

Lee Tolbert Atkins

Curriculum Vitae

e-mail: lee.atkins@angelo.edu

PROFESSIONAL ADDRESS

Department of Physical Therapy
Angelo State University
ASU Station #10923
San Angelo, Texas 76909-0923
phone: (325) 486-6865
web: www.angelo.edu/dept/physical_therapy/

EDUCATION

2010-16 Ph.D. Rehabilitation Science (Clinical Biomechanics emphasis),
Texas Tech University Health Sciences Center, Lubbock, TX
2006-08 M.S. Physical Therapy, Angelo State University, San Angelo, TX
1999-03 B.S. Exercise and Sports Science, Texas Tech University, Lubbock, TX

PROFESSIONAL LICENSURE/CERTIFICATIONS

2009 Texas State Board of Physical Therapy Examiners, License #1186123
2005 Texas Educator Certificate for Secondary Mathematics (grades 6-12)

HONORS AND AWARDS

- ***Professor of the Program Award***, Angelo State University Doctor of Physical Therapy Awards Banquet, awarded by DPT class of 2020, San Angelo, TX (2020)
- ***Gary and Pat Rodgers Distinguished Faculty Award Recipient (\$2500)***, Angelo State University, Opening Day Assembly, San Angelo, TX (2019)
- ***Dean's Award for Excellence in Research (\$1000)***, TTUHSC Graduation Ceremony, Lubbock, TX (2017)
- ***3rd Place Poster Award (\$100)***, Laura W. Bush Institute, Sex and Gender Based Medicine & Women's Health Conference, TTUHSC, Lubbock, TX (2015)
- ***Scholarship of Excellence(\$1000)***, Association of Schools of Allied Health Professions, (2015)
- ***Texas Society of Allied Health Professions Graduate Student Award (\$585)***, TSAHP Annual Conference, Houston, TX (2014)
- ***Student Travel Award for the GCMAS Annual Conference (\$342)***, Gait & Clinical Movement Analysis Society Annual Conference, Newark, DE (2014)
- ***New Investigator Award for the Workshop on Advancing Arthritis Research (\$700)***, Boston University, ENACT, NIDRR Arthritis Rehab Research & Training Center, Pentagon City, VA (2014)
- ***Best Podium Presentation Award (\$150)***, South Central American Society of Biomechanics Regional Meeting, Dallas, TX (2013)
- ***Employee of the Month***, Team Rehab and Sports Medicine, Lubbock, TX (2011)
- ***Student Physical Therapist Award of Excellence (\$500)***, Midwest District, Texas Chapter, APTA/Angelo State University (2008)
- ***Carr Physical Therapy Graduate Scholarship (\$13,500)***, Angelo State University (2006-08)
- ***Who's Who Among Americas Teachers***, Wichita Falls Independent School District. (2005)
- ***West College of Education Scholarship (\$500)***, Midwestern State University (2004)
- ***Summa Cum Laude Graduate***, Texas Tech University (2003)

DISSERTATION

Committee: C. Roger James, Christopher Powers, Phillip S. Sizer, Jean-Michele Brismée, Steven Sawyer

Title: *Influence of Biomechanical Factors and Movement Retraining on Patellofemoral Pain, Patellofemoral Joint Reaction Force, and Movement Strategy during Single Limb Landing*

CURRENT GRANT SUPPORT **SUBMITTED GRANT PROPOSALS**

PAST GRANT SUPPORT

- 2018-2019 **Principal Investigator:** Angelo State University Faculty Research Enhancement Program Grant: *Sex Differences in Patellofemoral Joint Stress during Stair Ascent.* (**\$15,000**)
- 2017-18 **Principal Investigator:** Angelo State University Instructional Innovation and Research Development Mini Grant: *Validity and reliability of a tablet application for quantifying human movement during stair ambulation.* (**\$2500**)
- 2014-16: Texas Physical Therapy Foundation: **Principal Investigator:** *The effects of video based movement retraining on landing performance and patellofemoral joint reaction forces in females with patellofemoral pain.* (**\$2500**)
- 2012-13: Dynasplint Systems Inc.: James CR, Dendy D, Wolcott R, Yang HS, **Atkins LT**, Haddas R, Wilhelm M, Scott R. *Dynamic splinting for idiopathic toe walking: a randomized, controlled study with gait analysis.* (**\$67,500**)
- 2011-12: Bio-Dynamics Foundation: James CR, **Atkins LT**, Haddas R. *Effects of a tri-planar support system for footwear on lower extremity function during running.* (**\$12,000**)
- 2011: Bio-Dynamics Foundation: James CR, **Atkins LT**, Haddas R, Smith MP. *Comparison of rocker and flat-soled shoes during walking: Part 2.* (**\$9,375**)
- 2010: Human Performance and Wellness Inc.: James CR, **Atkins LT**, Haddas R, McCallister MT. *Comparison of rocker and flat-soled shoes during walking and standing: Part 1.* (**\$14,000**)

GRANT PROPOSALS NOT FUNDED

- 2019 - **Principal Investigator:** Angelo State University Faculty Research Enhancement Program Grant: *The effects of gluteus maximus activation training on lower limb muscle activation patterns in asymptomatic females.* (**\$15,000**)

PUBLISHED MANUSCRIPTS

- 1) Callaghan M, Richards J, **Atkins LT**, Selfe J. Medial and lateral knee deviation angular measurements to assess knee instability using smart phone video technology. *Can J Biomed Res & Tech.* 3(3):1-4, 2020.
- 2) **Atkins LT**, Smithson C, Grimes D, Heuer N. The influence of sagittal trunk posture on the rate and magnitude of patellofemoral joint stress during stair ascent. *Gait & Posture.* 74: 121-127, 2019.
- 3) Richards J, Selfe J, Callaghan M, **Atkins LT**. Are there differences in knee stability between patients with patellofemoral pain and healthy subjects during a slow step descent task? *PRM+.* 1(3): 67-70, 2018.
- 4) Yang HS, James CR, **Atkins LT**, Sawyer S, Sizer PS, Kumar N, Kim J. Effects of adding arm weight on gait performance in healthy subjects. *Hum Mov Sci.* 60: 40-47, 2018.
- 5) **Atkins LT**, James CR, Yang HS, Sizer PS, Brismée JM, Sawyer S, Powers CM. Changes in patellofemoral pain resulting from repetitive impact landings is associated with the magnitude and rate of patellofemoral joint loading. *Clin Biomech.* 53: 31-36, 2018.

- 6) James CR, **Atkins LT**, Yang HS, Dufek JS, Bates BT. Prediction of calcaneal bone competence from biomechanical accommodation variables measured during weighted walking. *Hum Mov Sci.* 56:37-45, 2017.
- 7) Gonzales JU, James CR, Yang HS, Jensen D, **Atkins LT**, Al-Khalil K, O'Boyle M. Carotid flow pulsatility is higher in women with lower cognitive capacity to walk and perform concurrent tasks. *Gait & Posture.* 54:271-276, 2017.
- 8) Yang HS, **Atkins LT**, James CR. Examination of stride-to-stride independence of lower extremity and temporal variables during treadmill walking. *Gait & Posture.* 50:212-216, 2016.
- 9) Gonzales JU, James CR, Yang HS, Jensen D, **Atkins LT**, Thompson BJ, Al-Khalil K, O'Boyle M. Different cognitive functions discriminate gait speed in middle-aged and older women. *Gait & Posture.* 50:89-95, 2016.
- 10) James CR, **Atkins LT**, Yang HS, Dufek JS, Bates BT. Kinematic and ground reaction force accommodation during weighted walking. *Hum Mov Sci.* 44:327-37, 2015.
- 11) Yang HS, **Atkins LT**, Jensen DB, James CR. Effects of constrained arm swing on vertical center of mass displacement during walking. *Gait & Posture.* 42(4):430-34, 2015.
- 12) James CR, **Atkins LT**, Dufek JS, Bates BT. An exploration of load accommodation strategies during walking with extremity-carried weights. *Hum Mov Sci.* 35C: 17-29, 2014.
- 13) Loyd L, Gilbert K, Sizer P, **Atkins LT**, Sobczak S, Brismee JM, Pendergrass T. The relationship between various anatomical landmarks used for localizing the first rib during surface palpation. *Journal of Manual and Manipulative Therapy.* 22(3):129-33, 2014.
- 14) **Atkins LT**, James CR, Sizer PS, Jonely HS, Brismée JM. Reliability and concurrent criterion validity of a novel technique for analyzing hip kinematics during running. *Physiotherapy Theory & Practice.* 30: 210-217, 2014.

SUBMITTED MANUSCRIPTS

MANUSCRIPTS IN PROGRESS

- 1) Yang HS, James CR, **Atkins LT**, Sawyer S, Sizer PS, Kumar N, Kim J. Effects of arm weight on gait performance in hemiparetic stroke and healthy subjects.
- 2) **Atkins LT**, James CR, Yang HS, Sizer PS, Brismée JM, Sawyer S, Powers CM. The effect of increasing trunk and hip flexion on joint and limb biomechanics and patellofemoral pain during single limb landing.
- 3) **Atkins LT**, Huckaby T, Nicks K, Roberson J, Denney T, Schultz J, Huckaby T, Nicks K. The influence of peak knee flexion angle on lower limb muscle activation during weighted back squat in collegiate football players.

PUBLISHED ABSTRACTS

(*student presentation)

- 1) *Davis C, Colley M, Bennett A, Reid R, **Atkins LT**, Nicks K. The immediate effects of blood flow restriction on gluteus maximus muscle activation. *Combined Sections Meeting of the American Physical Therapy Association.* Denver, CO. 2020. (poster)
- 2) *Van Bastian TJ, Eckert SD, Hofmann TR Adkins EL, Callaghan MJ, Selfe J, Richards J, **Atkins LT**. The reliability and validity of the Hudl Technique application for quantifying the knee frontal plane projection angle during a single leg step down task. *Annual Meeting of the Texas Society of Allied Health Professions.* Lubbock, TX, 2019. (poster)
- 3) *Tomlin M, Chan D, Ede K, **Atkins LT**. The effects of movement retraining on kinematics, pain, and dysfunction for an individual with femoroacetabular impingement. *Annual Meeting of the Texas Society of Allied Health Professions.* Lubbock, TX, 2019. (poster)

- 4) **Atkins LT**, Richards J, Selfe J, Kelly S, Callaghan M. Are there differences in knee stability between patients with patellofemoral pain and healthy subjects during a slow step descent task? *6th Int'l Patellofemoral Pain Research Retreat*. Milwaukee, Wisconsin. 2019 (podium)
- 5) Huckaby TL, Hirt B, Moreno S, **Atkins LT**. Effects of instability devices on muscular activation during performance of a glute bridge exercise. *Proceedings from the Annual Conference of the National Strength and Conditioning Association*. Washington, D.C. 2019 (poster)
- 6) Yang HS, James CR, **Atkins LT**, Sawyer SF, Sizer PS, Kumar NA, Kim J. Effects of arm weight on gait performance in hemiparetic stroke and healthy subjects.. *Med Sci Sports Exerc*. 51(5). *Annual Meeting of the American College of Sports Medicine*. Orlando, FL, 2019 (poster)
- 7) Smithson C, Grimes D, Heuer N, **Atkins LT**. Influence of sagittal plane trunk posture on peak patellofemoral joint stress during stair ascent. *J Orthop Sports Phys Ther*. 49(1) CSM67. *Combined Sections Meeting of the American Physical Therapy Association*. Washington, DC. 2019. (poster)
- 8) *Smithson C, Grimes D, Heuer N, **Atkins LT**. Influence of sagittal plane trunk posture on peak patellofemoral joint stress during stair ascent. *Annual Meeting of Texas Physical Therapy Association*. San Antonio, TX. 2018. (poster)
- 9) **Atkins LT**, Smithson C, Grimes D, Heuer N. Influence of forward trunk flexion during stair ascent on the average rate of patellofemoral joint stress development. *Proceedings of the Annual meeting of the American Society of Biomechanics*. Rochester, MN. 2018 (poster)
- 10) **Atkins LT**, James CR, Yang HS, Sizer PS, Brismée JM, Sawyer S, Powers CM. Changes in patellofemoral pain resulting from repetitive impact landings is associated with the magnitude and rate of patellofemoral joint loading. *5th International Patellofemoral Pain Research Retreat*. LaTrobe University, Gold Coast, Australia. 2017 (platform)
- 11) Huckaby TL, Roberson J, Denney T, Schultz J, Herring C, Nicks K, Parker A, **Atkins LT**. Influence of weighted back squat depth on lower limb muscle activation in collegiate football players. *Proceedings from the Annual Conference of the National Strength and Conditioning Association*. Las Vegas, NV. 2017 (poster)
- 12) Gonzales JU, Kim Y, Yang HS, Jensen D, **Atkins LT**, James CR. Lap time variation predicts task error during dual-task walking in cognitively healthy women. *ACSM Annual Meeting, 8th World Congress on Exercise is Medicine and World Congress on the Basic Science of Exercise and the Brain*. Denver, Colorado. 2016 (platform). *Med Sci Sport Exerc* 47(5S).
- 13) James CR, **Atkins LT**, Yang HS, Dufek JS, Bates BT. Prediction of calcaneal bone competence from biomechanical accommodation variables measured during weighted walking. *Proceedings of the Annual Meeting of the Gait & Clinical Movement Analysis Society*. Memphis, TN. 2016 (poster).
- 14) **Atkins LT**, Yang HS, James CR. Effects of video feedback on joint and limb mechanics during single limb landing in a female at risk of patellofemoral osteoarthritis: a single subject analysis. *Proceedings of the Annual Meeting of the Gait & Clinical Movement Analysis Society*. Newark, DE. 2014 (platform).
- 15) **Atkins LT**, Yang HS, James CR. Effects of video feedback on joint and limb mechanics during single limb landing in a female at risk of patellofemoral osteoarthritis: a single subject analysis. *Proceedings from the Arthritis State of the Science Meeting*. Pentagon City, VA. 2014. (poster)
- 16) **Atkins LT**, James CR, Sizer PS, Jonely H, Brismée JM. Reliability and concurrent criterion validity of a novel technique for assessing frontal plane hip kinematics during running. *Br J Sports Med*.48(6):e1, 2014. *Int'l Patellofemoral Pain Research Retreat*, Vancouver, BC. 2013. (poster)
- 17) **Atkins LT**, Dufek JS, Bates BT, James CR. Prediction of load accommodation strategies during walking from lower extremity kinematic variables. *Proceedings of the Annual Meeting of the American Society of Biomechanics*. Omaha, NE. 2013. (poster)
- 18) Lohman CM, Smith MP, Dedrick GS, **Atkins LT**, Jarman N, Brismée JM. Reliability and validity of musculoskeletal ultrasound for identification of humeroradial joint chondral lesions: a preliminary investigation. *J Athl Train*. 8(3):S-123, 2013. Las Vegas, NV. (platform).

- 19) **Atkins LT**, James CR, Sizer PS, Jonely HS, Brismée JM. Reliability and concurrent criterion validity of a novel technique for analyzing hip kinematics during running. *Annual Meeting of the Texas Physical Therapy Association*. San Antonio, TX, 2012. (poster)
- 20) Loyd BJ, Sobzacak S, Brismée JM, **Atkins LT**, Pendergrass T, Sizer PS, Gilbert KK. The relationship of anatomical landmarks used during first rib palpation and localization. *Annual Meeting of the Texas Physical Therapy Association*. San Antonio, TX, 2012. (poster)
- 21) **Atkins LT**, Dufek JS, James CR. Evaluation and classification of load accommodation strategies during walking with extremity-carried weights: A pilot study. *Proceedings of the Annual meeting of the American Society of Biomechanics*. Gainesville, FL. 2012 (poster).

UNPUBLISHED ABSTRACTS

(*student presentation)

- 1) *Hirt B, Moreno S, **Atkins LT**, Huckaby T. Effects of instability devices on muscular activation during a glute bridge exercise. *Angelo State University Graduate Student Research Symposium*. San Angelo, TX 2018 (poster).
- 2) **Atkins LT**, James CR, Yang HS, Sizer PS, Brismée JM, Sawyer S, Powers CM. Changes in patellofemoral pain resulting from repetitive impact landings is associated with the magnitude and rate of patellofemoral joint loading. *Annual meeting of the South Central Region of the American Society of Biomechanics*. Dallas, TX 2017. (podium).
- 3) Yang HS, James CR, Sizer PS, Sawyer SF, Kumar NA, Kim JY, **Atkins LT**. Effects of adding arm weights on gait performance in healthy subjects. *Annual meeting of the South Central Region of the American Society of Biomechanics*. Dallas, TX 2017. (podium).
- 4) **Atkins LT**, James CR, Powers CM, Sizer PS, Brismée JM, Sawyer SF, Yang HS. Relationships between patellofemoral pain, patellofemoral joint reaction force, and movement biomechanics during single limb landing in active women. *Endowed Lecture Series Symposium*. Lubbock, TX 2016. (poster).
- 5) **Atkins LT**, Yang HS, Jensen DB, Gonzales JU, James CR. Exploring the differences between middle-aged and older women during multitasking gait activities: preliminary findings. *Sex and Gender Based Medicine & Women's Health Conference*. Lubbock, TX 2015. (poster) "**3rd Place Poster Award**"
- 6) Yang HS, **Atkins LT**, Jensen DB, James CR. Effects of constrained arm swing on vertical center of mass displacement during walking. *Annual meeting of the South Central Region of the American Society of Biomechanics*. Dallas, TX 2015. (platform)
- 7) Yang HS, **Atkins LT**, James CR. Analysis of stride dependence during gait using autocorrelation. *Annual meeting of the South Central Region of the American Society of Biomechanics*. Dallas, TX 2014. (platform) "**Best Podium Presentation Award**"
- 8) **Atkins LT**, Yang HS, James CR. Effects of video feedback on joint and limb mechanics during single limb landing in a female at risk of patellofemoral osteoarthritis: a single subject analysis. *Annual meeting of the South Central Region of the American Society of Biomechanics*. Dallas, TX 2014. (platform)
- 9) **Atkins LT**, Yang HS, James CR. Effects of video feedback on joint and limb mechanics during single limb landing in a female at risk of patellofemoral osteoarthritis: a single subject analysis. *Texas Tech Univ Health Sciences Ctr Student Research Week*, Lubbock, TX, 2014. (poster)
- 10) Yang HS, **Atkins LT**, James CR. Analysis of stride dependence during gait using autocorrelation. *Texas Tech Univ Health Sciences Center Student Research Week*. Lubbock, TX, 2014. (poster)
- 11) **Atkins LT**, Dufek JS, Bates BT, James CR. Prediction of load accommodation strategies during walking from lower extremity kinematic variables. *Annual meeting of the South Central Region of the American Society of Biomechanics*. Dallas, TX 2013. (platform) "**Best Presentation Award**"

- 12) Lohman CM, Smith MP, Dedrick GS, **Atkins LT**, Jarman N, Brismée JM. Reliability and validity of musculoskeletal ultrasound for identification of humeroradial joint chondral lesions: a preliminary investigation. *Texas Tech University Health Sciences Center Student Research Week*. Lubbock, TX, 2013. (poster) "**Best Practices Research Award**"
- 13) **Atkins LT**, Dufek JS, James CR. Evaluation and classification of load accommodation strategies during walking with extremity-carried weights: A pilot study. *Annual meeting of the South Central Region of the American Society of Biomechanics*. Dallas, TX. 2012. (platform)
- 14) **Atkins LT**, Ayres LD, Delano AE, Bybee RF. The value of patient education in the treatment of patients with low back pain. *Angelo State University Student Research Showcase*. San Angelo, TX, 2008. (poster)

SUPERVISED STUDENT RESEARCH

Primary Advisor

- 1) Cage D, Lowery M, Walker K, Raegor S, **Atkins LT**. Influence of sagittal plane trunk posture on the magnitude and rate of the achilles tendon force during stair ascent. 2021-22.
- 2) Reid J, Zink D, Mason C, **Atkins LT**. The influence of increased forward trunk lean on stair ascent kinematics in asymptomatic females. 2020-21.
- 3) Ault K, Brown D, Graves D, Matscheck B, **Atkins LT**. The immediate effects of movement retraining on dynamic postural stability. 2020-21.
- 4) DiMercurio J, Harrison C, Ebmeyer J, Davis R, **Atkins LT**. Biomechanical differences between males and females that are associated with increased patellofemoral joint stress during stair ascent. 2019-20.
- 5) Chan D, Tomlin M, **Atkins LT**. The effect of movement retraining on kinematics, pain, and function for an individual with femoracetabular impingement. 2019-20
- 6) Eckert S, VanBastian T, Adkins E, Hoffman T, **Atkins LT**. Reliability and Concurrent Validity of a tablet application for quantifying human motion during a step descent. 2019-20.
- 7) Grimes D, Heuer N, Smithson N, **Atkins LT**. *The influence of sagittal trunk posture on patellofemoral joint stress during stair negotiation*. 2018-19.
- 8) Roberson J, Denney T, Schultz J, Huckaby T, Nicks K, **Atkins LT**. *The influence of peak knee flexion angle on lower limb muscle activation during weighted back squat*. 2016-17.

Secondary Advisor

- 1) Mann E, Cardenas, **Atkins LT**, Villers J. The immediate effect of adding lumbar PA mobilization to a static stretching program on hamstring extensibility: a randomized controlled trial. 2020-21
- 2) Busker M, Campos E, **Atkins LT**, Huckaby T. Effects of suspension straps on core muscle activation during glute bridge and plank exercises. 2020-21.
- 3) Braden T, Burch M, Pyle A, Mott S, **Atkins LT**, Braden H. Center of force variables associated with functional balance measures in older populations. 2020-21.
- 4) Davis C, Colley M, Bennett A, Reid R, **Atkins LT**, Nicks K. The effect of blood flow restriction on gluteus maximus activation during open chain exercise. 2019-2020.
- 5) Althof T, Burtch J, Young-In K, Villers J, Huckaby T, **Atkins LT**. *The immediate effects of inhibitory kinesiotaping of the hamstrings on selected lower limb muscle activity*. 2018-19.
- 6) Moreno S, Hirt B, **Atkins LT**, Huckaby T. *Effect of suspension straps on lower limb muscle activation during a glute bridge maneuver*. 2018-19.
- 7) David B, Richie M, **Atkins LT**, Huckaby T. *Effect of suspension straps on core muscle activation during a push-up maneuver*. 2018-19.

- 8) Carmichael L, Dimalanta V, Ramirez J, Rangel J, Nicks K, **Atkins LT**, Huang F, Moore K. *To Stride or not to stride?: a comparison of hip and lower extremity muscle activation with two variations of the lunge exercise*. 2018-19.
- 9) Londerholm J, **Atkins LT**, Brown J, Moore K. Differences in peak acceleration between simulated falls and functional tasks detected via myofit bracelet.

Graduate Advisory Committees

Doctoral Dissertations

- *Outside Committee Member*: Cheryl Obregon, Doctoral Dissertation, Doctor of Science in Physical Therapy Program, Texas Tech University Health Sciences Center. (2019-present)

Master's Theses

- *Outside Committee Member*: Tyra Timm, Colorful leadership: perceptions of intersectional leaders. Department of Psychology and Sociology, Angelo State University. 2020
- *Outside Committee Member*: Everett Corder, The rhetoric of raines: how a change in definition affected one player's hall of fame candidacy. Communications Department, Angelo State University. 2018

TEACHING EXPERIENCES

Current Teaching Responsibilities at Angelo State University

- 1) PT 7655 Neuromuscular Examination and Management (**guest lecturer** – AFO's) (2019)
- 2) PT 7235 Disability Studies (**co-instructor**) (2019)
- 3) PT 7330 Functional Biomechanical Relationships (**coordinator**) (2017-present)
- 4) PT 7556 Musculoskeletal Examination and Management II (**co-instructor**) (2017-present)
- 5) PT 7710 Clinical Anatomy (**co-instructor**) (2017-present)
- 6) PT 7322 Musculoskeletal Pathology (**guest lecturer**–knee musculoskeletal pathology) (2017-present)
- 7) PT 7651 Acute Care Management (**co-instructor**) (2017)

Past High School Teaching Experience

Sophomore Geometry (5 sections).Wichita Falls Independent School District, Wichita Falls High School, Wichita Falls, TX (2004-2005)

Invited/Guest Lectures and Presentations

- 1) *Guest Lecturer. Introduction to Visual3d*. PhD Program in Rehabilitation Sciences, Texas Tech University Health Sciences Center, Lubbock, TX (2020).
- 2) *Distinguished Seminar Lecturer at Endowed Lecture Series*. School of Health Professions, Texas Tech University Health Sciences Center, Lubbock, TX (2019)
- 3) *Clinical Biomechanics Lab Open House – Motion Capture System Demonstration* – ASU Campus/Surrounding Community Invited. Angelo State University, San Angelo, TX (2019)
- 4) *Clinical Biomechanics Lab – Motion Analysis Equipment Demonstration*. Undergraduate Pre-Physical Therapy Club Meeting, Angelo State University, San Angelo, TX (2019).
- 5) *Normal waking mechanics and the use of technology to assist in performing clinical gait analyses*. Midwest District Meeting of the Texas Physical Therapy Association, Shannon Hospital. San Angelo, TX (2018). **TPTA-approved 6 CCU**
- 6) *Surface electromyography: clinical applications*. West Texas Rehabilitation Center Clinical In-Service. San Angelo, TX (2017).
- 7) *Incorporating activation exercises into a movement retraining program: scientific rationale*. West Texas Rehabilitation Center Clinical In-service. San Angelo, TX (2017).

- 8) *An introduction to clinical gait analysis*. Lunch & Learn Presentation. Angelo State University PT Department. San Angelo, TX (2017). **TPTA-approved for 1 CCU**
- 9) *Knee pain and osteoarthritis post ACLR: link to lower chain mechanisms*. Basic & Applied Science in Orthopedics Course, ScD Program in Physical Therapy, Texas Tech University Health Science Center, Lubbock, TX (2014).
- 10) *2-D Motion Capture*. Biomechanics in Orthopedics Course. ScD Program in Physical Therapy, Texas Tech University Health Science Center. Lubbock, TX (2014).
- 11) *The single subject approach to understanding & treating movement dysfunction*. Biomechanics Department, University of Nevada at Las Vegas. Las Vegas, NV (2014).
- 12) *Application of clinical motion capture & EMG technology in an outpatient neurological clinic*. Team Rehab & Sports Medicine at Zach's, University Medical Center, Lubbock, TX (2013).
- 13) *Techniques for integrating clinical motion capture and EMG technology in clinical settings*. TPTA South Plains Dist Meeting, UMC Team Rehab & Sports Med at Zach's, Lubbock, TX (2013).
- 14) *Clinical gait and motion analysis*. 6th Annual Sports Medicine Conference, Texas Tech University Health Science Center, Lubbock, TX (2013). **TPTA-approved for 1 CCU**
- 15) *Clinical motion capture in an outpatient neurological setting*. South Plains Rehabilitation, University Medical Center, Lubbock, TX (2013).
- 16) *Techniques for integrating clinical motion capture and EMG technology in clinical settings*. MAT Program, Texas Tech University Health Science Center, Lubbock, TX, (2013).
- 17) *Articular cartilage tissue mechanics & gait impairments related to the development of knee osteoarthritis post ACLR*. Basic & Applied Science in Orthopedics Course, ScD Program in Physical Therapy, Texas Tech University Health Science Center, Lubbock, TX (2012).
- 18) *Fundamentals of orthopaedics: posture & gait analysis*. Musculoskeletal Practice Patterns Course, DPT Program, Texas Tech University Health Science Center, Lubbock, TX (2011).
- 19) *Integrating clinical motion capture into orthopaedic clinical practice*. Team Rehab & Sports Medicine at Zach's, University Medical Center, Lubbock, TX (2011)

WORK EXPERIENCE & CLINICAL PRACTICE

(listed according to start date)

- 11/16-present **Assistant Professor**
Department of Physical Therapy
Angelo State University, San Angelo, TX
- 1/13 - 1/14 **PRN Physical Therapist**
Select Rehabilitation Services, Lubbock, TX
- 8/11 - 5/13 **Part-Time Physical Therapist**
Team Rehab and Sports Medicine at Zach's Club, Lubbock TX
 Provided physical therapy to persons with lower quarter/gait-related orthopaedic dysfunction incorporating the following types of clinical technology:
 - SIMI Aktisys Soft/Hardware
 - Delsys Trigno Surface EMG
 - Level Belt Pro
 - Personally Developed Gait Assessment Technique - (see *publication*)
- 5/10 - 12/11 **Graduate Teaching Assistant**
Doctor of Physical Therapy Program, TTUHSC School, Lubbock, TX

- 7/09 - 5/10 **Staff Physical Therapist**
Clay County Memorial Hospital, Henrietta, TX
 Provided physical therapy to patients with orthopaedic and neurological conditions. Settings: outpatient, swing-bed, home health
- 1/09 - 7/09 **Staff Physical Therapist**
North Texas Rehabilitation Center, Wichita Falls, TX
 Provided physical therapy to outpatients with variety of neurological and orthopaedic conditions using land-based and aquatic physical therapy.
- 8/04-5/05 **High School Teacher/Coach**
WFISD, Wichita Falls High School, Wichita Falls, TX
 Coordinated 5 sections of high school geometry using state-based learning objectives.
 Coach - 9th grade football and baseball.

SOFTWARE DEVELOPMENT/EXPERIENCE

- SIMM Musculographics (v7.0)
- Tekscan HR Mat (v7.1)
- Vicon Nexus (v2.6, v1.8)
- Visual3D Professional (v5.01)
- Peak Motus (v9)
- Delsys – EMGworks Acquisition (v4.1.1)
- SIMI Aktisys (1.4.1.3)
- MATLAB
- Blackboard
- Microsoft Office Suite
- C++
- Adobe Photoshop (v19.0)

PROFESSIONAL MEMBERSHIPS

- Texas Society of Allied Health Professionals (2019-present)
- Gait & Clinical Movement Analysis Society (2014-present)
- American Society of Biomechanics (2010-present)
- Texas Physical Therapy Association (2006-present)
- American Physical Therapy Association (2006-present)
 - Orthopaedic Section Member
 - Research Section Member
 - Biomechanics Special Interest Group Member

PROFESSIONAL SERVICES

University Service

- *ASU Graduate Council Member (2019-2020)*
- *Commencement Marshal (December 2018, May 2019)*
- *Academic Excellence Committee (2018-Present)*
- *Faculty Senator – (2018-Present)*
- *Graduate Faculty (2017-Present)*
- *ADA Committee on Accessibility of Facilities and Services (2017-19)*

College & Departmental Service

- *Archer College Curriculum Committee - Chair (2020-21)*
- *Archer College Curriculum Committee - Member (2019-20)*
- *Physical Therapy Department Faculty Search Committee Co-Chair (2019)*
- *ACAPT National Student Honor Society Selection Committee (2019-present)*
- *Physical Therapy Department Curriculum Committee (2019-present)*
- *Social Work Department Clinical Instructor Search Committee, (2019)*
- *Social Work Department Faculty Search Committee, (2018)*
- *Ad-Hoc Committee for Student Leadership and Professional Development (2018-Present)*
- *Ad-Hoc Committee for On-Campus Learning Clinic (2018-Present)*
- *Ad-Hoc PT Department Graduate Assistant Hiring Committee (2018-Present)*
- *ASU Clinical Biomechanics Lab Open House (2018)*
- *Peer-Review Committee for Faculty Evaluations (2017-Present)*
- *Academic Committee Member (2016-Present)*

Ad-Hoc Manuscript Reviewer

- *Physical Therapy in Sport (2019-present)*
- *The Knee (2018-present)*
- *Journal of Medical and Biological Engineering (2017)*
- *Physiotherapy Theory & Practice (2013-present)*
- *Clinical Biomechanics (2013)*

Other Professional Services

- Hosted virtual recruiting visit with Texas Tech University Pre-PT Club. Spring 2020.
- Recruiting trip for ASU DPT program for the Pre-PT Club at Texas Tech University. Lubbock, TX. Spring 2020.
- Organized project (as part of PT 7235 Disability Studies) where students assessed ADA compliance of campus facilities. Findings/recommendations presented to ASU ADA Compliance Committee. Spring 2019.
- Hosted virtual recruiting visit with Oklahoma State University Pre-PT Club. Spring 2019.
- Recruiting trip for ASU DPT program for the Pre-PT Clubs at Lubbock Christian University and Texas Tech University. Lubbock, TX. Fall 2019.
- Recruiting trip for ASU DPT program at the Texas Tech University Health Sciences Fair and Pre-PT Club. Lubbock, TX. Spring 2019.
- Set-up/attended training at TTUHSC to learn how to perform novel, dry cadaver dissections. Implemented dissection technique in PT 7710 lab to optimize experience with lab. 2019.
- Faculty role in student mentorship program at the Annual American Society of Biomechanics Conference. Rochester, MN. 2018.
- Provided tour of San Angelo to ASU Candidate for Social Work Department. 2018.
- Assisted an international team of researchers in developing Consensus Statement at the 5th International Patellofemoral Pain Research Retreat. Gold Coast, Australia, 2017.
- Served as a Judge on the Awards Committee for the South Central Regional Conference for the American Society of Biomechanics Annual Conference. Plano, TX. 2017
- Supervised physical therapy students at Angelo State University pro-bono physical therapy clinic. San Angelo, Texas. 2017.
- Assisted an international team of researchers in developing Consensus Statement from the 3rd International Patellofemoral Pain Research Retreat. *Br J Sports Med.* 48:411-414, 2014.

COMMUNITY SERVICE

- Pro-Bono strength assessment for patient of local PT using dynamometer in Clinical Biomechanics Lab, San Angelo, TX (2020)
- PT Day of Service, Senior Care Meadow Creek, multi-surface walkway installation, San Angelo, TX (2018)
- Pro-Bono Ergonomic Office Assessment for ASU faculty member, San Angelo, TX (2018)
- Pro-Bono Instrumented Movement/Gait Analyses (14 total): Each analysis lasted 2 hours & included DPT students and/or local physical therapists. (2016-present).
- Pro-Bono Instrumented Gait Analyses (10 total): Each analysis lasted approximately two hours and included educational and exercise instruction components, Lubbock, TX (2012-16).
- Ambucs Am Tryke Assembly, Team Rehab & Sports Medicine at Zach's, Lubbock, TX (2011).
- South Plains Food Bank Volunteer Canned Food Drive, United Supermarket, Lubbock, TX (2010).
- Planning Committee, "Tons O' Fun" American Heart Association Benefit Run, San Angelo, TX (2008)
- Trick or Treat For Canned Goods, Angelo State Physical Therapy Assn, San Angelo, TX (2006-08)

PROFESSIONAL CONFERENCES/WORKSHOPS

- 6th Annual International Patellofemoral Pain Research Retreat. Milwaukee, WI (2019).
- Annual Conference of the Texas Society of Allied Health Professions. Lubbock, TX (2019).
- Combined Sections Meeting of the American Physical Therapy Association. Washington DC. (2019).
- Lilly Conference on College and University Teaching. Austin, TX (2019).
- Annual Meeting of the Texas Physical Therapy Association. San Antonio, TX (2018).
- Annual Meeting of the American Society of Biomechanics. Rochester, MN (2018).
- 5th Annual International Patellofemoral Pain Research Retreat, Gold Coast, Australia. (2017)
- Annual Meeting of the South Central Region, American Society of Biomechanics, Plano, TX. (2017)
- Combined Sections Meeting of the American Physical Therapy Association. San Antonio, TX. (2017)
- Sex- and Gender-Based Medicine & Women's Health Symposium. Lubbock, TX. (2015)
- 37th Annual Conference of the Texas Society of Allied Health Professions. Houston, TX (2014).
- Annual Meeting of the Gait & Clinical Movement Analysis Society. Newark, DE (2014).
- Annual Meeting of the South Central Region, American Society of Biomechanics. Dallas, TX (2014).
- Arthritis State of the Science Meeting. Boston University ENACT & NIDRR Arthritis Rehab Research and Training Center. Pentagon City, VA (2014)
- New Investigator Workshop on Advancing Arthritis Research. Boston University ENACT & NIDRR Arthritis Rehab Research and Training Center. Pentagon City, VA (2014)
- Combined Sections Meeting of the American Physical Therapy Association. Las Vegas, NV (2014)
- 3rd Annual International Patellofemoral Pain Research Retreat. Vancouver, BC (2013).
- Annual Meeting of the American Society of Biomechanics. Omaha, NE (2013).
- Annual Meeting of the South Central Region, American Society of Biomechanics. Dallas, TX (2013).
- 6th Annual Sports Medicine Conference. TTUHSC, Lubbock, TX (2013).
- Annual Meeting of the Texas Physical Therapy Association. San Antonio, TX (2012).
- Annual Meeting of the American Society of Biomechanics. Gainesville, FL (2012).
- Annual Meeting of the South Central Region. American Society of Biomechanics. Dallas, TX (2012).
- 4th Annual Sports Medicine Conference. TTUHSC, Lubbock, TX (2011).
- 3rd Annual Sports Medicine Conference. TTUHSC, Lubbock, TX (2010).
- 1st Annual International Patellofemoral Pain Syndrome Research Retreat. Baltimore, MD (2009).

CLINICAL CERTIFICATIONS

- *Advanced functional biomechanics of lower quarter certificate: principles of evaluation & treatment.* Dr Christopher Powers, PT, PhD, Movement Performance Institute, Los Angeles, CA (2012).
- *M.D.T.-McKenzie parts A & B Certification*, Dr Ron Bybee, DPT, OCS, Dip MDT, McKenzie Institute, USA (2007).

CLINICAL CONTINUING EDUCATION COURSEWORK

- *Advanced Functional Biomechanics of the Lower Quarter Reunion/Update Course.* Dr. Christopher Powers, PT, PhD. Movement Performance Institute, Los Angeles, CA (2017).
- *Putting Gait Retraining for Runners into Practice.* Dr Irene Davis, PT, PhD, Lindsay Troilo, PT, Erin Futrell, PT. Combined Sections Meeting, San Antonio, TX (2017).
- *Examination & Treatment of the Foot and Ankle - International Academy of Orthopaedic Medicine.* Dr Jean-Michele Brismée, PT, ScD. Lubbock, TX (2016).
- *Kinesiological Fine-Wire Electromyography Course.* Dr Sherry Backus, PT, DPT, MA & Dr Carole Tucker, PT, PhD. GCMAS Annual Meeting, Newark, DE (2014)
- *1st Annual International Patellofemoral Pain Clinical Symposium.* Vancouver, BC, Canada (2013). Irene Davis, Paul Hodges, Jenny McConnell, Christopher Powers, Erik Witvrouw, Kay Crossley
- *6th Annual Sports Medicine Conference.* TTUHSC, Lubbock, TX (2013).
- *Advanced Functional Biomechanics of the Lower Quarter: Integration of Technology into Practice 6-Month Certificate Series.* Dr Christopher Powers, PT, PhD. Los Angeles, CA (07/12 - 12/12).
- *Sensorimotor Control & Rehabilitation of the Lower Extremity (SenMoCOR).* Dr Philip Sizer, PT, PhD. Lubbock, TX (2011).
- *Functional Biomechanics of the Lower Quarter: Implications for Evaluation and Treatment of Musculoskeletal Disorders - Level II.* Dr Christopher Powers, PT, PhD. Los Angeles, CA (2011).
- *Functional Biomechanics of the Lower Quarter: Implications for Evaluation and Treatment of Musculoskeletal Disorders-Level I.* Dr Christopher Powers, PT, PhD. Washington, D.C. (2011).
- *Examination & Treatment of the Cervical-Thoracic Junction and TOS - International Academy of Orthopaedic Medicine.* Dr Jean-Michele Brismée, PT, ScD. Lubbock, TX (2011).
- *Examination & Treatment of the Lower Cervical Spine - International Academy of Orthopaedic Medicine.* Dr Gail Apte, PT, ScD. Lubbock, TX (2011).
- *4th Annual Sports Medicine Conference.* TTUHSC, Lubbock, TX (2011).
- *3rd Annual Sports Medicine Conference.* TTUHSC, Lubbock, TX (2010).
- *Recent Advances in the Evaluation and Treatment of the Shoulder and Knee.* Kevin Wilk, PT, DPT. San Antonio, TX (2010).