **Graduate Teaching Associateship**
University of Central Florida
- 2014 – 2019 **Graduation Assistantship**
University of Central Florida
- 2009 – 2014 **Florida Bright Futures Scholarship**
University of Central Florida

2009, 2010 **Academic Competitiveness Grant**
University of Central Florida

2009, 2010 **Full Time Grant**
University of Central Florida

Professional Certifications

2018 – Present **Advanced Quantitative Methodologies in Educational and Human Sciences**, University of Central Florida, College of Community Innovation and Education, Orlando, FL

2016 – Present **Certified Strength and Conditioning Specialist**, National Strength and Conditioning Association (NSCA)

2012 – Present **CPR and AED Certified**, American Safety and Health Institute (ASHI)

Professional Memberships and Affiliations

2020 – Present American Association of University Professors (AAUP)

2014 – Present American College of Sports Medicine (ACSM)

2019 – Present Southwest Kentucky Mountain Bike Association (KyMBA)

2020 – Present Center for Applied Science in Health and Aging (CASHA)

2014 – 2020 National Strength and Conditioning Association (NSCA)

2019 – 2020 League of American Bicyclists

2017 – 2019 USA Powerlifting (USAPL)

2016 – 2018 International Society of Sport Nutrition (ISSN)

2015 – 2018 American Physiological Society (APS)

2011 – 2018 Access Fund: Protect America's Climbing

Employment Experience

2012 – 2014 **Front Running Sports**, Lake Mary, FL
Gait Analyst

2009 – 2012 **Aiguille Rock Climbing Center**, Longwood, FL
Rock Climbing Instructor, Donations Coordinator, Newsletter Coordinator

Technical Skills

Human Performance Assessment

Heart rate and Blood Pressure: *telemetry equipment, acoustic equipment, palpation, sphygmomanometer*

Body Composition: *skinfold measurements, BodPod assessment, Bioelectrical Impedance Analysis*

Strength and Power: *1RM testing, predictive submaximal testing, BioDex (isokinetic, isometric), hand grip dynamometer*

Anaerobic Performance: *Wingate, Tendo® unit, Vertical jump*

Aerobic Performance: *VO₂max testing via metabolic cart, predicted VO₂max testing [e.g., Queen's step test, 2000m rowing test, Astrand-Rhyming test, YMCA bike test]*

Speed and Agility: *40-yd dash, T-drill, L-drill, Pro-agility*

Muscle Architecture: *Ultrasound assessment (muscle cross sectional area, fascicle length, muscle thickness, pennation angle, echo intensity)*

Reaction Time: *Dynavision, Quickboard*

Multiple Object Tracking: *NeuroTracker*

Physical Activity Tracking: *ActiGraph accelerometers*

Biochemistry Techniques

Aliquoting techniques

Hemoglobin and hematocrit analysis

Enzymatic metabolite analyzer: *Analox GM7*

Plasma electrolyte analysis: *EasyLyte*

Enzyme-linked immunosorbent assay (ELISA) technique

References

Available Upon Request