## KYOUNGYOUN (ANNE) PARK-BRASWELL

# Liberty University Athletic Training, Allied Health Professions Department

(605) 592-6598, kparkbraswell@liberty.edu

### **EDUCATION**

Doctor of Philosophy (PhD) in Kinesiology

July 2020

**Concentration: Applied Neuromechanics** 

University of North Carolina Greensboro | Greensboro, NC

**Master of Science in Athletic Training** 

May 2015

South Dakota State University | Brookings, SD

**Bachelor of Physical Education in Adapted Physical Education** 

August 2010

Minor: Social Welfare

Hanshin University | Osan-si, Republic of Korea

#### ACADEMIC TEACHING EXPERIENCE

Assistant Professor 2023 July - Present

## Athletic Training, Allied Health Professions Department

Liberty University | Lynchburg, VA

ATTR335 Musculoskeletal Injury Assessments

ATTR336 Musculoskeletal Injury Assessments Lab

ATTR425 Healthcare Evidence Based Practice

EXSC520 Statistical Analysis in Exercise Science

Assistant Professor 2020 July – 2023 June

## Exercise Science, Division of Health & Human Performance

#### Indiana Wesleyan University | Marion, IN

PHE190 Introduction to Exercise Science

PHE379 Principal of Fitness Assessment

PHE380 Principal of Exercise Prescription

PHE383 Professional Experience

PHE413 Health Promotion/Wellness Management

PHE415 Nutrition for Sport & Performance

PHE485 Senior Research Seminar I

PHE486 Senior Research Seminar II

ATR440 Pharmacology & Therapy Medicines

PHE483 Exercise Science Internship

#### **Teaching Assistant**

### Department of Kinesiology, UNC Greensboro | Greensboro, NC

KIN634 Athletic Training Foundation

KIN291 Anatomy lab

KIN291 Anatomy lecture

KIN272 Tae Kwon do

**KIN150 Swimming** 

#### Department the Health and Nutritional Science Department South Dakota State University | Brookings, SD

PE 354: Prevention and Care of Athletic Injury

#### RESEARCH EXPERIENCE

#### **Assistant Professor**

## **Athletic Training, Allied Health Professions Department Liberty University**

July 2023 - Present

#### **Skill Utilized**

- Planning research project to identify a relationship between proprioception and postural control in individual with joint laxity
- Analyzing kinetic data using MATLAB, SPSS to identify postural control strategies in individuals with generalized joint laxity
- Analyzing functional MR data using FSL

#### **Assistant Professor**

## Exercise Science, Division of Health & Human Performance Indiana Wesleyan University

July 2020 - June 2023

#### **Skill Utilized**

- Measurement of biomechanical testing using force platforms and computerized dynamic posturography
- Planning therapeutic intervention program research using Virtual Reality system
- Analyzing functional MR data using FSL

#### **Research Assistant**

## Department of Kinesiology & Gateway MRI Center, UNC Greensboro

August 2016 - May 2020

#### **Skills Utilized**

- Measurement of biomechanical testing using 3D motion capture and force platforms MRI scanning
- MRI Level IV operator: Independent Operator of 3T MR Scanner
- Analyzing fMRI data using FSL; analyzing structural MR data using g Freesurfer for structural images
- Development and validation of novel MR Safe Joint Loading Investigation Device

#### South Dakota State University | Brookings, SD

August 2014 – May 2015

- Assisted with coordinating and delivering baseline and post-concussion testing for high school student-athletes
  - o The measurements include the ImPACT computerized neurocognitive software, the Balance Error Scoring System (BESS), and the Stability Evaluation Test (SET) of the VSR Sport.
- Responsible for data organizing and entering

#### **CONFERENCE PRESENTATIONS**

#### **National**

- 1. Park-Braswell K, Keller JR, Thompson AJ. "The Impact of Generalized Joint Laxity on Dynamic Postural Stability and Its Relationship to Sensory System." Poster presentation at 2023 National Athletic Trainers Association Annual Meeting and Clinical Symposium; June 2021; Indianapolis, IN
- 2. **Park-Braswell K**, Shultz SJ, Ross SE, Grooms DR, Schmitz. "The Impact of Differential Knee Laxity on Brain Function and Structure." ACL Research Retreat IX; Mar 2022; High Point, NC
- 3. **Park-Braswell K**, Shultz SJ, Ross SE, Sunnassee D, Grooms DR, Schmitz. "The Impact of Differential Knee Laxity on Brain Activation during Knee Joint Loading." 2021 Canadian Athletic Trainers Association; Oct 2021; Virtual
- 4. **Park-Braswell K**, Shultz SJ, Ross SE, Sunnassee D, Grooms DR, Schmitz. "The Impact of Differential Knee Laxity on Brain Activation during Knee Joint Loading." Oral presentation at: 2020 National Athletic Trainers Association Annual Meeting and Clinical Symposium; June 2021; Virtual
- 5. **Park-Braswell K,** Jung Y, Shultz SJ, Schmitz RJ. "Brain Activation During Anterior Knee Joint Loading." Poster presentation at: 2019 National Athletic Trainers Association Annual Meeting and Clinical Symposium; June 2019; Las Vegas, NV

- 6. **Park-Braswell K**, Grooms DR, Schmitz RJ. "Neural Correlates of Lower Extremity Force Control Using A Novel MR Compatible Device." Poster presentation at: ACL Retreat VIII; March 2019; Greensboro, NC
- Shultz SJ, Anderson T, Wideman L, Park-Braswell K, Schmitz RJ. "Relationships Between Anterior Cruciate Ligament Structural Properties and Inter-Subject Variability in Anteroposterior Knee Laxity Across the Menstrual Cycle and During Exercise in Physically Active Females." Presentation at: ACL Retreat VIII; March 2019; Greensboro, NC
- 8. Schmitz R, **Park K**, Raisbeck LD, Wilking RW, Grooms DR, Rhea CK, Shultz SJ, "Changes in Brain Function During Knee Extension Exercise Following 8 Weeks of Attentionally Focused Neuromuscular Training," . J Athl Train 2018 52(6s) S99. 42 National Athletic Trainers Association Annual Meeting and Clinical Symposium, June 2018
- 9. **Park K**, Ksiazek T, & Olson B. "Effectiveness of Vestibular Rehabilitation Therapy for Treatment of Concussed Adolescents with Persistent Symptoms of Dizziness and Imbalance." Poster presented at: National Athletic Trainers Association Annual Meeting and Clinical Symposium; June, 2017; Houston, TX

#### Regional

- 1. **Park-Braswell K**, Shultz SJ, Rosee SE, Sunnassee D, Grooms DR, Schmitz RJ. "Brain Activation in Individuals with High Risk of ACL Injury." Presentation at; Faculty Scholarship Symposium at Indiana Wesleyan University; Oct 2021; Marion, IN
- 2. **Park-Braswell K**, Shultz SJ, Rosee SE, Sunnassee D, Grooms DR, Schmitz RJ. "Brain Activation in Individuals with High Risk of ACL Injury." Presentation at; Final Round of Webinar Worth Watching Research Presentation Competition at UNC Greensboro; February 2020; Greensboro, NC (2<sup>nd</sup> place)
- 3. **Park-Braswell, K.**, Jung, Y., Shultz, S.J., Schmitz R.J. "Brain Activation During Anterior Knee Joint Loading." Poster presentation at: Human Movement Science Curriculum; March 2019; Chapel-Hill, NC
- 4. **Park-Braswell K**. "Understanding the Influence of Joint Loading on Brain Function." Presentation at; Final Round of 3 Minute Thesis Presentation Competition at UNC Greensboro; October and November 2018; Greensboro, NC
- 5. **Park K**, Raisbeck LD, Rhea CK, Shultz SJ, Schmitz RJ. "Sex Differences in Brain Function during Single-Leg Exercise." Oral presentation at: Human Movement Science Curriculum; March 2018; Chapel-Hill, NC
- 6. **Park K**, Raisbeck LD, Rhea CK, Shultz SJ, Schmitz RJ. "Sex Differences in Brain Function during Leg Exercise." Oral presentation at: UNCG Expo; April 2018; Greensboro, NC

### **PUBLICATIONS**

- 1. **Park-Braswell, K.**, Shultz, S. J., Ross, S. E., Sunnassee, D., Grooms, D. R., & Schmitz, R. J. (2023). The Impact of Differential Knee Laxity on Brain Activation During Passive Knee Joint Loading. *Journal of Orthopaedic Research*: Official Publication of the Orthopaedic Research Society. <a href="https://doi.org/10.1002/jor.25664">https://doi.org/10.1002/jor.25664</a>
- 2. **Park-Braswell, K.**, Grooms, D., Shultz, S., Raisbeck, L., Rhea, C., & Schmitz, R. (2022). Sex-Specific Brain Activations during Single-Leg Exercise. *International Journal of Sports Physical Therapy*, 17(7), 1249–1258. <a href="https://doi.org/10.26603/001c.40367">https://doi.org/10.26603/001c.40367</a>
- 3. **Park-Braswell K**, Shultz SJ, Schmitz RJ. A Magnetic Resonance Imaging-Compatible Device to Perform In Vivo Anterior Knee Joint Loading. J Sport Rehabil. 2021:1-4. doi:10.1123/jsr.2020-0367
- 4. **Park K**, Ksiazek T, Olson B. Effectiveness of Vestibular Rehabilitation Therapy for Treatment of Concussed Adolescents with Persistent Symptoms of Dizziness and Imbalance. *J Sport Rehab*. May 2017:1-12.

#### In preparation

- 1. **Park-Braswell K**, Shultz SJ, Rosee SE, Sunnassee D, Grooms DR, Schmitz RJ. Brain Structure in Individuals with High Risk of ACL Injury.
- 2. **Park-Braswell K**, Schmitz RJ. Meta-analysis of brain activation during lower limb movement tasks in healthy individuals
- 3. Schmitz RJ, **Park-Braswell K**, Raisbeck LD, Wilking RW, Grooms DR, Rhea CK, Shultz SJ. Changes in Brain Function During Knee Extension Exercise Following 8 Weeks of Attentionally Focused Neuromuscular Training

### RESEARCH GRANTS & AWARDS

- 1. Indiana Wesleyan University Faculty Scholarship Lily Grant (2021) "Impact of Virtual Reality Training on Dynamic Postural Stability in Individuals with Hypermobile Joints." Role: PI, \$6,000
- 2. Indiana Wesleyan University Discovered Opportunity Grant (2021) "Postural Stability Control in Individuals with Generalized Joint Laxity." Role: PI, \$1,000
- 3. Indiana Wesleyan University Faculty Scholarship Development Opportunity (2021) "Sensory Organization Test in Individuals with Generalized Joint Laxity." Role: PI, Course release
- 4. NATA Research and Education Foundation, Doctoral Research Grant (2019) "The impact of differential knee laxity on brain function during knee joint loading". Role: PI, \$2,500
- 5. The Graduate School at UNC Greensboro, Summer Research Assistantship (2019) "The impact of different knee laxity on brain function during knee joint loading". Role: PI, \$2,000
- 6. The Graduate School at UNC Greensboro, Summer Research Assistantship (2018) "Brain function during the knee joint loading". Role: PI, \$2,000
- 7. UNC Greensboro Office of Research and Economic Development, Strategic Seed Grant (2017-2018) "Neural Correlates of Motor Transference". Role: Graduate Research Assistant
- 8. UNC Greensboro Office of Research and Economic Development, Regular Faculty Grant (2017-2018) "The effect of Exercise and Ligament Quality on Knee laxity Variability across the Menstrual Cycle". Role: Graduate Research Assistant, \$8,500
- 9. The Graduate School at UNC Greensboro, Summer Research Assistantship (2017) "The Role of Knee Laxity in Neural Correlates of a Leg Press Exercise". Role: PI, \$2,000
- 10. Hanshin University Merit Scholarship
  - 2006 FA (30% of tuition), 2007 SP (30% of tuition), 2007 FA (50% of tuition), 2009 SP (30% of tuition), 2009 FA (30% of tuition), 2010 SP (30% of tuition)

#### **PROFESSIONAL SERVICE**

- 2019 2020 Volunteer athletic trainer, Western Rockingham Middle School Wrestling Team, Mayodan, NC
- 2018, 2019 UNCG Science Every Where, Greensboro, NC

Sports Massage Certification | Korea Rehabilitation Recreation Association

#### **CLINICAL CERTIFICATIONS**

Certified Athletic Trainer   Board of Certification	June 2015
Korean Association of Certified Exercise Professional	March 2010
Korea Special School Teacher of Physical Education	
Korean Ministry of Education & Human Resource Development	August 2010
Grade III of Bodybuilding   The Republic of Korea Ministry of Culture & Tourism	August 2010

December 2006

## **ATHLETIC TRAINING EXPERIENCE (US)**

#### **Assistant Athletic Trainer**

July 2015 – May 2016

High Point University | High Point, NC

- Athletic Trainer directly responsible for the medical care of Cross Country and Track & Field
- Injury assessment, rehabilitation, treatment with various modalities, baseline, and post-concussion test, concussion evaluation and return to play, physician referral, and organizing Pre-participation Physical Examination (PPE).
- Preceptor for athletic training student in the undergraduate athletic training education program
- Equipment maintenance for the athletic training facility
- Records keeping of staff continuing education and presentation
- Maintenance of staff CPR

## ATHLETIC TRAINING EXPERIENCE (SOUTH KOREA)

Athletic Trainer May 2011 – June 2013

Bareun-Sesang Sports Rehabilitation Center | Boondang-si, Republic of Korea

- Assessed injuries and provided rehabilitation treatments for pre- and post-surgical patients, injured athletes, and orthopedic injuries
- Implemented manual therapy techniques including stretching, joint mobilization, resisted exercise, massage, and sling exercise therapy
- Provided the schroth method of exercise for scoliosis and kyphosis patients
- Tested strength of knee, shoulder, elbow, back, and neck with Schnell M3 testing equipment and compare strengthening before and after rehabilitation treatment
- Performed pedorthic assessment, gait studies with TPScan foot scanner, and foot impression for customized orthotics.
- Supervised observation and internship students

#### ADDITIONAL PROFESSIONAL EXPERIENCE

#### Research Assistant & Physical Activity Courses Instructor

August 2010 – April 2011

YOU&I Center Sports Science Laboratory | Hawseung-si, Republic of Korea

- Assessed senior physical strength and nutrition
- Tested 3D posture, growth plate x-ray, and physical strengthening
- Taught seniors group stretching classes
- Taught women's and children's physical strengthening classes

#### Instructor of Physical Activity Class for Special Needs Kids and Elders

Byungjum Elementary School | Hawseung-si, Republic of Korea

March 2013 – July 2013

Taught physical activity after school class for special need kids as a primary instructor

Suwon Youth Foundation | Suwon-si, Republic of Korea

March 2009 – July 2010

Taught physical activity class for special need elementary kids as a primary instructor

Hanshin University | Osan-si, Republic of Korea

March 2006 – December 2007; 2009

Taught physical activity class for special need elementary kids as a primary instructor

Hwasung-si Community Health Center | Hawseung-si, Republic of Korea

Taught underwater physical activity class for elders in rural areas

September 2007 – December 2007