

Curriculum Vitae

Mary Tuttle Imboden

Ball State University
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Education

Ball State University, Muncie, IN, May 2018

Ph.D. Human Performance Laboratory, Human Bioenergetics

Area of Study: Clinical Exercise Physiology

Minor: Biostatistics

Dissertation: "Influence of Directly Measured Cardiorespiratory Fitness on All-cause and Disease-Specific Mortality"

Faculty Advisor: Dr. Leonard Kaminsky

Wake Forest University, Winston-Salem, NC, May 2013

M.S. Health and Exercise Science

Area of Study: Exercise Physiology

Thesis: "Objectively Measured Physical Activity Levels and Their Relationship to Physical Function and Quality of Life in Acute Decompensated Heart Failure Patients"

Faculty Advisor: Dr. Peter Brubaker

Towson University, Towson, MD, May 2011

B.S. Exercise Science

Work Experience

Research Assistant, Ball State University, Human Performance Laboratory and Fishers Institute for Health and Well-being, Muncie, IN, May 2014-present

- Manages research projects related to Health and Well-being
- Research database management, data processing, and data analysis
- Prepares research documents

Laboratory Testing Supervisor, Ball State University, Clinical Exercise Physiology Program, Muncie, IN, May 2014- present

- Performs cardiopulmonary exercise tests on community members of all ages, including the Muncie Fire Department
- Administers body composition assessments, pulmonary function tests, muscular strength test, Pulse wave analysis and velocity, electrocardiogram rhythm assessment, phlebotomy
- Research database management

Exercise Science Instructor, Ball State University, School of Kinesiology, Muncie, IN, August 2017-present

- Prepared and presented lectures focusing on exercise testing and prescription
- Designed assignments to enhance and reiterate basic concepts introduced in lectures

University Research Committee Graduate Student Representative, Ball State University, Muncie, IN, August 2016- present

- Reviews internal undergraduate, graduate, and faculty grants

Reviewer, Journal of Cardiopulmonary Rehabilitation and Prevention

- Manuscript Review- February 2017
- Manuscript Review- December 2017
- Manuscript Review- August 2017
- Manuscript Review- April 2017
- Manuscript Review- June 2016
- Manuscript Review- March 2016
- Manuscript Review- January 2016
- Manuscript Review- October 2015
- Manuscript Review- August 2015
- Manuscript Review- July 2015
- Manuscript Review- February 2015

Reviewer, Neuro-Ophthalmology

- Manuscript Review- April 2017

Reviewer, Measurement in Physical Education and Exercise Science

- Manuscript Review- June 2017
- Manuscript Review-March 2018

Reviewer, Journal of Science and Medicine in Sport

- Manuscript Review- February 2018

Reviewer, Journal of physiological anthropology

- Manuscript Review-February 2018

Reviewer, BioMed Research International

Manuscript Review-February 2018

Exercise Physiologist, Cardiopulmonary Rehabilitation, Ball Memorial Hospital, Muncie, October 2014-Present

- Monitored outpatient rehabilitation sessions of cardiac, pulmonary, and cancer patients
- Performed new patient orientations
- Database management

Clinical Studies Coordinator, Translational Science Institute, Wake Forest Baptist Medical Center, Winston-Salem, NC, October 2013 – May 2014

- Coordinated various Clinical research studies as a member of the Clinical Trials Office
- Recruited, screened, and scheduled participants
- Administered interventions, testing measurements and procedures, and questionnaires
- Database management, data coding, data analysis

Exercise Specialist, High Point Regional Hospital, Kernersville, NC, April 2013 – May 2014

- Administered physical fitness and body composition assessments
- Created individualized exercise prescriptions, based on participants' goals and current physical fitness level
- Directed the facility's weight loss program

Lab coordinator, Wake Forest University Healthy Exercise and Lifestyle Programs, Wake Forest University, Winston-Salem, NC, August 2011-May 2014

- Administered graded exercise stress tests
- Performed body composition, pulmonary function, and phlebotomy
- Monitored resting and exercising vital signs and heart rhythms
- Created individualized exercise prescriptions

TLC Exercise Specialist, Clinical Research Center, Wake Forest University, Winston-Salem, NC, Fall 2011-Spring 2013

- Administered baseline and follow-up physical function tests and body composition measurements
- Helped patients set weight reduction goals through lifestyle behavior changes
- Led group exercise sessions

PLAN Exercise Specialist, Sticht Center for Aging, Baptist Medical Center, Winston-Salem, NC, January 2012-May 2013

- Administered baseline and follow-up physical fitness and body composition measurements
- Assessed physical activity levels of participants using accelerometry
- Educated on lifestyle behaviors to reach weight loss goals

Teaching Assistant, Department of Health and Exercise Science, Wake Forest University, Winston-Salem, NC, Fall 2011-Spring 2013

- Taught Introduction to Health and Exercise Science to 64 students each semester
- Designed weekly laboratory assignments to enhance and reiterate basic concepts introduced in class lectures
- Graded all laboratory assignments and exams

Teaching Assistant, Department of Exercise Science, Towson University, Towson, MD, Fall 2010-Spring 2011

- Helped teach 30 students each semester in Exercise Testing and Prescription
- Supervised students during clinical rotations

Cardiac Rehabilitation Intern, Union Memorial Hospital, Baltimore, MD, Summer 2010-December 2010

- Monitored cardiac patients participating in Phase I and Phase II cardiac rehabilitation
- Led weekly educational sessions for cardiac patients
- Performed new patient orientations and created individualized exercise prescriptions

Community Outreach and Projects

Optimus Primary, Muncie, IN, Spring 2017-present

- Project Advisor: Leonard Kaminsky
- Prepared documents and materials needed for grant submission
- Helped in the planning of community-wide Healthy Lifestyle Center
- Database management

Ball Memorial Hospital's Heart Failure College, Muncie, IN, Fall 2016-present

- Project Advisor: Leonard Kaminsky
- Educate heart failure patients on lifestyle behaviors to help control their disease
- Data processing and analysis

Community Health and Well-Being Guide, Muncie, IN, Spring 2015

- Project Advisor: Leonard Kaminsky
- Created a multidimensional health and wellness guide for the city of Muncie organized by medical, nutritional, fitness, transportation, housing, mental, spiritual and financial wellness services

National Coalition for Promoting Physical Activity, CEO Pledge Committee, Fall 2015-present

- Encourage CEOs to recognize physical activity as an important driver of employee health and business performance
- Brainstorm marketing and advertising strategies
- Research companies that that implemented health lifestyle interventions in the work-place

Health Enhancement Research Organization

- Intern at the National HERO forum in 2015 and 2016

Research Interests

- Healthy lifestyle and behavioral interventions as a means for preventing chronic disease
- The effectiveness of worksite wellness programs in improving employee health, well-being, and performance
- The relationship between directly measured cardiorespiratory fitness and all-cause, cardiovascular, and cancer mortality
- The relationship between directly measured cardiorespiratory fitness and the development of non-communicable disease
- The role of physical activity and exercise training in the prevention and rehabilitation from chronic diseases and the improvement of quality of life
- The use and accuracy of physical activity monitors in structured and free-living settings
- Standardized reference values for body composition measures to optimize interpretation and improve classification of health risk

Abstracts / Presentations

Imboden MT, Harber MP, Whaley MH, Finch WH, Bishop DA, Kaminsky LA. Cardiorespiratory

Fitness Measured from Cardiopulmonary Exercise Testing for Mortality Risk Prediction in Apparently Healthy Men and Women. ACSM. Minneapolis, MN. May, 2018.

Koontz N, Kelley E, **Imboden MT**, Harber MP, Finch WH, Kaminsky LA, Whaley MH. Cardiorespiratory fitness is inversely associated with metabolic syndrome and clustering of metabolic risk factors: the Ball State University adult physical fitness study. MWACSM Grand Rapids, MI. November, 2017.

Imboden MT, Kelley E, Harber MP, Finch WH, Kaminsky LA, Whaley MH. Cardiorespiratory fitness is inversely associated with metabolic syndrome and clustering of metabolic risk factors: the ball state university adult physical fitness study. MWACSM Grand Rapids, MI. November, 2017.

Dame L, Koontz N, Skalon T, **Imboden MT**. Pre- and post-assessments of Indiana National Guard Soldiers on Cardiorespiratory Endurance. MWACSM Grand Rapids, MI. November, 2017.

Imboden MT, Swartz AM, Harber MP, Kaminsky LA. Reference Values for Lean mass measures obtained from Dual Energy X-Ray Absorptiometry in Adults. ACSM Denver, CO. May, 2017.

Montoye AHK, Conger SA, Connolly CP, **Imboden MT**, Nelson MB, Bock JM, Kaminsky LA. Validation of accelerometer-based energy expenditure prediction models in structured and simulated free-living settings. ACSM Denver, CO. May, 2017.

Imboden MT, Kaminsky LA. Assessing Physical Activity as a Core Component. ISCVPR Greenwood, IN. April, 2017.

Imboden MT. Body composition reference values as measured by dual energy x-ray absorptiometry. University of Wisconsin-Milwaukee. March, 2017.

Imboden MT, Swartz AM, Harber MP, Kaminsky LA. Reference Values for Lean mass measures obtained from Dual Energy X-Ray Absorptiometry in Adults. MWACSM Fort Wayne, IN. November, 2016.

Tuttle MS, Welch WA, Swartz AM, Montoye AHK, Harber MP, Kaminsky LA. Reference Values for Body Fat Percentage obtained from Dual Energy X-Ray Absorptiometry in Adults. ACSM Boston, MA. May, 2016.

Montoye AHK, **Tuttle MS**, Nelson BM, Steeves JA, Kaminsky LA. Consumer-based Physical Activity Monitors and Research Grade Accelerometers underestimate PA in a Semi-structured setting. American Heart Association Epi Lifestyle Scientific Sessions, Phoenix AZ February, 2016.

- Tuttle MS**, Nelson BM, Steeves JA, Kaminsky LA, Montoye AHK. Comparison of Consumer-based PA Monitors for a Research Grade Accelerometer. MWACSM Fort Wayne, IN. November, 2015.
- Kelley EP, Nelson BM, Bock JM, **Tuttle MS**, Steeves JA, Kaminsky LA, Montoye AHK. Effect of Hand Dominance on Accuracy of Wrist-worn Physical Activity Monitors. MWACSM Fort Wayne, IN. November, 2015.
- Tuttle MS**, Donaldson SC, Kaminsky LA. Variability of Sedentary Behavior Throughout a Seven-Day Measurement Period. ACSM San Diego, CA. May, 2015.
- Tuttle MS**, Donaldson SC, Kaminsky LA. Variability of Sedentary Behavior Throughout a Seven-Day Measurement Period. MWACSM, Merrillville, IN. November, 2014.
- Tecca KM, Griffith GJ, **Tuttle MS**, Whaley MH, Kaminsky LA. The Prevalence of Preclinical Atherosclerosis in a Healthy Adult Population using Pulse Wave Velocity Measure. MWACSM Merrillville, IN. November, 2014.
- Tuttle MS**, Ozemek C, Finch H, Whaley MH, Kaminsky LA. Quadratic Regression Reveals an Accelerated Age-related Decline of Maximal Heart Rate in those with Low and Moderate Cardiorespiratory Fitness. American Heart Association Scientific Sessions, Chicago, IL. November, 2014.
- Tuttle MS**, Brubaker PH. Objectively Measured Physical Activity Levels and Their Relationship to Physical Function and Quality of Life in Acute Decompensated Heart Failure Patients. ACSM Indianapolis, IN. May, 2013.

Publications

- Imboden MT**, Witty LA, Whaley MH, Harber MP, Fleenor BS, Kaminsky LA. Clinical Perspectives on incorporating Cardiorespiratory Fitness in Clinical Practice. *Medical Research Archives*. 2018.
- Kaminsky LA, Harber MH, **Imboden MT**, Arena R, Myers J. Reference Standards for Maximal Exercise Ventilation: Data from the FRIEND Registry. In Review: *Plos One*. 2018.
- Imboden MT**, Harber MP, Finch WH, Whaley MH, Bishop D, Kaminsky LA. Cardiorespiratory Fitness Measured from Cardiopulmonary Exercise Testing for Mortality Risk Prediction in Apparently Healthy Men and Women. In Review: *JACC*. 2018.
- Kelley EP, Whaley MH, **Imboden MT**, Harber MP, Finch WH, Kaminsky LA. Cardiorespiratory fitness is inversely associated with clustering of metabolic syndrome risk factors: The Ball State Adult Fitness Program Longitudinal Lifestyle Study. *Mayo Clin Proc*. 2018.
- Montoye AHK, Conger SA, Connolly CP, **Imboden MT**, Nelson MB, Bock JM, Kaminsky LA. Validation of accelerometer-based energy expenditure prediction models in structured and simulated free-living settings. *Meas Phys Educ Exerc Sci*. 2017.

Montoye AHK, Nelson MB, Bock JM, **Imboden MT**, Kaminsky LA, Mackintosh KA, McNarry MA, Pfeiffer KA. Comparability of raw and count-based data from the Actigraph GT9X link and GT3X+ accelerometers. *Med Sci Sports Exerc.* 2017.

Imboden MT, Swartz AM, Finch WH, Harber MP, Kaminsky LA. Reference standards for lean mass measures using GE dual energy x-ray absorptiometry in Caucasian adults. *Plos One.* 2017.

Imboden MT, Nelson MB, Kaminsky LA, Montoye AHK. Comparison of consumer-based physical activity monitors to a research-grade accelerometer. *BJSM.* 2017.

Imboden MT, Welch WA, Swartz AM, Montoye AHK, Finch WH, Harber MP, Kaminsky LA. Reference standards for body fat measures using GE dual energy x-ray absorptiometry in Caucasian adults. *Plos One.* 2017.

Kaminsky LA, **Imboden MT**, Arena R, Myers J. Reference Standards for Cardiorespiratory Fitness Measured With Cardiopulmonary Exercise Testing Using Cycle Ergometry: Data From the Fitness Registry and the Importance of Exercise National Database (FRIEND) Registry. *Mayo Clin Proc.* 2017; 92(2): 228-233.

Tuttle MS, Montoye AHK, Kaminsky LA. The Benefits of Body Mass Index and Waist Circumference in the Assessment of Health Risk. *ACSM Health Fit J.* 2016.

Donaldson SC, Montoye AH, **Tuttle MS**, Kaminsky LA. Variability of Objectively Measured Sedentary Behavior. *Med Sci Sports Exerc.* 2016;48(4):755-61.

Kaminsky LA, **Tuttle MS**. Functional Assessment of Heart Failure Patients. *Heart failure clinics.* 2015;11(1):29-36.

Professional Memberships

- American College of Sports Medicine (Fall 2011-Present)
- Golden Key National Honor Society (Fall 2009-Present)
- American Heart Association (Fall 2014-Present)

Certifications, Training, and Skills

- Clinical Exercise Specialist, American College of Sports Medicine (Fall 2012-present)
- Advanced Cardiovascular Life Support (Spring 2015-present)
- Basic Life Support, American Heart Association (Fall 2011-present)
- Phlebotomy Certification, American Society of Phlebotomy Technicians (Fall 2013- present)
- Collaborative Institutional Training Initiative (CITI) Certification
- Filemaker Database Management
- Qualtrics survey creation
- Online teaching using GoToMeeting, Skype Business, Blackboard, and Sakai
- Data processing, data coding, and data analysis

Selected Honors, Awards, and Fellowships

- Outstanding Senior in Exercise Science, Towson University, (2011)
- Scholar Athlete, Towson University, (2009-2011)
- Towson University Dean's List (2007-2011)
- Wake Forest University Dean's List (2011-2013)
- Ball State University ASPIRE Travel Grant (2014)
- Ball State University Graduate School Certificate of Achievement (2015 & 2016)
- Ball State University ASPIRE Graduate Research Grant (2017)