CURRICULUM VITAE

Bryon Ballantyne, PT, PhD St. Ambrose University Physical Therapy Department 518 W. Locust Street Davenport, Iowa 52803 563-333-6411 BallantyneBryonT@sau.edu

<u>Education:</u> Doctor of Philosophy University of Iowa, Iowa City, Iowa Physical Rehabilitation Science December, 2005

Master of Arts University of Iowa, Iowa City, Iowa Physical Therapy May, 1999

Certificate of Physical Therapy University of Iowa, Iowa City, Iowa Physical Therapy December, 1984

Bachelor of Arts University of Northern Iowa, Cedar Falls, Iowa Biology May, 1982

Licensure Information: State of Iowa #01208

Employment and Positions Held:

Academic:

Professor Physical Therapy Department St. Ambrose University Davenport, Iowa 07/2011 to present Professor Master of Physician Assistant Studies St. Ambrose University Davenport, Iowa 07/2018 to present

Adjunct Associate Clinical Professor Physical Therapy Graduate Program University of Iowa Iowa City, Iowa 08/2007 to 08/2019

Associate Professor Physical Therapy Department St. Ambrose University Davenport, Iowa 07/2006 to 07/2011

Assistant Professor Physical Therapy Department St. Ambrose University Davenport, Iowa 07/2004 - 07/2006

Instructor Physical Therapy Department St. Ambrose University Davenport, Iowa 07/2002 - 07/2004

Associate Instructor Physical Therapy Graduate Program The University of Iowa Iowa City, Iowa 08/1992 - 06/1994

Professional/Non-Academic:

Staff Physical Therapist/Research Coordinator Joyner Sportsmedicine Institute Lexington, KY & Richmond, KY 12/1997 - 06/2002 Research Physical Therapist Sensory Motor Performance Program Rehabilitation Institute of Chicago Chicago, IL 05/1996 - 12/1997

Staff Physical Therapist Villa Compana Health Care Center Tucson, AZ 02/1995 - 05/1996

Motion Analysis Laboratory Clinical Coordinator Arizona Movement and Balance Laboratory Rehabilitation Institute of Tucson Tucson, AZ 06/1994 - 02/1995

Physical Therapy Consultant (part-time) Cedar Manor Care Center and Clarence Nursing Home Clarence, IA 08/1990 - 08/1992

Staff Physical Therapist (part-time) St. Luke's Hospital Cedar Rapids, IA 08/1989 - 08/1990

Staff Physical Therapist/Motion Analysis laboratory Supervisor Harmarville Rehabilitation Center Harmarville, PA 03/1987 - 08/1989

Staff Physical Therapist Mesa Lutheran Hospital Mesa, AZ 06/1984 - 03/1987

Peer Reviewed Publications:

Ballantyne BT, Shields RK. Quadriceps fatigue alters human muscle performance during a novel weight bearing task. Med Sci Sports Exerc. 2010; 42:1712-1722.

McCrory JL, Quick NE, Shapiro R, **Ballantyne BT**, Davis IS. The effect of a single treatment of the Protonics[™] system on lower extremity kinematics during gait and the lateral step up exercise. Gait & Posture. 2007; 25:544-548.

Denton J, Willson JD, **Ballantyne BT**, McClay Davis IS. The addition of the Protonics brace system to a standard patellofemoral rehabilitation protocol: effect on clinical measures and efficacy. J Orthop Sports Phys Ther. 2005; 35:210-219.

McCrory JL, Quick NE, Shapiro R, **Ballantyne BT**, McClay Davis IS. The effect of a single treatment of the Protonics system on biceps femoris and gluteus medius activation during gait and the lateral step up exercise. Gait & Posture. 2004; 19:148-53.

Leetun DT, Ireland ML, Willson JD, **Ballantyne BT**, McClay Davis IS. Core stability measures as risk factors for lower extremity injury in athletes. Med Sci Sports Exerc. 2004; 36:926-934. Ireland ML, Willson JD, **Ballantyne BT**, McClay Davis IS. Hip strength in females with and without patellofemoral pain. J Orthop Sports Phys Ther. 2003; 33:671-676.

Ott SM, Ireland ML, Pace J, **Ballantyne BT**, McClay Davis IS. Comparison of outcomes between males and females after anterior cruciate ligament reconstruction. Knee Surg, Sports Traumatol, Arthrosc. 2003; 11:75-80.

Sathe VK, Ireland ML, **Ballantyne BT**, Quick NE, McClay Davis IS. Acute effects of the Protonics system on patellofemoral alignment: An MRI study. Knee Surg, Sports Traumatol, Arthrosc. 2002; 10:44-48.

Ireland ML, **Ballantyne BT**, Little K, McClay IS. A radiographic analysis of the relationship between the size and shape of the intercondylar notch and anterior cruciate ligament injury. Knee Surg, Sports Traumatol, Arthrosc. 2001; 9:200-205.

Soderberg G, **Ballantyne BT**, Kestel L. Reliability of lower extremity girth measurements after anterior cruciate ligament reconstruction. Physiother Res Int. 1996; 1:7-16.

Ballantyne BT, French A, Heimsoth S, Kachingwe A, Lee J, Soderberg G. Influence of examiner experience and gender on interrater reliability of KT-1000 arthrometer measurements. Phys Ther. 1995; 75:898-906.

Knutson L. Soderberg G, **Ballantyne BT**, Clark W. A study of various normalization procedures for within day electromyographic data. J Electromyogr Kinesiol. 1994; 4:47-59.

Ballantyne BT, O'Hare S, Paschall J, Pavia-Smith M, Pitz A, Gillon J, Soderberg G. Electromyographic activity of selected shoulder muscles in commonly used therapeutic exercises. Phys Ther. 1993; 73:668-682.

Ballantyne BT, Kukulka C, Soderberg G. Motor unit recruitment in human medial gastrocnemius muscle during combined knee flexion and plantarflexion. Exp Brain Res. 1992; 93:492-498.

Ballantyne BT, Lorenz W, Reser M, Smidt G: The effects of inversion traction on spinal column configuration, heart rate, blood pressure, and perceived discomfort. J Orthop Sports Phys Ther. 1986; 7:254-260.

Peer Reviewed Scientific and Professional Presentations

Research Presentations

Ballantyne BT, Seneli, R. Effects of an unweighting assistance device on mechanics and muscle activity during sit-to-stand transfers in older adults. APTA Combined Sections Meeting, Washington, DC, 2019 (poster presentation - abstract published in J Orthop Sports Phys Ther, 49(1):CSM70, 2019)

Ballantyne BT, Riley N. Balance ability, balance confidence, and postural control during gait initiation in community-dwelling older adults. Exercise and Physical Activity in Aging Conference (EXPAAC), APTA Section on Geriatrics, Indianapolis, IN, 2016 (poster presentation)

Riley N, **Ballantyne BT**. iPad use in the first year of a DPT Program – a pilot study. APTA Combined Sections Meeting, Indianapolis, IN, 2015 (poster presentation)

Howard J, Mandac J, Murphy J, Weihler K, **Ballantyne BT**. Risk factors for medial tibial stress syndrome: a systematic review with meta-analysis. APTA Combined Sections Meeting, San Diego CA, 2013 (poster presentation – abstract published in J Orthop Sports Phys Ther, 43(1):A102, 2013)

Ballantyne BT. Use of Partial Body-Weight Support to Improve Sit-to-Stand Performance in a Mobility-Impaired Elderly Person: A Case Report. Exercise and Physical Activity in Aging Conference (EXPAAC), APTA Section on Geriatrics, Indianapolis, IN, 2010 (poster presentation)

Ballantyne BT. Partial body weight support during the sit-to-stand movement decreases vertical ground reaction force and muscle activity in healthy young adults. APTA Combined Sections Meeting, San Diego, CA, 2010 (poster presentation)

Ballantyne BT, Shields RK. Muscle fatigue alters neuromuscular performance during resisted weight bearing exercise. American College of Sports Medicine, Denver, CO, 2006 (poster presentation - abstract published in Med Sci Sports Exerc, 38(5):S443, 2006)

Iguchi M, Ganju A, **Ballantyne B**, Shields R. Influence of hamstring low frequency fatigue on neuromuscular control of the knee during weight bearing exercise. J Neurol Phys Ther, 29(4):190, 2005

Ballantyne BT, Leetun D, Ireland ML, McClay IS: Differences in core stability between male and female collegiate basketball athletes as measured by trunk and hip muscle performance. Med Sci Sports Exerc, 33:S331, 2001

McCrory JL, Quick NE, **Ballantyne BT**, McClay IS: Effects of a resistive dynamic knee orthosis on muscle activations during the lateral step-up. Med Sci Sports Exerc, 33:S197, 2001

Sathe VM, Ireland ML, **Ballantyne BT**, Quick NE, McClay IS: Acute effects of the Protonics[™]system on patellofemoral alignment: An MRI study. Am Coll Sports Med, Indianapolis, IN, 2000. (poster presentation)

Ott S, Ireland ML, **Ballantyne BT**, McClay, IS: Comparison of outcomes between males and females after ACL reconstruction. American College of Sports Medicine, Indianapolis, IN, 2000. (poster presentation)

Crook S, **Ballantyne BT**, McClay IS, DeBilzan JG: Reliability of an advanced functional assessment series. American College of Sports Medicine, Seattle, WA, 1999. (poster presentation)

Chen DF, **Ballantyne BT**, Rymer WZ: Effects of human motoneuron background firing rates on the response probabilities to Ia afferent stimulation. Society of Neuroscience, New Orleans, LA, 1997. (poster presentation)

Zhang L, Huang H, Nishida K, Zeng K, **Ballantyne BT**, Rymer WZ: Quantification of tendon reflex in normal and spastic limbs. IEEE/EMBS, Chicago, IL, 1997. (poster presentation)

Professional Presentations

PTNow in a Nutshell. IPTA Southeast District Meeting, Davenport, IA, February, 2017

Outcome Measures in Patient Care. SAU Alumni Reunion Continuing Education Course, Davenport, IA, 2013

Clinical Prediction Rules and Clinical Practice Guidelines: Moving from Evidence to Action. IPTA Southeast District Meeting, Davenport, IA, 2010

Integrating Evidence into Practice. IPTA Annual Spring Conference, Ames, IA, 2008

The Influence of Quadriceps Muscle Fatigue on Neuromuscular Control During a Novel Weightbearing Activity. University of South Dakota, Physical Therapy Education Program, Vermillion, SD, 2007

An Introduction to Evidence-Based Practice. Great River Medical Center, Burlington, IA 2007

Integrating Evidence into Practice. IPTA Annual Spring Conference, Ames, IA, 2005

Introduction to Evidence-Based Practice. Rock Valley Physical Therapy, Davenport, IA, 2004

Segmental Stabilization Exercises for Low Back Pain: Theory and Practice. Kentucky Sports Medicine Clinic, Lexington, KY, 2000.

Critical Evaluation of Scientific Literature. Kentucky Sports Medicine Clinic, Lexington, KY, 2000.

Research Tools for the Assessment of Functional Outcomes for the Knee. Fall Sports Medicine Symposium, Lexington, KY, 1998.

Effects of Knee Angle on Motor Unit Recruitment in Medial Gastrocnemius Muscle during Combined Force Tasks. APTA Annual Conference, Denver, CO, 1992.

<u>Funded/In Review Grant Activity</u>: **Ballantyne BT**, Cooper N. Frank LM, Riley N \$2000 Evidence-based Profiles of Physical Therapy Student Interns and their Clinical Instructors College of Health and Human Services Faculty Scholarship Grant St. Ambrose University, 2018

Ballantyne BT

\$639M.A.S.S. body weight support height adjustment systemFaculty Development GrantSt. Ambrose University, 2011

Ballantyne BT

\$1790 Lafayette Instruments Manual Muscle Testers American Legion Foundation of Iowa, 2003

<u>Current/Active Research Activity</u>: **Ballantyne BT**, Cooper N. Frank LM, Riley N Evidence Based Practice Profiles of Physical Therapy Student Interns and Their Clinical Instructors

Ballantyne BT, Cooper N. Frank LM, Riley N

Effects of Curricular Modifications on Knowledge and Skills Related to Evidence Based Practice in Physical Therapy Students

Membership in Scientific/Professional Organizations:

American Physical Therapy Association, Active member, 1984 to present American Physical Therapy Association, Orthopedic section member, 1998 to present American Physical Therapy Association, Research section member, 2009 to present American Physical Therapy Association, Education section member, 2015 to present Iowa Physical Therapy Association, Active member, 2002 to present American Association for Anatomy, Active member, 2017-2021 American College of Sports Medicine, Active member, 2005 to 2017

Consultative and Advisory Positions Held:

Abstract Reviewer; APTA Combined Sections Meeting. 2010 to present Manuscript reviewer; Journal of Sports Rehabilitation. 2008 to present Member; Scientific Review Committee, Genesis Health Systems. Jan to July, 2008

Community Service:

Special Olympics, Healthy Athlete FUNFitness Screening, 2014 – 2016 Xstream Cleanup, 2013 – 2017 Habitat for Humanity, 2009-2010

Service to the University/College/Department on Committees/Councils/Commissions:

University

- Member (temporary); Promotion, Tenure, and Standards Committee, 2020
- Chair; Promotion, Tenure, and Standards Committee, 2018-2019
- Member; Promotion, Tenure, and Standards Committee, 2016-2019
- Member; Institutional Review Board, 2011 to 2014
- Member; Academic Support Committee, 2007 to 2008

College

- Member; Faculty Search Committee, Master of Physician Assistant Department, 2022
- Member; Program Director Search Committee, Master of Physician Assistant Department, 2022
- Member; Faculty Committee, Master of Physician Assistant Department, 2018 to present
- Member; Faculty Search Committee, Nursing Department, 2014-2015
- Member; College of Education and Health Sciences Strategic Planning Committee, 2009 to 2012
- Member; Master of Physician Assistant Advisory Board, 2011 to 2014

Department

- Member; Faculty Committee, Physical Therapy Department, 2002 to present
- Member; Admission & Retention Committee, Physical Therapy Department, 2017 to present
- Co-chair; Program Director Search Committee, Physical Therapy Department, 2017-2018
- Member; Program Director Search Committee, Physical Therapy Department; 2017-2018
- Member; Curriculum Committee, Physical Therapy Department, 2003 to 2018
- Member; Faculty Search Committee, Physical Therapy Department, 2015-2016

• Member; Faculty Search Committee, Physical Therapy Department, 2011-2012

Honors and Awards:

- Graduate Professor of the Year, St. Ambrose University Graduate Student Government Association, 2011
- Clinical Research Award, Iowa Physical Therapy Association, 2004
- Mary McMillan Scholarship recipient, American Physical Therapy Association, 1991

Continuing Education Attended (last 5 years):

- APTA Combined Sections Meeting, Online, February, 2022
 - Clinical Practice Guidelines in Education: Developing Expert Clinicians with Best Evidence
 - The 4-Element Movement System Model to Guide Physical Therapy Education, Practice, and Research
 - Competency-based Education in Physical Therapy 101
 - 2022 Polly Cerasoli Lecture: Physical Therapy Education through the Lens of the Master Adaptive Learner
 - CPG Implementation: Differential Diagnosis Decision Tree
 - Rotator Cuff Pathology: Who Benefits from Therapy or Surgery, and What Type of Postoperative Rehabilitation?
 - Now On Demand: Assessing Student and Clinician DEI Competence: Does Diversity + Equity Training = Inclusive Patient Clinical Practice?
 - Health Informatics in Physical Therapy: Current Practice and Preparation for the Future of Our Profession
 - Knowledge Translation Lecture: Where the Rubber Meets the Road: Teaming Up to Implement Best Practice
- APTA Combined Sections Meeting, Online, February, 2021
 - Clinical Practice Guideline for Physical Therapist Management of Parkinson's Disease: Development and Drafted Recommendations
 - Integration of Clinical Exam Diagnostic Testing, and Treatment, Part 1: Lumbar Radiculopathy
 - Evaluation and Management of Individuals with Hypersensitivity of the Nervous System
 - Management of Lateral Elbow Tendinopathy: Current Evidence and Integration of Pain Neuroscience
 - o Ask-a-Librarian: Smarter Searching in Two Hours or Less
 - o Ask-a-Librarian: Searching APTA's Evidence-Based Resources
 - Evaluating the Need to Refer to a Physician: Case Applications of a Clinical Practice Guideline
 - What You Need to Know to Be a Pro at PROs (Patient-Reported Outcomes)
 - o Biomechanics Matters 2.0: The Foundation for Changing Movement
 - o Physical Therapy Management of Individuals with Patellofemoral Pain

- The Well is Deep but the Bucket has Holes: CPG Implementation Challenges, Strategies, and Outcomes
- Engage and Assess: Combining Pedagogy and Productivity through the Scholarship of Teaching and Learning
- Anatomy Education Today: Integrating Technology into Your Classrooms and Labs
- Transforming Diversity-Equity-Inclusion Learning from the Classroom to the Clinic: Strategies for Success
- Using the Peer Review Process to Improve Research: A Guide for Reviewers and Authors
- Coping with a Bad Breakup: The Clinical Management of Foot and Ankle Fractures
- The Power of Hands-On: Maximizing the Effects of Manual Therapy
- All Diversity, Equity, Inclusion Arrows Point to Holistic Review in Admissions: A Panel on Implementation
- APTA Combined Sections Meeting, Denver, CO, February, 2020
 - Early Mobility or Early Rehabilitation: Is There a Difference after Acute Stroke?
 - Applying the Evidence to Manage Patients with Low Back Pain Who Have Movement Coordination Impairment
 - Demonstrating Value: Using Clinical Data and Databases to Improve Outcomes for Patients and the Population
 - What Assessment and Intervention Strategies Are Essential for Great Foot and Ankle Care?
 - Clinical Practice Guideline for Education as an Intervention for Individuals with Musculoskeletal Pain
 - Ankle Stability and Movement Coordination Impairments Ligament Sprains
 - Refresher in Critical Appraisal: Improve Your Research Review Skills
- APTA Combined Sections Meeting, Washington, DC, January, 2019
 - Implementing Meaningful Projects to Enhance EBP in Your Clinic
 - A Forum on Movement System Diagnosis for Balance Dysfunction
 - Pain With Movement: Transforming Theoretical models to Physical Therapist Practice
 - Eugene Michels Research Forum Patient-Reported Outcomes: Do They Improve Clinical Care?
- Rehabilitation of the CrossFit Athlete, SE District IPTA, Davenport, IA, December, 2018
- CAPTE Writing Workshop for Self-Study Report, New Orleans, LA, February, 2018

- Evidence Based Practice Institute: Expanding Evidence Based Practice in a Physical Therapy Educational Program From the Classroom to the Clinic, St. Ambrose University, Davenport, IA, March, 2018
- Lifestyle Intervention in a Community Setting What We Can Learn from CHIP, SE District IPTA, Davenport, IA, November, 2017
- APTA Combined Sections Meeting, San Antonio, TX, February, 2017
 - Knowledge Brokering: Be the Change Agent
 - Human Movement: The Basis for Development of Clinical Reasoning Skills
 - o Moving Forward With the Movement System: Let's Work Together
 - Best Treatment Approach for Subacromial Impingement Syndrome
 - Orthopaedic Residency EIG Programming: Amplify Your Clinical Reasoning: Guides for Empathy and Expertise
 - PTs as Human Movement System Experts: Transforming DPT Curriculum
 - Research Evidence and Clinician Expertise: How to Have a Happy Marriage
 - Eugene Michels Research Forum (EMRF): What Not to Do and Why
- Treatment Intervention Potpourri, SE District IPTA, Davenport, IA, February, 2017

Current Teaching Responsibilities:

- DPT 500: Human Gross Anatomy (5 credit hours; fall semester)
- DPT 650 / MPAS 670: Evidence Based Practice I (3 credit hours; spring semester)
- MPAS 500: Human Gross Anatomy (5 credit hours; 8-week summer semester)

Updated 6-2022