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## EDUCATION

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Doctorate	<b>Doctor of Philosophy in Exercise Science</b> (August 2007 –May 2012). University of South Carolina, Columbia, SC
Masters	<b>Master of Science in Health Science</b> (August 2005 – July 2007). Ball State University, Muncie, IN <b>Master of Arts in Applied Gerontology</b> (August 2005 – July 2007). Ball State University, Muncie, IN <b>Master of Science in Exercise Nutrition</b> (March 2003 – February 2005). Kyungpook National University, Daegu, South Korea
Undergraduate	<b>Bachelors of Physical Education</b> (Graduated March 2003). Kyungpook National University, Daegu, South Korea

## AWARDS AND HONORS

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Scholarship	<ul style="list-style-type: none"><li>• <b>Master’s Research Scholarship</b>, Kyungpook National University, March 2003 –December 2005</li><li>• <b>Undergraduate Students Scholarship</b>, Kyungpook National University, March 1996 –December 2002</li></ul>
Awards	<ul style="list-style-type: none"><li>• <b>Children and Families SIG Abstract Award (Finalist)</b>, International Society of Behavioral Nutrition and Physical Activity, June 2018</li><li>• <b>High Scoring ePoster Oral Presentation</b>, International Society of Physical Activity and Health Congress, October 2018</li><li>• <b>Physical Activity and Public Health Course Fellow</b>, CDC/University of South Carolina, September 2016</li><li>• <b>Exceptional Contributions as an Emerging Researcher</b>, College of Human Development and Education, North Dakota State University, May 2015</li><li>• <b>Karen Hornbostel Memorial Award</b>, American College of Sports Medicine, Cancer Interest Group, June 2010</li></ul>

## RESEARCH INTERESTS

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- Physical activity, fitness, and sedentary behavior in relation to metabolic risk factors, obesity and other health outcomes
- Physical and social environments in relation to physical activity and sedentary behavior
- Interventions to promote physical activity and reduce sedentary behavior
- Measurements of physical activity and sedentary behavior

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## RESEARCH AND TEACHING EXPERIENCE

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### Associate Professor

Health and Kinesiology  
University of Utah, August 2022 - present

### Assistant Professor

Health and Kinesiology  
University of Utah, August 2017 - 2022

Health, Nutrition, and Exercise Sciences  
Department of Public Health  
North Dakota State University, August 2013 – July 2017

### Clinical Assistant Professor

School of Physical Education, Sport, and Exercise Science,  
Human Performance Laboratory, Clinical Exercise Program,  
Ball State University, June 2012 – July 2013

### Research Assistant

**Arnold School of Public Health, Exercise Science,  
University of South Carolina, August 2007 – May 2012**

Children's Activity and Movement in Preschool Study  
(CHAMPS), NIH R01 grant (Role: RA, PI: Dr. Russell Pate)

- Cross-sectional study involving preschool children to determine physical and social environmental factors associated with physical activity levels

Study of Health and Activity in Preschool Environments Study  
(SHAPES), NIH R01 grant (Role: RA, PI: Dr. Russell Pate)

- Preschool-based intervention study to increase physical activity and decrease sedentary behavior of preschool children (4-yrs-old)

Transitions and Activity Changes in Kids Study (TRACK), NIH  
R01 grant (Role: RA, PI: Dr. Russell Pate)

- Longitudinal observational study to examine the factors influencing changes in physical activity in children as they transition from elementary to middle school

Pedometer Validation Study (Role: RA, PI: Dr. Michael Beets)

- Field-based study (YMCA) to determine if a pedometer, using a 120 step.min<sup>-1</sup> threshold, provides a valid measure of moderate-to-vigorous physical activity

**Exercise Physiology Laboratory, Kyoungpook National University, March 2003 – December 2005**

Influence of BCAA Administration on Plasma Content and CNS Fatigue during Exercise in Rats (Role: PI)

- Animal study to investigate the effect BCAA administration on plasma content and CNS fatigue during exercise

Teaching Experience

**Health and Kinesiology, University of Utah, August 2017 – present**

- KINES 3670 – Physical Activity Epidemiology
- KINES 7102 – Introduction to Research Methods
- HKR 6800 – Trends & Issues in HK
- KINES 7920 – Independent Study/Research PhD

**Health, Nutrition, and Exercise Science, Department of Public Health, North Dakota State University, August 2013 – May 2017**

- HNES 727 – Physical Activity Epidemiology (**MPH core course**)
- HNES 754 – Assessment in Nutrition and Exercise Science (**MPH elective course**)
- HNES 743 – Obesity Across Lifespan
- HNES 375 – Research Methods and Design in Exercise Science
- HNES 370 – Exercise and Disease

**Clinical Exercise Physiology, Ball State University, June 2012 – July 2013**

- EXSC 301 – Fundamentals of Exercise Prescription
- EXSC 402 – Advanced Fitness Assessment
- EXSC 622 – Foundations of Adult Physical Fitness
- EXSC 639 – Seminar in Cardiac and Pulmonary Rehabilitation
- EXSC 623 – Principles of Exercise Testing and Interpretation
- EXSC 640 – Exercise in Prevention and Rehabilitation of Chronic Disease
- EXSC 611 – Research Design and Methods in Exercise Science
- EXSC 633 – Seminar in Exercise Science
- EXSC 698 – Internship in Exercise Program

**Arnold School of Public Health, Exercise Science,  
University of South Carolina, August 2007 – December 2007**

- EXSC 191-Physical Activity & Health – Assistant lecturer

**School of Education, Physical Education, Kyungpook  
National University, March 2004 – December 2005**

- PE 301 - Exercise, Nutrition, and Health

**School of Education, Physical Education, Kyungpook  
National University, March 2003 –December 2005**

- Ski and Tennis - Instructor

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**RESEARCH GRANT SUPPORTS**

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In Progress

NIH R21

Title: Calibration of Parent-report Physical Activity  
Questionnaire for Preschoolers

NIH R01

Title: Characteristics of Physical Activity in Transgender Youth  
Funding source: NIH

Under Review

Research Grants Council (RGC) General Research Fund (GRF)  
2023/2024

Title: Replacement of sedentary time by physical activity,  
genetic susceptibility, and cardiometabolic risk profiles in  
children and adolescents of European and East Asian ancestries:  
Integrated use of two ethnic-specific birth cohorts.

Funding source: Research Grants Council, Hong Kong Special  
Administrative Region (HKSAR)

Amount: HK\$672,205.00

Funding period: July 1, 2023 – June 30, 2025

Role: Co-I (PI: Youngwon Kim, Co-Is: Katrien Wijndaele, Kate  
Northstone, Shiu Lun Ryan Au Yeung, Yijan Yang, Wonwoo  
Byun and Mr. Stephen Sharp)

Funded

NIH R01

Title: Using Momentary Measures to Understand Physical  
Activity Adoption and Maintenance among Pacific Islanders in  
the United States

Funding source: NIH

Amount: \$3,865,926

Funding period: 2023 – 2028

Role: Co-I (PI: Neng Wan, Co-Is: David Wetter, Ming Wen, Emre Ertin, Jeff Philips, Nia Aitaoto, Ben Haaland, and Fahina Tavake-Pasi)

University of Utah College of Health Research Pilot Grant  
Title: Technology-enhanced Eating and Activity study for Children's Health (TEACH): A Pilot Study  
Funding source: College of Health, University of Utah  
Amount: \$22,500  
Funding period: 2020-2022  
Role: Co-I (PI: Yang Bai)

American Cancer Society - Huntsman Cancer Institute Research Grant  
Title: Piloting a Mobile-health System for Understanding Physical Activity Behaviors of a High Cancer-risk Population Group  
Funding source: American Cancer Society via Huntsman Cancer Institute  
Amount: \$30,000  
Funding period: 2019 - 2020  
Role: Co-PI (Co-PI: Neng Wan)

University of Utah College of Health Research Pilot Grant  
Title: Validity of Wearable Activity Monitors in Children  
Funding source: College of Health, University of Utah  
Amount: \$10,000  
Funding period: 2018  
Role: PI (Co-I: Youngwon Kim)

North Dakota Beef Commission Research Grant  
Title: The influence of animal-based protein and beef consumption on ability to perform functional activities, muscle quality, and bone mineral density among adolescent to older females  
Funding source: National Cattlemen's Beef Association  
Amount: \$208,421  
Funding period: 2017 – 2020  
Role: Co-PI (Co-PI: Sherri Stastny, Kyle Hackney)

Minnesota Beef Council Research Grant  
Title: Beef Protein Intake, Physical Activity, and Muscle Quality in Middle Aged-Men  
Funding source: Minnesota Beef Council  
Amount: \$38,827  
Funding period: 2017 – 2019

Role: Co-PI (Co-PI: Sherri Stastny, Kyle Hackney)

National Cattlemen's Beef Association Research Grant  
Title: Beef Protein Intake, Physical Activity, and Muscle  
Quality in Middle Age-Women

Funding source: National Cattlemen's Beef Association  
Amount: \$38,786

Funding period: 2017 – 2019

Role: Co-PI (Co-PI: Sherri Stastny, Kyle Hackney)

Dakota Medical Foundation Breakthrough Idea Challenge  
Title: Impact of SchoolsAlive! Program on Physical Activity  
Levels and Perspectives of Elementary School Children

Funding source: Dakota Medical Foundation

Amount: \$70,520

Funding period: 2016 – 2017

Role: Co-I (PI: Jenny Linker)

Sanford Health – NDSU Collaborative Research Grant Program

Title: Dietary Protein Intake and Muscular Health with Aging:  
Assessing Effect Modification by Increased Physical Activity

Funding source: Sanford Health

Amount: \$76,270

Funding period: 2016 – 2017

Role: Co-I (PI: Kyle Hackney)

NDSU- College of Human Development and Education  
Research Support

Title: Validation of Wearable Device in Young Children

Funding source: College of Human Development and  
Education, North Dakota State University

Amount: \$3,000

Funding period: 2015 – 2016

Role: PI

NDSU College of Human Development and Education Grant

Title: Involving Undergraduate Students in Research:  
Intervention to Promote Physical Activity in Childcare Centers

Funding source: College of Human Development and  
Education, North Dakota State University

Amount: \$1,000

Funding period: 2015 – 2016

Role: PI

Sanford Health – NDSU Collaborative Research Grant Program

Title: Protein Intake and Muscular Health with Aging

Funding source: Sanford Health  
Amount: \$81,270  
Funding period: 2015 – 2016  
Role: Co-I (PI: Kyle Hackney)

NDSU College of Human Development and Education Grant  
Title: Involving Undergraduate Students in Research: Research of Physical Activity in Elementary School Children  
Funding source: College of Human Development and Education, North Dakota State University  
Amount: \$1,000  
Funding period: 2014 – 2015  
Role: PI

Funding source: American Montessori Society Research Grant  
Title: Objectively Measured Sedentary Behavior: A Comparison Between Traditional and Montessori Preschools  
Amount: \$2,500  
Funding period: 2012  
Role: PI

Not Funded

Psychosocial Research Grants  
Title: Understanding the Psychosocial and Fitness Indicators of Adaptive Spinning  
Funding source: Craig H. Neilsen Foundation  
Amount: \$335,059  
Funding period: 2022 – 2024  
Role: Co-I (PI: Melissa Zahl)

NIH R21  
Title: Wearable Device-based Physical Activity Intervention in Preschool Children  
Funding period: 2022 – 2024  
Role: PI (Co-I: Tim Brusseau, Ryan Burns, Russell Pate)

NIH R21  
Title: Technology-based Physical Activity Intervention for Improving Mental Health Dimensions in Older Adults  
Funding period: 2022 – 2024  
Role: PI (Co-I: Joseph Kim, Kristina Purganan)

NIH R21  
Physical Activity Intervention for Improving Mental Health in Transgender Youth  
Funding source: NIH  
Amount: \$274,997

Funding period: 2021 - 2023  
Role: PI (Co-I: Nicole Mihalopoulos, Joseph Kim, Scott Langenecker, Xiaoming Sheng)

U of U CTSI Translational and Clinical Studies Pilot Program  
Physical Activity Intervention for Hormone Therapy Receiving Transgender Youth (submitted LOI)  
Funding source: NIH/NCATS  
Amount: \$30,000  
Funding period: 2022 – 2023  
Role: PI (Co-I: Nicole Mihalopoulos)

University of Utah Center on Aging Pilot Grant Program  
Title: Physical Activity Intervention for Preventing Late-life Depression and Anxiety in Older Adults  
Funding source: Center on Aging, University of Utah  
Amount: \$24,678  
Funding period: 2021-2022  
Role: PI (Co-I: Joseph Kim, Kristina Purganan)

Health and Medical Research Fund (HMRF) 2019 Investigator-initiated Project  
Title: Examination of wearable devices as activity-monitoring tools in Hong Kong adolescents  
Funding source: Food and Health Bureau, Hong Kong Special  
Amount: HK\$918,328 (US\$118,488)  
Funding period: July 1st, 2021 – June 30th, 2024  
Role: Co-I (PI: Youngwon Kim)

University of Utah College of Health Research Pilot Grant  
Title: Feasibility of Using Energy Harvesting Nanofiber Patches in Self-charging Wearable Accelerometers for Measuring Physical Activity  
Funding source: College of Health, University of Utah  
Amount: \$26,724  
Funding period: 2021 – 2022  
Role: PI (Co-I: Jiyoung Chang)

NIH R01  
Title: Testing the effect of Comprehensive School Physical Activity Programming and Active Gaming in rural Utah schools  
Funding source: NIH  
Amount: \$1,271,999  
Funding period: 2020 - 2025  
Role: Co-I (PI: Ryan Burns)



NIH R21

Title: Technology-Based, Real-time Monitoring-Mediated Physical Activity Intervention in Child Care Centers

Funding source: NIH

Amount: \$274,997

Funding period: 2020 - 2022

Role: PI (Co-I: Tim Brusseau, Ryan Burns, Erica Lau, Tom Greene, Russell Pate)

NIH R21

Title: Development of SOGAME: System for Observing Gaming Active Movement and Exercise

Funding source: NIH

Amount: \$263,889

Funding period: 2020 - 2022

Role: Co-I (PI: Ryan Burns)

NIH R21

Title: Developing a Multicomponent Physical Activity Program with Family Engagement in Low-Income Schools

Funding source: NIH

Amount: \$275,000

Funding period: 2020 - 2022

Role: Co-I (PI: Ryan Burns)

ACSM Paffenbarger-Blair Fund for Epidemiological Research on Physical Activity (\$10,000)

Title: Does an Aerobic Exercise Intervention Plus Step Count Elicit Greater Weight Loss than Aerobic Exercise Alone?

Funding Source: American College of Sports Medicine

Amount: \$10,000

Funding Period: 2019 – 2020

Role: Co-I (PI: Tanya Halliday)

University of Utah College of Health Research Pilot Grant

Title: Step Count to Resist Exercise-induced Compensation and Improve Weight Loss

Funding Source: College of Health, University of Utah

Amount: \$17,500

Funding Period: 2019 – 2020

Role: Co-I (PI: Tanya Halliday)

NIH/Utah CCTS KL2 Mentored Career Development Scholar

Title: Promoting Physical Activity Using Technology-Based Teacher- Monitoring Program in Children Attending Childcare Centers

Funding Source: NIH/University of Utah CCTS  
Amount: \$225,000  
Funding Period: 2018 – 2020  
Role: PI

RWJF Policies for Action: Policy and Law Research to Build a Culture of Health  
Title: Effects of Physical Activity and Nutrition Policy for Childcare  
Funding Source: Robert Wood Johnson Foundation  
Amount: \$25,000  
Funding Period: 2017 – 2018  
Role: Co-PI (Co-PI: Abby Gold)

NDSU Research and Discovery Grand Challenge Initiative  
Title: Health populations and vital community - Center on Aging  
Funding Source: North Dakota State University Center on Aging  
Amount: \$935,500  
Funding Period: 2016 – 2020  
Role: Co-I (PI: Gregory Sanders)

ACSM Paffenbarger–Blair Fund for Epidemiological Research on Physical Activity  
Compliance to New Physical Activity Ordinance in Childcare Centers  
Funding Source: American College of Sports Medicine  
Amount: \$10,000  
Funding Period: 2015 – 2016  
Role: Student Advisor, (PI: Stefanie Meyer)

Sanford Health – NDSU Collaborative Research Grant Program  
Title: Calibration of Wearable Physical Activity Monitors in Children and Youth  
Funding Source: Sanford Health  
Amount: \$78,362  
Funding Period: 2016 – 2018  
Role: PI

Minnesota Beef Council  
Title: Beef Protein Intake, Physical Activity, and Muscle Quality in Older Women  
Funding Source: Minnesota Beef Council  
Amount: \$40,378  
Funding Period: 2015 – 2017

Role: co-PI (co-PI: Kyle Hackney, Sherri Statsney)

Ceny Walker Graduate Research Fellowship  
Title: Cross-cultural Comparisons: The Levels of Physical Activity and Sedentary Behavior in Children  
Amount: \$3,000  
Funding Period: 2011 – 2012  
Role: PI

## PUBLICATIONS

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### *Published Article*

1. Yoon S, **Byun W**. Influence of BCAA Administration on Plasma Content and CNS Fatigue during Exercise in Rats. *Korean journal of exercise nutrition*. 2005;9(1):65-71.
2. Choi H, Lee C, Kang H, **Byun W**, Mal-Ryun Shin, Duk-Za Oh. Bone Mineral Density in Different Types of Sports: Female High School Athletes. *Journal of Korean physical education association for girls and women*. 2006;20(3):37-44.
3. **Byun W**, Sieverdes JC, Sui X, et al. Effect of positive health factors and all-cause mortality in men. *Med Sci Sports Exerc*. 2010;42(9):1632-1638.
4. **Byun W**, Sui X, Hebert JR, et al. Cardiorespiratory fitness and risk of prostate cancer: findings from the Aerobics Center Longitudinal Study. *Cancer epidemiology*. 2011;35(1):59-65.
5. Beets MW, Morgan CF, Banda JA, **Byun W**, et al. Convergent validity of pedometer and accelerometer estimates of moderate-to-vigorous physical activity of youth. *J Phys Act Health*. 2011;8 Suppl 2:S295-305.
6. Dowda M, Pfeiffer KA, Brown WH, Mitchell JA, **Byun W**, Pate RR. Parental and environmental correlates of physical activity of children attending preschool. *JAMA pediatrics*. 2011;165(10):939-944.
7. **Byun W**, Dowda M, Pate RR. Correlates of objectively measured sedentary behavior in US preschool children. *Pediatrics*. 2011;128(5):937-945.
8. Pate RR, Trilk JL, **Byun W**, Wang J. Policies to Increase Physical Activity in Children and Youth. *Journal of Exercise Science and Fitness*. 2011;9(1):1-14.
9. **Byun W**, Dowda M, Pate RR. Associations between screen-based sedentary behavior and cardiovascular disease risk factors in Korean youth. *Journal of Korean medical science*. 2012;27(4):388-394.
10. Bornstein DB, Beets MW, **Byun W**, et al. Equating accelerometer estimates of moderate- to-vigorous physical activity: in search of the Rosetta Stone. *J Sci Med Sport*. 2011;14(5):404-410.
11. Bornstein DB, Beets MW, **Byun W**, McIver K. Accelerometer-derived physical activity levels of preschoolers: a meta-analysis. *J Sci Med Sport*. 2011;14(6):504-511.
12. Pate RR, Mitchell JA, **Byun W**, Dowda M. Sedentary behaviour in youth. *Br J Sports Med*. 2011;45(11):906-913.
13. Kim J, **Byun W**, Sui X, Lee DC, Cheng YJ, Blair SN. Heart rate recovery after

- treadmill exercise testing is an independent predictor of stroke incidence in men with metabolic syndrome. *Obesity research & clinical practice*. 2011;5(4):e267-360.
14. **Byun W**, Liu J, Pate RR. Association between objectively measured sedentary behavior and body mass index in preschool children. *Int J Obes (Lond)*. 2013;37(7):961-965.
  15. **Byun W**, Blair SN, Pate RR. Objectively measured sedentary behavior in preschool children: comparison between Montessori and traditional preschools. *Int J Behav Nutr Phys Act*. 2013;10:2.
  16. Ozemek C, Cochran HL, Strath SJ, **Byun W**, Kaminsky LA. Estimating relative intensity using individualized accelerometer cutpoints: the importance of fitness level. *BMC medical research methodology*. 2013;13:53.
  17. Taverno Ross SE, **Byun W**, Dowda M, McIver KL, Saunders RP, Pate RR. Sedentary behaviors in fifth-grade boys and girls: where, with whom, and why? *Childhood obesity*. 2013;9(6):532-539.
  18. Mitchell JA, **Byun W**. Sedentary Behavior and Health Outcomes in Youth. *Am J Lifestyle Med*. 2013;8(3):173-199.
  19. Ozemek C, Kirschner MM, Wilkerson BS, **Byun W**, Kaminsky LA. Intermonitor reliability of the GT3X+ accelerometer at hip, wrist and ankle sites during activities of daily living. *Physiological measurement*. 2014;35(2):129-138.
  20. Addy CL, Trilk JL, Dowda M, **Byun W**, Pate RR. Assessing Preschool Children's Physical Activity: How Many Days of Accelerometry Measurement. *Pediatr Exerc Sci*. 2014;26(1):103-109.
  21. Kaminsky LA, Ozemek C, Williams KL, **Byun W**. Precision of total and regional body fat estimates from dual-energy X-ray absorptiometer measurements. *The journal of nutrition, health & aging*. 2014;18(6):591-594.
  22. Pate RR, O'Neill JR, **Byun W**, McIver KL, Dowda M, Brown WH. Physical activity in preschool children: comparison between Montessori and traditional preschools. *J Sch Health*. 2014;84(11):716-721.
  23. **Byun W**, Ozemek C, Riggin K, Strath S, Kaminsky L. Correlates of objectively measured physical activity in cardiac patients. *Cardiovascular diagnosis and therapy*. 2014;4(5):406-410.
  24. **Byun W**, Beets MW, Pate RR. Sedentary behavior in preschoolers: How many days of accelerometer monitoring is needed? *Int J Environ Res Public Health*. 2015;12(10):13148-13161.
  25. **Byun W**, Barry A., Lee JM. Energy Expenditure of Free-living Activities in 3- to 6-year-old Children. *Journal of Physical Activity and Health*. 2016; 13(6 Suppl 1):S3-6.
  26. **Byun W**, Lee JM, Kim Y, Brusseau TA. Classification Accuracy of a Wearable Activity Tracker for Assessing Sedentary Behavior and Physical Activity in 3-5-Year-Old Children. *Int J Environ Res Public Health*. 2018;15(4): E594
  27. **Byun W**, Kim Y, Brusseau TA. The Use of a Fitbit Device for Assessing Physical Activity and Sedentary Behavior in Preschoolers. *Journal of Pediatrics*. 2018; 199: 35- 40.
  28. Lee, JM, **Byun W**, Keill A, Dinkel D, Seo Y. Comparison of Wearable Trackers' Ability to Estimate Sleep. *Int J Environ Res Public Health*. 2018; 15(6):E1265
  29. **Byun W**, Lau EY, Brusseau TA. Feasibility and Effectiveness of a Wearable Technology-based Physical Activity Intervention in Preschoolers: A Pilot Study.

- Int J Environ Res Public Health*. 2018;15(9):1821
30. **Byun W**, Lee JM, Bai Y, Kim Y. Epidemiological Research in Physical Activity and Sedentary Behaviors. *BioMed Res Int*. 2018; 3527439
  31. \*Redenius N, Kim Y, **Byun W**. Concurrent validity of the Fitbit for assessing sedentary behavior and moderate-to-vigorous physical activity. *BMC Med Res Methodol*. 2019;19(1):29
  32. Burns RD, **Byun W**, Brusseau TA. Gross Motor Skills Predict Classroom Behavior in Lower-Income Children. *Frontiers in Sports and Active Living*. 2019;1(29).
  33. Kang S, Kim Y, **Byun W**, Suk J, Lee J-M. Comparison of a Wearable Tracker with Actigraph for Classifying Physical Activity Intensity and Heart Rate in Children. *International journal of environmental research and public health*. 2019;16(15):2663.
  34. Burns RD, Kim Y, **Byun W**, Brusseau T. Associations of School Day Sedentary Behavior and Physical Activity with Gross Motor Skills: Use of Compositional Data Analysis. *Journal of physical activity & health*. 2019; 16(10): 811 – 817.
  35. \*Dicks ND, Kotarsky CJ, Trautman KA, Barry AM, Keith JF, Mitchell S, **Byun W**, Stastny SN, Hackney KJ. Contribution of Protein Intake and Concurrent Exercise to Skeletal Muscle Quality with Aging. *J Frailty Aging*. 2020; 9(1):51-56.
  36. Zhang P, Burns RD, Fu Y, Godin S, **Byun W**. Agreement Between the Apple Series 1, LifeTrak Core C200, and Fitbit Charge HR with Indirect Calorimetry for Assessing Treadmill Energy Expenditure. *International journal of environmental research and public health*. 2019; 16(20):3812.
  37. Burns RD, Bai Y, **Byun W**, Colotti TE, Pfladderer CD, Kwon S, Brusseau TA. Bidirectional Relationships of Physical Activity and Gross Motor Skills Before and After Summer Break: Application of A Cross-Lagged Panel Model. *Journal of Sport and Health Science*. 2020 Jul 9; S2095-2546(20)30081-8.
  38. \*Wolpern AE, de Gennaro JD, Brusseau TA, **Byun W**, Egger MJ, Hitchcock RW, Nygaard IE, Sheng X, Shaw JM. Relationship of Heart rate, Perceived Exertion, and Intra-abdominal Pressure in Women. *Journal of Clinical Exercise Physiology*. 2020; 9(3):97-103.
  39. Burns RD, Colotti T, Pfladderer CD, Fu Y, Bai Y, **Byun W**. Familial Factors Associating with Youth Physical Activity Using a National Sample. *Children*. 2020; 7(7):79.
  40. Burns RD, Bai Y, Pfladderer CD, Brusseau TA, **Byun W**. Movement-based behaviors and Perceived Loneliness and Sadness within Alaskan Adolescents. *International journal of environmental research and public health*. 2020; 17(18): 6866.
  41. \*Pfladderer CD, Burns RD, **Byun W**, Carson RL, Welk GJ, Brusseau TA. Parent and Child Perceptions of Barriers to Active School Commuting. *Journal of School Health*. 2021. 91(12): 1014-1023.
  42. \*Kwon S, Wan N, Burns RD, Brusseau TA, Kim Y, Kumar S, Ertin E, Wetter DW, Lam CY, Wen M, **Byun W**. The Validity of MotionSense HRV in Estimating Sedentary Behavior and Physical Activity During Free-Living and Simulated Activity Settings. *Sensors*. 2021. 21(4): 1411.

43. \*Pfledderer CD, Burns RD, **Byun W**, Carson RL, Welk GJ, Brusseau TA. Parent preferences for physical activity in before and after school programs in rural and suburban communities: A discrete choice experiment. *J Phys Act Health*. 2021. 18(12): 1479-1489.
44. \*Johnson NR, Kotarsky CJ, Hackney KJ, Trautman KA, Dicks N, **Byun W\***, Keith J, David S, Stastny SN. Measures derived from panoramic ultrasonography and animal-based protein intake are related to muscular performance in middle-aged adults. *Journal of Clinical Medicine*. 2021. 10(5): 988.
45. \*Wolpern AE, Bardsley TR, Brusseau TA, **Byun W**, Egger MJ, Nygaard IE, Wu J, Shaw JM. Physical Activity in the Early Postpartum Period in Primiparous Women. *Journal of Science and Medicine in Sport*. 2021. 24(11): 1149-1154.
46. \*Kwon S, Burns R, Kim Y, Bai Y, **Byun W**. Inter-device agreement between Fitbit Flex 1 and 2 for assessing sedentary behavior and physical activity. *International journal of environmental research and public health*. 2021. 18(5): 2716.
47. \*Pfledderer CD, Burns RD, **Byun W**, Carson RL, Welk GJ, Brusseau TA. School-based Physical Activity Interventions in Rural and Urban/suburban Communities: A Systematic Review and Meta-analysis. *Obesity Review*. 2021. Sep 22(9): e13265.
48. Bai Y, Tompkins CT, Gell N, Dione D, Zhang T, **Byun W**. Comprehensive Comparison of Apple Watch and Fitbit Monitors in a Free-living Setting. *PLOS One*. 2021. 16(5): 20251975.
49. \*Kwon S, Kim Y, Bai Y, Burns RD, Brusseau TA, **Byun W**. Validation of Apple Watch® for Estimating Moderate-to-Vigorous Physical Activity and Activity Energy Expenditure in Children. *Sensors*. 2021. 21(19): 6413.
50. \*Stone KA, Barry AM, Kotarsky CJ, Dicks ND, Stastny SN, **Byun W**, Mitchell SL, Hackney KJ. Moderate to Vigorous Physical Activity, Leucine Intake, and Protein Intake Contributions to Muscular Health in Middle Age. *J of Frailty, Sarcopenia and Falls*. 2022. 7(3): 123-132.
51. Burns RD, Fu Y, **Byun W**, Mihalopoulos N. Sexual Identity-behavior Discordance and Meeting 24-hour Movement Behavior Recommendations in Adolescents: A Cross-sectional Analysis Using the 2015-2019 Youth Risk Behavior Survey. *Journal of LGBT Youth*. 2022. 9(12): 1808.
52. \*Pfledderer CD, Kwon S, Strehli I, **Byun W**, Burns RD. Effect of Playground Interventions on Accelerometer-assessed Physical Activity in Pediatric Populations: A Meta-analysis. *Int J Environ Res Public Health*. 2022. 19(6): 3445.
53. Bai Y, Burns RD, Gell N, **Byun W**. A Randomized Trial to Promote Physical Activity in Adult Pre-Hypertensive and Hypertensive Patients. *Journal of Sports Sciences*. 2022. 40(14): 1684-1657.
54. Sawyer B, Stone KA, Kotarsky CJ, Johnson N, Bradley A, Sheffert RA, Hackney KJ, **Byun W**, Stastny S. Animal-Based Dietary Protein Intake Not A Risk Factor For Metabolic Syndrome Among Young Or Middle-Aged Females. *Nutrition and Metabolic Insights*. 2022. 23(15).
55. Burns RD, Fu Y, Bai Y, **Byun W**. Associations of Monitor-Independent Movement Summary and health-related fitness with gross motor skills in young children. *Journal of Motor Learning and Development*. 2023. 11(2): 390-399.

56. Bai Y, Ohayon J, Burns RD, **Byun W**, Newton M, Brusseau TA, Thompson T. The association of virtual exercise classes and well-being during COVID-19 among University employees. *International Journal of Physical Activity and Health* (In press).
57. Burns RD, **Byun W**, Bai Y, Silveira FC, Reuter CP. Dose-Response Associations of Monitor-Independent Movement Summary with Health-Related Fitness in Youth. *Scandinavian Journal of Medicine and Science in Sports*. (In press).
58. Burns RD, Kim Y, Fu Y, **Byun W**, Bai Y. Independent and joint associations of aerobic and muscle-strengthening exercise with mental health in adolescents: A cross-sectional analysis before and during COVID-19 using the 2015–2021 National Youth Risk Behavior Survey. *Preventive Medicine*. (In press).

Note: “\*” denotes publications as a senior/corresponding author and/or by graduate students.

*Articles Under Review or In-progress for Peer-Reviewed Journals*

1. **Byun W**, Mihalopoulos N, Burns RD. Objectively Characterized Physical Activity in Transgender Youth. (Under review).
2. **Byun W**. Validity of Fitbit in Measuring Physical Activity and Sedentary Behavior in Preschool Children: An Application of Artificial Neural Networks (In progress).
3. \*Kwon S, Lee S, **Byun W**, Kim J. Association of Physical Activity and Loneliness Among Socially Distancing Adults During the Covid-19 Pandemic. (In progress).
4. \*Wolpern AE, Bardsley TR, Brusseau TA, **Byun W**, Egger MJ, Nygaard IE, Wu J, Shaw JM. Agreement of Self-report and Accelerometer-assessed Physical Activity and Sedentary Behavior in Primiparous Women at 6 Months Postpartum. (Under review).
5. \*Stone KA, Kotarsky CJ, Dicks ND, Stastny SN, **Byun W**, Mitchell SL, Hackney KJ. Physical Activity and Metabolic Syndrome among Younger, Middle-aged, and Older Female Adults. (In progress).
6. Lau EY, Kaur K, Sui X, McDonald S, Ortaglia A, **Byun W**, Paluch A, Shook RP, Drenowatz C, Hand GA, Blair SN. Sedentary Patterns and Cardio-metabolic Health in healthy Young Adults. (In progress).
7. \* Johnson NR, Kotarsky CJ, Stone KA, Paryzek R, Hackney KJ, **Byun W**, Stastny SN. Protein Intake Distribution is Linked to Healthy Bones in Middle-Aged Women. (In progress).

Note: “\*” denotes publications as a senior/corresponding author and/or by graduate students.

*Published Refereed Abstracts*

1. **Byun W**, Jung HR, Fee R, Stinson C, Choi H, Kang H, Lee CD. Bone Mineral Density in Combat Sports: Female High School Athletes. *Med Sci Sports Exerc*. 2006;38(5):S108.
2. **Byun W**, Dowda M, Pate RR. Association between sedentary activity and CVD risk factors in Korean children and adolescents. *Med Sci Sports Exerc*. 2009;41(5):S539.
3. **Byun W**, Sui X, Sieverdes J, Blair SN. Cardiorespiratory fitness and risk of

- prostate cancer: findings from the ACLS cohort. *Med Sci Sports Exerc.* 2010;42(5):S251.
4. Dowda M, Pfeiffer KA, Brown B, Mitchell JA, **Byun W**, Pate RR. Parental Influences and Physical Activity of Children Attending Preschools. *Med Sci Sports Exerc.* 2010;42(5):S101.
  5. Sieverdes J, Sui X, **Byun W**, Blair SN. Independent and Joint Associations of Physical Activity and Cardiorespiratory Fitness and Stroke Mortality. *Med Sci Sports Exerc.* 2010;42(5):S251.
  6. Kim J, Sui X, **Byun W**, Lee DC, Blair SN. Heart Rate Recovery as a Predictor of Stroke Incidence in Men with Metabolic Syndrome. *Med Sci Sports Exerc.* 2010;42(5):S252.
  7. Beets MW, Morgan CF, Banda J, Bornstein D, **Byun W**, Mitchell JA, Munselle L, Rooney L, Beighle A, Erwin H. Can Pedometers Estimate Moderate-to-Vigorous Physical Activity of Youth? Comparison with Accelerometry. *Med Sci Sports Exerc.* 2010;42(5):S477.
  8. **Byun W**, Bornstein D, Beets MW, Welk G, Dowda M, Pate RR. Accelerometer Cutpoint Non-Equivalence in Preschool Children. *Med Sci Sports Exerc.* 2011;43(5):S701.
  9. **Byun W**, Blair SN, Beets MW, Dowda M, Pate RR. How many days of accelerometry monitoring predict sedentary behavior in preschoolers? *Med Sci Sports Exerc.* 2012;44(5):S480.
  10. **Byun W**, Ozemek C, Riggan K, Strath S, Kaminsky LA. Determinants of Objectively Measured Physical Activity in Patients Entering a Phase III Cardiac Rehabilitation Program. *Circulation.* 2013, 127(Suppl 12), AP424.
  11. Kaminsky LA, Ozemek C, Riggan K, **Byun W**, Strath S. Pedometer Feedback – Superior for Increasing Daily Physical Activity in Cardiac Rehabilitation Patients. *Circulation.* 2013;127(Suppl 12):AP176.
  12. Ozemek C, **Byun W**, Riggan K, Strath S, Kaminsky LA. Pedometer Feedback Intervention Increases Time Spent in Moderate-to-Vigorous Physical Activity in Cardiac Rehabilitation Patients. *Circulation.* 2013;127(Suppl 12):AP178.
  13. Williams K, **Byun W**, Ozemek C, Kaminsky LA. Reliability of Dual-energy X-ray Absorptiometer Measures of Regional Body Composition. *Med Sci Sports Exerc.* 2013;44(5S):S449
  14. Davis E, **Byun W**, Ozemek C, Kaminsky LA. Inter-instrument Reliability of GT3X Accelerometers in A Free-living Condition. *Med Sci Sports Exerc.* 2013;44(5S):S323
  15. Kirschner MM, Wilkerson BS, Ozemek C, **Byun W**, Leonard A, Kaminsky. Reliability of GT3X Accelerometer Measures From Ankle, Hip, And Wrist Locations. *Med Sci Sports Exerc.* 2013;44(5S):S323
  16. Griffith G, Ozemek C, Campbell K, Johnson M, **Byun W**, Kaminsky LA. Physical Activity Levels of Pre-bariatric Surgery Patients: Differences with Activity Count Thresholds. *Med Sci Sports Exerc.* 2013;44(5S):S385.
  17. **Byun W**, Mitchell JA, Whaley MH, Kaminsky LA. Association Between Cardiorespiratory Fitness and Metabolic Risk Factors: An Application of Quantile Regression. *Med Sci Sports Exerc.* 2013;44(5S):S328.
  18. Ozemek C, **Byun W**, Riggan K, Strath S, Kaminsky LA. Pedometer Feedback



- Intervention Increase Total Physical Activity on Days Patients do not Attend Cardiac Rehabilitation. *Med Sci Sports Exerc.* 2013;44(5S):S376.
19. Redenius N, Hilgers-Greterman S, Schuna Jr. J, Liguori G, **Byun W**. Health-related Quality of Life Change in Cancer Survivors Participating a 12-week YMCA Exercise Program. *Med Sci Sports Exerc.* 2014;46(5S):S543.
  20. **Byun W**, Redenius N, Hilgers-Greterman S, Kim Y, Larson M, Terbizan DJ. Profiles of Physical Activity and Sedentary Behavior in Cancer Survivors: A 12-Week Community- Based Exercise Program. *Med Sci Sports Exerc.* 2014;46(5S):S544.
  21. **Byun W**, Redenius N, Kim Y. Validation of Fitbit Activity Monitor in Free-living Conditions. *Med Sci Sports Exerc.* 2015;47(5S):S260.
  22. Redenius N, Barry A, Terbizan D, **Byun W**. Comparison Between The Fitbit Flex And GT3X+ Activity Monitor Under Free-Living Settings. *Med Sci Sports Exerc.* 2015;47(5S):S269.
  23. **Byun W**, Barry A, Lee J, Kim Y. Fitbit Provides Valid Measurements of Sedentary and Physical Activity in Preschool Children. *Circulation.* 2016;133(Suppl 1):MP85.
  24. **Byun W**, Barry A, Lee JM. Accuracy of the Fitbit for Measuring Preschoolers' Physical Activity. *Med Sci Sports Exerc.* 2016;48(5S):778.
  25. Barry A, Terbizan D, Christensen B, **Byun W**. Comparison in Non-wear Time Validation Criteria Between Choi and Troiano for The GT3X+ Activity Monitor. *Med Sci Sports Exerc.* 2016;48(5S):781.
  26. Little A, An H, **Byun W**, Lee J. Comparison of Two Commonly Used Metabolic Measurement Systems. *Med Sci Sports Exerc.* 2017;49(5S):758.
  27. Barry A, Lee J, **Byun W**. Accuracy of Accelerometer-based Activity Energy Expenditure Prediction Equations for Children ages 3 to 6 years. *Med Sci Sports Exerc.* 2017; 49(5S):475.
  28. **Byun W**, Lee JM, Kim Y, Brusseau TA. Classification Accuracy of a Wearable Activity Tracker for Assessing Sedentary Behavior and Physical Activity in 3-5-Year-Old Children. ISBNPA Abstract Book. 2018; 430-431.
  29. Hackney KJ, Dicks ND, Stone KA, Kotarsky C, Barry AM, Keith J, Mitchell S, **Byun W**, Stastny SN. Contribution of Exercise, Physical Activity, and Protein to Functional Cross- sectional Area and Intramuscular Adipose Tissue. *Med Sci Sports Exerc.* 2018;50(5S):475.
  30. Stone KA, Kotarsky C, Dicks ND, Barry AM, Keith J, Mitchell S, **Byun W**, Stastny SN, Hackney KJ. Dietary Protein Intake and Muscular Health with Ageing: Countermeasures for Sarcopenia and Dynapenia. *Med Sci Sports Exerc.* 2018;50(5S):809.
  31. Greterman S, Strand M, **Byun W**, Christensen B. Changes in Sedentary Time and Physical Activity of Cancer Survivors Participating in an Exercise Program. *Med Sci Sports Exerc.* 2018;50(5S):704-705.
  32. **Byun W**, Lau EY, Brusseau TA. Effects of a technology-based and teacher-directed physical activity intervention in preschoolers: Findings from a pilot study. *J Phys Act Halth.* 2018;15(10):S123.
  33. Kwon S, Kim Y, **Byun W**. Validation of Apple Watch for Estimating Moderate-to- Vigorous Physical Activity in Children. *Med Sci Sports Exerc.* 2019;51(6):369.
  34. Burns R, Kim Y, **Byun W**, Brusseau T. Associations Among School Day

- Sedentary Behavior, Physical Activity, and Motor Skills: A Compositional Data Analysis. *Med Sci Sports Exerc.* 2019;51(6):365.
35. **Byun W**, Wan N, Kwon S. Accuracy of MotionSense HRV for Assessing Sedentary Behavior and Physical Activity. Accepted for 2020 American College of Sports Medicine Annual Meeting.
  36. Kwon S, **Byun W**. Comparison between Fitbit Flex and Flex 2: Measures Of Sedentary And Physical Activity In Free-living. Accepted for 2020 American College of Sports Medicine Annual Meeting.
  37. Johnson NR, Korarsky CJ, Stone KA, Paryzek R, Hackney KJ, **Byun W**, Stastny SH. Protein Intake Distribution is linked to Healthy Bones. Accepted for 2021 International Conference on Frailty and Sarcopenia Research.
  38. Sawyer B, Stone KA, Kotarsky CJ, Johnson N, Bradley A, Sheffert RA, Hackney KJ, **Byun W**, Stastny S. Animal-Based Dietary Protein Intake Not A Risk Factor For Metabolic Syndrome Among Young Or Middle-Aged Females. *Food & Nutrition Conference & Expo.* 2022.
  39. Kwon S, **W Byun**, S Lee, J Kim. Association Of Physical Activity And Loneliness Among Socially Distancing Adults During The Covid-19 Pandemic. *Med Sci Sports Exerc.* 2022;54(9):147.
  - 40.

## RESEARCH PRESENTATIONS

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1. **Byun W**. Influence of BCAA Administration on Plasma Content and CNS Fatigue during Exercise in Rats (Oral Presentation at the Korean Society for Exercise Nutrition, Nov 2004).
2. **Byun W**, Jung HR, Fee R, Stinson C, Choi H, Kang H, Lee CD. Bone Mineral Density in Combat Sports: Female High School Athletes (Presentation in a slide session at the 53<sup>rd</sup> American College of Sports Medicine Annual Meeting. Jun 2, 2006).
3. **Byun W**, Dowda M, Pate RR. Association between sedentary activity and CVD risk factors in Korean children and adolescents (Presentation in a poster session at the 56<sup>th</sup> American College of Sports Medicine Annual Meeting, Jun 2009).
4. **Byun W**, Sui X, Sieverdes J, Blair SN. Cardiorespiratory fitness and risk of prostate cancer: findings from the ACLS cohort (Presentation in a poster session at the 57<sup>th</sup> American College of Sports Medicine Annual Meeting, Jun 2010).
5. Dowda M, Pfeiffer KA, Brown B, Mitchell JA, **Byun W**, Pate RR. Parental Influences and Physical Activity of Children Attending Preschools (Presentation in a slide session at the 57<sup>th</sup> American College of Sports Medicine Annual Meeting, Jun, 2010).
6. Sieverdes J, Sui X, **Byun W**, Blair SN. Independent and Joint Associations of Physical Activity and Cardiorespiratory Fitness and Stroke Mortality (Presentation in a poster session at the 57<sup>th</sup> American College of Sports Medicine Annual Meeting, Jun 2010).
7. Kim J, Sui X, **Byun W**, Lee DC, Blair SN. Heart Rate Recovery as a Predictor of Stroke Incidence in Men with Metabolic Syndrome (Presentation in a poster session at the 57<sup>th</sup> American College of Sports Medicine Annual Meeting, Jun 2010).

8. Beets MW, Morgan CF, Banda J, Bornstein D, **Byun W**, Mitchell JA, Munselle L, Rooney L, Beighle A, Erwin H. Can Pedometers Estimate Moderate-to-Vigorous Physical Activity of Youth? Comparison with Accelerometry (Presentation in a poster session at the 57<sup>th</sup> American College of Sports Medicine Annual Meeting, Jun 2010).
9. **Byun W**, Bornstein D, Beets MW, Welk G, Dowda M, Pate RR. Accelerometer Cutpoint Non-Equivalence in Preschool Children. (Presentation in a poster session at the 58<sup>th</sup> American College of Sports Medicine Annual Meeting, Jun 2011).
10. **Byun W**, Blair SN, Beets MW, Dowda M, Pate RR. How many days of accelerometry monitoring predict sedentary behavior in preschoolers? (Presentation in a poster session at the 59<sup>th</sup> American College of Sports Medicine Annual Meeting, Jun 2012)
11. Davis E, **Byun W**, Ozemek C, Kaminsky LA. Reliability of GT3X Accelerometer in Measuring Sedentary Behavior, Physical Activity, and Step Counts (Presentation in a poster session at the 2012 Midwest American College of Sports Medicine Annual Meeting, November 2012).
12. Williams K, **Byun W**, Ozemek C, Kaminsky LA. Reliability of Body Composition Assessments from Dual-Energy X-ray Absorptiometry Measurements. (Presentation in a poster session at the 2012 Midwest American College of Sports Medicine Annual Meeting, Nov 2012).
13. Wilkerson BS, Ozemek C, **Byun W**, Leonard A, Kaminsky. Reliability of GT3X Measures Made at the Ankle, Hip, and Wrist (Presentation in a poster session at the 2012 Midwest American College of Sports Medicine Annual Meeting, Nov 2012).
14. Griffith G, Ozemek C, Campbell K, Johnson M, **Byun W**, Kaminsky LA. Physical Activity Characteristics of Pre-bariatric Surgery Patients Assessed by Two Different Sets of Accelerometer Cutpoints (Presentation in a poster session at the 2012 Midwest American College of Sports Medicine Annual Meeting, Nov 2012).
15. **Byun W**, Ozemek C, Riggin K, Strath S, Kaminsky LA. Determinants of Objectively Measured Physical Activity in Patients Entering a Phase III Cardiac Rehabilitation Program (Presentation at the 2013 American Heart Association Epidemiology and Prevention/Nutrition, Physical Activity and Metabolism Meeting, Mar 2013).
16. Kaminsky LA, Ozemek C, Riggin K, **Byun W**, Strath S. Pedometer Feedback – Superior for Increasing Daily Physical Activity in Cardiac Rehabilitation Patients (Presentation at the 2013 American Heart Association Epidemiology and Prevention/Nutrition, Physical Activity and Metabolism Meeting, Mar 2013).
17. Ozemek C, **Byun W**, Riggin K, Strath S, Kaminsky LA. Pedometer Feedback Intervention Increases Time Spent in Moderate-to-Vigorous Physical Activity in Cardiac Rehabilitation Patients (Presentation at the 2013 American Heart Association Epidemiology and Prevention/Nutrition, Physical Activity and Metabolism Meeting, Mar 2013).
18. Davis E, **Byun W**, Ozemek C, Kaminsky LA. Inter-instrument Reliability of GT3X Accelerometers in A Free-living Condition (Presentation in a poster session at the 60<sup>th</sup> American College of Sports Medicine Annual Meeting, May 2013).
19. Williams K, **Byun W**, Ozemek C, Kaminsky LA. Reliability of Dual-energy X-ray Absorptiometer Measures of Regional Body Composition (Presentation in a poster session at the 60<sup>th</sup> American College of Sports Medicine Annual

- Meeting, May 2013).
20. Kirschner MM, Wilkerson BS, Ozemek C, **Byun W**, Leonard A. Kaminsky. Reliability of GT3X Accelerometer Measures From Ankle, Hip, And Wrist Locations (Presentation in a poster session at the 60<sup>th</sup> American College of Sports Medicine Annual Meeting, May 2013).
  21. Griffith G, Ozemek C, Campbell K, Johnson M, **Byun W**, Kaminsky LA. Physical Activity Levels of Pre-bariatric Surgery Patients: Differences with Activity Count Thresholds (Presentation in a poster session at the 60<sup>th</sup> American College of Sports Medicine Annual Meeting, May 2013).
  22. **Byun W**, Mitchell JA, Whaley MH, Kaminsky LA. Association Between Cardiorespiratory Fitness and Metabolic Risk Factors: An Application of Quantile Regression (Presentation in a poster session at the 60<sup>th</sup> American College of Sports Medicine Annual Meeting, May 2013).
  23. Ozemek C, **Byun W**, Riggan K, Strath S, Kaminsky LA. Pedometer Feedback Intervention Increase Total Physical Activity on Days Patients do not Attend Cardiac Rehabilitation (Presentation in a poster session at the 60<sup>th</sup> American College of Sports Medicine Annual Meeting, May 2013).
  24. Redenius N, Hilgers-Greterman S, Schuna Jr. J, Liguori G, **Byun W**. Health-related Quality of Life Change in Cancer Survivors Participating a 12-week YMCA Exercise Program (Presentation in a poster session at the 61<sup>th</sup> American College of Sports Medicine Annual Meeting, May 2014).
  25. **Byun W**, Redenius N, Hilgers-Greterman S, Kim Y, Larson M, Terbizan DJ. Profiles of Physical Activity and Sedentary Behavior in Cancer Survivors: A 12-Week Community- Based Exercise Program (Presentation in a poster session at the 61<sup>th</sup> American College of Sports Medicine Annual Meeting, May 2014).
  26. Redenius N, Barry A, Terbizan D, **Byun W**. Comparison Between The Fitbit Flex And GT3X+ Activity Monitor Under Free-Living Settings (Presentation in a poster session at the 62<sup>nd</sup> American College of Sports Medicine Annual Meeting, May 2015).
  27. **Byun W**, Barry A, Lee J, Kim Y. Fitbit Provides Valid Measurements of Sedentary and Physical Activity in Preschool Children (Presentation at the 2016 American Heart Association EPI/Lifestyle Scientific Sessions, Mar 2016).
  28. Barry A, Terbizan D, Christensen B, **Byun W**. Comparison in Non-wear Time Validation Criteria Between Choi and Troiano for The GT3X+ Activity Monitor (Presentation in a poster session at the 62<sup>nd</sup> American College of Sports Medicine Annual Meeting, May 2015).
  29. **Byun W**, Barry A, Lee J. Accuracy of the Fitbit for Measuring Preschoolers' Physical Activity (Presentation in a poster session at the 63<sup>rd</sup> American College of Sports Medicine Annual Meeting, May 2016).
  30. Barry A, Terbizan D, Cristensen B, **Byun W**. Comparison In Non-wear Time Validation Criteria Between Choi And Troiano For The GT3X+ Activity Monitor (Presentation in a poster session at the 63<sup>rd</sup> American College of Sports Medicine Annual Meeting, May 2016).
  31. Little A, An H, **Byun W**, Lee J. Comparison of Two Commonly Used Metabolic Measurement Systems (Presentation in a poster session at the 64<sup>th</sup> American College of Sports Medicine Annual Meeting, May 2017).
  32. Barry A, Lee J, **Byun W**. Accuracy of Accelerometer-based Activity Energy

- Expenditure Prediction Equations for Children ages 3 to 6 years. (Presentation in a poster session at the 64<sup>th</sup> American College of Sports Medicine Annual Meeting, May 2017).
33. **Byun W**, Lee JM, Kim Y, Brusseau TA. Classification Accuracy of a Wearable Activity Tracker for Assessing Sedentary Behavior and Physical Activity in 3-5-Year-Old Children. (Presentation in a poster session at International Society of Behavioral Nutrition and Physical Activity Annual Meeting, June 2018)
  34. Hackney KJ, Dicks ND, Stone KA, Kotarsky C, Barry AM, Keith J, Mitchell S, **Byun W**, Stastny SN. Contribution of Exercise, Physical Activity, and Protein to Functional Cross-sectional Area and Intramuscular Adipose Tissue. (Presentation in a poster session at the 65<sup>th</sup> American College of Sports Medicine Annual Meeting, May 2018).
  35. Stone KA, Kotarsky C, Dicks ND, Barry AM, Keith J, Mitchell S, **Byun W**, Stastny SN, Hackney KJ. Dietary Protein Intake and Muscular Health with Ageing: Countermeasures for Sarcopenia and Dynapenia. (Presentation in a poster session at the 65<sup>th</sup> American College of Sports Medicine Annual Meeting, May 2018).
  36. Greterman S, Strand M, **Byun W**, Christensen B. Changes in Sedentary Time and Physical Activity of Cancer Survivors Participating in an Exercise Program. (Presentation in a poster session at the 65<sup>th</sup> American College of Sports Medicine Annual Meeting, May 2018)
  37. **Byun W**, Lau EY, Brusseau TA. Effects of a Technology-based and Teacher-directed Physical Activity Intervention in Preschoolers. (Presentation in ePoster session at the 7<sup>th</sup> International Society for Physical Activity and Health, October 2018).
  38. Kwon S, Kim Y, **Byun W**. Validation of Apple Watch for Estimating Moderate-to-Vigorous Physical Activity in Children. (Presentation in a poster session at the 66<sup>th</sup> American College of Sports Medicine Annual Meeting, May 2019).
  39. Burns R, Kim Y, **Byun W**, Brusseau T. Associations Among School Day Sedentary Behavior, Physical Activity, and Motor Skills: A Compositional Data Analysis. (Presentation in a poster session at the 66<sup>th</sup> American College of Sports Medicine Annual Meeting, May 2019).
  40. **Byun W**, Wan N, Kwon S. Accuracy of MotionSense HRV for Assessing Sedentary Behavior and Physical Activity. American College of Sports Medicine Annual Meeting, 2020.
  41. Kwon S, **Byun W**. Comparison between Fitbit Flex and Flex 2: Measures Of Sedentary And Physical Activity In Free-living. Accepted for 2020 American College of Sports Medicine Annual Meeting.
  42. Burns R, **Byun W**. Brusseau T. School-based physical activity interventions in rural and urban communities. (Presentation in an oral session at the 2021 SHAPE America Virtual National Convention & Expo).
  43. Johnson NR, Korarsky CJ, Stone KA, Paryzek R, Hackney KJ, **Byun W**, Stastny SH. Protein Intake Distribution is linked to Healthy Bones. (Presentation in a poster session at the 2021 International Conference on Frailty and Sarcopenia Research).
  44. Kwon S, **W Byun**, S Lee, J Kim. Association of Physical Activity And Loneliness Among Socially Distancing Adults During The Covid-19 Pandemic. American College of Sports Medicine Annual Meeting, 2022

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45. Bai Y, Lee C, Burns RD, **Byun W**, vonLintel D. Impact of Mandatory School Masking On Adolescent Physical Activity During Structured And Unstructured Days. American College of Sports Medicine Annual Meeting, 2023
  46. Burns RD, Fu Y, Bai Y, **Byun W**. Associations Of Monitor-independent Movement Summary Units And Health-related Fitness With Gross Motor Skills In Children. American College of Sports Medicine Annual Meeting, 2023
  47. Exploring the preliminary effect of physical activity intervention through family and peer challenge in young adolescents: A pilot cluster randomized trial. APHA 2023 (Accepted).

## REVIEWER FOR GRANTS

### Grant Reviewer

1. Health Research Board in Ireland, Health Research Awards 2014 (Funding request size: \$443,570.66)
2. Rocky Mountain Center for Occupational and Environmental Health Pilot Project Program 2018 (Funding request size: \$9,694)
3. University of Utah Clinical and Translational Science Awards (CTSA) Pilot Grant 2021
4. University of Utah Graduate Research Fellowship 2022, 2023

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## REVIEWER FOR JOURNALS AND CONFERENCES

### Article Reviewer

1. JAMA Network Open (IF = 5.032)
2. American Journal of Preventive Medicine (IF = 4.420)
3. Journal of Cachexia, Sarcopenia and Muscle (IF = 9.802)
4. Pediatrics (IF = 5.359)
5. PLOS ONE (IF = 2.740)
6. Nature and Science of Sleep (IF = 4.375)
7. Nutrients (IF = 5.719)
8. International Journal of Behavioral Nutrition and Physical Activity (IF = 6.714)
9. European Journal of Pediatrics (IF = 3.86)
10. Sensors (IF = 3.576)
11. Applied Physiology Nutrition and Metabolism (IF = 2.522)
12. International Journal of Environmental Research and Public Health (IF = 2.468)
13. Digital Health (IF = 4.687)
14. Health Education Journal (IF = 0.938)
15. American Journal of Health Behavior (IF = 1.224)
16. Journal of Physical Activity and Health (IF = 1.993)
17. Medicine & Science in Sports & Exercise (IF = 4.029)
18. Eating and Weight Disorders (IF = 3.634)
19. BMC Public Health (IF = 2.521)
20. BioMed Research International (IF = 2.276)
21. Gait and Posture (IF = 2.349)
22. Neuro Report (IF = 1.394)
23. The Journal of Early Adolescence (IF = 1.924)
24. Global Health Promotion (IF = 1.188)
25. Journal of Science and Medicine in Sport (IF = 3.607)

26. Physiology & Behavior (IF = 2.826)
27. Clinical Cardiology (IF = 2.248)
28. Journal of Sports Sciences (IF = 2.597)
29. Research Quarterly for Exercise and Sport (IF = 1.883)
30. BMC Research Notes (IF = 1.34)
31. Journal of School Nursing (IF = 1.694)
32. Journal for Measurement of Physical Behavior
33. Korean Journal of Measurement and Evaluation in Physical Education and Sport Science
34. Journal of Science in Sport and Exercise
35. Frontiers in Public Health
36. Frontiers in Sports and Active Living

**Abstract Reviewer**

1. American Heart Association Scientific Session 2017
  - Exercise, Physical Activity and Rehabilitation Category
2. American Heart Association Scientific Session 2016
  - Exercise, Physical Activity and Rehabilitation Category
3. 142nd American Public Health Association Annual Meeting and Exposition 2014, 2020, 2021, 2022, 2023
4. SHAPE America National Convention & Expo 2024

**EDITOR FOR JOURNALS**

**Lead Guest Editor**

1. BioMed Research International (formerly Journal of Biomedicine and Biotechnology)
  - Epidemiology Special Issue: Epidemiological Research in Physical Activity and Sedentary Behaviors, 2018 - 2019
2. International Journal of Environmental Research and Public Health, 2020 - 2021
  - Special Issue: [Wearable Technology-Based Physical Activity Measurement and Intervention](#)
3. International Journal of Environmental Research and Public Health 2021 - 2023
  - Special Issue: [Health Behavior Clustering and Mental Health Outcomes in Children, Adolescents, and Young Adults](#)
4. International Journal of Environmental Research and Public Health 2023 - present
  - Special Issue: Health Behavior Clustering and Mental Health Outcomes in Children, Adolescents, and Young Adults 2<sup>nd</sup> edition.

**Editorial Board Member**

1. BioMed Research International (under review)

2. Frontiers in Sports and Active Living – Prevention and Management of Disease
3. Sensors

## **UNIVERSITY/DEPARTMENT SERVICE**

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MPH - CEPH Accreditation Committee	College of Health Professions, Department of Public Health, North Dakota State University, Fall 2013 – 2017
Faculty Search Committee	Physical Activity and Wellbeing faculty search in Health and Kinesiology, University of Utah, 2017 – 2019  Epidemiology faculty search in Department of Public Health, North Dakota State University, Spring 2015
Other Committees/Services	Executive Committee, Korean-American Scientists and Engineers Association-Utah, 2021 - present  HK Laboratory and Equipment Committee, University of Utah, 2019 – present  Physical Activity and Wellbeing Journal Club Chair, University of Utah, 2019 – present  HK Seminar Series Committee, University of Utah, 2018 - present  Bench to Bedside Student Innovation Competition Judge, University of Utah Health Center for Medical Innovation, April 2018  HK Graduate Research Core Curriculum Committee, University of Utah, 2017 - 2018  Health Promotion Track Workgroup, Department of Public Health, North Dakota State University, Fall 2013 – 2017  Exercise Science Workgroup, Health, Nutrition, and Exercise Science, North Dakota State University, Fall 2013 – 2017
Community Engagement	Delivered interactive presentation entitled “Health Benefits of Physical Activity” to 4 <sup>th</sup> and 6 <sup>th</sup> graders at Washington Elementary school

## **ADVISING**

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PhD. Project Committee	Health and Kinesiology, University of Utah, 2017 – present
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- Project title: Association of aerobic fitness indicators and intra-abdominal pressure in healthy adult women (Advisee: Ali Wolpern)
- Project title: Perceptions of barriers and facilitators of active commuting to school: A parent-child analysis (Advisee: Christopher Pfladderer)
- Project title: Validity of MotionSense HRV in estimating sedentary behavior and physical activity during free-living and simulated activity settings (Advisee: Sunku Kwon)

PhD. Dissertation  
Committee

Health and Kinesiology, University of Utah, 2017 – present

- Dissertation title: TBD (Advisee: Sunku Kwon, chair)
- Dissertation title: Connections of physical activity, sedentary behavior, and intra-abdominal pressure within women's health (Advisee: Ali Wolpern)
- Dissertation title: School-based physical activity programs in rural communities (Advisee: Christopher Pfladderer)

Health, Nutrition, and Exercise Science, North Dakota State University, Fall 2014 – 2017

- Project title: Evaluation of Physical Activity Policy Implementation in Childcare Centers (Advisee: Michelle Strang)
- Project title: Effects of Adjustable Sit-Stand Desk on Academic Performance of College Students (Advisee: Jeremy Frost)
- Project title: Effects of Community-based Exercise Program on Quality of Life in Cancer Survivors (Advisee: Sarah Hilgers-Greterman)

M.S. Thesis Committee

Health, Nutrition, and Exercise Science, North Dakota State University, January 2014 – 2016

- Project title: Validation of the Fitbit Physical Activity Monitors in Adults (Advisee: Nicklaus Redenius)

Statistics, North Dakota State University, Spring 2015 - 2016

- Project title: D-Optimal Design for The 5PL-1P Model in Chemical Toxicity Assessment (Advisee: Jenna MacDonald)

- Project title: Optimal Designs for Model Discrimination and Parameter Estimation under A Probit Model with a Quadratic Term (Advisee: Andrew Lexvold)

Clinical Exercise Physiology, Ball State University, August 2012 – July 2013

- Project title: DXA Reference Standards For Percent Body Fat And Lean Body Mass- Clinical Exercise Physiology Program Database (Advisee: Nathan Wagner)
- Project title: Development Of A Reference Standard For Cardiorespiratory Fitness From The Ball State University Adult Physical Fitness Program Cohort (Advisee: Angela Kaufmann)
- Project title: Bariatric Surgery Physical Activity Intervention (Advisee: Megan Johnson)

B.S. Honors Thesis  
Committee

Health and Kinesiology, University of Utah, 2018

- Project title: Validation of the Fitbit Physical Activity Monitors in Children (Advisee: Andrew Sorensen)

Research Grant/Fellowship  
Advisor

Bronson Fellowship via HK, Health and Kinesiology,  
University of Utah, 2021 – 2022

- Advisee: Sunku Kwon, Funded for 2021 - 2022

University of Utah Graduate Research Fellowship, Jan 2021

- Project title: Validity of Activity Monitors Designed for Children and Youth (Advisee: Sunku Kwon, Not funded)

ACSM Paffenbarger – Blair Fund for Epidemiological Research  
on Physical Activity, Dec 2014

- Project title: Compliance Measurement of New Physical Activity Ordinance in Childcare Centers (Advisee: Stefanie Meyer, Not funded)

Ball State University ASPIRE Student Research Grant, October 2012

- Project title: Physical Activity Changes in Peripheral Artery Disease Patients before and after Treatment (Advisees: Lisa Gunderson, Funded)

Undergraduate Research  
Advisor

Health and Kinesiology, University of Utah, 2017 – present

- Recruit and supervise undergraduate research assistants in research projects (Advisees: Andrew Sorensen, Jefferson Brewer, Brandon Brown, Jason Dude, Nick Knight)

Health, Nutrition, and Exercise Science, North Dakota State University, 2014 - 2017

- Recruit and supervise undergraduate research assistants in research projects (Advisees: Kallie Schmit, Sean Mahony, Kori Gunlikson, Bradley Conant, Kyla Schmidt, Jade Storley)

## **INVITED PRESENTATIONS AND LECTURES**

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Korean-American Scientists and Engineers Association – Utah Seminar Series

- Physical Activities and Public Health

Behavioral Research Grant Brainstorming Group, Huntsman Cancer Institute, University of Utah

- Physical Activity Intervention in Preschool Children

Department of Physical Education, Kyoungpook National University

- Exercise and Health

Department of Exercise Science, University of South Carolina

- Special Seminar Series – Sedentary Behavior in Children and Youth
- EXSC 787 - Research Method & Design

Department of Health, Nutrition, and Exercise Science, North Dakota State University

- HNES 170 – Intro to Exercise Science
- HNES 790 – Seminar Introduction to HNES
- HNES Research Colloquium – Sedentary Behavior: How to measure and change it?

Department of Public Health, North Dakota State University

- MPH 751 – Epidemiology
- PH 101 – Public Health 101

2014 North Dakota Academy of Nutrition & Dietetics/North Dakota Nutrition Council Spring Conference (Title: Sedentary Lifestyle & Risks to Health)

## **MEDIA APPEARANCES**

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Solicited article

- Fitness Tracker Supports Healthy Childhood Behavior (published on University of Utah Health Newsroom - <http://uofuhealth.utah.edu/newsroom/news/2018/07/dd-fitbit-brusseau.php>, July 2018)
- Reducing Sedentary Behavior is a Key for Obesity Prevention in Children (published on North Dakota Compass – Ask a Researcher section (<http://www.ndcompass.org/>), May 2015)

## **PROFESSIONAL ASSOCIATIONS**

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- International Society of Behavioral Nutrition and Physical Activity, Member since 2018
- American Heart Association, Member since 2013
- American College of Sports Medicine, Member since 2005

- American Public Health Association, Member since 2014
- North Dakota Public Health Association, Member since 2014
- Indiana Public Health Association, Member 2005 to 2007
- American Montessori Society, Member 2012
- Korean Society of Exercise Nutrition, Member 2002 to 2005

## **SERVICE**

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Military Service                      Republic of Korea Air Force, December 1997 - June 2000

- Instructor for the department of Air Defense Missile

## **COACHING EXPERIENCE**

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Soccer Coach                              Hyo-Myung elementary school and Kyoung-Bok middle school, July 2000 – May 2005

- Junior soccer team coach

Ski Instructor                              Kyoungpook National University, Dec 2000 – Dec 2002

- The instructor of university ski program

## **PROFESSIONAL LICENSURE AND CERTIFICATIONS**

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Judo    License of Judo 1<sup>st</sup>Dan (Black belt), Korea Judo Association, Nov 2001

Tae Kwon Do                                License of TaeKwonDo 2<sup>nd</sup>Dan (Black belt), World Tae Kwon Do Headquarters, Sep 2002

Lifeguard                                      License of Lifeguard for Water Safety, Red Cross Korea, July 1997

Healthcare Provider                      CPR and AED certification, American Heart Association, August 2012