

## Curriculum Vitae

### Tiago Barreira, Ph.D.

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## EDUCATION AND EXPERIENCE

### A. Educational Background

Ph.D.	2010	Human Performance (Kinesmetrics Concentration), Middle Tennessee State University (MTSU)
M.S.	2006	Exercise Science Middle Tennessee State University
B.A.	2003	Physical Education (Exercise Science Concentration) University of North Carolina at Wilmington (UNCW)
B.S.	2003	Business Administration (Finance Concentration) University of North Carolina at Wilmington
2010-Present	Post Doctoral Fellow – Pennington Biomedical Research Center	
2005-2010	Teaching Assistant – Department of Health and Human Performance, MTSU	
2002-2003	Teaching Assistant (internship) – Department of Health and Applied Human Sciences, UNCW	

### C. Membership in Professional and Community Activities

2010-present	International Society for Physical Activity and Health
2003-present	National Strength and Conditioning Association (CSCS certified)
2003-present	American Alliance for Health, Physical Education, Recreation and Dance (AAHPERD)
2003-present	American Association for Physical Active and Recreation (AAPAR)
2006-present	American College of Sports Medicine (ACSM)

2006-present South East American College of Sports Medicine (SEACSM)

#### **D. Awards/Honors**

- 2010 Research Consortium's 2010 Research Writing Award for the paper entitled "How many days are enough? A study of 365 days of pedometer monitoring"
- 2009 Measurement and Evaluation Council of the AAPAR Graduate Student Scholarship winner.
- 2008 Student research award finalist at the South East ACSM 2008 conference.
- 2007 Middle Tennessee State University, Scholars Week: research, scholarship, and creative project 3<sup>rd</sup> place winner.
- 2003 University of North Carolina at Wilmington Department of Health and Applied Human Sciences Outstanding Exercise Science Student Award Recipient, spring 2003 Commencement.
- 2003 Colonial Athletic Association Scholar Athlete of the year 2002-2003.
- 2003 University of North Carolina at Wilmington Chancellor's Cup Award 2002-2003
- 2003 New Hanover Regional Medical Center Scholarship
- 1999-2003 University of North Carolina at Wilmington Swimming and Diving Scholarship

### **RESEARCH: PUBLICATIONS**

#### **A. Thesis/Dissertation Title**

**Barreira, T. V.** (2010). Dose-response relationship between exercise and CVD risk factors: A meta-analysis of randomized controlled trials. Middle Tennessee State University, Murfreesboro, TN.

**Barreira, T. V.** (2006). Resistance Training and Bone Mineral Density of College Level Female Swimmers. Middle Tennessee State University, Murfreesboro, TN.

#### **B. Refereed Journal Articles**

**Barreira, T. V.,** Harrington, D. M., Staiano, A. E., Heymsfield, S. B., & Katzmarzyk, P. T. (In Print). Body adiposity index, body mass index and body fat in white and African American adults. *JAMA*

- Katzmarzyk, P. T., **Barreira, T. V.**, Harrington, D. M., Staiano, A. E., Heymsfield, S. B., & Gimble, J. M. (Epub). Relationship between abdominal fat and bone mineral density in white and African American adults. *Bone*
- Kang, M, Bassett, D. R., Tudor-Locke, C., **Barreira, T. V.**, & Ainsworth, B. E. (Epub) Effects of seasonal and monthly variability on measurement of pedometer data. *Journal of Physical Activity and Health*, 9(4),
- Hart, P. D., **Barreira, T. V.**, & Kang, M. (2010). Correlates and predictors of physical inactivity among Tennessee adults. *Tennessee Medicine*, 103(9), 41-44.
- Barreira, T. V.**, Rowe, D. A., & Kang, M., (2010). Parameters of walking and jogging in healthy young adults. *International Journal of Exercise Science*, 3(1),
- Kang, M., Marshall, S. J., **Barreira, T. V.**, & Lee, J. (2009). Effect of pedometer-based physical activity intervention: A meta-analysis. *Research Quarterly for Exercise and Sport*, 80(3), 648-655.
- Kang, M, Bassett, D. R., **Barreira, T. V.**, Tudor-Locke, C., Ainsworth, B., et al. (2009). How many days are enough? A study of 365 days of pedometer monitoring. *Research Quarterly for Exercise and Sport* 80(3), 445-453.
- Kang, M., Rowe, D. A., **Barreira, T. V.**, Robinson, T. S., & Mahar, M. T. (2009). Individual information-centered approach for handling physical activity missing data. *Research Quarterly for Exercise and Sport*, 80(2), 131–137.
- Kang, M., Holbrook, E. A., & **Barreira, T. V.** (2009). Validity and reliability of Omron pedometers at slow walking speeds: Response (Letter to the Editor-in-Chief). *Medicine and Science in Sports and Exercise*, 41(9), 1826-1828.
- Holbrook, E. A., **Barreira, T. V.**, & Kang, M. (2009). Validity and reliability of Omron pedometers under control and free-living conditions. *Medicine and Science in Sports and Exercise*, 41(3), 670-674.
- Barreira, T. V.**, Kang, M., Caputo, J. L., Farley, R. S., Renfrow, M. S. & Bettle, J. M. (2009). Validation of the Actiheart monitor for the measurement of physical activity. *International Journal of Exercise Science*, 2(1), 60-71.
- Barreira, T.V.**, Tudor-Locke, C., Champagne, C., Broyles, S.T., Harsha, D., Kennedy, B. M., et al. (In Review). Comparison of Yamax pedometer and GT3X accelerometer steps in a free-living sample. *Journal of Physical Activity and Health*,
- Tudor-Locke, C., **Barreira, T.V.**, & Keller, J. N, (in review) Preliminary comparison of clinical and free-living measures of stepping cadence in older adults.

Brinthaup, T., **Barreira, T. V.**, Counts, V. E., & Kang, M. (In review). Self-talk interventions in sport and exercise: A meta-analytic review.

Herrmann, S. D., **Barreira, T. V.**, Kang, M., & Ainsworth, B. E. (In review). How many hours are enough? Optimal accelerometer wear time to reflect daily activity.

## **RESEARCH: PRESENTATIONS**

### **A. Refereed Presentations with Abstracts Published in Academic Journals**

**Barreira, T.V.**, Harrington, D., Staiano, A. E., Heymsfield, S. B., Gimble, J. M., & Katzmarzyk, P. T. (October, 2011). Bone mineral density and depot-specific adiposity in white and African American adults. *Obesity 2011; (Supplement)*. To be presented at the Annual Meetings of the Obesity Society, Orlando, FL.

**Barreira, T.V.**, Tudor-Locke, C., Champagne, C., Broyles, S.T., Harsha, D., Kennedy, B. M., et al. (June, 2011). Comparison of Yamax pedometer and GT3X accelerometer steps in a free-living sample. Presented at the 58<sup>th</sup> ACSM Annual Meeting, Denver, Colorado.

**Barreira, T. V.**, Kang, M., Brinthaup, T. M., Owusu, A., Weatherby, N. L., & Hart, P. D. (June, 2011). Quantitative analysis of the 2008 Physical Activity Guidelines for Americans. Presented at the World Congress on Exercise is Medicine, Denver, Colorado.

Tseh, W., **Barreira, T. V.**, & Leedy, A. M. (June, 2011). Validation of the Bod Pod® self-testing body composition tracking system in adult males and females. Presented at the 58<sup>th</sup> ACSM Annual Meeting, Denver, Colorado.

Hart, P. D., **Barreira, T. V.**, & Kang, M. (June, 2010). Accelerometer-determined physical activity and cardiovascular disease risk factors among U.S. adults. Presented at the 57<sup>th</sup> ACSM Annual Meeting, Baltimore, Maryland.

Kang, M., **Barreira, T. V.**, Holbrook, E. A., & Rowe, D. A. (June, 2010). Effect of different epoch lengths on activity counts using the Actigraph GT1M accelerometer. Presented at the 57<sup>th</sup> ACSM Annual Meeting, Baltimore, Maryland.

Herrmann, S. D., **Barreira T. V.**, Kang, M., & Ainsworth, B.E. (June, 2010) How many hours is enough? Optimal accelerometer wear time to reflect daily physical activity. Presented at the World Congress on Exercise is Medicine, Baltimore, Maryland.

Hart, P. D., **Barreira, T. V.**, & Kang, M. (June, 2010). Muscle strengthening activities and health-related quality of life among U.S. adults. Presented at the World Congress on Exercise is Medicine, Baltimore, Maryland.

**Barreira, T. V.**, Bennett, J. P., Sidman, C., & Kang, M., (March, 2010). Validity of pedometers to measure step counts during dance. Presented at the AAHPERD National Convention, Indianapolis, IN.

- Barreira, T. V.,** Ragan B.G., Basset, D. R., Tudor-Locke, C. & Kang, M. (May 2009). Impact of season on step-count reliability: A Generalizability theory approach. Presented at the 56<sup>th</sup> ACSM Annual Meeting, Seattle, WA. *Medicine and Science in Sports and Exercise*, 41(5), 352-353.
- Kang, M., Basset, D. R., Tudor-Locke, C., **Barreira, T. V.,** & Ainsworth, B. (May 2009). Validity of habitual physical activity: Effects of seasonal and monthly variability on measurement of pedometer data. Paper presented at the 56<sup>th</sup> ACSM Annual Meeting, Seattle, WA. *Medicine and Science in Sports and Exercise*, 41(5), 353-354.
- Barreira, T. V.,** Holbrook, E. A., Parson, C., & Kang, M. (April, 2009). Relationship between objectively measured physical activity and chronic stress level. Presented at the AAHPERD National Convention, Tampa, Florida. *Research Quarterly for Exercise and Sport*, 80(S1), A40.
- Holbrook, E. A., **Barreira, T. V.,** Emison, K., & Kang, M. (April, 2009). Assessing the comprehensibility of physical activity intensity cues. Presented at the AAHPERD National Convention, Tampa, Florida. *Research Quarterly for Exercise and Sport*, 80(S1), A40.
- Holbrook, E. A., **Barreira, T. V.,** Parson, C., & Kang, M. (April, 2009). Influence of activity log on a goal-based walking program. Presented at the AAHPERD National Convention, Tampa, Florida. *Research Quarterly for Exercise and Sport*, 80(S1), A40.
- Barreira, T. V.,** Otto, S., Holbrook, E. A., & Kang, M. (May 2008). Handling children's pedometer missing data: An individual information-centered replacement approach. Paper presented at the 55<sup>th</sup> ACSM Annual Meeting, Indianapolis, IN. *Medicine and Science in Sports and Exercise*, 40(5), S201.
- Basset, D. R., Kang, M., Tudor-Locke, C. & **Barreira, T. V.** (May 2008). How many days of pedometer monitoring? Consecutive versus random days of data collection. Paper presented at the 55<sup>th</sup> ACSM Annual Meeting, Indianapolis, IN. *Medicine and Science in Sports and Exercise*, 40(5), S203.
- Kang, M., Basset, D. R., Tudor-Locke, C. & **Barreira, T. V.** (May 2008). Validity of habitual physical activity: A study of 365 days of pedometer monitoring. Paper presented at the 55<sup>th</sup> ACSM Annual Meeting, Indianapolis, IN. *Medicine and Science in Sports and Exercise*, 40(5), S212.
- Barreira, T. V.,** Kang, M., Davis, K. L., & Binkley, H. (April, 2008) Assessing reliability of medicine ball throw using generalizability theory. Presented at the AAHPERD National Convention, Fort Worth, Texas. *Research Quarterly for Exercise and Sport*, 79(S1), A32.

Kang, M., Rowe, D. A., **Barreira, T. V.**, Robinson, T. S., Kemble, C. D., & Mahar M. T. (April, 2008) Cross-validation of individual information-centered method for handling step count missing data. Presented at the AAHPERD National Convention, Fort Worth, Texas. *Research Quarterly for Exercise and Sport*, 79(S1), A34.

**Barreira, T. V.**, Kang, M., Caputo, J. L., Farley, R. S., Bettel, J. M., & Renfrow, M. S. (May, 2007). Validation of the RT3 monitor to estimate energy expenditure. Paper presented at the ACSM National Conference, New Orleans, Louisiana. *Medicine and Science in Sports and Exercise*. 39(5), S181.

Bettel, J. M., Kang, M., Caputo, J. L., Farley, R. S., Renfrow, M. S., & **Barreira, T. V.** (May, 2007). Evidence for convergent validity for the Actiheart monitor in a free-living setting. Paper presented at the 54<sup>th</sup> ACSM Annual Meeting, New Orleans, Louisiana. *Medicine and Science in Sports and Exercise*, 39(5), S177.

Kang, M., Caputo, J. L., Farley, R. S., **Barreira, T. V.**, Bettel, J. M., & Renfrow, M. S. (May, 2007). Validation of the Actiheart monitor in the laboratory setting. Paper presented at the 54<sup>th</sup> ACSM Annual Meeting, New Orleans, Louisiana. *Medicine and Science in Sports and Exercise*, 39(5), S180.

Owusu, A., Kang, M., **Barreira, T. V.**, & Weatherby, N. L. (May, 2007). Reliability of performance score: Addressing the ideal number of attempts during Triple Jump Competition. Paper presented at the 54<sup>th</sup> ACSM Annual Meeting, New Orleans, Louisiana. *Medicine and Science in Sports and Exercise*, 39(5), S211-S212.

## **B. Refereed Presentations with Abstracts Published in Conference Proceedings**

**Barreira, T.V.**, Tudor-Locke, C., Champagne, C., Broyles, S.T., Harsha, D., Kennedy, B. M., et al. (May, 2011). Patterns of change in daily step count, where does the change happen? Presented at the 2<sup>nd</sup> International Conference on Ambulatory Monitoring of Physical Activity and Movement, Glasgow, Scotland.

Leedy, A. M., Tseh, W., & **Barreira, T. V.** (March, 2011). Validation of the Bod Pod® self-testing body composition tracking system in adult males and females. Presented at the National Conference of Undergraduate Research in Ithaca, NY.

Walsh, T., Tseh, W., & **Barreira, T. V.** (March, 2011). Comparison of percent body fat between body mass index prediction equation against dual energy x-ray absorptiometry amongst a young adult, athletic population. Presented at the National Conference of Undergraduate Research in Ithaca, NY.

Johnson, E., Poff, C., Tseh, W., & **Barreira, T. V.** (March, 2011). Validation of the Bod Pod® self-testing body composition tracking system in college athletes. Presented at the National Conference of Undergraduate Research in Ithaca, NY.

- Barreira, T. V.,** Hart, P. D., Holbrook, E. A., & Kang, M. (May, 2010). The effect of supervised aerobic exercise on BMI, VO<sub>2</sub>max, and resting blood pressure: A meta-analysis. Presented at the 3rd International Congress on Physical Activity and Public Health, Toronto, Canada.
- Hart, P. D., Owusu, A., **Barreira, T. V.,** & Kang, M. (May, 2010). Recommended levels of physical activity, tobacco, alcohol, and drug use among adolescents in Ghana. Presented at the 3rd International Congress on Physical Activity and Public Health, Toronto, Canada.
- Kang, M., **Barreira, T. V.,** & Hart, P. D. (May, 2010). Exploratory analysis of the 3DPAR category functions. Presented at the 3rd International Congress on Physical Activity and Public Health, Toronto, Canada.
- Hart, P. D., **Barreira, T. V.,** & Kang, M. (November, 2009). Correlates and predictors of physical inactivity among Tennessee adults. Presented at the TAHPERD Convention, Murfreesboro, TN.
- Barreira, T. V.,** Rowe, D. A., & Kang, M. (November, 2009). Parameters of walking and jogging in healthy young adults. Presented at the TAHPERD Convention, Murfreesboro, TN.
- Barreira, T. V.,** Holbrook, E. A., & Kang, M. (February, 2009). Validity and reliability evidence of Omron pedometers. Presented at the SEACSM Annual Meeting, Birmingham, AL.
- Columna, L., Velez, L., Garcia, C., Garcia, L., **Barreira, T. V.,** Ayim, E., & Hetland, K. M. (April, 2008). Multicultural Learning through Physical Education. Presented at the AAHPERD National Convention, Fort Worth, Texas.
- Barreira, T. V.,** Otto, S., Holbrook, E. A., & Kang, M. (February, 2008). Individual information-centered approach for handling children pedometer missing data. Presented at the SEACSM Annual Meeting, Birmingham, AL.
- Kang, M., Marshall, S. J., **Barreira, T. V.,** & Lee, J. (October, 2007). Effect of Pedometer-Based Physical Activity Intervention: A Meta-Analysis. Presented at the Diversity in Physical Activity and Health: Measurement and Research Issues and Challenges Conference, Dallas, Texas.
- Barreira, T. V.,** Kang, M., Rowe, D. A., Robinson, T. S., Kemble, C.D., & Mahar, M. T. (October, 2007). Validation of an individual information-centered method for handling accelerometer missing data. Presented at the Diversity in Physical Activity and Health: Measurement and Research Issues and Challenges Conference, Dallas, Texas.
- Barreira, T. V.,** Owusu, A., Kang, M., & Weatherby, N. L. (April, 2007). Reliability of performance score: Addressing the ideal number of attempts during Triple Jump

Competition. Paper presented at the Middle Tennessee State University Scholars Week (p.49), Murfreesboro, Tennessee.

**Barreira, T. V.,** Kang, M., Colclough, S., & Weatherby, N. L. (April, 2007). Assessing reliability of golf scores using generalizability theory. Presented at the Middle Tennessee State University Scholars Week (p.48), Murfreesboro, Tennessee.

**Barreira, T. V.,** Kang, M., Caputo, J. L., Farley, R. S., Bettel, J. M., & Renfrow, M. S. (February, 2007). Validation of the RT3 monitor to estimate energy expenditure. Oral presentation, presented at the SEACSM Annual Meeting (p. 46), Charlotte, North Carolina.

Renfrow, M. S., Kang, M., Caputo, J. L., Farley, R. S., **Barreira, T. V.,** & Bettel, J. M. (February, 2007). Validation of heart rate and energy expenditure in the Actiheart monitor in a free-living setting. Presented at the SEACSM Annual Meeting (p. 35), Charlotte, North Carolina.

Kang, M., & **Barreira, T. V.** (August, 2006). Accuracy of physical activity intensity classifications of the Actiheart monitor. *Educating Sport and Exercise Professionals: Current Approaches and Future Tasks*. Paper presented at the 2006 International Sport Science Congress (p. 378), Yongin, Korea: KAHPERD.

Bennett, J.P., **Barreira, T. V.,** Biggs, K., & Corbin, A. (2003). "Appalachian Big Set: 'Real' American Folk Dance to Country Western Dances of Today!" Proceeding for the National Dance Association from the 2003 AAHPERD National Convention. Philadelphia, Pennsylvania.

### **C. Presentations with no Abstracts (e.g., invited presentation, symposium)**

**Barreira, T. V., &** Kang, M. (October ,2006). Accuracy of physical activity intensity classifications of the Actiheart monitor. Paper presented at the 2006 AAHPERD Graduate Student Leadership Conference, Reston, Virginia.

## **SERVICE**

- Member of the review panel for the research presentation of the Measurement and Evaluation Council of the AAPAR of the AAHPERD Convention Program, 2012.
- Member of the review panel for the research presentation of TAHPERD Convention Program, 2009.
- Member of the Physical Activity Measurement and Surveillance Council of the International Society for Physical Activity and Health, 2010-Present.
- Advisory Committee member of the Measurement and Evaluation Council of the AAPAR of the AAHPERD 2009-Present
- AAHPERD Student Service Committee from 2007-2008.
- Student representative at the 2008 AAHPERD Assembly, Fort Worth, TX,.

- Staff member at the 2007 AAHPERD Undergraduate Student Leadership Conference at Estes Park, Colorado.
- Writer for the AAHPERD monthly newsletter Update.
- Measurement and Statistical Senior-Consultant at the Kinesmetrics Laboratory at MTSU, 2008-2010.
- Founder and Past-President of the Kinesmetrics Club at MTSU.
- Founder and Past-President of the Triathlon Club at MTSU.
- Past Vice-President of the Eta Sigma Pi Club (health and human performance major's club).