

**CURRICULUM VITAE**  
**University of Pittsburgh**  
**School of Health and Rehabilitation Sciences**

**BIOGRAPHICAL**

**Name:** Michelle Varnell

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**EDUCATION and TRAINING**

**UNDERGRADUATE**

2000-2004	Grand Canyon University Phoenix, Arizona	Bachelors of Science 2004	Athletic Training
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**GRADUATE**

2004-2006	A.T. Still University, ASHS Mesa, Arizona	Master of Science 2009	Sports Health Care
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**POST-GRADUATE**

2011-2015	University of Pittsburgh Pittsburgh, Pennsylvania	Doctor of Philosophy 2015	Rehabilitation Sciences
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**APPOINTMENTS and POSITIONS**

**ACADEMIC**

2019-Current	University of Pittsburgh Pittsburgh, Pennsylvania	Assistant Professor Athletic Training Education Program Department of Sports Medicine & Nutrition
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2015-2018	Salem State University Salem, Massachusetts	Assistant Professor Athletic Training Program Department of Sport and Movement Sciences
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2011-2015	University of Pittsburgh Pittsburgh, Pennsylvania	Research Associate Neuromuscular Research Laboratory Department of Sports Medicine & Nutrition
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**NON-ACADEMIC**

2007-2011	Banner Health Sun City West, Arizona	Research Associate (SHRI-CORE Orthopedic Labs)
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2006-2007	Physiotherapy Associates Peoria, Arizona	Head Athletic Trainer (Centennial High School)
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2004-2006      Xavier College Preparatory      Assistant Athletic Trainer  
Phoenix, Arizona

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### CERTIFICATION and LICENSURE

2019-Current    Licensed Athletic Trainer  
Pennsylvania Board of Medicine  
#RT007271

2015-2019      Licensed Athletic Trainer  
Massachusetts State Board of Allied Health Professions

2004-Current    Board Certified Athletic Trainer  
National Board of Certification for the Athletic Trainer  
BOC#: 100402042

2000-Current    Certified in CPR & AED for the Professional Rescuer  
American Heart Association

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### MEMBERSHIPS in PROFESSIONAL and SCIENTIFIC SOCIETIES

2019-Current    Pennsylvania Athletic Training Society

2004-Current    National Athletic Trainers Association

2012-Current    International Shoulder Group

2004-2011      Arizona Athletic Trainers Association

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### PUBLICATIONS

#### REFEERED JOURNAL PUBLICATIONS

Strama E, Keenan KA, Faherty M, Sell T, Raferty D, Salesi K, Csonka J, **Varnell, M.** Throwing shoulder adaptations are not related to shoulder injury or pain: a preliminary report. Sports Health. *Accepted*

Johnson, CD., Faherty, MS., **Varnell, MS.**, Lovalekar, M., Williams, VJ., Csonka, J., Salesi, K., Sell, TC. (2019). An analysis of musculoskeletal variables, comparative to team norms, leading to an ACL rupture in a female soccer player. *Duke Orthopaedic Journal*. 9(1): 6-14

Faherty M, **Varnell M**, Csonka J, Salesi K, Gomez S, Sell T. Sex Differences in Lower Extremity Musculoskeletal and Neuromuscular Characteristics in Intercollegiate Soccer Athletes. *Science and Medicine in Football*. (2019):1-7.

Norberg J, **Varnell M**. Kinetic and Muscle Activity Comparisons in Race Walking and Running. *Slovak Journal of Sport Science*. (2017) 2

Keenan KA, Akins JS, **Varnell M**, Abt JP, Lovalekar M, Lephart SM, Sell TC. Kinesiology tape does not alter shoulder strength, shoulder proprioception, or scapular kinematics in healthy, physically active subjects and subjects with Subacromial Impingement Syndrome. *Physical Therapy in Sport*, (2017) 24, 60-66.

**Varnell M**, Keenan K, McFate D, Csonka J, Salesi K, Sell T. Musculoskeletal Characteristics of the Dominant Shoulder Complex in Intercollegiate Baseball and Softball Players by Position and Sport. *Athletic Training and Sports Health Care*, (2016) 8(2), 70-81.

**Varnell, M**. Bhowmik-Stoker, M. McCamley J. Jacofsky, MC. Campbell, M. Jacofsky DJ. Differences in Ability to Perform Stair Negotiation Based on Total Knee Arthroplasty Surgical Approach. *Journal of Knee Surgery*, (2011) 24(02), 117-123

## CONFERENCE PROCEEDINGS

**Varnell, MS.** McFate, DA. Keenan, KA. Heebner, NR. Salesi, T. Csonka, J. Kido, Y. Schreppel, B. Sell, TC. The Effect of Intrinsic Musculoskeletal Characteristics on Shoulder Complex Injury in Collegiate Baseball and Softball Players. Podium presented: *61<sup>st</sup> Annual Meeting and Clinical Symposia of the National Athletic Trainers Association*. Las Vegas, Nevada, 2013

Keenan KA, Akins JS, **Varnell MS**, Abt JP, Sell TC, Lovalekar MT, Lephart SM. Kinesiology Taping Does Not Improve Shoulder Proprioception, Shoulder Strength, or Scapular Kinematics in Healthy or Shoulder Impingement Subjects: A Preliminary Report. National Athletic Trainers' Association Annual Meeting; June 24-27, 2013; Las Vegas, NV.

**Varnell, M.** Bhowmik-Stoker, M. Jacofsky, DJ. Jacofsky, MC. The Effect of Total Knee Arthroplasty Approach on the Ability to Perform Stair Descent. Podium presented: *The 2010 Annual Meeting for the American Academy of Orthopedic Surgeons*. New Orleans, LA, 2010

## PUBLISHED ABSTRACTS

Khuzeykin I, Coppinger S, **Varnell M**, Silva KJ, Gallo JA, Quadriceps Femoris Muscle Force Production Using a Portable Neuromuscular Electrical Stimulation Device. Eastern Athletic Training Association Annual Meeting; January 5-8, 2018; Boston, MA.

Faherty MS, Csonka J, Salesi K, **Varnell M**, Connaboy C, Nagai T, Lovalekar M. Changes in Static Balance and Dynamic Postural Stability Are Associated with History of Ankle Sprain in Male and Female Intercollegiate Soccer Athletes. *International Ankle Symposium*; September 15-17, 2017; Chapel Hill, NC.

Faherty M, **Varnell M**, Csonka J, Salesi K, Gomez S, Sell T. A Descriptive Analysis of Lower Extremity Flexibility and Strength in Collegiate Men's and Women's Soccer Athletes. Eastern Athletic Training Association Annual Meeting; January 8-11, 2016; Boston, MA.

Keenan KA, **Varnell MS**, Sell TC, Abt JP, Lovalekar MT, Lephart SM. The Relationship among Trunk Strength, Trunk Power, and Knee Kinematics during a Stop Jump-Cut Maneuver. National Athletic Trainers' Association Annual Meeting; June 23-26, 2015; St. Louis, MO.

Sell MA, **Varnell MS**, Keenan KA, Abt JP, Sell TC, Lephart SM. The Relationship between Trunk Kinematics and the Dynamic Postural Stability Index. National Athletic Trainers' Association Annual Meeting; June 23-26, 2015; St. Louis, MO.

Nagai T, Sell TC, Abt J, **Varnell MS**, Eagle SR, Lephart SM. Shoulder Strength, Flexibility, and Postural Characteristics among Naval Special Warfare Students with and without History of Shoulder Injury. National Strength and Conditioning Association Annual Meeting; July 9-12, 2014; Las Vegas, NV

**Varnell, M.** Jacofsky, MC. Jacofsky, DJ. Surgical Approach Results in Different Strategies at the Hip and Knee during the Performance of Stair Negotiation at Two Years Following TKA. Presented at: *57<sup>th</sup> Annual Meeting of the Orthopedic Research Society*. January 13-16, 2011; Long Beach, CA.

Onstot, BR. Johnson, AK. **Varnell, M.** Jacofsky, MC. Jacofsky, DJ. Functional Differences between BMI groups During Ascent One Year After TKA. Presented at: *57<sup>th</sup> Annual Meeting of the Orthopedic Research Society*. January 13-16, 2011; Long Beach, CA.

**Varnell, M.** McCamley, JD. Jacofsky, MC. Jacofsky DJ. Gait Analysis of Medial and Lateral Osteoarthritis One Year after Total Knee Arthroplasty. Presented at: *57<sup>th</sup> Annual Meeting of the Orthopedic Research Society*. January 13-16, 2011; Long Beach, CA.

**Varnell M**, Jaczynski A, Hansen M, Bay RC, Sauers E. The Relationship Between Upper Body Posture and Scapular Kinematics in Older Adults. Presented at: 61<sup>st</sup> Annual Meeting and Clinical Symposia of the National Athletic Trainers Association; June 23-25, 2010; Philadelphia, PA

**Varnell, M.** Bhowmik-Stoker, M. Jacofsky, DJ. Jacofsky, MC. The Effect of Total Knee Arthroplasty Approach on the Ability to Perform Stair Descent. Presented at: *56<sup>th</sup> Annual Meeting of the Orthopedic Research Society*. March 6-9, 2010; New Orleans, LA.

**Varnell, MS.** Jaczynski, AM. Hansen, ML. Jacofsky, DJ. The Relationship Between Posture and Scapular Kinematics during the Performance of Activities of Daily Living in Older Adults. Presented at: *56<sup>th</sup> Annual Meeting of the Orthopedic Research Society*. March 6-9, 2010; New Orleans, LA.

**Varnell, M.** Bhowmik-Stoker, M. Jacofsky, DJ. Jacofsky, MC. The Effect of Surgical Approach on Performance of Stair Ascent and Descent at Four Months Following Total Knee Arthroplasty. Presented at: *56<sup>th</sup> Annual Meeting of the Orthopedic Research Society*. March 6-9, 2010; New Orleans, LA.

Mahoney, M. Russo, S. **Varnell, M.** Jaczynski, AM. Jacofsky, DJ, Jacofsky, MC. Lower Extremity EMG During Stair Ascent Following TKA with Four Different Surgical Approaches. Presented at: *56th Annual Meeting of the Orthopedic Research Society*. March 6-9, 2010; New Orleans, LA.

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## PROFESSIONAL ACTIVITIES

### TEACHING

- 2023 – Current      **University of Pittsburgh**, Department of Sports Medicine and Nutrition  
Assistant Professor  
ATHLR 2806 Injury Evaluation for the Upper Extremity
- 2022 – Current      **University of Pittsburgh**, Department of Sports Medicine and Nutrition  
Assistant Professor  
ATHLR 2810 Evidence-Based Practice in Athletic Training
- 2021 – Current      **University of Pittsburgh**, Department of Sports Medicine and Nutrition  
Assistant Professor  
REHSCI 1000 Principles of Research Methodology
- 2021 – Current      **University of Pittsburgh**, Department of Sports Medicine and Nutrition  
Assistant Professor  
REHSCI 1285 Introduction to Evidence Based Rehabilitation
- 2020-2022          **University of Pittsburgh**, Department of Sports Medicine and Nutrition  
Assistant Professor  
ATHLTR 1866 Psychology of Sport
- 2019-2022          **University of Pittsburgh**, Department of Sports Medicine and Nutrition  
Assistant Professor  
ATHLTR 1885 Introduction to Evidence Based Rehabilitation
- 2020-2021          **University of Pittsburgh**, Department of Sports Medicine and Nutrition  
Assistant Professor  
ATHLTR 1822 Injury Evaluation & Treatment II
- 2016-2018          **Salem State University**, Department of Sports and Movement Science  
Assistant Professor  
ATR 201 Injury Evaluation Upper Body
- 2016-2018          **Salem State University**, Department of Sports and Movement Science  
Assistant Professor  
ATR 101 Prevention and Care of Athletic Injuries

- 2016-2018      **Salem State University**, Department of Sports and Movement Science  
Assistant Professor  
ATR 355 Practicum II
- 2016-2017      **Salem State University**, Department of Sports and Movement Science  
Assistant Professor  
SMS 175 First Responder
- 2015              **Salem State University**, Department of Sports and Movement Science  
Assistant Professor  
SMS 174 Strength and Conditioning, Techniques and Assessment
- 2015-2017      **Salem State University**, Department of Sports and Movement Science  
Assistant Professor  
ATR 202 Injury Evaluation Lower Body
- 2015-2018      **Salem State University**, Department of Sports and Movement Science  
Assistant Professor  
ATR 310 Manual Therapy
- 2015-2018      **Salem State University**, Department of Sports and Movement Science  
Assistant Professor  
ATR 454 Organization and Administration in Athletic Training
- 2014 – Current      **University of Pittsburgh**, Department of Sports Medicine & Nutrition  
Lecturer  
Shoulder Complex Unit  
HRS 2867 Pathokinesiology of Orthopedic Injury
- 2014, 2015      **University of Pittsburgh**, Department of Sports Medicine & Nutrition  
Lab Instructor  
Motion Monitor Lab  
HRS 3897 Laboratory Techniques in Sports Medicine and Nutrition II & Lab
- 2014              **University of Pittsburgh**, Department of Sports Medicine & Nutrition  
Lecturer  
Elbow Joint Unit  
HRS 2867 Pathokinesiology of Orthopedic Injury
- 2014              **University of Pittsburgh**, Department of Sports Medicine & Nutrition  
Lecturer  
Shoulder Unit  
ATHLTR 1831 Therapeutic Exercise and Lab
- 2013-2014      **University of Pittsburgh**, Department of Sports Medicine & Nutrition  
Teaching Assistant

HRS 2869 Anatomical Basis in Sports Medicine

2012 – Current      **University of Pittsburgh**, Department of Sports Medicine & Nutrition  
Lecturer  
Hand-Held Dynamometry Unit  
HRS 3897 Laboratory Techniques in Sports Medicine and Nutrition II & Lab

2011 – Current      **University of Pittsburgh**, Department of Sports Medicine & Nutrition  
Lecturer  
Overuse Shoulder Injury Evaluation Special Tests Laboratory Demonstration  
HRS 2908 Advanced Musculoskeletal Assessment & Injury Prevention

### **DISSERTATION COMMITTEE**

2015 - 2017      Committee Member  
Faherty M. A Description of Lower Extremity Musculoskeletal Characteristics, Injury, and Injury Risk Factors in NCAA Division I Athletes Participating in Lower Extremity Dominant Sports. Rehabilitation Science Doctoral Dissertation, Department of Sports Medicine & Nutrition, School of Health and Rehabilitation Science, University of Pittsburgh

### **THESIS COMMITTEE**

2023 – Current      Second Reader  
Nathaniel Felix. Relationship of Anxiety and Depression with Musculoskeletal Injury Risk Over the Course of an Athletic Season. Undergraduate Honors Thesis, Exercises and Sports Science Department, Fitchburg State University

2022-23      Committee Member  
Scout Shultz. Epidemiology of High School Sports-Related Injuries: A descriptive epidemiological study of a single high school during the 2021-2022 academic year. Sports Medicine Thesis, Department of Sports Medicine & Nutrition, School of Health and Rehabilitation Science, University of Pittsburgh

2021-2022      Second Reader  
Jordan Geyster. The relationship between clinical musculoskeletal measures and heel whip gait patterns in recreational runners. Undergraduate Honors Thesis, Exercise and Sports Science Department, Fitchburg State University

2019 - 2020      Committee Member  
Haley Harp. An analysis of shoulder range of motion in division I collegiate softball and baseball athletes. Sports Medicine Thesis, Department of Sports Medicine & Nutrition, School of Health and Rehabilitation Science, University of Pittsburgh

## STUDENT ADVISING/MENTORSHIP

- 2022 Faculty Research Mentor  
Victoria Hudson. WOMAC Outcome Score: How Does TKA vs Hyaluronic Acid Injection Compare with Knee Osteoarthritic Patients. Accepted Student Poster Presentation: PATS Annual Meeting and Clinical Symposium. June 10<sup>th</sup>, 2022.
- 2022 Faculty Research Mentor  
Nathan Lang. Effects of Conservative vs Surgical Treatment of Meniscal Tears on the Knee Injury and Osteoarthritis Outcomes Score. Accepted Student Poster Presentation: PATS Annual Meeting and Clinical Symposium. June 10<sup>th</sup>, 2022.
- 2022 Faculty Research Mentor  
Ivy Hill. Conservative and Surgical Intervention for Improving Pain and NAHS Scores in Military Personnel with Femoroacetabular Impingement (FAI). Accepted Student Poster Presentation: *2022 Undergraduate Research Fair*.
- 2020 Faculty Research Mentor  
Victoria Bulford. What is the diagnostic accuracy of apley's compression/grind test when compared to the arthroscopic findings? Accepted Student Poster Presentation: *2020 Undergraduate Research Fair*.
- 2020 Faculty Research Mentor  
Brandon Gallimore. Effectiveness of the Ottawa ankle rules as a sideline diagnostic tool. Accepted Student Poster Presentation: *2020 Undergraduate Research Fair*.
- 2020 Faculty Research Mentor  
Kaitlyn Sweeney. Comparison of the moving valgus stress test against magnetic resonance imaging (MRI) to assess diagnostic accuracy of UCL tears, a critical appraisal. Accepted Student Poster Presentation: *2020 Undergraduate Research Fair*.
- 2020 Faculty Research Mentor  
Gabriella Winder. Diagnostic accuracy of the kim test versus the jerk test for posterior labrum pathologies in athletes. Accepted Student Poster Presentation: *2020 Undergraduate Research Fair*.
- 2020 Faculty Research Mentor  
Madeline Mahonski. What is the diagnostic accuracy of the quadriceps active test for diagnosing a PCL sprain? Accepted for Podium Presentation. *Pennsylvania Athletic Training Society Student Symposium*.
- 2018 Research Supervisor/Mentor  
Katrina Ghallagher and Diandra Gillis. An Analysis of Upper Extremity Musculoskeletal Characteristics of Female Overhead Athletes.  
Undergraduate Research Study, Department of Sport & Movement Sciences, Salem State University



2018 Research Supervisor/Mentor  
 William Staffiere and Jacob Moriarty. The influence of Menthol on Flexibility.  
 Undergraduate Research Study, Department of Sport & Movement Sciences, Salem State  
 University

## CURRENT RESEARCH INTERESTS

Injury prevention and rehabilitation of the upper extremity  
 Upper extremity musculoskeletal injury as related to sport specialization and the development of sport specific  
 musculoskeletal adaptations  
 Evaluation of musculoskeletal characteristics associated with altered scapular kinematics  
 Evaluation of biomechanics and musculoskeletal characteristics of the throwing athlete throughout maturation and  
 association with overuse injury

## SERVICE

2023	National Athletic Trainers Association	<b>Reviewer</b> Journal of Athletic Training
2022 – Current	United Steelworkers Faculty Union	<b>Committee Member</b> Council of Representatives
2022 – Current	The Pennsylvania Athletic Trainers Society	<b>Reviewer</b> Research Grants Committee
2022 – Current	The Pennsylvania Athletic Trainers Society	<b>Regional Team Leader</b> ATs Care Committee
2021 – Current	The Association of Chartered Physiotherapists in Sports And Exercise Medicine	<b>Reviewer</b> Physical Therapy in Sport
2020 - Current	The Association of Bone and Joint Surgeons	<b>Reviewer</b> Clinical Orthopedics and Related Research
2020, 2022	University of Pittsburgh Pittsburgh, Pennsylvania	<b>Judge</b> Annual Rehabilitation Institute Research Day Virtual Poster Session
2019 - 2022	University of Pittsburgh Pittsburgh, Pennsylvania	<b>Committee Member</b> Senate Governmental Relations Committee
2019 - 2022	University of Pittsburgh	<b>Committee Chairperson</b>

Updated: 05.05.2022

	Pittsburgh, Pennsylvania	School of Health & Rehabilitation Sciences Nominating Committee
2019- Current	University of Pittsburgh Pittsburgh, Pennsylvania	<b>Reviewer</b> Jill Conley Memorial Award
2017 - 2018	Salem State University Salem, Massachusetts	<b>Committee Chairperson</b> Athletic Training Program Admissions Committee
2015 - 2018	Salem State University Salem, Massachusetts	<b>Committee Member</b> Bill Bulloch Scholarship Committee

### COMMUNITY INVOLVEMENT

2020 – Current	Mt. Lebanon School District Pittsburgh, Pennsylvania	<b>Task Force Member</b> Diversity, Equity, and Inclusion Task Force
2016 - 2018	Cove Elementary School Beverly, Massachusetts	<b>Judge</b> Elementary Science Fair

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