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RESEARCH FOCUS

My research focuses on the temporal and spatial context of children's physical activity and the measurement of this behavior.

PROFESSIONAL EXPERIENCE

Assistant Professor, Department of Kinesiology and Health Sciences, Utah State University
Logan, UT, USA.....2022-Present

Cancer Prevention Fellow, Health Behaviors Research Branch, Division of Cancer Control and Population Sciences, National Cancer Institute, National Institutes of Health
Rockville, MD, USA.....2019-2022
Supervisor: David Berrigan

Consultant, Digital Medicine and Translational Imaging, Pfizer Pharmaceuticals
Cambridge, MA, USA.....2020

Graduate Assistant, Department of Kinesiology, College of Education, Michigan State University
East Lansing, MI, USA.....2015-2019

Graduate Assistant, The Diabetes Institute, Ohio University Heritage College of Osteopathic Medicine
Athens, OH, USA.....2013-2015

Research Assistant, Program to Aid Career Exploration, Ohio University
Athens, OH, USA.....2012-2013

EDUCATION

Quantitative Methods, MPH.....Awarded May 2020
Departments of Epidemiology and Biostatistics, Harvard University, Boston, MA, USA

Kinesiology-Exercise Physiology, PhD.....Awarded May 2019
Department of Kinesiology, College of Education, Michigan State University, East Lansing, MI, USA
Dissertation: Physical Activity by Schoolyard Location: Current Literature, Comparison with Activity Type, and Use of a GPS-Based Approach
Supervisor: Karin Pfeiffer

Physiology of Exercise-Research, MS.....Awarded May 2015
College of Applied Health Sciences and Wellness, Ohio University, Athens, OH, USA
Master's thesis: Feasibility of the Teaching HENRY (Healthy Exercise and Nutrition Recommendations for Youth) Intervention on Physical Activity Knowledge and Behavior in Rural Appalachia
Supervisor: Cheryl Howe

Exercise Physiology, BS, Departmental Honors and Certificate in Diabetes.....Awarded May 2013
College of Applied Health Sciences and Wellness, Ohio University, Athens, OH, USA
Honor's thesis: Characterizing Children's Free-Play Physical Activity: Steps vs. Counts
Supervisor: Cheryl Howe

PUBLICATIONS

Peer-Reviewed Publications

1. **Clevenger, KA**, Brønd, JC, Mackintosh, KA, Pfeiffer, KA, Montoye, AHK, McNarry, MA. Impact of ActiGraph Sampling Rate on Free-Living Physical Activity Measurement in Youth. (Accepted by *Physiological Measurement*)
[X] Concept/Design [X] Data Analysis [X] Draft/Revise Manuscript [] Data Collection
2. **Clevenger, KA**, Montoye, AHK, Van Camp, CA, Strath, SJ, Pfeiffer, KA. Methods for Estimating Physical Activity and Energy Expenditure Using Raw Accelerometry Data or Novel Analytical Approaches: A Repository, Framework, and Reporting Guidelines. *Physiological Measurement*, 43, 09NT01. DOI: 10.1088/1361-6579/ac89c9
[X] Concept/Design [X] Data Analysis [X] Draft/Revise Manuscript [X] Data Collection
3. Pfeiffer, KA, **Clevenger, KA**, Kaplan, A, Van Camp, CA, Strath, SJ, Montoye, AHK. Accessibility and Use of Novel Methods for Predicting Physical Activity and Energy Expenditure using Accelerometry: A Scoping Review. *Physiological Measurement*, 43, 09TR01. DOI:10.1088/1361-6579/ac89ca
[X] Concept/Design [X] Data Analysis [X] Draft/Revise Manuscript [X] Data Collection
4. **Clevenger, KA**, McNarry, MA, Mackintosh, KA, Berrigan, DB. Association of Recess Provision with Elementary School-Aged Children's Physical Activity, Adiposity, and Cardiorespiratory and Muscular Fitness. (Accepted by *Pediatric Exercise Science*)
[X] Concept/Design [X] Data Analysis [X] Draft/Revise Manuscript [] Data Collection
5. **Clevenger, KA**, Mackintosh, KA, McNarry, MA, Pfeiffer, KA, Montoye, AHK, Brønd, JC. Comparison of Children and Adolescent's Physical Activity Levels from Open-Source versus ActiGraph Counts. *Journal for the Measurement of Physical Behaviour*, 5(2), 120-128. DOI:10.1123/jmpb.2021-0057 Citations: 0
[X] Concept/Design [X] Data Analysis [X] Draft/Revise Manuscript [] Data Collection
6. **Clevenger, KA**, Belcher, BR, Berrigan, DB. Associations between Amount of Recess, Physical Activity, and Cardiometabolic Traits in US Children. *Translational Journal of the American College of Sports Medicine*, 7(3), e000202. DOI:10.1249/TJX.0000000000000202 Citations: 0
[X] Concept/Design [X] Data Analysis [X] Draft/Revise Manuscript [] Data Collection
7. **Clevenger, KA**, Pfeiffer, KA. Comparison of Physical Activity Environment in Michigan Home-Based and Licensed Child Care Programs. *Translational Journal of ACSM*, 7(2), e000198. DOI:10.1249/TJX.0000000000000198 Citations: 0
[X] Concept/Design [X] Data Analysis [X] Draft/Revise Manuscript [X] Data Collection
8. **Clevenger, KA**, Lowry, M, Perna, FM, Berrigan, D. Cross-Sectional Association of State-Level Recess Laws with District-Level Policy and School Recess Provision in the United States. *Journal of School Health*. Online first. DOI:10.1111/josh.13189 Citations: 0
[X] Concept/Design [X] Data Analysis [X] Draft/Revise Manuscript [] Data Collection
9. **Clevenger, KA**, Perna, FM, Moser, RP, Berrigan, B. Associations between State Laws Governing Recess Policy with Children's Physical Activity and Health. *Journal of School Health*. Online first. DOI:10.1111/josh.13157 Citations: 0
[X] Concept/Design [X] Data Analysis [X] Draft/Revise Manuscript [] Data Collection
10. **Clevenger, KA**, Brønd, JC, Arvidsson, D, Montoye, AHK, Mackintosh, KA, McNarry, MA, Pfeiffer, KA. Impact of ActiGraph Sampling Rate and Inter-Monitor Comparability on Measures of Physical Activity in Adults. *Journal for the Measurement of Physical Behaviour*, 4(4), 287-297. DOI:10.1123/jmpb.2021-0016 Citations: 0 Citations: 2
[X] Concept/Design [X] Data Analysis [X] Draft/Revise Manuscript [X] Data Collection

11. Sanciangco, J, Breetzke, G, Lin, Z, **Clevenger, KA**, KC, K, Wang, Y, Pearson, A. The Relationship between City Greenness and Homicide in the US: Evidence over a 30-Year Period. *Environment and Behavior*, 54(2), 538-571. DOI:10.1177/00139165211045095 Citations: 0
[] Concept/Design [] Data Analysis [X] Draft/Revise Manuscript [X] Data Collection
12. Montoye, AHK, Westgate, BS, **Clevenger, KA**, Pfeiffer, KA, Vondrasek, JD, Fonley, MR, Bock, JM, Kaminsky, LA. Individual vs. Group Calibration of Machine Learning Models for Physical Activity Assessment using Body-Worn Accelerometers. *Measurement and Science in Sport and Exercise*, 53(12), 2691-2701. DOI:10.1249/mss.0000000000002752 Citations: 0
[] Concept/Design [] Data Analysis [X] Draft/Revise Manuscript [] Data Collection
13. Pearson, AL, **Clevenger, KA**, Horton, TH, Gardiner, JC, Asana, V, Dougherty, BV, & Pfeiffer, KA. (2021). Feelings of Safety During Daytime Walking: Associations with Mental Health, Physical Activity and Cardiometabolic Health in High Vacancy, Low-Income Neighborhoods in Detroit, Michigan. *International Journal of Health Geographics*, 20(1), 1-13. DOI:10.1186/s12942-021-00271-3 Citations: 4
[] Concept/Design [X] Data Analysis [X] Draft/Revise Manuscript [X] Data Collection
14. **Clevenger, KA**, Erickson, KT, Grady, SC, Pfeiffer, KA. (2021). Characterizing Preschooler's Outdoor Physical Activity: The Comparability of Schoolyard Location- and Activity Type-Based Approaches. *Early Childhood Research Quarterly*. 56, 139-148. DOI:10.1016/j.ecresq.2021.03.012 Citations: 1
[X] Concept/Design [X] Data Analysis [X] Draft/Revise Manuscript [X] Data Collection
15. **Clevenger, KA**, Pfeiffer, KA. (2021). Teacher-Report of Where Preschool-Aged Children Play and Are Physically Active in Indoor and Outdoor Learning Centers. *Journal of Early Childhood Research*, 20(1), 3-12. DOI:10.1177/1476718X211033641 Citations: 1
[X] Concept/Design [X] Data Analysis [X] Draft/Revise Manuscript [X] Data Collection
16. **Clevenger, KA**, McKee, KL, Pfeiffer, KA. (2021). Classroom Location, Activity Type, and Physical Activity During Preschool Children's Indoor Free-Play. *Early Childhood Education Journal*, 50, 425-434. DOI:10.1007/s10643-021-01164-7 Citations: 2
[X] Concept/Design [X] Data Analysis [X] Draft/Revise Manuscript [X] Data Collection
17. **Clevenger, KA**, Grady, SC, Erickson, K, Pfeiffer, KA. (2020). Use of a Spatiotemporal Approach for Understanding Preschoolers' Physical Activity. *Spatial and Spatio-Temporal Epidemiology*. 35,100376. DOI:10.1016/j.sste.2020.100376 Citations: 5
[X] Concept/Design [X] Data Analysis [X] Draft/Revise Manuscript [X] Data Collection
18. **Clevenger, KA**, Pfeiffer, KA, Montoye, AHK. (2020). Cross-Generational Comparability of Hip- and Wrist-Worn ActiGraph GT3X+, wGT3X-BT, and GT9X Accelerometers during Free-Living in Adults. *Journal of Sport Sciences*. 38(24), 2794-2802. DOI:10.1080/02640414.2020.1801320 Citations: 8
[] Concept/Design [X] Data Analysis [X] Draft/Revise Manuscript [X] Data Collection
19. Montoye, AHK, **Clevenger, KA**, Pfeiffer, KA, Nelson, MB, Bock, JM, Imboden, MT, Kaminsky, LA. (2020). Development of Cut-points for Determining Activity Intensity from a Wrist-Worn ActiGraph Accelerometer in Free-Living Adults. *Journal of Sport Sciences*. 28(22), 2569-2578. DOI:10.1080/02640414.2020.1794244 Citations: 27
[] Concept/Design [] Data Analysis [X] Draft/Revise Manuscript [] Data Collection
20. Ricci, JM, **Clevenger, KA**, Sellers, S, Davenport, S, & Pfeiffer, KA. (2020). Associations Between Extracurricular Activity Participation and Health-Related Variables in Underrepresented Children. *Sports Medicine and Health Science*. 2(2),102-108. DOI:10.1016/j.smhs.2020.06.001 Citations: 4
[] Concept/Design [X] Data Analysis [X] Draft/Revise Manuscript [] Data Collection
21. **Clevenger, KA**, Pfeiffer, KA, Montoye, AHK. (2020). Cross-Generational Comparability of Raw and Count-Based Metrics from ActiGraph GT9X and wGT3X-BT Accelerometers during Free-Living in Youth. *Measurement in Physical Education and Exercise Science*. 24(3),194-204. DOI:10.1080/1091367X.2020.1773827 Citations: 10
[X] Concept/Design [X] Data Analysis [X] Draft/Revise Manuscript [X] Data Collection

22. **Clevenger, KA**, Pfeiffer, KA. (2020). Recess Should NOT be Cut: Considerations for COVID-19 School Reopening Plans. *Translational Journal of the American College of Sports Medicine*. 5(11), 1-5. DOI:10.1249/TJX.0000000000000147 Citations: 3
[X] Concept/Design [] Data Analysis [X] Draft/Revise Manuscript [] Data Collection
23. **Clevenger, KA**, Wierenga, MJ, Howe, CA, Pfeiffer, KA. (2020) A Systematic Review of Child and Adolescent Physical Activity by Schoolyard Location. *Kinesiology Review*. 9(2), 147-158. DOI:/10.1123/kr.2019-0009 Citations: 7
[X] Concept/Design [X] Data Analysis [X] Draft/Revise Manuscript [X] Data Collection
24. **Clevenger, KA**, Pfeiffer, KA, Mackintosh, KA, McNarry, MA, Montoye, AHK. (2019) Effect of Sampling Rate on Hip- and Wrist-Worn ActiGraph Raw Acceleration and Processed Counts. *Physiological Measurement*. 40(9), 095008. DOI:10.1088/1361-6579/ab444b Citations: 20
[] Concept/Design [X] Data Analysis [X] Draft/Revise Manuscript [] Data Collection
25. Montoye, AH, Pfeiffer, KA, **Clevenger, KA**, Mackintosh, KA, McNarry, MA. (2019) Calibration, Cross-Validation, and Comparison of Energy Expenditure Prediction Models Using Count-Based and Raw Accelerometer Data in Children. *Journal for the Measurement of Physical Behavior*. 2(4), 237-246. DOI:10.1123/jmpb.2018-0011 Citations: 1
[] Concept/Design [] Data Analysis [X] Draft/Revise Manuscript [] Data Collection
26. Myers, ND, Lee, S, Bateman, A, Prilleltensky, I, **Clevenger, KA**, Pfeiffer, KA, Dietz, S, Prilleltensky, O, McMahon, A, Brincks, AM. (2019) Accelerometer-Based Assessment of Physical Activity within the Fun for Wellness Online Behavioral: Protocol for a Feasibility Study. *Pilot and Feasibility Studies*. 5(1), 73. DOI:10.1186/s40814-019-0455-0 Citations: 7
[] Concept/Design [] Data Analysis [X] Draft/Revise Manuscript [] Data Collection
27. Howe, CA, McElhiney, D, **Clevenger, KA**, Mihalic, C, Ragan BG. (2019) Measurement of Children's Real-Time Physical Activity Enjoyment Using a New Visual Analog Scale. *Journal of Physical Activity and Health*. 16(6), 406-415. DOI:10.1123/jpah.2018-0074 Citations: 2
[] Concept/Design [] Data Analysis [X] Draft/Revise Manuscript [X] Data Collection
28. **Clevenger, KA**, Molesky, MJ, Vusich, J, Montoye, AHK. (2019) Free-Living Comparison of Physical Activity and Sleep Data from Fitbit Activity Trackers Worn on the Dominant and Non-Dominant Wrists. *Measurement in Physical Education and Exercise Science*. 23(2), 194-204. DOI:10.1080/1091367X.2019.1577737 Citations: 6
[] Concept/Design [X] Data Analysis [X] Draft/Revise Manuscript [] Data Collection
29. **Clevenger, KA**, Sinha, G, Howe, CA. Comparison of Methods for Analyzing Global Positioning System Plus Accelerometry Data from Recess. (2018) *Measurement in Physical Education and Exercise Science*. 23(1), 58-68. DOI:10.1080/1091367X.2018.1512495 Citations: 10
[X] Concept/Design [X] Data Analysis [X] Draft/Revise Manuscript [X] Data Collection
30. Howe, CA, **Clevenger, KA**, Leslie, RE, Ragan, MA. (2018) Comparison of Accelerometer-Based Cut-Points for Children's Physical Activity: Counts vs. Steps. *Children*. 5(8), 105. DOI:10.3390/children5080105 Citations: 10
[] Concept/Design [] Data Analysis [X] Draft/Revise Manuscript [X] Data Collection
31. Robbins, LB, Ling, J, **Clevenger, KA**, Voskuil, VR, Wasilevich, E, Kerver, JM, Pfeiffer, KA, Kaciroti, N. (2018) A School- and Home-Based Intervention Using Facebook to Improve Adolescent Physical Activity and Healthy Eating: Feasibility, Acceptability and Preliminary Efficacy. *Journal of School Nursing*. 36(2), 121-134. DOI:10.1177/1059840518791290 Citations: 13
[] Concept/Design [X] Data Analysis [X] Draft/Revise Manuscript [] Data Collection
32. **Clevenger, KA**, Pfeiffer, K, Howe, CA. (2018) Does Wearing a Portable Metabolic Unit Affect Youth's Physical Activity or Enjoyment During Physically Active Games or Video Games? *Pediatric Exercise Science*. 30(4): 524-528. DOI:10.1123/pes.2018-0011 Citations: 2
[X] Concept/Design [X] Data Analysis [X] Draft/Revise Manuscript [X] Data Collection

33. Howe, CA, Plow, BM, Sinha, G, **Clevenger, KA**. Using Video Direct Observation to Assess Children's Free-Play Physical Activity During Recess. (2018) *Pediatric Exercise Science*. 30(4): 516-523. DOI:10.1123/pes.2017-0203 Citations: 10
[] Concept/Design [] Data Analysis [X] Draft/Revise Manuscript [X] Data Collection
34. **Clevenger, KA**, Moore, RW, Sutton, D, Montoye, AHK, Trost, SG, Pfeiffer, KA. (2018) Accelerometer Responsiveness to Change between Structured and Unstructured Physical Activity in Children and Adolescents Measurement in Physical Education and Exercise Science. *Measurement in Physical Education and Exercise Science*. 22(3): 224-230. DOI:10.1080/1091367X.2017.1419956 Citations: 3
[] Concept/Design [X] Data Analysis [X] Draft/Revise Manuscript [] Data Collection
35. **Clevenger, KA**, Pfeiffer, K, Yee, K, Triplett, A, Selby, S, Florida, J. (2017) Mindfulness and Children's Physical Activity, Diet, Quality of Life, and Weight Status. *Mindfulness*. 9(1), 221-229. DOI:10.1007/s12671-017-0765-3 Citations: 13
[] Concept/Design [X] Data Analysis [X] Draft/Revise Manuscript [] Data Collection
36. **Clevenger, KA**, Howe, CA. (2016) Effect of Prior Game Experience on Energy Expenditure during XBOX Kinect in Children and Teens. *Games for Health*. 5(5): 304-310. DOI:10.1089/g4h.2016.0023 Citations: 4
[X] Concept/Design [X] Data Analysis [X] Draft/Revise Manuscript [X] Data Collection
37. **Clevenger, KA**, Aubrey, A, Moore, R, Peyer, K, Sutton, D, Trost, S, Pfeiffer, K. (2016) Energy Cost of Children's Structured and Unstructured Games. *Journal of Physical Activity and Health*. 3(6): S44-S47. DOI:10.1123/jpah.2016-0005 Citations: 10
[] Concept/Design [X] Data Analysis [X] Draft/Revise Manuscript [] Data Collection
38. **Clevenger, KA**, Howe, CA. (2015) Energy Cost and Enjoyment of Active Video Games in Children and Teens: XBOX 360 Kinect. *Games for Health*. 4(4): 318-324 DOI:10.1089/g4h.2014.0101 Citations: 29
[] Concept/Design [] Data Analysis [X] Draft/Revise Manuscript [X] Data Collection

Publications in Review

39. **Clevenger, KA**, Mackintosh, KA, McNarry, MA, Pfeiffer, KA, Nelson, MB, Bock, JM, Imboden, MT, Kaminsky, LA, Montoye, AHK. (2022) A Consensus Method for Estimating Physical Activity Levels in Adults Using Accelerometry. (In review by *Journal of Sports Science*)
[X] Concept/Design [X] Data Analysis [X] Draft/Revise Manuscript [] Data Collection
40. **Clevenger, KA**, Pfeiffer, KA, Pearson, AL. (2022) Using Linked Accelerometer and GPS Data for Characterizing Children's Schoolyard Physical Activity: Impact of Hot Spot Analytic Decisions. (In review by *Spatial and Spatiotemporal Epidemiology*)
[X] Concept/Design [X] Data Analysis [X] Draft/Revise Manuscript [X] Data Collection
41. **Clevenger, KA**, Berrigan, D, Patel, S, Saint-Maurice, P, Matthews, CE. Relationship between Neighborhood Walkability and the Prevalence, Type, Timing, and Temporal Characteristics of Walking. (In review by *Health and Place*)
[X] Concept/Design [X] Data Analysis [X] Draft/Revise Manuscript [] Data Collection
42. Pearson, AL, Pfeiffer, KA, Shortridge, A, **Clevenger, KA**. Schoolyard Level Inventory for Describing the Environment (SLIDE): Linking High-Resolution Spatiotemporal Data. (In review by *Landscape and Urban Planning*)
[X] Concept/Design [X] Data Analysis [X] Draft/Revise Manuscript [X] Data Collection
43. Pearson, AL, Brown, CD, Nicholls, N, Pfeiffer, KA, **Clevenger, KA**. Classroom Views of Nature, Particularly Trees, May be Protective Against Children's Behavior Problems. (In review by *Journal of Environmental Psychology*)
[] Concept/Design [] Data Analysis [X] Draft/Revise Manuscript [X] Data Collection

Non-Peer-Reviewed Publications

1. Jones, E, Young, A, **Clevenger, KA**, Salimifard, P, Wu, E, Lahaie Luna, M, Lahvis, M, Lang, J, Bliss, M, Azimi, P, Cedeno-Laurent, J, Wilson, C, Allen, J. Healthy Schools: Risk Reduction Strategies for Reopening Schools. Harvard T.H. Chan School of Public Health Healthy Building Program. June 2020. Available at <https://schools.forhealth.org/wp-content/uploads/sites/19/2020/06/Harvard-Healthy-Buildings-Program-Schools-For-Health-Reopening-Covid19-June2020.pdf> Citations: 32

PRESENTATIONS

Published Abstracts

* indicates presentation by mentee

1. **Clevenger, KA**, Pfeiffer, KA, Pearson, AL. (2022) Using Linked Accelerometer and GPS Data for Characterizing Children's Schoolyard Physical Activity: Impact of Hot Spot Analytic Decisions. *Pediatric Exercise Science*. Oral presentation at North American Society for Pediatric Exercise Medicine, Saskatchewan, Canada.
2. **Clevenger, KA**, Brønd, JC, Mackintosh, KA, Pfeiffer, KA, Montoye, AHK, McNarry, MA. (2022) Impact of Using a 60, 80, 90, or 100 Hz versus 30 Hz ActiGraph Sampling Rate on Free-Living Physical Activity Measurement in Children. *Journal for the Measurement of Physical Behaviour*. Oral presentation at International Conference on the Ambulatory Monitoring of Physical Activity and Movement, Keystone, CO.
3. **Clevenger, KA**, Pfeiffer, KA, Montoye, AHK. Continued Use of Established Approaches to Analyzing Accelerometer Data for the Measurement of Physical Activity: How and Why to Keep it Simple. *Journal for the Measurement of Physical Behaviour*. Symposium presentation at International Conference on the Ambulatory Monitoring of Physical Activity and Movement, Keystone, CO.
4. *Mckee, KL, Pfeiffer, KA, Pearson, AL, **Clevenger, KA**. (2022) Comparability of Free-Living Physical Activity Classified Using Counts, Open-Source Counts, Euclidean Norm Minus One, and Mean Amplitude Deviation in Adults. *Journal for the Measurement of Physical Behaviour*. Poster presentation at International Conference on the Ambulatory Monitoring of Physical Activity and Movement, virtual.
5. Berrigan, D, Ferrer, RA, Kaufman, A, **Clevenger, KA**, Matthews, CE, Klein, WMP. (2022) Risk Perception, Mitigation Attitudes and Self-Reported Adherence to COVID-19 Mitigation Strategies Among US Adults. *Annals of Behavioral Medicine*. 56(S1):S610-S610. Poster presentation at Society of Behavioural Medicine, Baltimore, MD.
6. **Clevenger, KA**, Kaplan, A, Van Camp, C, Montoye, AHK, Strath, S, Pfeiffer, K. (2021) A Systematic Review and Repository of Novel Methods for Estimating Physical Activity and Energy Expenditure From Accelerometer Data. *Journal for the Measurement of Physical Behaviour*. Online first. Oral presentation at International Conference on the Ambulatory Monitoring of Physical Activity and Movement, virtual.
7. Montoye, AHK, Westgate, B, **Clevenger, KA**, Pfeiffer, KA, Vondrasek, J, Fonley, M, Bock, J, Kaminsky, L. (2021) Individual vs. Group Calibration of Machine Learning Models for Physical Activity Assessment Using Body-Worn Accelerometers. *Journal for the Measurement of Physical Behaviour*. Online first. Oral presentation at International Conference on the Ambulatory Monitoring of Physical Activity and Movement, virtual.
8. Pfeiffer, KA, **Clevenger, KA**, Brønd, JC, Arvidsson, D, Mackintosh, K, McNarry, M, Montoye, AHK. (2021) Impact of ActiGraph Sampling Rate and Inter-Monitor Comparability on Measures of Physical Activity in Adults. *Journal for the Measurement of Physical Behaviour*. Online first. Oral presentation at International Conference on the Ambulatory Monitoring of Physical Activity and Movement, virtual.

9. **Clevenger, KA**, Erickson, KT, Grady, SC, Pfeiffer, KA. (2019) Comparison of Physical Activity by Activity Type versus by Schoolyard Location in Preschoolers. *Pediatric Exercise Science*. 32(S1):S1-S12. Oral presentation at Pediatric Work Physiology, Umeå, Sweden.
10. Pfeiffer, KA, **Clevenger, KA**, Montoye, AHK. Comparability of Raw and Count-Based Metrics from ActiGraph GT9X and wGT3X-BT Accelerometers during Free-Living in Youth. *Pediatric Exercise Science*. 32(S1):S1-S12. Poster presentation at Pediatric Work Physiology, Umeå, Sweden.
11. **Clevenger, KA**, Bradley, SL, Pfeiffer, KA. (2018) Comparison of Physical Activity Environment in Michigan Home-Based and Licensed Child Care Programs. *Pediatric Exercise Science*. 30:S1-S34. Poster presentation at North American Society for Pediatric Exercise Medicine, Oakland, CA.
12. **Clevenger, KA**, Pfeiffer, KA, Howe, CA. (2018) Comparison of Methods for Analyzing Global Positioning System Plus Accelerometry Data from Recess. *Medicine and Science in Sports and Exercise*. 50(5S):290. Poster presentation at ACSM conference, Minneapolis, MN.
13. Wierenga, M, **Clevenger, KA**, Moore, RW, Pfeiffer, KA. (2018) Three-Year Tracking of Moderate-to-Vigorous Physical Activity during Structured and Unstructured Play in Youth. *Medicine and Science in Sports and Exercise*. 50(5S):528. Poster presentation at ACSM conference, Minneapolis, MN.
14. **Clevenger, KA**, Pfeiffer, K. Characterizing Preschoolers' Indoor Physical Activity: Validation of Bluetooth Proximity Tagging. *Pediatric Exercise Science*. 29(4S):39. Oral presentation at Pediatric Work Physiology, Paralia, Greece.
15. **Clevenger, KA**, Pfeiffer, K, Howe, CA. (2017) Effect of Wearing a Portable Metabolic Unit on Accelerometer-Determined Physical Activity Level of Children. *Medicine and Science in Sports and Exercise*. 49(5S):476. Poster presentation at ACSM, Denver, CO.
16. **Clevenger, KA**, Moore R, Sutton D, Montoye A, Trost S, Pfeiffer, K. (2016) Accelerometer Sensitivity to Change between Unstructured and Structured Physical Activity. *Pediatric Exercise Science*. 28(S):25. Oral presentation at North American Society for Pediatric Exercise Medicine, Knoxville, TN.
17. **Clevenger, KA**, Pfeiffer, K, Yee, K, Triplett, A, Pivarnik, J, Selby, S, Florida, J. Relationship of Children's Mindfulness with Health-Related Quality of Life, Activity, and Diet. (2016) *Medicine and Science in Sports and Exercise*. 48(5S):699. Poster presentation at ACSM, Boston, MA.
18. Howe, CA, McElhiney, D, **Clevenger, KA**, Mihalic, C, Ragan, M. 4-Item Facial Affective Scale for Assessing Children's Real-time Enjoyment of Physical Activity. *Medicine and Science in Sports and Exercise*. 48(5S):313. Oral presentation at ACSM, Boston, MA.
19. **Clevenger, KA**, Greenawalt, L, Howe, CA. (2015) Feasibility of Teaching HENRY (Healthy Exercise and Nutrition Recommendations for Youth) Intervention in Rural Appalachia. *Medicine and Science in Sports and Exercise*. 47(5S):519. Poster presentation, ACSM, San Diego, CA.
20. Howe, CA, **Clevenger, KA**, Ragan, B, Jackson, M, Sinha, G. (2015) Children's Free-Play Physical Activity Intensity by School Playground Location. *Medicine and Science in Sports and Exercise*. 47(5S):916. Poster presentation, ACSM, San Diego, CA.

Peer-Reviewed Presentations without Published Abstract

* indicates presentation by mentee

1. Brown, CD, **Clevenger, KA**, Pfeiffer, KA, Pearson, AL. (2022) *Associations Between Objective Measures of School and Home Nature Exposure on Children's Behavior Problems*. International Medical Geography Symposium, Edinburgh, Scotland, June 2022.
2. Brown, C, Pearson, AL, **Clevenger, KA**, Pfeiffer, KA. *Views from the Classroom Window: Associations of Nature Views with Children's Problem Behaviors*. American Association of Geographers, Online, April 2022.

3. Liu, W, **Clevenger, KA**, Pearson, AL, Pfeiffer, KA. *Extent and Impact of Accelerometer Time Drift on Linkage with GPS Data for Physical Activity Research*. Poster presentation at American Association of Geographers, Online, April 2021.
4. **Clevenger, KA**, Pearson, AL, Pfeiffer, KA, Gardiner, J. *Outdoor Physical Activity, the Neighborhood Environment, and Cardiometabolic Health in Low- Income, Predominantly African American Detroit Residents*. Poster presentation at American Association of Geographers, Washington DC, April 2019.
5. *McKee, KL, **Clevenger, KA**, Montoye, AHK, Pfeiffer, KA. *Free-Living Comparison of Two Generations of Hip-Worn Triaxial Accelerometers in College-Aged Adults*. Oral presentation at MWACSM, Oak Brook, IL, November 2019.
6. **Clevenger, KA**, Pfeiffer, KA, Mackintosh, KA, McNarry, MA, Montoye, AHK. *Effect of Sampling Rate on Hip- and Wrist-Worn ActiGraph Raw Acceleration and Processed Counts*. Oral presentation at MWACSM, Grand Rapids, MI, November 2018.
7. Wierenga, MJ, **Clevenger, KA**, Pfeiffer, KA. *Evidence for Compensation or Synergy of Children's Physical Activity during Outdoor and Indoor Preschool Time*. Poster presentation at MWACSM, Grand Rapids, MI, November 2018.
8. *Bradley, S, **Clevenger, KA**, Pfeiffer, KA. *Barriers to Promoting Activity in Child Cares Not Meeting Physical Activity Environment Guidelines*. Poster presentation at MWACSM, Grand Rapids, MI, November 2018.
9. Robbins, LB, Ling, J, **Clevenger, KA**, Kintigh, S, & Voskuil, V. *Adolescent Physical Activity and Nutrition Intervention*. Oral presentation. Council for the Advancement of Nursing Science: State of the Science Congress on Precision Health, Washington, DC, September, 2018.
10. Williams, GC, Palmer, K, Kintigh, S, **Clevenger, KA**, Ling, J, Voskuil, V, Robbins, L. *Preliminary Efficacy of a Pilot Intervention on Parents' Physical Activity, Body Mass Index, and Percent Body Fat*. Poster presentation at Midwest Nursing Research Society, Cleveland, OH, April 2018.
11. Ellsworth, A, Ricci, J, **Clevenger, KA**, Bullock, BG, Sullivan, S, Pfeiffer, KA. *Relationships of Mindfulness Measures with Physical Activity*. Poster presentation at MWACSM, Grand Rapids, MI, November 2017.
12. *Skowronski, CR, **Clevenger, KA**, Pfeiffer, KA. *Characterizing Physical Activity in the Preschool Classroom using Proximity Tagging*. Poster presentation at MWACSM, Grand Rapids, MI, November 2017.
13. Wierenga, M, **Clevenger, KA**, Moore, RW, Pfeiffer, KA. *Three-Year Tracking of Moderate-to-Vigorous Physical Activity during Structured and Unstructured Play in Youth*. Poster presentation at MWACSM, Grand Rapids, MI, November 2017.
14. **Clevenger, KA**, Pfeiffer, KA, Howe, CA. *Comparison of Methods for Analyzing Global Positioning System Plus Accelerometry Data from Recess*. Oral presentation at MWACSM, Grand Rapids, MI, November 2017.
15. **Clevenger, KA**, Pfeiffer, K, Howe, CA. *Effect of Wearing a Portable Metabolic Unit on Accelerometer-Determined Physical Activity Level of Children*. Oral presentation, MWACSM, Fort Wayne, IN, November 2016
16. Taylor, Howe, CA, **Clevenger, KA**. *Effects of Teaching HENRY (Healthy Exercise and Nutrition Recommendations for Youth) on the Physical Activity Knowledge and Behavior of 1st Grade Children of Rural Appalachia*. Poster presentation, MWACSM, Fort Wayne IN, November 2016
17. Ricci, J, Pfeiffer, K, **Clevenger, KA**, Pivarnik, J, Seller, S. *Sports Participation's Relationship with Health-Related Variables in Low-Income Youth*. Poster presentation, MWACSM, Fort Wayne IN, November 2016

18. Braun, Howe, CA, **Clevenger, KA**. *Teaching HENRY: Healthy Exercise and Nutrition Recommendations for Youth: Relationship Between Nutrition Knowledge and Lifestyle Behaviors*. Poster presentation, MWACSM, Fort Wayne IN, November 2016
19. *Diltz, A, **Clevenger, KA**, Florida, J, Barkman, J Sellers, S, Pfeiffer, K. *Effects of a Mindfulness Intervention on Mindfulness and Health-Related Variables in 4th and 5th Graders*. Poster presentation, MWACSM, Fort Wayne IN, November 2016
20. **Clevenger, KA**, Pfeiffer, K, Yee, K, Triplett, A, Pivarnik, J, Selby, S, Florida, J. *Relationship of Children's Mindfulness with Health Related Quality of Life, Activity, and Diet*. Oral presentation, MWACSM, Fort Wayne, IN, November 2015
21. **Clevenger, KA**, Sinha, G, Ragan, B, Jackson, M, Howe, CA. *Accelerometry + GPS: Assessment of Children's Free-Play Intensity and Location During Recess*. Poster Presentation, International Conference on the Ambulatory Monitoring of Physical Activity and Movement, Limerick, Ireland, June 2015
22. Howe, CA, **Clevenger, KA**, Ragan, B, Jackson, M, Sinha, G. *Children's Free-Play Physical Activity Intensity by School Playground Location*. Poster Presentation, International Conference on the Ambulatory Monitoring of Physical Activity and Movement, Limerick, Ireland, June 2015
23. **Clevenger, KA**, Sinha, G, Ragan, B, Jackson, M, Howe, CA. *Accelerometry + GPS: Assessment of Children's Free-Play Intensity and Location During Recess*. Poster Presentation, MWACSM, Merrillville, IN, November 2014
24. *Jarvis, J, **Clevenger, KA**, Howe, CA. *Energy Cost and Enjoyment of Active Video Games by Video Game Experience in Children and Teens*. Poster Presentation, MWACSM, Merrillville, IN, November 2014
25. Howe, CA, **Clevenger, KA**. XBOX 360 Kinect: Energy Cost and Enjoyment of Active Video Games in Children and Teens. Oral Presentation by CA Howe at NASPEM Biennial Conference, Minneapolis, MN, August 2014

Invited Presentations

1. Clevenger, KA. A Consensus Method for Estimating Physical Activity Levels in Adults Using Accelerometry. Physical Activity Methods Journal Club. Colorado Nutrition Obesity Research Center. October 2022.
2. Ahmadi, M, Bassett, D, Buman, M, **Clevenger, KA**, Saint-Maurice, P, Sirard, J, Dall, P. JMPB Panel Discussion: Getting Your Research Published. International Conference for the Ambulatory Monitoring of Physical Activity and Movement. June 2022.
3. **Clevenger, KA**. Capturing Space-Time Context of Preschooler's Outdoor Time. North American Society for Pediatric Exercise Medicine Virtual Research Forum. April 2021.
4. **Clevenger, KA**. Physical Activity and Physical Location on the Schoolyard and in the Classroom. Ohio University Graduate Research Seminar. March 2021.
5. **Clevenger, KA**. Five in Five Grant Update: Characterizing Preschooler's School Day Physical Activity. North American Society for Pediatric Exercise Medicine. August 2018.
6. **Clevenger, KA**, Greenawalt, L. Teaching HENRY: Healthy Exercise and Nutrition Recommendations for Youth. The Diabetes Institute Student Research Seminar. February 2014.
7. Howe, CA, Ragan, B, Sinha, G, **Clevenger, KA**, Benigno, J. Measurement of Children's Physical Activity and Social Interactions. Panel presentation for the Interprofessional Research Colloquium. March 2013.

FUNDING AND AWARDS

Awards

1. Outstanding Doctoral Student. Michigan State University Department of Kinesiology. 2019. **Awarded.**
2. Outstanding Poster Presentation from North American Society for Pediatric Exercise Medicine. 2018. **Awarded.**
3. Outstanding Doctoral Student Oral Presentation from Midwest Chapter of the American College of Sports Medicine. 2017. **Awarded**
4. Outstanding Graduate Student Oral Presentation from Pediatric Work Physiology. 2017. **Awarded**
5. Council of Graduate Students Conference Travel Award. 2017. (**Funded:** \$300)
6. Early Childhood Environment Rating Scale Training. Council of Graduate Students Professional Development Award. 2016. (**Funded:** \$500)
7. Gatorade Sports Science Institute Young Scholar Travel Award. 2016. (**Funded:** \$1000)
8. Dean's Scholar Award from the College of Education at Michigan State University. A 4-year combined fellowship and teaching assistantship. 2015. (**Funded:** \$22000/year)
9. Outstanding Graduate Student Researcher in the College of Health Sciences and Professions. 2015. **Awarded**
10. A Hands-on and Application-Based Intervention to Improve At-Risk Family Health Behavior in Rural Appalachia. Interdisciplinary Research Case Competition. 2015. **Awarded**
11. GPS and Accelerometry: Assessment of Recess Free-Play Intensity by Playground Location. Outstanding Presentation at the Research/Creative Activity Showcase. 2015. **Awarded**
12. GPS and Accelerometry: Assessment of Recess Free-Play Intensity by Playground Location. Outstanding Presentation from the Appalachian Rural Health Institute. 2015. **Awarded**
13. XBOX 360 Kinect: Energy Cost and Enjoyment of Active Video Games in Children and Teens. Outstanding Presentation from the Appalachian Rural Health Institute. 2014. **Awarded**
14. XBOX 360 Kinect: Energy Cost and Enjoyment of Active Video Games in Children and Teens. Outstanding Presentation from the College of Health Sciences and Professions. 2014. **Awarded**
15. Characterizing Children's Free-Play Physical Activity. Outstanding Presentation from the Appalachian Rural Health Institute. 2013. **Awarded**

Grants

(\$16,245 funded as PI, \$3,278 to mentees)

*indicates funding to mentee

1. Characterizing the State of the Physical Activity Environment in Michigan Child Care Programs. Blue Cross Blue Shield of Michigan Foundation. 2017. (**Funded:** \$3000)
2. Characterizing Preschoolers' Physical Activity: Development of a Novel Methodology. ACSM Doctoral Student Foundation Grant. 2017. (**Funded:** \$4750)
3. Characterizing Preschoolers' Physical Activity: Development of a Novel Methodology. SHAPE Graduate Student Research Grant. 2017. (**Funded:** \$2349)
4. Characterizing Preschoolers' Physical Activity: Development of a Novel Methodology. Practicum Funding from the Department of Kinesiology at Michigan State University. 2017. (**Funded:** \$3025)
5. Characterizing Preschoolers' Physical Activity: Development of a Novel Methodology. MWACSM Student Research Grant. 2016. (**Funded:** \$500)

6. Characterizing Preschoolers' Physical Activity: Development of a Novel Methodology. Marco Cabrera Student Research Award from North American Society for Pediatric Exercise Medicine. 2016. (**Funded:** \$1000)
7. GPS and Accelerometry: Assessment of Recess Free-Play Intensity by Playground Location. Student Enhancement Award. 2015. (**Not Funded:** \$6000)
8. Teaching HENRY: Healthy Exercise and Nutrition Recommendations for Youth. Graduate Student Senate Original Works Grant. 2014. (**Funded:** \$750)
9. Teaching HENRY: Healthy Exercise and Nutrition Recommendations for Youth. College of Health Sciences and Professions Student Research Grant. 2014. (**Funded:** \$500)
10. *Teaching HENRY: Healthy Exercise and Nutrition Recommendations for Youth. Provost's Undergraduate Research Grant. 2014. (**Funded:** \$1278)
11. *Teaching HENRY: Healthy Exercise and Nutrition Recommendations for Youth. College of Health Sciences and Professions Student Research Grant. 2013. (**Funded:** \$500)
12. *Teaching HENRY: Healthy Exercise and Nutrition Recommendations for Youth. Provost's Undergraduate Research Grant. 2013. (**Funded:** \$1500)
13. Characterizing Children's Free-Play Physical Activity. Provost's Undergraduate Research Fund. 2012. (**Funded:** \$371)

Fellowships

1. Kinesiology Endowed Fellowship. Michigan State University. 2018. (**Funded:** \$2500)
2. Henry and Betty Montoye Endowed Scholarship. Michigan State University. 2017. (**Funded**)
3. KIN Research Fellowship. Michigan State University. 2017. (**Funded:** \$750)
4. Fellowship to Enhance Global Understanding "Immigration and Education in the Netherlands" through Michigan State University. 2017. (**Funded**)
5. Characterizing Preschoolers' School Day Physical Activity. Summer Research Renewable Fellowship from Michigan State University. 2017. (**Funded:** \$12000)
6. Characterizing Preschoolers' Physical Activity: Development of a Novel Methodology. Summer Research Development Fellowship from Michigan State University. 2016. (**Funded:** \$5000)
7. Kinesiology Endowed Fellowship. Michigan State University. 2016. (**Funded:** \$2500)

TEACHING AND SERVICE

Affiliations and Memberships

- **Member**, Society for Health and Physical Educators 2016-Present
- **Member**, North American Society for Pediatric Exercise Medicine 2015-Present
- **Member**, International Society for the Measurement of Physical Behavior 2014-Present
- **Member**, American College of Sports Medicine 2013-Present
- **Member**, Midwest Chapter of ACSM 2012-Present

Professional Service

- Board of Directors for *North American Society for Pediatric Exercise Medicine* 2022-Present
- Associate Editor for *Journal for the Measurement of Physical Behavior* 2021-Present

- Section Editor for *Measurement in Physical Education and Exercise Science* 2019-Present
- Reviewer for (selected) *Journal of Sport Science, Obesity, Plos One, Measurement in Physical Education and Exercise Science, Journal of Strength and Conditioning Research, Games for Health, Journal of Physical Activity and Health, Journal of School Health*

University Service

- Search Committee for an Assistant Professor in the Department of Kinesiology and Health Science, Utah State University, 2022
- Symposium Planning Committee, Diabetes Institute, Ohio University, 2013-2015

Student Supervision (masters and doctoral level only)

- Katherine McKee, Doctoral student, Pathokinesiology, Utah State University, Committee Chair 2022-Present
- Cassie Webster, Master's student, Fitness Promotion, Utah State University, Committee Chair 2022-Present
- Justin Worley, Doctoral student, Human Development and Family Studies, Utah State University, Committee Member 2022-Present
- Katherine McKee, Master's student, Kinesiology, Michigan State University, Committee Member 2020-2022

Teaching Experience

Role	Course	Semesters	Students per Semester
Co-Instructor	KIN 4400- Measurement and Evaluation in Kinesiology	1	37
Instructor	KIN 411- <i>Lab Experience in Exercise Physiology</i>	3	17
Instructor	KIN 310- <i>Physiological Basis of Physical Activity</i>	4	56
Instructor	KIN 121- <i>The Healthy Lifestyle</i>	2	50
Instructor	KIN 217- <i>Applied Human Anatomy Lab</i>	1	90
Teaching Assistant	KIN 216- <i>Applied Human Anatomy</i>	2	193
Teaching Assistant	*^NUTR 4320- <i>Diabetes: Bench to Bedside</i>	6	35
Guest Lecturer	NUTR 4960- <i>Trends in Diabetes</i>	1	36
Teaching Assistant	EXPH 228- <i>Cardiopulmonary Resuscitation</i>	2	37

*Online course, ^Course development