CURRICULUM VITAE

John Borstad, PT, PhD Department of Physical Therapy School of Health Sciences The College of Saint Scholastica 214 Health Science Center 940 Woodland Avenue Duluth, MN 55812 <u>Jborstad1@css.edu</u> 218-723-6523

Education

BA, Biology, May 1987 St. Olaf College, Northfield, MN

BS, Physical Therapy, May 1993 University of Minnesota, Minneapolis, MN

PhD, Rehabilitation Sciences, March 2004 University of Minnesota, Minneapolis, MN

Fellowship, APTA Educational Leadership Institute, July 2018

<u>Employment and Positions Held</u> Academic Positions:

Professor and Chair; Tenured Department of Physical Therapy College of St. Scholastica Duluth, MN Aug 2016 - present

Associate Professor with Tenure Physical Therapy Division School of Health and Rehabilitation Sciences The Ohio State University Columbus, OH Oct 2010 – Aug 2016

Assistant Professor Physical Therapy Division School of Health and Rehabilitation Sciences The Ohio State University Columbus, OH Jan 2004 - Oct 2010

Graduate Research Assistant Division of Physical Therapy University of Minnesota Minneapolis, MN Jan 2000 – Dec 2003 Clinical Positions: Staff Physical Therapist Sister Kenny Institute Minneapolis, MN Nov 1997 – Dec 1999

> Staff Physical Therapist Lakeview Medical Center Rice Lake, WI Sept 1996 – Nov 1997

Staff Physical Therapist, Lieutenant United States Air Force Dover AFB, DE Sept 1993 – Sept 1996

Professional Leadership Experience

- Chair, Department of Physical Therapy, School of Health Science, College of St. Scholastica; August 2016 to present
- Graduate, American Physical Therapy Association Educational Leadership Institute Fellowship; July 2018.
- Chair, Awards Committee, Biomechanics SIG, APTA Academy of Research; 2013 to 2020.
- Board of Directors, International Shoulder Group; 2006 2014.
- Faculty Council Steering Committee, School of Health and Rehabilitation Sciences, The Ohio State University; 2012-13 and 2013-14.
- Chair, Faculty Council, School of Health and Rehabilitation Sciences, The Ohio State University; 2012-13.
- Chair, Faculty Search Committees; 2007, 2011, 2013, 2021.
- College of Medicine Faculty Council Representative, The Ohio State University; August 2011 to May 2015.
- Co-Director Dual-Degree DPT/PhD program; August 2010 to August 2016.
- Site Co-Chair, American Society of Biomechanics Annual Meeting; August 2015.

Professional Service

- Author Group: Blueprint for Academic Program Excellence; American Council on Academic Physical Therapy; 2022-23.
- Invited Speaker; National Advocacy Dinner, Minnesota Chapter APTA Student SIG; April 2023.
- Reviewer: Abstracts and Educational Sessions for Educational Leadership Conference; Academy of PT Education; 2022, 2023.
- Delegate, Minnesota Chapter APTA; 2019 to 2022.
- Awards Committee Chair, Biomechanics Special Interest Group, Academy of Physical Therapy Research, APTA; 2013 to 2020.

Terminology Working Group, Clinical Education Task Force, APTA; 2015-16.

Continuing Education Committee, Ohio Physical Therapy Association; 2006 to 2016.

Abstract Reviewer, Academy of Orthopaedic Physical Therapy; 2005 to present.

Manuscript Reviewer Physical Therapy & Rehabilitation Journal of Orthopaedic & Sports Physical Therapy Clinical Biomechanics Physiotherapy Theory and Practice BMC Musculoskeletal Archives of Physical Medicine & Rehabilitation

Membership in Scientific/Professional Organizations

American Physical Therapy Association, 1991 to present. Academy of PT Education Academy of Orthopaedics Academy of Research

Peer Reviewed Publications (Last 10 Years)

- Rosa DP, **Borstad JD**, Ferreira JK, Gava V, Santos RV, Camargo, PR. Comparison of specific and nonspecific treatment approaches for individuals with posterior capsule tightness and shoulder impingement symptoms: A randomized controlled trial. *Brazilian Journal of Physical Therapy*. 2021; 25(5):648-658.
- Rosa DP, **Borstad JD**, Ferreira JK, Camargo PR. The influence of glenohumeral joint posterior capsule tightness and impingement symptoms on shoulder impairments and kinematics. *Physical Therapy*. 2019; 99(7):870-881.
- Rosa DP, Camargo PR, **Borstad JD**. Effect of posterior capsule tightness and humeral retroversion on 5 glenohumeral joint range of motion measurement: A cadaveric study. *American Journal of Sports Medicine*. 2019; 47(6):1434-1440.
- Rosa DP, Camargo PR, **Borstad JD**. The influence of posterior glenohumeral joint capsule tightness and humeral retroversion on clinical measurements. *Physical Therapy in Sport*. 2018; 34:148-153.
- Hall K, **Borstad JD**. Invited Viewpoint: Posterior Shoulder Tightness: To Treat or Not to Treat? *Journal of Orthopaedic & Sports Physical Therapy*. 2018; 48(3):133-136.
- Rosa DP, **Borstad JD**, Camargo PR. Shoulder external rotation range of motion and pectoralis minor length in individuals with and without shoulder pain. *Physiotherapy Theory and Practice*. 2018. DOI: 10.1080/09593985.2018.1459985
- Rosa DP, **Borstad JD**, Pogetti LS, Camargo PR. Effects of a stretching protocol for the pectoralis minor on muscle length, function and scapular kinematics in individuals with and without shoulder pain. *Journal of Hand Therapy*. 2017; 30(1):20-29.
- Dashottar A, **Borstad JD**. Quantifying range of motion changes across 4 simulated measurements of glenohumeral joint posterior capsule: An exploratory cadaver study. *Journal of Orthopaedic & Sports Physical Therapy*. 2016; 46(12):1080-1085.

- Rosa DP, **Borstad JD**, Pires ED, Camargo PR. Reliability of measuring pectoralis minor muscle resting length in subjects with and without signs of shoulder impingement. *Brazilian Journal of Physical Therapy.* 2016; 20(2):176-183.
- McQuade KJ, **Borstad J**, de Oliveira AS. Critical and theoretical perspective on scapular stabilization: What does it really mean, and are we on the right track? *Physical Therapy* 2016; 96(8):1162-1169.
- Borstad JD, Dashottar A, Stoughton T. Validity and reliability of the low flexion measurement for posterior glenohumeral joint capsule tightness. *Manual Therapy.* 2015; 20(6):875-878.
- **Borstad JD**, Woeste C. The role of sensitization in musculoskeletal shoulder pain. *Brazilian Journal of Physical Therapy.* 2015; 19(4):251-257.
- McNally M, **Borstad JD**, Onate JA, Chaudhari AM. Stride leg ground reaction forces predict throwing velocity in adult recreational baseball pitchers. *Journal of Strength and Conditioning Research*. 2015; 29(10):2708-15.
- Szucs KA, **Borstad JD.** Capturing Three-Dimensional Clavicle Kinematics: A Validation of Surface Sensor Measurements. *International Journal of Experimental and Computational Biomechanics.* 2015; 3(1):1-15.
- Dashottar A, Costantini O, **Borstad JD.** A comparison of range of motion change across four posterior shoulder tightness measurements after external rotation fatigue. *International Journal of Sports Physical Therapy*. 2014; 9(4):498-508.
- Szucs KA, **Borstad JD**. Gender Differences between Muscle Activation and Onset Timing of the Four Subdivisions of Trapezius during Humerothoracic Elevation. *Human Movement Science*. 2013; 32(6):1288-1298.
- Dashottar A, **Borstad JD**. Validity of Measuring Humeral Retroversion using Palpation of Bicipital Tuberosities. *Physiotherapy Theory and Practice*. 2013; 29(1):67-74.
- Gupta M, Dashottar A, **Borstad JD**. Scapula Kinematics Differ by Body Mass Index. *Journal of Applied Biomechanics*. 2013; 29 (4):380-385.

Books and Monographs

- Therapeutic Exercise. Foundations and Techniques. 8th ed. Edited by Carolyn Kisner and **John Borstad.** Philadelphia: F.A. Davis Company, 2022.
- Therapeutic Exercise. Foundations and Techniques. 7th ed. Edited by Carolyn Kisner, Lynn Allen Colby, and **John Borstad.** Philadelphia: F. A. Davis Company, 2017.
- Ludewig PM and **Borstad JD**. The Shoulder Complex. In: Joint Structure and Function. A Comprehensive Analysis. 6th ed. Edited by Levangie PK and Norkin CC. Philadelphia: F. A. Davis Company, 2017.
- **John Borstad** & Jeremy S Lewis. Posterior Shoulder Tightness. In: Grieves Modern Musculoskeletal Physiotherapy. Edited by Gwendolyn Jull, Ann Moore, Deborah Falla, Jeremy Lewis, Chris McCarthy, Michele Sterling. 2015.
- **Borstad, John D**. The Shoulder and Shoulder Girdle. In: Therapeutic Exercise. 6th ed. Edited by Carolyn Kisner and Lynn Allen Colby. Philadelphia: F. A. Davis Company, 2011.
- Ludewig PM and **Borstad JD**. The Shoulder Complex. In: Joint Structure and Function. A Comprehensive Analysis. 5th ed. Edited by Levangie PK and Norkin CC. Philadelphia: F. A. Davis Company, 2010.

- **Borstad, JD**. Movement Disorders and Neuromuscular Intervention for the Trunk and Extremities: Dynamic Scapular Stability. Orthopaedic Section Independent Study Course 18.2.3 ed. La Crosse: American Physical Therapy Association, 2008.
- Ludewig PM and **Borstad JD**. The Shoulder Complex. In: Joint Structure and Function. A Comprehensive Analysis. 4th ed. Edited by Levangie PK and Norkin CC, eds. 2005. 233-271. Philadelphia: F. A. Davis Company, 2005.

Peer Reviewed Scientific and Professional Presentations (Last 10 Years)

- **Borstad JD**, Borer Z, Carlson J, Keller J, Spears A, Viegut L. Relationships among student mental health, student self-efficacy, and PT education program attributes. Platform presentation at Educational Leadership Conference, October 2021.
- Gnirk A, Robel J, Senese F, Wessels Z, **Borstad J**. Measurement for posterior shoulder muscle extensibility. Poster presentation at Minnesota Physical Therapy Association Annual Meeting, April 2020.
- Kittelson J, Bjornsen M, Blong J, Collins D, Frame L, Hellbusch L, Hollman A, Kaldahl, H, **Borstad JD.** Stress levels influence experimental pain responses more than subjects expectations regarding pain. Poster presentation at Combined Sections Meeting of APTA, Denver, CO, February 2020.
- Kittelson J, Bjornsen M, Blong J, Collins D, Frame L, Hellbusch L, Hollman A, Kaldahl, H, **Borstad JD.** Stress levels influence experimental pain responses more than subjects expectations regarding pain. Poster presentation at the American Congress of Rehabilitation Medicine, Chicago, IL, October 2019.
- Ferreira JK, Rosa DP, Camargo PR, Borstad JD. Ha alteracao da orientacao scapular durante a execucao do teste *low flexion* em individuos assintomaticos? Poster presentation at the International Congress of the Brazilian Association of Orthopedic Trauma Physiotherapists, May 2019
- Rosa DP, **Borstad JD**, Camargo PR. Measuring posterior shoulder tightness: the influence of posterior capsule and humeral retroversion. Platform presentation at the 12th Meeting of the International Shoulder Group, Rochester, MN, July 2018.
- Rosa DP, **Borstad JD**, Ferreira JK, Gava J, Camargo PR. Comparison of 2 interventions for posterior capsule tightness and shoulder pain: A Randomized controlled trial. Poster presentation at Combined Sections Meeting of the APTA, San Antonio, TX, February 2017.
- Rosa DP, **Borstad JD**, Camargo PR. Platform presentation at the 11th Meeting of the International Shoulder Group, Winterthur, Switzerland, July 2016.
- McNally MP, Onate JA, **Borstad JD**, Klingele KE, Chaudhari AM. Lower Extremity Power Relationships to Hand Velocity During Baseball Pitching: *Medicine & Science in Sports & Exercise.* 2015 May 1;47(5S):954.
- **Borstad JD.** Intra-Rater Reliability of a Glenohumeral Joint Posterior Capsule Tightness Measurement. Poster presentation at Combined Sections Meeting of the APTA, Indianapolis, IN, February 2015.
- **Borstad JD**, Eakins K, Hohman N, Lingenhoel H, Pappas H, Webb D. Experimental Pain at the Shoulder Results in Somatosensory Adaptation. Platform presentation at the 10th Meeting of the International Shoulder Group, Waterloo, Ontario, Canada, July 2014.
- **Borstad JD**, Dashottar A, Jones G. Reliability of Posterior Shoulder Tightness Measurements. Poster presentation at the 10th Meeting of the International Shoulder Group, Waterloo, Ontario, Canada, July 2014.

- **Borstad JD**, Stoughton T, McNally M. The Acute Effects of Pitching a Simulated Game on Shoulder Motion and Stiffness. Platform presentation at the 10th Meeting of the International Shoulder Group, Waterloo, Ontario, Canada, July 2014.
- Rosa DP, **Borstad JD**, Camargo PR. Reliability, Standard Error and Minimal Detectable Change of the Pectoralis Minor Length Measurement in Healthy Subjects. Poster presentation at the 24th Congress of the International Society of Biomechanics, Natal, Brazil, August 2013.
- **Borstad JD**, Dashottar A. Humeral head translation and subacromial force after contracting the posterior glenohumeral capsule: A study using cadavers. Platform presentation at Combined Sections Meeting of the APTA, San Diego, CA, January 2013.
- Kempton J, Hines N, Gallagher L, Robertson S, Borstad JD. Trunk Rotation does not Significantly Increase Scapulothoracic Muscle Activation during Resisted Upper Extremity Proprioceptive Neuromuscular Facilitation. Poster presentation at Combined Sections Meeting of the APTA, San Diego, CA, January 2013.

Funded Grant Activity

Co-Investigator \$57,286 Defining the anterior-posterior motion of the shoulder girdle 20020015; The Children's Hospital of Philadelphia May 2015 – April 2016

Co-Investigator \$20,000 FAPESP: Brazil/OSU Partnership October 2013 – September 2014

Co-Investigator \$510,000 Pediatric injury biomechanics research – Task 11 National Highway and Traffic Safety Administration March 2010 – May 2014

Principal Investigator \$500,000 Posterior glenohumeral capsule influence on shoulder impingement NIH (NICHD) K01 March 2007 – Sept 2013

Co-Investigator \$40,000 A comparison of the treatment outcomes of early mobilization versus rest for acute sprained ankles Foundation for Physical Therapy Jan 2010 – Dec 2010

Co-Investigator \$60,154 Pediatric Injury Biomechanics Research National Highway Traffic Safety Administration Sept 2007 – Aug 2008

Co-Investigator

\$39,573 Exploration of Spatio-Temporal Variation of Sedentary Lifestyles Institute for Population Research July 2006 – June 2007

Principal Investigator \$168,739 Three-Dimensional Analysis of Shoulder Motion Limitations Following Treatment for Breast Cancer Susan G. Komen Breast Cancer Foundation May 2006 – April 2008

Principal Investigator \$2,682 Effect of Pectoralis Minor Changes on Scapula Kinematics American Society of Biomechanics Sept 2002 – Sept 2003

Service to the University/College/School on Committees/Councils/Commissions

Strategic Enrollment Management Strategic Planning Task Force – Marketing Subgroup, College of St. Scholastica; October 2022 to May 2023.

Chair, Physical Therapy Search Committee, College of St. Scholastica; April 2022 to July 2022.

Promotion & Tenure Committee, School of Health Sciences, College of St. Scholastica; January 2017 to present.

Graduate Council, College of St. Scholastica; August 2018 to present.

Faculty Compensation Committee, College of St. Scholastica; August 2018 to May 2020.

Graduate program student outcomes task force, College of St. Scholastica; April 2018 to May 2019.

- College Strategic Planning: Sustainable Business Model working group, College of St. Scholastica; April 2018 to present.
- College Strategic Planning: Facilities Working Group, College of St. Scholastica; September 2017 to December 2017.
- Physician Assistant faculty search committee, School of Health Sciences, The College of St. Scholastica; September 2017 to January 2018.
- Appointment, Promotion and Tenure Committee, School of Health and Rehabilitation Sciences, The Ohio State University; October 2010 to May 2016.
- Elected Member, Faculty Council, College of Medicine, The Ohio State University; August 2011 to May 2016.
- Faculty Council Steering Committee, School of Health and Rehabilitation Sciences, The Ohio State University; August 2012 to May 2015.
- Chair, Physical Therapy Faculty Search Committee, School of Health and Rehabilitation Sciences, The Ohio State University; August 2012 to May 2013.
- Chair, Faculty Council, School of Health and Rehabilitation Sciences, The Ohio State University; August 2012 to May 2013.

- Medical Dietetics Faculty Search Committee, School of Health and Rehabilitation Sciences, The Ohio State University; September 2010 to June 2011.
- Occupational Therapy Faculty Search Committee, School of Health and Rehabilitation Sciences, The Ohio State University; September 2010 to June 2011.
- Faculty Affairs Committee; School of Health and Rehabilitation Sciences, The Ohio State University; September 2009 to June 2012.
- Faculty Advisor; Pitt-Marquette Challenge service learning group, Division of Physical Therapy, The Ohio State University; September 2008 to May 2016.
- Student Affairs Committee; School of Health and Rehabilitation Sciences, The Ohio State University; Chair 2008-09.
- Faculty Advisor; Undergraduate Physical and Occupational Therapy Club, The Ohio State University; September 2005 to June 2011.
- Faculty Liaison; The Ohio State University Orthopaedic and Sports Medicine Residencies; September 2008 to May 2016.
- Faculty Committee on Instructional Technology, The Ohio State University, College of Medicine & Public Health, School of Allied Medical Professions; Chair 2005-06.
- Abstract Reviewer and Presentation Judge; The 18th Annual Edward F. Hayes Graduate Research Forum, The Ohio State University; 2004.
- Poster Judge, OSUMC Graduate and Postgraduate Research Day, The Ohio State University; 2004, 2007, 2008, 2009, 2010.

Service to the Community

- Board of Directors, St. Ann's Residence, Duluth, MN; April 2017 to present. Board President, July 2019 to present.
- Medical Tent Volunteer, Grandma's Marathon; Duluth, MN, 2017, 2018.

Volunteer youth softball coach, Duluth Girls Fastpitch; Duluth, MN, Summer 2017.

Pro bono physical therapist, Mid-Ohio Workers Association; June 2012 to August 2016.

Honors and Awards

PTLI Influencer Award

Relationship Among Student Mental Health, Student Self-Efficacy and PT Education Program Attributes. December 2021

Graduate

Educational Leadership Institute Fellowship, American Physical Therapy Association. July 2018

Traveling Fellow

Academy of Research, American Physical Therapy Association. 2015-16

Selected Participant

United States Bone and Joint Decade Young Investigator Initiative. 2009-2010

Editorial Review Board Member Journal of Orthopaedic & Sports Physical Therapy. 2008 to 2015

Board of Directors, International Shoulder Group, International Society of Biomechanics. 2006-2014

Faculty Research Award, School of Allied Medical Professions, The Ohio State University, Columbus, OH. 2007

Participant, 3rd Annual Intensive Workshop on Grant Writing, Preparation, and Submission in Rehabilitation Research; University of Virginia, Charlottesville, VA. 2005

Rose Excellence in Research Award for Excellence in Orthopaedic Physical Therapy Research Orthopedic Section of the American Physical Therapy Association; 2005. Given for co-authoring: Effects of a Home Exercise Programme on Shoulder Pain and Functional Status in Construction Workers. *Occupational and Environmental Medicine*. 2003; 60(11):841-849.