

## CURRICULUM VITAE

Kshamata M. Shah, PT, Ph.D.  
Arcadia University, Department of Physical Therapy

### Education:

Maharashtra University of Health Sciences  
Mumbai, India  
May 2014  
Dr. D.Y. Patil College of Physiotherapy

Washington University in St. Louis  
St. Louis, MO  
May 2014  
Ph.D. Movement Science

### Licensure Information/Registration Number:

Certifications (eg, ABPTS): N/A

### Employment and Positions Held:

Director: Education for International Physical Therapists  
Arcadia University  
Glenside, PA  
October 2016- present

Assistant Professor  
Tenure-track  
Arcadia University  
Glenside, PA  
October 2016- present

Postdoctoral Researcher  
Arcadia University  
Glenside, PA  
September 2014- October 2016

Graduate Research Assistant  
Washington University in St. Louis  
St. Louis, MO  
August 2009- May 2014

Staff Physical Therapist  
Bombay Hospital  
Mumbai, India  
2008- 2009

Physical Therapy Observership  
Dr. Balabhai Nanavati Hospital  
Mumbai, India  
Spring 2008

Physical Therapy Observership  
Sir Hurkisondas Hospital  
Mumbai, India  
Fall 2005

Peer Reviewed Publications:

In Preparation:

Shah KM; Safford D, McClure PW. A review of the mechanisms related to rotator cuff rehabilitation in patients with rotator cuff disease.

Shah KM; Brennan M; Bucantis J; Erik K; Washatka, J; McClure PW. Reliability of rotator cuff muscle cross-sectional area and tissue greyscale analysis using ultrasound in healthy adults.

Shah KM; Casey A; Hoerst J; Johnson D; Kelly S; Smith N; McClure PW. Acute and long-term changes in Acromiohumeral Distance (AHD) following a fatigue protocol (FP) and a six-week exercise program.

Published:

McClure PW, Shah KM, Tate A. Examination and Management of Scapular Dysfunction. In Skirven, T., Osterman, A., Fedorczyk, J. and Amadio, P. (2019). Rehabilitation of the Hand and Upper Extremity, 2-Volume Set. London: Elsevier Health Sciences. (7th edition)  
Previous version: Skirven, T., Osterman, A., Fedorczyk, J. and Amadio, P. (2011). Rehabilitation of the Hand and Upper Extremity, 2-Volume Set. London: Elsevier Health Sciences.

Greenberg EM, Lawrence JTR, Fernandez-Fernandez A, Shah KM, McKenna C, Rowan ML, Kim J, McClure P. Physical and Functional Differences in Youth Baseball Players With and Without Throwing Related Pain. *Orthop J Sports Med.* 2017;5:11, 2325967117737731

Shah KM; Baker T; Dingle A; Hansmeier T; Jimenez M; Lopez S; Marks D; Safford D; Sternberg A; Turner J; McClure PW. Development and Reliability of the Timed Functional Arm and Shoulder Test (TFAST). *Journal of Orthopedic and Sports Physical Therapy.* 2017 Mar 3:1-41. doi: 10.2519/jospt.2017.7136.

Shah KM. Letter to the Editor-in-Chief of JOSPT as follows: "Clinically Meaningful Outcome Measures in Patients With Shoulder Problems" with Authors' Response *Journal of Orthopedic and Sports Physical Therapy* 2017;47(9):693-695.  
doi:10.2519/jospt.2017.0205.

Shah KM, Clark BR, McGill JB, Lang CE, Maynard JD, Mueller MJ. Relationship between advanced glycation end products and upper extremity impairments in individuals with diabetes mellitus. *Physical Therapy Journal.* 2015 Aug;95(8):1111-9.  
doi:10.2522/ptj.20140340.

Shah KM, Clark BR, McGill JB, Lang CE, Mueller MJ. Shoulder limited joint mobility in people with diabetes mellitus. *Clinical Biomechanics (Bristol, Avon).* 2015 Mar;30(3):308-13.doi:10.1016/j.clinbiomech.2014.12.013.

Shah KM, Clark BR, McGill JB, Mueller MJ. Upper extremity impairments in patients with diabetes mellitus. *Physiotherapy*. 2015 Jun;101(2):147-54. <http://dx.doi.org/10.1016/j.physio.2014.07.003>.

Shah KM, Mueller MJ. Effect of selected exercises on in-shoe plantar pressures in people with diabetes and peripheral neuropathy. *Foot (Edinb)*. 2012 Sep; 22(3):130-4. doi: 10.1016/j.foot.2012.05.001

Published Abstracts of Peer Reviewed Presentations:

Nelson LB; To Dukta J; Audette J.; Shah KM; Wong MS; Lazarro R, Li L. Physical Therapy Education: China, India, Philippines and the United States – Global Perspectives, Local Implications [presentation – education session]. Combined Section Meeting, American Physical Therapy Association, Denver, CO. February, 2020.

Safford DW, Shah KM, Turner J, McClure PW. Measurement Properties of the Timed Functional Arm and Shoulder Test (TFAST) in Patients with Shoulder Problems [presentation]. Combined Section Meeting, American Physical Therapy Association, Denver, CO. February, 2020.

Shah KM; Madara K; Diehl D; Hyer M; Schur J; McClure PW. Shoulder EMG Activity and Muscle Force during Make Versus Break Tests [poster]. Combined Section Meeting, American Physical Therapy Association, Denver, CO. February, 2020.

Shah KM, Readinger J, Desjaron K; O'Neil K, Sontheimer N; Derisme A, Olson T, Shqeirat H, Philip McClure PW. Feasibility of the Timed Functional Arm and Shoulder Test (TFAST) in people with Parkinson Disease (PD) [poster]. Combined Section Meeting, American Physical Therapy Association, Denver, CO. February, 2020.

Muth S; McClure PW; Shah KM; Stackhouse S. Neurosensory Responses to Thrust Manipulation in People with Signs of Rotator Cuff Tendinopathy [poster]. Combined Section Meeting, American Physical Therapy Association, Denver, CO. February, 2020.

Comparison of The Make Versus Break Tests For Shoulder Muscle Force [poster]. Shah KM; Diehl D; Hyer M; Schur J; McClure PW. Combined Section Meeting, American Physical Therapy Association, Washington DC. January 2019. World Confederation for Physical Therapy Congress, Geneva, Switzerland. May 2019

Effect of Pain And Exercise On Voluntary Activation Of The Rotator Cuff Muscles [poster]. Shah KM; Safford D; Cooper J; Sweitzer B; Karduna A; McClure PW. Combined Section Meeting, American Physical Therapy Association, Washington DC. January 2019. World Confederation for Physical Therapy Congress, Geneva, Switzerland. May 2019

Reliability, Validity, and Responsiveness of the Timed Functional Arm and Shoulder Test (TFAST) in Patients with Shoulder Problems [poster]. Safford DW, Shah KM, Turner J, McClure PW. Combined Section Meeting, American Physical Therapy Association, Washington DC. January 2019.

Feasibility of the Timed Functional Arm and Shoulder Test (TFAST) in people with Parkinson Disease (PD) [poster]. Shah KM, Readinger J, Derisme A, Olson T, Shqeirat

H, Philip McClure PW. Combined Section Meeting, American Physical Therapy Association, Washington DC. January 2019

Acute and long-term changes in Acromiohumeral Distance (AHD) following a fatigue protocol (FP) and a six-week exercise program [poster]. Shah KM; Casey A; Hoerst J; Johnson D; Kelly S; Smith N; McClure PW. Combined Section Meeting, American Physical Therapy Association, New Orleans, LA. February 2018

Development and Reliability of the Timed Functional Arm and Shoulder Test (FAST). Shah KM; Baker T; Dingle A; Hansmeier T; Jimenez M; Lopez S; Marks D; Safford D; Sternberg A; Turner J; McClure PW. World Confederation of Physical Therapy Congress, July 2017, Cape Town, South Africa. July 2017

Reliability of ultrasound measurements of rotator cuff muscle crosssectional area in healthy adults [poster]. Shah KM; Brennan M; Bucantis J; Erik K; Washatka, J; McClure PW. Combined Section Meeting, American Physical Therapy Association, San Antonio, TX. February 2017. World Confederation of Physical Therapy Congress, July 2017, Cape Town, South Africa. July 2017.

Reliability of the Functional Arm and Shoulder Test in Older Adults [poster]. Shah KM; Marks D; Safford D; Turner J; McClure PW. Combined Section Meeting, American Physical Therapy Association, Anaheim, CA. February 2016.

Functional Arm and Shoulder Test Performance in High-School Athletes [poster]. Shah KM; Baker T; Lopez S; Sternberg A; McClure PW. Combined Section Meeting, American Physical Therapy Association, Anaheim, CA. February 2016.

Development and Reliability of the Functional Arm and Shoulder Test (FAST) [poster]. Shah KM; Baker T; Dingle A; Hansmeier T; Jimenez M; Lopez S; Marks D; Safford D; Sternberg A; Turner J; McClure PW. 5<sup>th</sup> Annual Clinical Showcase, John Hopkins Physical Medicine and Rehabilitation, Baltimore, MD. October 2015

Advanced glycation end-products and upper extremity movement impairments in people with diabetes mellitus [poster]. Shah KM; Clark BR; McGill JB; Lang CE; Mueller MJ. University of Florida Annual Neuromuscular Plasticity Symposium, Gainesville, FL. March 2014

Relationship between advanced glycation end-products and upper extremity movement impairments in people with diabetes mellitus. Shah KM; Clark BR; McGill JB; Lang CE; Mueller MJ. Abstract accepted for platform presentation, Gossman Student presentation (Section of Research). Combined Section Meeting, American Physical Therapy Association, Las Vegas, NV. February 2014.

Relationship between advanced glycation end-products and upper extremity movement impairments in people with diabetes mellitus. [poster]. Shah KM; Clark BR; McGill JB; Lang CE; Mueller MJ. Washington University School of Medicine Diabetes Research Center Diabetes Day Symposium, St. Louis, MO. November 2013

Relationship between advanced glycation end-products and upper extremity movement impairments in people with diabetes mellitus. Shah KM; Clark BR; McGill JB; Lang CE; Mueller MJ. Abstract accepted for platform presentation. Research Training Symposium

and Poster Session, Washington University School of Medicine, St. Louis, MO. October 2013.

Upper Extremity impairments in a group of people with Diabetes Mellitus (DM) [poster]. Shah KM; Clark BR; McGill JB; Mueller MJ. Combined Section Meeting, American Physical Therapy Association, San Diego, CA. January 2013.

Upper Extremity impairments in a group of people with Diabetes Mellitus (DM) [poster]. Shah KM; Clark BR; McGill JB; Mueller MJ. Research Training Symposium and Poster Session, Washington University School of Medicine, St. Louis, MO. October 2012.

Effect of selected exercises on in-shoe plantar pressures in people with diabetes and peripheral neuropathy [poster]. Shah KM, Mueller MJ. 17<sup>th</sup> Annual Graduate Student Research Symposium, St. Louis, MO. February 2012.

Effect of selected exercises on in-shoe plantar pressures in people with diabetes and peripheral neuropathy [poster]. Shah KM, Mueller MJ. Combined Section Meeting, American Physical Therapy Association, Chicago, IL. February 2012.

Peer Reviewed Scientific and Professional Presentations (those not previously cited above under abstracts):

Presenter: Shah KM  
Role of Physical Activity in Managing Diabetes and its Musculoskeletal Complications  
Exercise and Physical Activity in Aging Conference  
July 2016

Abstracts (that were not presented): N/A

Non-Peer Reviewed Publications: N/A

Non-Peer Reviewed Presentations:

Presenters: Shah KM, McClure PW  
Biomechanical & Motor Control Implications Related to Shoulder Pain  
3<sup>rd</sup> Annual Arcadia Faculty Symposium  
October 2016

Presenter: Shah KM  
Shoulder Impairments in People with Diabetes  
1<sup>st</sup> Annual Arcadia Faculty Symposium  
October 2015

Funded/In Review Grant Activity:

Role: Co-Investigator (20% effort) (McClure – Co-PI; Karduna – PI)  
Title: Neurophysiology of Weakness and Exercise in Rotator Cuff Tendinopathy  
Funding Amount: \$764,860  
The objective of this grant is to determine the adaptations in neural activation associated with pain relief and exercise in patients with rotator cuff tendinopathy.  
NIH/NIAMS 1R01AR063713-01A1 2014 – current

Role: Co-Investigator/Mentor (Safford – PI)

Title: Reliability, Validity and Responsiveness of the Functional Arm and Shoulder Test (FAST) in Patients with Shoulder Problems.

Funding amount: \$22,579

The objective of this grant is to determine the psychometric properties of a new measure of shoulder performance that we have developed.

American Physical Therapy Association, Clinical Research Grant Program, Orthopedic Section Grant, 2017-2020

Role: Co-Investigator (PI: Muth)

Title: Neurosensory Responses to Thrust Mobilization and Eccentric Exercise in People with Rotator Cuff Tendinopathy

Funding amount: \$15,000

Physical Therapists often use spinal manipulations for improving shoulder pain and function. The mechanism for why we see these changes in patient outcomes occur when manipulating a more proximal region i.e. thoracic region are not clearly understood. This project is looking at the muscle activation and quantitative pain processing assessment in patients with shoulder pain.

American Physical Therapy Association, Clinical Research Grant Program, Orthopedic Section Grant, 2014-2019

Continuing Education Workshops Organized:

Body Meets Brain: Applying Neurophysiologic Concepts to Orthopedic Rehabilitation  
4<sup>th</sup> Annual Arcadia Faculty Symposium  
November 2019

Membership in Scientific/Professional Organizations:

International Society for Biomechanics

American Physical Therapy Association

Consultative and Advisory Positions Held:

CGFNS Credentialing Agency Task Force  
July 2017-current

Student advising:

Advised DPT Students: Kylie Desjadon, Katy O'Neil, Nicole Sontheimer

Project: Reliability of the Functional Arm and Shoulder Test in patients with neurologic conditions

Arcadia University  
2018-2020.

Advised DPT Students: Ian Diehl, Michael Hyer, Jacob Schur

Project: Comparison of make versus break test for shoulder muscle force

Arcadia University  
2017-2019

Advised DPT Students: Ashley Derisme, Hamza Shqeirah, Tate Olson

Project: Reliability of the Functional Arm and Shoulder Test in patients with neurologic

conditions  
Arcadia University  
2017-2019

Advised DPT Students: Abigayle Casey, Daniel Johnson, Samuel Kelly, Noah Smith, Jeffrey Hoerst

Project: Establishing the changes in shoulder structures in response to fatigue and exercise  
Arcadia University  
2016-2018

Advised DPT Students: Erik Kurst, Jonathan Waschtka, Matthew Brennan, Joseph Bucantis  
Project: Reliability of ultrasound measurements of rotator cuff muscle crosssectional area in healthy adults

Arcadia University  
2015-2017

Advised DPT Students: Daniel Safford, Jeffrey Turner, Dylan Marks

Project: Reliability of the Functional Arm and Shoulder Test in Older Adults

Arcadia University  
2014-2016

Advised DPT Students: Timothy Baker, Sarah Lopez, Amanda Sternberg

Project: Functional Arm and Shoulder Test Performance in High-School Athletes

Arcadia University  
2014-2016

Advised DPT Students: Molly Burns, Emily Martin

Project: Reliability and relationship of Skin Intrinsic Fluorescence, a proxy measure of Advanced Glycation End-Products, in healthy adults and patients with diabetes at different body sites.

Washington University in St. Louis  
2012-2014

Advised Senior College Students: Luke Mueller, SungYeop Jeong

Project: Effect of selected exercises on in-shoe plantar pressures in people with diabetes and peripheral neuropathy

Washington University in St. Louis  
2010-2011

Community Service:

Abstract Reviewer

World Confederation for Physical Therapy Congress

2018- present

Journal Reviewer

Clinical Biomechanics, Physical Therapy Journal, Archives of Physical Medicine and Rehabilitation, Journal of Orthopedic and Sports Physical Therapy

2013- present

Program Peer Mentor

Washington University in St. Louis

2010- 2013

General Secretary (student events)  
Dr. D.Y. Patil College of Physiotherapy  
2006- 2008

Services to the University/College/School on Committees/Councils/Commissions:

Arcadia University:

Taskforce for Course Evaluation  
2018- present

Video Collaboration Sub-committee  
2018- present

Biology Faculty Search Committee  
2018- present

Department of Physical Therapy:

Leader  
Online and Social Media Committee  
2018- present

Director  
Education for International Physical Therapists  
2016- present  
Academic advisor for

Academic Advisor  
10-12 students/year  
2016- present

Honors and Awards:

Best Poster Award  
Academy of Orthopedic Physical Therapy, APTA CSM  
2019

Young Investigator Initiative Grant Workshop (selected)  
United States Bone and Joint Initiative (USBJI)  
2018

Neuromuscular Scholar  
University of Florida  
2014

Gossman Student Presentation Award  
APTA CSM  
2014

Top 5 Platform Presentation  
Washington University Research Symposium  
2013



Continuing Education Attended: list only courses taken **within the last 5 years** that are **specifically related** to responsibilities in the entry-level program.

World Confederation of Physical Therapy Congress, Geneva, Switzerland. May 2019

Combined Section Meeting, American Physical Therapy Association, Washington DC. January 2019

Combined Section Meeting, American Physical Therapy Association, New Orleans, LA. February 2018

World Confederation of Physical Therapy Congress, Cape Town, South Africa. July 2017

Combined Section Meeting, American Physical Therapy Association, San Antonio TX. February 2017

Combined Section Meeting, American Physical Therapy Association, Anaheim, CA. February 2016

Gait and Clinical Movement Society Conference, pre-conference course on Fine-Wire Electromyography. Portland, Oregon, May 2015

Combined Section Meeting, American Physical Therapy Association, Indianapolis, IN. February 2015

Combined Section Meeting, American Physical Therapy Association, Las Vegas, NV. February 2014

Current Teaching Responsibilities in the Entry-level Physical Therapy Program (in sequence, by quarter or semester):

Lecturer for content on Diabetes, Endocrine system, Clinical Decision Making and Musculoskeletal Physical Therapy.

Fall (Unit 2)

Spring (Units 7, 9, 18)

Summer (Unit 11)

Unit coordinator for Unit 9

Spring

Serve as a lab instructor for shoulder and hand biomechanics, movement screening labs, joint mobilizations, casting lab, diabetic foot evaluation.

Fall (Units 1, 3, 4, 13)

Spring (Units 5, 6, 7, 9, 15)

Summer (Unit 12)