

# CURRICULUM VITAE

## Kerry Leigh McIver

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Department of Exercise Science  
Arnold School of Public Health  
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### EDUCATION

University of South Carolina, Columbia, SC 2011

*Doctor of Philosophy- Exercise Science*

Health Aspects of Physical Activity, Department of Exercise Science, Arnold School of Public Health

Dissertation Title: The Contribution of In-School Physical Activity to Total Physical Activity in Elementary School Students

East Carolina University, Greenville, NC 2002

*Master of Arts*

Exercise Physiology, Dept. of Exercise and Sport Science, School of Health and Human Performance

East Carolina University, Greenville, NC 1999

*Bachelor of Science*

Health and Fitness, Dept. of Exercise and Sport Science, School of Health and Human Performance

### EMPLOYMENT

**Research Assistant Professor**, Department of Exercise Science, Arnold School of Public Health, University of South Carolina, Columbia, SC, 2014-Present

Research Associate, Department of Exercise Science, Arnold School of Public Health, University of South Carolina, Columbia, SC, 2009-2014

Instructor, Department of Kinesiology, College of Health and Human Performance, East Carolina University, Greenville, NC, 2008-2009

Data Abstraction Consultant, Centers for Disease Control and Prevention, Atlanta, GA, 2007

Pre-Doctoral Fellow, Children's Healthy Weight Initiative, University of North Carolina at Chapel Hill, Chapel Hill, NC, 2006

Graduate Assistant, Department of Exercise Science, Arnold School of Public Health, University of South Carolina, Columbia, SC, 2002-2008

Program Director, After-School Activity Program, East Carolina University, Greenville, NC, 2001-2002

Research Assistant, Department of Kinesiology, College of Health and Human Performance, East Carolina University, Greenville, NC, 2001-2002

Graduate Assistant, Department of Kinesiology, College of Health and Human Performance, East Carolina University, Greenville, NC, 1999-2001

### RESEARCH INTERESTS

Measurement of Physical Activity in Children

Childhood Obesity and Weight Management

Interaction of Physical Activity and Diet in Development of Obesity in Children

Social-Cognitive and Environmental Determinants of Physical Activity

Interventions to Increase Physical Activity in Children

### **COURSES TAUGHT**

Exercise Testing and Prescription (EXSC 4806)  
Assessment of Physical Activity and Fitness (EXSC 3804)  
Exercise Adherence (EXSC 5200)  
Internship in Exercise Science- Health and Fitness (EXSC 4800)  
Exercise Physiology Lab (EXSC 4850/4851)

**Guest Lectures:** Evaluation of Health Promotion Programs, Physical Activity Epidemiology, Research Grant Writing for Exercise Science, Application of Epidemiology in Public Health

### **CERTIFICATIONS OR LICENSURE**

Certified Densitometry Technologist, International Society of Clinical Densitometry  
American College of Sports Medicine Certified Health/Fitness Instructor  
Cardiopulmonary Resuscitation Certified

### **PROFESSIONAL ORGANIZATIONS**

Southeast Chapter American College of Sports Medicine  
American College of Sports Medicine  
North American Society for Pediatric Exercise Medicine  
American Alliance for Health, Physical Education, Recreation and Dance  
International Society for Clinical Densitometry

### **AWARDS AND HONORS**

2015 Leadership Columbia, Class of 2016  
2007 Outstanding Doctoral Student, Department of Exercise Science, University of South Carolina  
2007 Arnold School of Public Health Doctoral Achievement Award, University of South Carolina  
2007 Dean's Award for Excellence in Graduate Study, The Graduate School, University of South Carolina  
2004 Student Poster Presentation Award, NASPEM conference, August  
2000-present Member, Omicron Delta Kappa National Leadership Society  
2000-present Member, Phi Kappa Phi National Honor Society  
2000 Catherine V. McCulley Memorial Fellowship in Exercise Physiology

### **CURRENTLY FUNDED GRANTS (Listed as Co-I or Co-PI only)**

Co-PI, Development of Materials and Training for the Active Healthy Living Program, FTZ Coca-Cola Service Company  
Co-PI, The National Children's Study. National Institutes of Health (NIH/NICHD/NORC) (University of Chicago-NORC) for USC Sub-contract  
Co-PI, Platform for Collaborative Bio-Signal Data Management and Analysis - Sub-contract with Enformia, Inc.  
Co-PI, The Teddy Study. National Institutes of Health (University of South Florida) \$98,569 for USC Subcontract (2013- current)  
Co-PI, Development of an Innovative Physical Activity Self-Report Instrument for Youth. National Institutes of Health (NIH/NCI) 275,000 (09/01/2012-08/31/2014).

## PUBLICATIONS

1. **Mclver, K.L.**, Brown, W.H., Pfeiffer, K.A., Dowda, M., & Pate, R.R. (2015) Development and Testing of the Observational System for Recording Physical Activity in Children: Elementary Version. *Res Quart Exerc Sport*; in press.
2. Forthofer, M., Dowda, M., **Mclver, K.**, Barr-Anderson, D.J., & Pate R.R., (2015) Associations Between Maternal Support and Physical Activity Among 5<sup>th</sup> Grade Students. *Matern Child Health J*; [epub ahead of print]
3. Sroka, C.J., **Mclver, K.L.**, Sagatov, R.D.F., Arteaga, S.S., & Frongillo, E.A. (2015) Weight Status Measures Collected in the Healthy Communities Study: Protocols and Analyses. *Am J Prev Med*; 49(4): 642-646.
4. Pate, R.R., **Mclver, K.L.**, Colabianchi, N., Troiano, R.P., Reis, J.P., Carroll, D.D., & Fulton, J.E. (2015) Physical Activity Measures in the Healthy Community Study. *Am J Prev Med*; 49(4): 653-659.
5. Dishman R.K., **Mclver K.L.**, Dowda M., Saunders R.P., & Pate R.R. (2015) Motivation and Behavioral Regulation of Physical Activity in Middle-School Students. *Med Sci Sports Exerc.*; 47(9), 1913-1921.
6. Baxter S.D., Hitchcock D.B., Guinn C.H., Vaadi K.K., Puryear M.P., Royer J.A., **Mclver K.L.**, Dowda M., Pate R.R., & Wilson D.K. (2014) A Validation Study Concerning the Effects of Interview Content, Retention Interval, and Grade on Children's Recall Accuracy for Dietary Intake and/or Physical Activity. *J Acad Nutr Diet*; 14(12): 1902-14.
7. Pate R.R., O'Neill J.R., Byun W., **Mclver K.L.**, Dowda M., & Brown W.H. (2014) Physical activity in preschool children comparison between Montessori and traditional preschools. *J Sch Health*; 84(11): 716-21.
8. O'Neill J.R., Williams H.G., Pfeiffer K.A., Dowda M. **Mclver K.L.**, Brown W.H., & Pate, R.R. (2013) Young children's motor skill performance: Relationships with activity types and parent perception of athletic competence. *J Sci Med Sport*; 17(6): 607-610.
9. Cohen A., McDonald S., **Mclver K.**, Pate R., & Trost S. (2014) Assessing physical activity during youth sport: the Observational System for Recording Activity in Children: Youth Sports. *Pediatr Exerc Sci.*;26(2):203-9.
10. Pate, R.R., Welk, G.J., **Mclver, K.L.**. (2013) Large-Scale Youth Physical Fitness Testing in the United States: A 25-Year Retrospective Review. *Pediatr Exerc Sci*; 25(4): 515-523.
11. Ross, S.E., Byun, W., Dowda, M., **Mclver, K.L.**, Saunders, R.P., Pate, R.R. (2013). Sedentary Behaviors in Fifth-Grade Boys and Girls: Where, with Whom, and Why? *Child Obes*; 9(6): 532-539.
12. Baxter, S.D., Hitchcock, D.B., Guinn, C.H., Royer, J.A., Wilson, D.K., Pate, R.R., **Mclver, K.L.**, Dowda, M. (2013). A pilot study of the effects of interview content, retention interval, and grade on accuracy of dietary information from children. *J Nutr Educ Behav*; 45(4): 368-373.

13. Archer, E., Shook, R.P., Thomas, D.M., Church, T.S., Katzmarzyk, P.T., Hebert, J.R., **Mclver, K.L.**, Hand, G.A., Lavie, C.J., & Blair, S.N. (2013). 45-Year Trends in Women's Use of Time and Household Management Energy Expenditure. *PLoS One*; 8(2): e56620.
14. Casazza K., Fontaine K.R., Astrup A., Birch L.L., Brown A.W., Bohan Brown M.M., Durant N., Dutton G., Foster E.M., Heymsfield S.B., **Mclver K.L.**, et al. (2013). Myths, Presumptions, and Facts about Obesity. *N Engl J Med*; 368(5): 446-54.
15. Hickner R.C., Kemeny G., Clark P.D., Galvin V.B., **Mclver K.L.**, Evans C.A., Carper M.J., & Garry J.P. (2012) In vivo nitric oxide suppression of lipolysis in subcutaneous abdominal adipose tissue is greater in obese than lean women. *Obesity (Silver Spring)*;20(6):1174-8.
16. Wilson, D.K., Baxter, S.D., Guinn, C., Pate, R.R., & **Mclver, K.L.** (2012). A Qualitative Study of Interviewer-Administered Physical Activity Recalls by Children. *J Phys Act Health*; [epub ahead of print]
17. Howie, E.K., Brown, W.H., Dowda, M., **Mclver, K.L.**, & Pate, R.R. (2012). Physical activity behaviours of highly active preschoolers. *Pediatr Obes*; [epub ahead of print]
18. Bornstein, D.B., Beets, M.W., Byun, W., **Mclver, K.** (2011). Accelerometer-derived physical activity levels of preschoolers: A meta-analysis. *J Sci Med Sport*; 14(6): 504-511.
19. Pate, R.R., O'Neill, J.R., **Mclver, K.L.** (2011). Physical Activity and Health: Does Physical Education Matter? *Quest*; 63(1):19-35.
20. Hooker, S.P., Feeney, A., Hutto, B., Pfeiffer, K.A., **Mclver, K.L.**, Heil, D.P., Vena, J.E., Lamonte, M.J., Blair, S.N. (2011). Validation of the Actical activity monitor in middle-aged and older adults. *J Phys Act Health*; 8(3):372-81
21. Banda, J.A., Hutto, B., Feeney, A., Pfeiffer, K.A., **Mclver, K.L.**, Lamonte, M.J., Blair, S.N., Vena, J., Hooker, S.P. (2010). Comparing physical activity measures in a diverse group of midlife and older adults. *Med Sci Sports Exerc*; 42(12):2251-7
22. **Mclver, K.L.**, Pfeiffer, K.A., Brown, W.H., Dowda, M., & Pate, R.R. (2009) Assessing children's physical activity in their homes: The Observational System for Recording Physical Activity in Children-Home (OSRAC-H). *J Appl Behav Anal*; 42(1): 1-16.
23. Brown, W.H., Pfeiffer, K.A., **Mclver, K.L.**, Dowda, M., Addy, C.L., & Pate, R.R. (2009). Social and environmental factors associated with preschoolers' nonsedentary physical activity. *Child Dev*; 80(1): 45-58.
24. Dowda, M., Brown, W.H., **Mclver, K.L.**, Pfeiffer, K.A., O'Neill, J.R., Addy, C.L. & Pate, R.R. (2009). Policies and characteristics of the preschool environment and physical activity of young children. *Pediatrics*; 123(2): e261-6.
25. Brown, W.H., Googe, H.S., **Mclver, K.L.**, & Rathel, J.M. (2009). Effects of teacher-encouraged physical activity on preschool playgrounds. *J Early Interv*; 31(2): 126-145.

26. Pate, R.R., **Mclver, K.L.**, Brown, W.H., Dowda, M. & Addy, C. (2008) Directly-observed physical activity levels in preschool children. *J Sch Health*; 78(8): 428-44.
27. Pfeiffer, K.A., Dowda, M., **Mclver, K.L.**, & Pate, R.R. (2009). Factors related to objectively measured physical activity in preschool children. *Pediatr Exerc Sci*; 21(2):196-208.
28. Pfeiffer, K.A., **Mclver, K.L.**, Dowda, M. Almeida, M.J.C.A., & Pate, R.R. (2006). Validation and calibration of actical accelerometer in preschool children. *Med Sci Sports Exerc*; 38(1): 152-157.
29. Pate, R.R., Almeida, M.J., **Mclver, K.L.**, Pfeiffer, K.A., & Dowda, M. (2006). Validation and Calibration of an Accelerometer in Preschool Children. *Obesity*; 14(11): 2000-6.
30. Pfeiffer, K.A., Dowda, M., Dishman, R.K., **Mclver, K.L.**, Sirard, J.R., Ward, D.S., & Pate, R.R. (2006). Sport Participation and Physical Activity in Adolescent Females across a Four-Year Period. *Journal of Adolescent Health*; 39(4): 523-529.
31. Brown, W.H., Pfeiffer, K.A., **Mclver, K.L.**, Dowda, M., Almeida, M.J.C.A., & Pate, R.R. (2006). Assessing Preschool Children's Physical Activity: The *Observational System for Recording Physical Activity in Children-Preschool Version (OSRAC-P)*. *Research Quarterly for Exercise and Sport*; 77(2): 167-176.
32. Mahar, M.T., Welk, G.J., Rowe, D.A., Crofts, D.J., & **Mclver, K.L.** (2006). Development and Validation of a Regression Model to Estimate VO<sub>2</sub>Peak From PACER 20-m Shuttle Run Performance. *Journal of Physical Activity and Health*; 3(Suppl 2): S34-S46.
33. Pfeiffer, K.A., **Mclver, K.L.**, Dowda, M. Almeida, M.J.C.A., & Pate, R.R. (2006). Validation and Calibration of Actical Accelerometer in Preschool Children. *Medicine and Science in Sports and Exercise*; 38(1): 152-157.
34. **Mclver, K.L.**, Evans, C., Kraus, R.M., Ispas, L., Sciotti, V.M., & Hickner, R.C. (2005). NO-mediated alterations in skeletal muscle nutritive blood flow and lactate metabolism in Fibromyalgia. *Pain*; Dec. 20 [Epub ahead of print].
35. Sirard, J.R., Riner, W.F. Jr, **Mclver, K.L.**, & Pate, R.R. (2005). Physical Activity and active commuting to elementary school. *Medicine and Science in Sports and Exercise*; 37 (12): 2062-2069.
36. Trost, S.G., **Mclver, K.L.**, & Pate, R.R. (2005). Conducting accelerometry- based activity assessments in field-based research. *Medicine and Science in Sports and Exercise*; 37 (11 Suppl.): S531-543.
37. Hickner, R.C., Kemeny, G., Stallings, H.W., Manning, S.M., & **Mclver, K.L.** (2005) Relationship between body composition and skeletal muscle eNOS. *International Journal of Obesity (Lond.)*. [Epub ahead of print].

38. Sirard, J.E., Ainsworth, B.E., **Mclver, K.L.**, & Pate, R.R. (2005). Prevalence of active commuting at suburban and urban elementary schools in Columbia, SC. American Journal of Public Health, 95(2): 236-237.
39. Hickner, R.C., Kemeny, G., **Mclver, K.**, Harrison, K. & Hostetler, M. (2003). Skeletal muscle nutritive blood flow is related to eNOS content in premenopausal and postmenopausal women. J. Gerontol. Biol. Sci.; 58A(1): 20-25.
40. Hickner, R.C., Privette, J., **Mclver, K.**, & Barakat, H. (2001). Fatty Acid oxidation in African-American and Caucasian women during physical activity. Journal of Applied Physiology; 90:2319-2324.

### **Non-refereed**

Mclver, K.L. and Pate, R.R. (Fall 2006). International Perspectives on School-Based Physical Activity. President's Council on Physical Fitness and Sports E-Newsletter. Available online at: [http://www.fitness.gov/enewsletter/Fall06\\_featurearticle.htm](http://www.fitness.gov/enewsletter/Fall06_featurearticle.htm)

### **PUBLISHED ABSTRACTS**

**Mclver, K. L.**, Pate, R. R., Dowda, M., Yang, J., Butterworth, M., & Johnson, S. B. (2015, June). Cross-Cultural Comparison of Physical Activity in Young Children Genetically At-Risk for Type 1 Diabetes. In *DIABETES* (Vol. 64, pp. A365-A365). 1701 N BEAUREGARD ST, ALEXANDRIA, VA 22311-1717 USA: AMER DIABETES ASSOC.

Howie, E.K., Brown, W. H., Dowda, M., **Mclver, K. L.**, Pate, R. R. (2010). Comparison of Activity Types Between High and Low Active Preschool Children. Medicine and Science in Sport and Exercise; 42 (5, Suppl): p604.

**Mclver, K.L.**, Brown, W.H., Pfeiffer, K.A., Dowda, M., & Pate, R.R. (2007). Development and Piloting of the Observational System for Recording Physical Activity of Children: Elementary Version. Medicine and Science in Sport and Exercise; 39 (5, Suppl): S139.

**Mclver, K.L.**, Pfeiffer, K.A., Brown, W.H., Dowda, M., & Pate, R.R. (2006). Development and Piloting of the Observational System for Recording Physical Activity of Children: Home Environments. Medicine and Science in Sport and Exercise; 38 (5, Suppl): S102.

**Mclver, K.**, Pfeiffer, K.A., Dowda, M., Almeida, M.J.C.A., & Pate, R.R. (2005). Validity and Interinstrument Reliability of the Actigraph Accelerometer in 3-5 Year Old Children. Medicine and Science in Sport and Exercise; 37 (5, Suppl): S113.

Pfeiffer, K.A., **Mclver, K.L.**, Dowda, M., Almeida, M.J.C.A., & Pate, R.R. (2005). Calibration and Cross-Validation of the Actical Accelerometer in Preschool Aged Children. Medicine and Science in Sport and Exercise; 37 (5, Suppl): S114.

**Mclver, K.**, Pfeiffer, K. Almeida, J. Dowda, M. & Pate, R. (2005) Validity of the Actigraph and Actical Accelerometers in 3-to-5-Year Old Children. Pediatric Exercise Science; 17 (1): 97.

Umstattd, M.R., **Mclver, K.L.**, Smith, S., DuBose, K.D., & Ainsworth, B.E. (2004). Cardiovascular Disease Risk Factors and Physical Activity Status Among Older Adults, 2001 BRFSS. Medicine and Science in Sports and Exercise; 36 (5, Suppl): S192.

**Mclver, K.**, Pfeiffer, K.A., Mahar, M.T., & Pate, R.R. (2004). Associations between Peak VO<sub>2</sub> and Field Tests of Cardiorepiratory Fitness in Adolescent Males. Medicine and Science in Sports and Exercise; 36 (5, Suppl): S134.

Sirard, J.R., Riner, W.F., **Mclver, K.L.**, & Pate, R.R. (2004). Physical Activity and Active Commuting to School in Fifth Grade Students. Medicine and Science in Sports and Exercise; 36 (5, Suppl): S102.

Almeida, M.J., **Mclver, K.L.**, Hastings, L.A., Pfeiffer, K.A., Dowda, M., & Pate, R.R. (2004). Cardiorespiratory Responses to Locomotor Activities in Preschool Children. Medicine and Science in Sports and Exercise; 36 (5, Suppl): S65.

**Mclver, K.L.**, Mahar, M.T., McCammon, M.R., & Rowe, D.A. (2003). Cross-Validation of the One-Mile Walk Test for Aerobic Capacity in 12- to 14-year old boys. Pediatric Exercise Medicine; 15 (1): 108.

Hickner, R.C., **Mclver, K.**, Harrison, K., & Hostetler, M. (2001). Skeletal Muscle eNOS and Nutritive Blood Flow in Pre- and Post-Menopausal Women. Medicine and Science in Sports and Exercise; 33 (5, Suppl): S290.

Hickner, RC, **Mclver, K.**, Harrison, K, and Kemeny, G. (2001). Skeletal Muscle eNOS Content is Higher in Endurance-trained than Sedentary Pre-menopausal Females. *FASEB* 15(5): A1109.

Hickner RC, J Privette, **K. Mclver**, and H Barakat. (2000). Fat Oxidation during exercise in African American and Caucasian women. *Obesity Research* 8 (Suppl 1): 36S.

#### **PRESENTATIONS** (Non-Published Abstracts)

**Mclver, K.L.** Physical Activity and Sedentary Behavior in Children: Focus on Colombia and Ecuador (September 16-18, 2014) presented at the Foro Académico: Realidades y Propuestas Para Fomentar Estilos de Vida Activos y Saludables (Academic Forum: Facts and Proposals for Promoting Active and Healthy Lifestyles). Bogotá, Colombia.

Runey, J., **Mclver, K.L.**, & Pate, R. R. (2014) The Association of School Factors and School Day Physical Activity. *Accepted at the Southeast American College of Sports Medicine Annual Conference*, February 2014.

**Mclver, K.**, Pfeiffer, K.A., Dowda, M., Almeida, M.J.C.A., & Pate, R.R. Validity and Interinstrument Reliability of the Actigraph Accelerometer in 3-5 Year Old Children. *Presented at the Southeast American College of Sports Medicine Annual Conference*, January 2005.

**Mclver, K.L.**, Pfeiffer, K.A., Dowda, M., Almeida, M.J.C.A., & Pate, R.R. Calibration and Cross-Validation of the Actigraph Accelerometer in Preschool Aged Children. *Presented at the Objective Monitoring of Physical Activity Conference*, December 2004.

**Mclver, K.**, G. Kemeny, and R.C. Hickner, FACSM. Nitric oxide and increased muscle blood flow in fibromyalgia patients. *Presented at the Experimental Biology Annual Conference*, April 2002.

**Mclver, K.**, Kemeny, G, and Hickner, RC. FACSM. The Role of Nitric Oxide in Blood Flow Differences between Fibromyalgia Patients and Healthy Individuals. *Presented at the Southeast American College of Sports Medicine Annual Conference*, January 2002.

Hickner RC, J Privette, **K. Mclver**, and H Barakat., Fat Oxidation during exercise in African American and Caucasian women. Institute of Nutrition conference, October 13, 2000

## **JOURNAL REVIEWER**

Medicine and Science in Sport and Exercise  
Journal of Physical Activity and Health  
Research Quarterly in Exercise and Sport  
Pediatric Exercise Science  
Childhood Obesity  
Journal of Science and Medicine in Sport  
BMC Public Health

## **SERVICE**

University of South Carolina Undergraduate Research Discover Day Reviewer (2015)  
Southeaster American College of Sports Medicine Annual Meeting, Abstract Reviewer and Session Moderator (2014-2015)  
Lexington Medical Center Governor's Cup Road Race Event Planning Committee (2011-present)  
Richland County Recreation Commission (2014)  
Transitions Shelter (2014-current)  
Girls on the Run/Carolina Marathon Association (Color Run and Heart and Sole Races; 2014)  
Harvest Hope Food Bank (2013)  
Salvation Army (2013-2014)  
Oliver Gospel Mission (2012-current)  
Columbia Marathon (2012)  
South Carolina Public Health Association, Abstract reviewer (2010)  
Annual Meeting Contributed Papers Committee, South Carolina Public Health Association (2006)  
Walk and Talk Leader, Books and Breakfast Parent's Group, E.E. Taylor Elementary School (Fall 2006)  
A/V Coordination and Speaker Relations, North American Society for Pediatric Exercise Medicine Biennial Meeting (2006)  
Team Recruitment Chair, Columbia Arthritis Walk (2004-2005)  
President, Arnold School of Public Health Student Association (2004-2005)  
Co-chair, Dean's Student Advisory Council, Arnold School of Public Health, Univ. of South Carolina (2003-2004)  
Student Representative, Strategic Health Initiative- Pediatrics, American College of Sports Medicine (2003-2006)  
President, School of Health and Human Performance Graduate Student Organization, East Carolina University (2000-2001)

## **CLINICAL EXPERIENCE**



Clinical Exercise Testing, Human Performance Laboratory, East Carolina University 1999-2002  
Cardiac Rehabilitation Intern, Rex Wellness, Cary, NC 1999