CURRICULUM VITAE

Jason R. Bentley, PhD, CSCS

PRESENT TITLE AND AFFILIATION

Assistant Professor, Department of Clinical Health and Applied Sciences, Exercise and Health Sciences Program, University of Houston – Clear Lake, Houston, TX

OFFICE ADDRESS

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EDUCATION

Ph.D. Rehabilitation Sciences, 8/2021, University of Texas Medical Branch, Galveston, TX

- Dissertation title: "Associations Between Implicit Beliefs and Physical Activity Motivation Among Breast Cancer Survivors"

M.S. Physiology, 5/2001, Medical College of Wisconsin, Milwaukee, WI

- Thesis title: "Pulmonary Arterial Dilation by Inhaled NO: Arterial Diameter, NO Concentration Relationship"

B.S. Biomedical Engineering, 5/1996, Milwaukee School of Engineering, Milwaukee, WI

TEACHING EXPERIENCE

Senior Lecturer, University of Houston – Clear Lake, Houston, TX Aug 2021 – Aug 2022

- In addition to the course listed below, I redeveloped and instructed a graduate level course for students in the Exercise and Health Sciences program:
    - EXHS-5135 Social and Behavioral Aspects of Public Health (Fall semester, 2021)

Lecturer, University of Houston – Clear Lake, Houston, TX Aug 2014 – Aug 2021

- Average over 1000 undergraduate Semester Credit Hours (SCH's) annually, consistently the highest SCH production in the College of Human Sciences and Humanities, with over 2500 students taught.
- All courses instructed are part of the core curriculum for undergraduates in the Fitness and Human Performance (FHP) program within the Department of Clinical Health and Applied Sciences (CHAS):
    - HLTH-2301 Introduction to Exercise Science (Fall and Spring semesters, 2015-2017)
    - HLTH-3304 Principles of Physical Fitness (Fall, Spring, and 2 Summer semesters, 2014-Present)
    - HLTH-3315 Health Promotion Programs (Fall semester, 2021)
    - HLTH-3316 Applied Kinesiology (Fall semesters, 2014-Present)
    - HLTH-4301 Physiology of Exercise (Fall and Spring semesters, 2014-Present)
    - HLTH-4302 Biomechanics (Spring semesters, 2014-Present)
- Developed the HLTH-2301 course to introduce students to exercise science, which became a core course in our program.
- Consistently score between 'High' and 'Very High' on all my course evaluations for overall teaching capability and course quality.
- Consistently rated 'Very Good' or better on my annual review by my department chair for both teaching and research/service.

- Acquired and monitored internships for students enrolled in the FHP program (2014-2015)

Adjunct Instructor, University of Houston – Clear Lake, Houston, TX Aug 2013 – Aug 2014

- Taught HLTH-4301 and HLTH-3304 to undergraduate students.

Adjunct Instructor, College of the Mainland, Texas City, TX Jan 2011 – Dec 2011

- Taught sophomore-level Anatomy & Physiology to students enrolled in healthcare programs.

Teaching Assistant, Medical College of Wisconsin, Milwaukee, WI May 1996 – Sept 1999

- Taught the laboratory portion of Human Physiology to first-year medical students.

RESEARCH EXPERIENCE

Senior Lecturer, University of Houston – Clear Lake, Houston, TX Aug 2021 – present

- Co-PI for UHCL Faculty Development Support Fund study entitled, "Evaluation of Exogenous Ketone Supplementation on Substrate Utilization During Prolonged Cycling and Subsequent Time Trial Performance"
- Collaborator for National Institute on Aging study "A Social Media Game to Increase Physical Activity Among Older Adult Women (CHALLENGE)" (NCT04095923); PI: Elizabeth Lyons, PhD, MPH

Lecturer, University of Houston – Clear Lake, Houston, TX Aug 2014 – Aug 2021

- Provide biomedical engineering expertise for the Health and Human Performance Institute (HHPI).
- Assisted with NASA-funded project evaluating a virtual environment software application for potential use by astronauts aboard the International Space Station.
- Investigated the effect of heart rate variability (HRV) while performing treadmill exercise.

Research Assistant, University of Texas Medical Branch, Galveston, TX Aug 2017 – present

- National Cancer Institute study "Narrative Visualization for Breast Cancer Survivors' Physical Activity" (NCT03612596); PI: Elizabeth Lyons, PhD, MPH
- Applied for American Heart Association Pre-Doctoral Fellowship, Effect of Implicit Beliefs on Adherence to Physical Activity, August 2019.

Research Associate III, University of Texas Medical Branch, Galveston, TX Oct 2009 – Jan 2010

- Planned, designed, and executed physiological research studies relating to imaging of reproductive and digestive tracts before and after microbicide interventions.

Scientist/Engineer, Wyle Integrated Science and Engineering, Houston, TX Sept 1999 – Jan 2009

- Planned, designed, and executed research studies relating to exercise countermeasures for spaceflight induced physiological deconditioning.
- Mentored student interns in exercise-related research projects.
- Wrote test plans; protocols; outlined budgetary requirements; performed data collection, reduction, and analysis; wrote and published reports for peer-reviewed journals.
- Developed grant proposals and project requirement definitions.

Research Assistant, Medical College of Wisconsin, Milwaukee, WI May 1996 – Sept 1999

- Planned and executed biomedical research as directed by principal investigators.
- Presented progress reports, drafted manuscripts, and presented research at conferences.

PROFESSIONAL EXPERIENCE

Exercise Specialist, Fitness Solutions / RPM Sports, Houston, TX Mar 2010 – Aug 2014

- Designed and presented educational seminars and training plans to competitive cyclists.
- Fitted cyclists to their equipment using a dynamic 3D motion capture system.

HONORS

Awarded the Bohdan Nechay Endowment, University of Texas Medical Branch, 2020
Awarded the Ann and John Hamilton Endowed Scholarship, University of Texas Medical Branch, 2019
Awarded the Charles F. Otis Clinical Research Award, University of Texas Medical Branch, 2017, 2019
Granted U.S. patent for a horizontal exercise apparatus (number 7125370), 2006
Outstanding Achievement Award, Wyle Laboratories, 2004
Space flight Special Achievement Team Award, NASA-Johnson Space Center, 2002
Space flight Special Achievement Individual Award, NASA-Johnson Space Center, 2000

ARTICLES IN PEER-REVIEWED JOURNALS

Bentley JR, Prochaska J, Downer B, Yu X, Karmarkar A, Lyons EJ. (2022). Associations of Implicit Beliefs with Exercise Identity and Motivation Among Breast Cancer Survivors. International Journal of Behavioral Medicine. In Progress.

Bentley JR, Yu X, Karmarkar AM, Downer B, Prochaska J, Lyons EJ. Feasibility and thematic analysis of narrative visualization materials with physical activity monitoring among breast cancer survivors. BMC Cancer. 2022 May 16;22(1):553.

Robertson MC, Swartz MC, Christopherson U, **Bentley JR**, Basen-Engquist KM, Thompson D, Volpi E, Lyons EJ. A Photography-based, Social Media Walking Intervention Targeting Autonomous Motivations for Physical Activity: Semistructured Interviews With Older Women. JMIR Serious Games. 2022 Apr 14;10(2):e35511.

Spiering BA, Lee SMC, Mulavara AP, **Bentley JR**, Buxton RE, Lawrence EL, Sinka J, Guilliams ME, Ploutz-Snyder LL, Bloomberg JJ. Test battery designed to quickly and safely assess diverse indices of neuromuscular function after unweighting. J Strength Cond Res. 2011 Feb;25(2):545-55.

Bentley JR, Amonette WE, De Witt JK, Hagan RD. Effects of different lifting cadences on ground reaction forces during the squat exercise. J Strength Cond Res. 2010 May;24(5):1414-20.

Schneider SM, Amonette WE, Blazine K, **Bentley J**, Lee SM, Loehr JA, Moore AD Jr, Rapley M, Mulder ER, Smith SM. Training with the International Space Station interim resistive exercise device. Med Sci Sports Exerc. 2003 Nov;35(11):1935-45.

Bentley J, Rickaby D, Haworth ST, Hanger CC, Dawson CA. Pulmonary arterial dilation by inhaled NO: arterial diameter, NO concentration relationship. J Appl Physiol. 2001 Nov;91(5):1948-54.

ARTICLES IN PEER-REVIEWED GOVERNMENT PUBLICATIONS

Amonette WE, **Bentley JR** et al. (2009). Evaluation of the Horizontal Exercise Fixture in Conjunction with the Interim Resistive Exercise Device (iRED) for use in Bed Rest Research. NASA Technical Publication JSC-CN-18762.

Schaffner G and **Bentley J** (2008). Determining Exercise Strength Requirements for Astronaut Critical Mission Tasks: Reaching Under G-Load. NASA Technical Report TP-2008-0012559.

De Witt JK, Perusek GP, **Bentley JR** et al. (2008). Kinematic and electromyographical evaluation of locomotion on the enhanced zero-gravity locomotion simulator: A comparison of external loading mechanisms. NASA Technical Report TM-2007-214751.

Norcross J, **Bentley JR** et al. (2007). Comparison of the US and Russian Cycle Ergometers. NASA Technical Report TP- 2007-214760.

De Witt JK, **Bentley JR** et al. (2007). Locomotion kinematics in microgravity. C-9 and Other Microgravity Simulations Summary Report, NASA Technical Report TM-2007-21476, 76-83.

De Witt JK, **Bentley JR** et al. (2007). Evaluation of the effectiveness of overhead suspension reduced-gravity analogs in a microgravity environment. C-9 and Other Microgravity Simulations Summary Report, NASA Technical Report TM-2006-213727, 161-171.

Bentley JR et al. (2006). Advanced Resistive Exercise Device (ARED) Man-In-The-Loop Test (MILT). NASA Technical Report TP-2006-213717.

De Witt JK, Schaffner G, **Bentley JR** et al. (2006). Biomechanical evaluation of locomotion on the Russian BD-1 treadmill in a weightless environment (KC-135). NASA Technical Report TM-2006-213718.

Schaffner G, De Witt JK, **Bentley JR** et al. (2005). Effect of load levels of subject loading device on gait, ground reaction force, and kinematics during human treadmill locomotion in a weightless environment. NASA Technical Report TM-2005-213169.

Amonette WE, **Bentley JR** et al. (2004). Evaluation of the international space station resistive exercise device using the modified Schwinn Flexpack with human subjects. NASA Technical Report TM-2004-212071.

Amonette WE, **Bentley JR** et al. (2004). Ground Reaction Force and Mechanical Differences Between the Interim Resistive Exercise Device (iRED) and Smith Machine While Performing a Squat. NASA TP–2004–212063.

Moore AD, Amonette WE, **Bentley JR** et al. (2004). International Space Station Interim Resistance Exercise Device Man in the Loop Test Results. NASA TP–2004– 212062.

SELECTED ABSTRACTS

Bentley JR, Schroeder A, Baumbach L, Lyons EJ. (2019). Acceptability of Narrative Visualization Techniques Along with Monitoring Physical Activity Data Among Breast Cancer Survivors. Presented virtually at the 2020 Society of Behavioral Medicine Annual Meeting, San Francisco, CA.

Bentley JR, Lewis ZH, Swartz MC, Lyons EJ. (2019). Acceptability of a Walking Intervention Among Inactive Adults Using a Smartphone-Based Gaming Application. Presented at the 2019 American College of Sports Medicine Annual Meeting, Orlando, FL.

Bentley JR, Lewis ZH, Swartz MC, Lyons EJ. (2018). Wearable Electronic Activity Monitors Produced Greater Self-Regulation and Psychological Need Satisfaction Than Pedometers in a Randomized Trial. Presented at the 2018 American Society of Preventive Oncology Annual Meeting, New York, NY.

Bentley JR, Amonette WE, English KL, Hansen A, Patrick R, Keener K, Fullmer P, Barrera J, Arcemant D, Perera J. (2017). Feasibility of an intense daily treadmill protocol to assess a virtual environment software application. Presented at the 2017 National Strength and Conditioning Association Annual Meeting, Las Vegas, NV.

Bentley JR, Loehr JA, De Witt JK, Lee SMC, English KL, Nash RE, Leach MA, Hagan RD. (2008). Correlation of ground reaction force variables with peak vertical jump height. Presented at the 2008 National Strength and Conditioning Association Annual Meeting, Las Vegas, NV.

Loehr JA, Lee SMC, English KL, Leach MA, **Bentley J** et al. (2008). 16 weeks of training with the International Space Station advanced Resistive Exercise Device (aRED) is not different than training with free weights. Presented at the 2008 National Strength and Conditioning Association Annual Meeting, Las Vegas, NV.

De Witt JK, **Bentley JR** et al. (2006). Kinematic Differences Between Motorized and Nonmotorized Treadmill Locomotion. Presented at the 2006 Annual Meeting of the American Society of Biomechanics, Blacksburg, VA.

Bentley JR, Amonette WE, De Witt JK, Garcia Y, Twine CA, Casperson S, Hagan RD. (2005). Measurement of power output during leg press using a linear encoder and customized software program. Presented at the 2005 National Strength and Conditioning Association Annual Meeting, Atlanta, GA.

De Witt JK, **Bentley JR** et al. (2005). The Effect of Speed upon Ground Reaction Forces During Locomotion in Weightlessness. Presented at the International Society of Biomechanics XXth Congress, Cleveland OH.

Casperson S, Amonette WE, **Bentley JR** et al. (2005). Accuracy of a commercial linear encoder system to predict leg press 1-RM and measure mechanical power. Presented at the 2005 National Strength and Conditioning Association Annual Meeting, Atlanta, GA.

Schaffner, G, De Witt JK, **Bentley JR** et al. (2004). Effect of bungee loading on ground reaction force during treadmill locomotion in weightlessness. Presented at the 75th Annual Scientific Meeting of the Aerospace Medical Association, Anchorage, Alaska.

Bentley JR, Amonette WE, De Witt JK et al. (2003). Total inertial force and peak power cannot be accurately calculated from bar motion during a loaded squat. Presented at the 2003 National Strength and Conditioning Association Annual Meeting, Indianapolis, IN.

Rudner LJ, Amonette WE, **Bentley JR** et al. (2003). Squat exercise load affects bar trajectory. Presented at the Texas American College of Sports Medicine Annual Meeting, Houston, TX.

Amonette WE, **Bentley JR** et al. (2002). Cadence affects on ground reaction forces during a squat. Presented at the Second International Conference on Weightlifting and Strength Training, Budapest, Hungary.

MEMBERSHIP IN SCIENTIFIC SOCIETIES/PROFESSIONAL ORGANIZATIONS

Certified Strength & Conditioning Specialist (CSCS), National Strength and Conditioning Association (NSCA)
Member of the American College of Sports Medicine (ACSM)
USA Cycling Level III Coach
USA Weightlifting Club Coach
USA Track and Field Level I Coach

PROFESSIONAL SERVICE

Journal Reviewer for the Journal of Strength and Conditioning Research (JSCR); submitted 32 reviews since 2013