## **CURRICULUM VITAE**

Anne Thackeray, PT, PhD, MPH

College of Health, Department of Physical Therapy and Athletic Training School of Medicine, Department of Population Health Sciences

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## **EDUCATION:**

Ph.D. Rehabilitation Science, University of Utah, 2014
M.P.H. Public Health, University of Utah, 2008
B.S. Physical Therapy, University of Utah, 1996
B.S. Exercise Science, University of Utah, 1994

## LICENSURE INFORMATION:

State License, UT (324443-2401): Physical Therapist

## EMPLOYMENT AND POSITIONS HELD:

Assistant Professor, University of Utah, Department of Physical Therapy and Athletic Training, SLC, UT	2021-present
Research Assistant Professor, University of Utah, Department of Physical Therapy and Athletic Training, SLC, UT	2014-2021
Adjunct Assistant Professor, University of Utah, Population Health Sciences SLC, UT	2014-present
Connect2Health Faculty Advisor, College of Health, University of Utah, SLC, UT	2018-2021
Part-time Faculty Fellow, Center on Health Services Training and Research, Pittsburgh, PA	2017-2018
Post-Doctoral Fellow, University of Utah, School of Medicine and Department of Physical Therapy, SLC, UT	2013-2014
Research Coordinator, University of Utah, Department of Physical Therapy SLC, UT	2008-2013
Physical Therapist (Attending), Veterans Affairs Medical Center SLC, UT	2006-2013
Research Coordinator, University of Utah, Department of Physical Therapy SLC, UT	2005-2006
Physical Therapist, Registered Physical Therapist Sandy, UT	2005-2006
Physical Therapist, Intermountain Healthcare, Rehab Agency South Jordan, UT	1998-2012
Physical Therapist, Rocky Mountain Therapy Services WVC, UT	1997-1998
Physical Therapist, Salt Lake Physical Therapy Associates Murray, UT	1996-1997

#### PEER REVIEWED PUBLICATIONS:

Fritz JM, Del Fiol G, Gibson B, Wetter DW, Solis V, Bennett E, **Thackeray A**, Goode A, Lundberg K, Romero A, Ford I, Stevens L, Siaperas T, Morales J, Yack M, Greene T. BeatPain Utah: study protocol for a pragmatic randomised trial examining telehealth strategies to provide non-pharmacologic pain care for persons with chronic low back pain receiving care in federally qualified health centers. BMJ Open. 2022 Nov 9;12(11):e067732. doi: 10.1136/bmjopen-2022-067732. PMID: 36351735; PMCID: PMC9664275.

Loyd BJ, Fangman A, Peterson DS, Gappmaier E, **Thackeray A**, Schubert MC, Dibble LE. Rehabilitation to Improve Gaze and Postural Stability in People With Multiple Sclerosis: A Randomized Clinical Trial. Neurorehabil Neural Repair. 2022 Nov;36(10-11):678-688. doi: 10.1177/15459683221124126. Epub 2022 Sep 13. PMID: 36113117.

Skolasky RL, Kimball ER, Galyean P, Minick KI, Brennan G, McGee T, Lane E, **Thackeray A**, Bardsley T, Wegener ST, Hunter SJ, Zickmund S, Fritz JM. Identifying Perceptions, Experiences, and Recommendations of Telehealth Physical Therapy for Patients With Chronic Low Back Pain: A Mixed Methods Survey. Arch Phys Med Rehabil. 2022 Oct;103(10):1935-1943. doi: 10.1016/j.apmr.2022.06.006. Epub 2022 Jul 6. PMID: 35803329.

**Thackeray A**, Waring J, Hoogeboom TJ, Nijhuis van der Sanden, MW, Hess R, Fritz JM, Conroy MB, Fernandez ME. Implementing a Dutch physical therapy intervention into a U.S. health system: selecting strategies using Implementation Mapping. *Frontiers in Public Health*. 2022 Jul 11;10:908484. doi: 10.3389/fpubh.2022.908484. PMID: 35899163; PMCID: PMC9309571

Young DL, Fritz JM, Kean J, **Thackeray A**, Johnson JK, Dummer D, Passek S, Stilphen M, Beck D, Havrilla S, Hoyer EH, Friedman M, Daley K, Marcus RL. Key Data Elements for Longitudinal Tracking of Physical Function: A Modified Delphi Consensus Study. Phys Ther. 2022 Apr 1;102(4):pzab279. doi: 10.1093/ptj/pzab279. PMID: 35079819.

Fritz JM, Minick KI, Brennan, GP, McGee T, Lane E, Skolasky RL, **Thackeray A**, Bardsley T, Wegener ST, Hunter SJ. Outcomes of Telehealth Physical Therapy Provided Using Real-Time, Videoconferencing for Patients with Chronic Low Back Pain: A Longitudinal Observational Study. *Archives of Physical Medicine and Rehabilitation*. 2022 Oct;103(10):1924-1934. doi: 10.1016/j.apmr.2022.04.016. Epub 2022 Jun 3. PMID: 35667399.

Lane E, Magel JS, Thackeray A, Greene T, Fino NF, Puentedura EJ, Louw A, Maddox D, Fritz JM. Effectiveness of training physical therapists in pain neuroscience education for patients with chronic spine pain: a cluster-randomized trial. Pain. 2022 May 1;163(5):852-60.

Sharpe, J.A., **Thackeray, A.**, Fritz, J.M., Martin, B.I., Magel, J. and Vanneman, M.E., 2021. Patients' use of physical therapy for lower back pain: A qualitative study. *Musculoskeletal Science and Practice*, 56, p.102468.

Sharpe JA, Martin BI, Magel J, Fritz JM, Vanneman ME, **Thackeray A.** Effect of Patient Use of Physical Therapy After Referral for Musculoskeletal Conditions on Future Medical Utilization: A Retrospective Cohort Analysis. Journal of Manipulative and Physiological Therapeutics. 2022 Mar 16.

Staples T, Neuman A, **Thackeray A**. Demonstrating Value, Improving Education and Doing Right by Patients: The Role of Patient-Reported Outcomes in Student-Run Free Clinics and Recommendations for Implementation. Journal of Student-Run Clinics: 2022 Jan; 6(1). https://journalsrc.org

- Staples T, Beran-Maryott G, Brinkerhoff A, Bradford M, Ward RS, **Thackeray** A. Development and Evaluation of a Novel Patient-Reported Outcome Implementation Process in a Student-Led Pro Bono Clinic, *Journal of Physical Therapy Education*: May 4, 2021 doi: 10.1097/JTE.000000000000182
- **Thackeray A**, Hanmer J, Yu L, McCracken P, Marcus R. Linking AM-PAC Mobility and Daily Activity to the PROMIS Physical Function Metric. Phys Ther. 2021 Aug 1;101(8):pzab084. doi: 10.1093/ptj/pzab084. PMID: 33693902; PMCID: PMC8340629. DOI: 10.1093/ptj/pzab084
- **Thackeray A**, Marcus RL, Yu L, McCracken P, Cardell B, Hanmer J. Linking AM-PAC Cognition to PROMIS Cognitive Function. *Arch Phys Med Rehabil*. 2021 Nov;102(11):2157-2164.e1. DOI: 10.1016/j.apmr.2021.04.012
- Fritz JM, Sharpe J, Greene T, Lane E, Hadizadeh M, McFadden M, Santillo D, Farley J, Magel J, **Thackeray A**, Kawchuk G. Optimization of spinal manipulative therapy protocols: a factorial randomized trial within a multiphase optimization framework. The Journal of Pain. 2021 Jun 1;22(6):655-68.
- Sharpe, J. A., Martin, B. I., Fritz, J. M., Newman, M. G., Magel, J., Vanneman, M. E., & **Thackeray**, **A**. (2021). Identifying patients who access musculoskeletal physical therapy: A retrospective cohort analysis. *Family practice*, *38*(3), 203-209. <a href="https://doi.org/10.1093/fampra/cmaa104">https://doi.org/10.1093/fampra/cmaa104</a>
- Fritz JM, Lane E, McFadden M, Brennan GP, Magel JS, **Thackeray A**, Minick K, Meier W, Greene T. Physical therapy referral from primary care for acute back pain with sciatica; a randomized controlled trial. *Ann Int Med.* Jan 2021. <a href="https://doi.org/10.7326/M20-4187">https://doi.org/10.7326/M20-4187</a>
- Johnson JK, Fritz JM, Brooke BS, LaStayo PC, **Thackeray A**, Stoddard GJ, Marcus RL. Physical function in the hospital is associated with patient-centered outcomes in an inpatient rehabilitation facility. *Physical Therapy*, August 2020; 100(8):1237-1248.
- Johnson JK, Fritz JM, Brooke BS, LaStayo PC, **Thackeray A**, Stoddard GJ, Marcus RL. The clinical and sociodemographic characteristics that drive hospital discharge disposition decisions: a retrospective data analysis. *J for Healthcare Quality* 2020 (in press).
- Lloyd BJ, Fangman A, Peterson DS, Gappmaier E, Schubert MC, **Thackeray A**, Dibble L. Rehabilitation to improve gaze and postural stability in people with multiple sclerosis: study protocol for a prospective randomized clinical trial. *BMC Neurol 2019* June 10;19(1).
- Doing-Harris K, Bray B, **Thackeray A**, Shah R, Shao Y, Cheng Y, Zeng Q, Garvin J, Weir C. Development of a Cardiac-Centered Frailty Ontology. *J of Biomedical Semantics*. 2019 Jan 18; 10(1):3.
- Magel J, Hansen P, Meier W, Cohee K, **Thackeray A**, Hiush M, Fritz JM. Implementation of an alternative pathway for patients seeking care for low back pain: A prospective observational cohort study. *Phys Ther*. 2018 Dec1:98(12):1000-1009. PubMed PMID: 30257004
- Magel J, Kim J, **Thackeray A**, Hawley C, Petersen S, Fritz JM. Associations between physical therapy continuity of care and health care utilization and costs in patients with low back pain: A retrospective study. *Phys Ther* 2018 Dec 1;98(12):990-999. PubMed PMID: 30260429
- **Thackeray A**, Hess R, Dorius J, Brodke D, Fritz J. Relationship of Opioid Prescriptions to Physical Therapy Referral and Participation for Medicaid Patients with New-Onset Low Back Pain. *JABFM* 2017; 30(6).

- **Thackeray A**, Fritz JM, Lurie JD, Zhao W, Weinstein JN. Nonsurgical Treatment Choices by Individuals with Lumbar Disc Herniation in the United States: Associations with Long-Term Outcomes. *Am J Phys Med Rehabil*. 2017 Aug; 96(8):557-564.
- Ellis TD, Cavanaugh JT, Earhart GM, Ford MP, Foreman KB, **Thackeray A**, Thiese MS, Dibble LE. Identifying clinical measures that most accurately reflect the progression of disability in Parkinson disease. *Parkinsonism Relat Disord*. 2016 Apr;25:65-71. PubMed PMID: 26876037.
- **Thackeray A**, Fritz JM, Childs JD, Brennan GP. A randomized clinical trial of the effectiveness of mechanical traction for sub-groups of patients with low back and leg pain. *JOSPT* 2016; Mar;46(3):144-54.
- Paul SS, **Thackeray A**, Duncan RP, Cavanaugh JT, Ellis TD, Earhart GM, Ford MP, Foreman KB, Dibble LE. Two-Year Trajectory of Fall Risk in People With Parkinson Disease: A Latent Class Analysis. *Arch Phys Med Rehabil*. 2016 Mar;97(3):372-379.e1. PubMed PMID: 26606871.
- Hebert JJ, Fritz JM, Koppenhaver SL, **Thackeray A**, Kjaer P. Predictors of clinical outcome following lumbar disc surgery: the value of historical, physical examination, and muscle function variables. Eur Spine J. 2016 Jan; 25(1):310-7. PubMed PMID: 25840784
- Fritz JM, Magel JS, McFadden M, Asche C, **Thackeray A**, Meier W, Brennan G. Early Physical Therapy vs Usual Care in Patients With Recent-Onset Low Back Pain: A Randomized Clinical Trial. *JAMA*. 2015 Oct 13;314(14):1459-67. PubMed PMID: 26461996.
- Fritz JM, **Thackeray A**, Kim J. Physical Therapy Utilization in Medicaid Enrollees with Low Back Pain. *Physical Therapy* 2015 Aug 27 [Epub ahead of print] PubMed PMID: 26316532.
- Duncan RP, Cavanaugh JT, Earhart GM, Ellis TD, Ford MP, Foreman KB, Leddy AL, Paul SS, Canning CG, **Thackeray A**, Dibble LE. External validation of a simple clinical tool used to predict falls in people with Parkinson disease. *Parkinsonism Relat Disord*. 2015 Aug;21(8):960-3. PubMed PMID: 26003412.
- Savage NJ, Fritz JM, Kircher JC, **Thackeray A**. The prognostic value of electrodiagnostic testing in patients with sciatica receiving physical therapy. *Eur Spine J*. 2014 Jul 22. [Epub ahead of print] PubMed PMID: 25047652.
- Savage NJ, Fritz JM, **Thackeray A**. The relationship between history and physical examination findings and the outcome of electrodiagnostic testing in patients with sciatica referred to physical therapy. *J Orthop Sports Phys Ther*. 2014 Jul;44(7):508-17. doi: 10.2519/jospt.2014.5002. Epub 2014 May 22. PubMed PMID: 24853922.
- Fritz JM, **Thackeray A**, Brennan GP, Childs JD. Exercise only, exercise with mechanical traction, or exercise with over-door traction for patients with cervical radiculopathy, with or without consideration of status on a previously described subgrouping rule: a randomized clinical trial. *J Orthop Sports Phys Ther*. 2014 Feb;44(2):45-57
- Hebert JJ, Fritz JM, **Thackeray A**, Koppenhaver SL, Teyhen D. Early multimodal rehabilitation following lumbar disc surgery: a randomized clinical trial comparing the effects of two exercise programs on clinical outcomes and multifidus muscle function. *Br J Sports Med* 2013, Sept 12.

Fritz JM, **Thackeray A**, Childs JD, Brennan GP. A randomized clinical trial for the effectiveness of mechanical traction for sub-groups of patients with low back pain: study methods and rationale. *BMC Musculoskeletal Disorders* 2010; Apr 20;11:81.

**Thackeray A**, Fritz JM, Brennan GP, Zaman FM, Willick SE. A pilot study examining the effectiveness of physical therapy as an adjunct to selective nerve root block in the treatment of lumbar radicular pain from disc herniation: a randomized controlled trial. *Physical Therapy* 2010; 90(12):1717-1729. (Presented at the Combined Sections Meeting of the American Physical Therapy Association, Las Vegas, February, 2009)

Brennan GP, Fritz JM, Hunter SJ, **Thackeray A**, Delitto A, Erhard RE. Identifying subgroups of patients with acute/subacute "nonspecific" low back pain: results of a randomized clinical trial. *Spine* 2006; Mar 15;31(6):623-31. (Presented at the Combined Sections Meeting of the American Physical Therapy Association, San Diego, February 3, 2006)

Fritz JM, Brennan GP, Clifford SN, Hunter SJ, **Thackeray A**. An Examination of the Reliability of a Classification Algorithm for Subgrouping Patients with Low Back Pain. *Spine* 2006; Jan 1;31(1):77-82. (Presented at the Combined Sections Meeting of the American Physical Therapy Association, San Diego, February 4, 2006

## PEER REVIEWED SCIENTIFIC AND PROFESSIONAL PRESENTATIONS:

**Thackeray A**, Hoogeboom TK, Landward R, Hess R, Fritz JM, Conroy M, Heij W, Lundahl B. Physical therapist assessment of an adapted Coach2Move intervention. Poster, Academy Health's Annual Conference on Dissemination and Implementation, Washington DC, December, 2022...

Na A, Baehr L, Sefcik J, **Thackeray A**, Heij W. Physical Activity at the Intersections of Aging and Disability. Symposium, The Gerontological Society of America, Annual Scientific Meeting, Indianapolis, IN, November 2022.

**Thackeray A,** Hoogeboom TH, Nijhuis van der Sanden MW, Fritz J, Hess R, Conroy M, Fernandez M. Using Implementation Mapping to Select Strategies That Improve the Uptake of Evidenced Based Interventions. American Physical Therapy Association Combined Sections Meeting, San Antonio, TX, February 2022.

**Thackeray A,** Hamilton T, Conroy M, Morse J. The Limits of Evidence-Based Practice in Adults with Chronic MSK Conditions. Why are patients unsuccessful? American Physical Therapy Association Combined Sections Meeting, San Antonio, TX, Feb. 2022. \*winner of best poster for the Academy of Orthopaedics.

Miller CJ, **Thackeray A**, Fritz JM, Brennan GP, Kim J, Martin BI, Magel JS. The Association between Time and Demographic Predictors and Health Care Utilization Outcomes of Knee Osteoarthritis. American Physical Therapy Association Combined Sections Meeting, San Antonio, TX, Feb. 2022.

**Thackeray A**, Magel JM, Miller C, Goddfrey J, Meier W, Cohee K. Data for decision making: Development and implementation of an interactive clinical dashboard. American Physical Therapy Association Combined Sections Meeting, Virtual, Feb. 2021.

- Sharpe JA, Johnson J, Barnes C, **Thackeray A**. Directing patients towards physical therapy: Is patient choice the answer? American Physical Therapy Association Combined Sections Meeting, Virtual, Feb. 2021.
- Resnik LJ, Evans EA, Goode AP, Keeney T, Magel JS, Rundell SD, **Thackeray A**, Young DL. Health services research opportunities for faculty and postdoctoral fellows. American Physical Therapy Association Combined Sections Meeting, Denver, CO, Feb. 13-15, 2020.
- **Thackeray A,** Waring J, Hoogeboom T, Nijhuis-van der Sanden M, Hess R, Fritz J, Conroy M, Fernandez M. Using intervention Mapping to plan for implementation of a behavior change intervention in physical therapy. Academy Health's Annual Conference on Dissemination and Implementation, Washington DC, Dec 5-6, 2019.
- **Thackeray A**, Brach J, Fritz J, Brodke D, Hess R. The use of PROMIS Physical Function scores to predict response to physical therapy intervention in older adults. International Society for Quality of Life Research, San Diego, CA, October 21-23, 2019
- Staples T, Beran-Marryott G, Bradford M, Ward S, **Thackeray A.** Optimizing outcomes collection in a Student-Run Clinic. International Society for Quality of Life Research, San Diego, CA, October 21-23, 2019.
- Sharpe JA, Martin BI, Fritz J, Magel J, Vanneman M, **Thackeray A**. What Are the Characteristics of Patients Who Access Outpatient Physical Therapy after Referral? Academy Health's Annual Research Meeting, Washington, D.C. June 2, 2019.
- **Thackeray A**, Hess R, Fritz J, Brach J. Patient Reported Physical Function as an Indicator of Who is Appropriate for Physical Therapy. Center on Health Services Training and Research Implementation Science Institute, Providence, RI, May 1, 2019.
- Magel J, **Thackeray A**, Spangler C, Godfrey J, Fritz J. A dashboard to evaluate adoption of procedures by scheduling staff to offer patients with low back pain an alternative health care pathway. Center on Health Services Training and Research Implementation Science Institute, Providence, RI, May 1, 2019.
- Sharpe JA, **Thackeray A**, Biber JE. Pre-implementation considerations for a shared-decision aid tool predicting PROMIS physical function change. Center on Health Services Training and Research Implementation Science Institute, Providence, RI, May 1, 2019.
- **Thackeray A**, Christensen R. Patient stakeholder identified priorities in the management of chronic musculoskeletal conditions. Utah Health Services Research Conference, Salt Lake City, UT, April 2019.
- Houck J, Marcus RM, **Thackeray A**. New Health Outcomes are Changing Practice. American Physical Therapy Association Combined Sections Meeting, Washington, DC, January 2019.
- Biber J, Weeks H, Gale C, Cozart H, **Thackeray A**, Hess R. Mapping PROMIS Physical Function scores to functional ability. International Society for Quality of Life Research Annual Conference, October 2018, Dublin, Ireland.
- Biber J, Gale C, **Thackeray A**, Cozart H, Weeks H, Hess R. Measuring physical ability and functional status through patient reported outcomes. Society for Medical Decision Making Biennial European Conference, June 2018, Leiden, The Netherlands.
- Johnson JK, Fritz JM, **Thackeray A**, LaStayo PC, Brooke BS, Marcus RL. Physical function scores across the transition from hospital to home mark lack of improvement. CoHSTAR Institute on Health Services Research, Boston, MA, April 2018.

- **Thackeray A**, Magel J, Fritz J, Hess R, Brodke D. Meaningful change in the PROMIS Physical Function in outpatient orthopaedic physical therapy. American Physical Therapy Association Combined Sections Meeting, February, 2018, New Orleans, LA.
- Marcus RL, **Thackeray A**, Painter P. Association of PROMIS scales with physical performance measures in patients with chronic kidney disease. American Physical Therapy Association Combined Sections Meeting, February, 2018, New Orleans, LA.
- Sharpe J, Johnson, J, Magel J, Fritz J, **Thackeray A**. Which patients are more likely to return to outpatient physical therapy? An examination of risk factors and the association with use of medical services. American Physical Therapy Association Combined Sections Meeting, February, 2018, New Orleans, LA.
- Johnson JK, Fritz JM, LaStayo PC, **Thackeray A**, Brooke BS, Marcus RL. The utility of longitudinal assessment of mobility using the AM-PAC for Patients discharged to a skilled nursing facility. American Physical Therapy Association Combined Sections Meeting, February, 2018, New Orleans, LA.
- Magel J, **Thackeray A**, Cohee K, Fritz J, Meier W, Hansen P. Implementation Science for the Orthopaedic and Manual Physical Therapist. American Academy of Orthopaedic Manual Therapists Annual Meeting, Salt Lake City, UT, October 2017.
- Sharpe J, Johnson J, Magel J, Fritz J, **Thackeray A**. Which patients are more likely to return to outpatient physical therapy? An examination of the risks factors related to a return for a similar diagnosis. Center on Health Services Training and Research Summer Institute, Boston, MA, June 2017.
- Sharpe J, Johnson J, Magel J, Fritz J, **Thackeray A**. Factors prediction return to physical therapy: a retrospective review of the electronic medical record. Health Services Research Conference, March 13, Salt Lake City, UT
- Stewart B, **Thackeray A.** Patient Demographics and Outcome Measure Comparison between the University of Utah Student-Run Physical Therapy Pro-Bono Clinic and the University of Utah Orthopedic Physical Therapy Center. American Physical Therapy Association Combined Sections Meeting, February, 2017, San Antonio, TX.
- Minick K, Jarvis E, Sato K, Taylor D, Magel J, **Thackeray A.** The effect of physical therapy provider continuity on self-reported outcomes in a low back pain population. American Physical Therapy Association Combined Sections Meeting, February, 2017, San Antonio, TX.
- Fritz J, Magel J, Cohee K, Hansen P, Meier W, **Thackeray**, Huish M. Rapid Access to Physical Therapy in one Health Care System: Early Results. American Physical Therapy Association Combined Sections Meeting, February, 2017, San Antonio, TX.
- Magel J, Fritz J, Kim J, **Thackeray A**. Associations between physical therapy continuity of care and healthcare utilization in patients with low back pain. American Physical Therapy Association Combined Sections Meeting, February, 2017, San Antonio, TX.
- **Thackeray A,** Fritz JM, Brodke DS, Hess R. Impact of a physical therapy referral on health care use among Medicaid enrollees with low back pain. Center on Health Services Training and Research, Summer Institute, June, 2016, Boston, MA.
- **Thackeray A,** Fritz JM, Brodke DS, Hess R. Predicting physical therapy participation in Medicaid enrollees with low back pain. American Physical Therapy Association Combined Sections Meeting, February, 2016, Anaheim, CA.

Fritz JM, Kim J, **Thackeray A**, Dorius J. Use of Physical Therapy for Low Back Pain by Medicaid Enrollees. American Physical Therapy Association Combined Sections Meeting, February, 2016, Anaheim, CA.

Stewart B, **Thackeray A**. Patient Demographics and Outcome Measure Comparison between the University of Utah Student-Run Pro-Bono Clinic and the University of Utah Orthopedic Physical Therapy Center. Utah Physical Therapy Association, Annual Conference, 2016.

**Thackeray A,** Beneciuk J. Prediction enhanced clinical reasoning: What is the prognosis? Academy of Orthopaedic Manual Therapists, San Antonio, TX, October 2014.

**Thackeray A,** Fritz JM, Brenan GP, Childs JD. Temporal pain patterns over the course of physical therapy among patients with lumbar radicular pain randomized to an extension oriented treatment approach alone or in combination with mechanical traction. Combined Sections Meeting of the American Physical Therapy Association, San Diego, CA, January, 2013.

**Thackeray A,** Fritz JM, Childs JD, Brenan GP, Magel JS. The effectiveness of mechanical traction for sub-groups of patients with low back and leg pain: short-term results of a randomized clinical trial. Odense International Forum XII, Primary Care Research on Back Pain, October 2012, Odense, Denmark.

Fritz JM, Magel JS, **Thackeray A**. Prognostic relevance of sub-groups identified using the Start Back Screening Tool in patients with low back pain and sciatica. Odense International Forum XII, Primary Care Research on Back Pain, October 2012, Odense, Denmark.

Magel JS, Fritz JM, **Thackeray A**, Brennan GP. The influence of a comorbid mental health condition on low back pain-related healthcare costs in patients who consult a primary care provider for low back pain. Odense International Forum XII, Primary Care Research on Back Pain, October 2012, Odense, Denmark.

**Thackeray A,** Fritz, JM, Brennan GP, Hunter SJ. Variation in recovery rates by treatment based classification status among patients with low back pain. Combined Sections Meeting of the American Physical Therapy Association, Chicago, Illinois, February 2012.

**Thackeray A**, Fritz JM, Apeldoorn A. Characteristics and influence of treatment expectancy among individuals with low back pain receiving physical therapy interventions. Combined Sections Meeting of the American Physical Therapy Association, New Orleans, LA, February 2011.

**Thackeray A**, Zaman FM, Fritz JM, Brennan GP, Willick SE, Luers PR. Characteristics of subjects with low back and leg pain who respond to a therapeutic transforaminal selective nerve root block: a secondary analysis of a randomized trial. American Academy of Physical Medicine and Rehabilitation Annual Assembly, Austin, TX, October 2009.

Brennan GP, Fritz JM, **Thackeray A**, Hunter SJ, Erhard RE, Delitto A.A Randomized Trial of Treatment-Based Classification for Patients with Low Back Pain: Inter-rater Reliability of Examination Variables. Combined Sections Meeting of the American Physical Therapy Association, Tampa, and February 13<sup>th</sup>, 2003.

Fritz JM, Clifford SN, Brennan GP, **Thackeray A**, Hunter SJ. The Accuracy of Traditional Clinical Tests for Instability in Patients with Low Back Pain: A Preliminary Analysis. American Association of Orthopedic Manual Physical Therapists Annual Meeting, Reno, Nevada, October 19<sup>th</sup>, 2003.

## **INVITED LECTURES**

Thackeray A. Move to Thrive: Fighting Aging as a Physical Therapist-Client Team. College of Health Rising Stars, University of Utah, November 16, 2021.

Thackeray A. Community Powered Fall Risk Reduction. (Virtual) Salt Lake County Aging Services Staff Presentation. September 23, 2021.

Thackeray A. You are the boss: Taking charge of what you can do to prevent falls. (Virtual) Salt Lake County Aging Services, September 21, 2021.

Thackeray A. Integration of AMPAC & PROMIS across different services: Experiences from the University of Utah. Intermountain Rehabilitation Services 4<sup>th</sup> Annual Outcomes Conference, SLC, UT, September 17, 2021.

Thackeray A. The role of community engaged research in changing health outcomes for individuals experiencing falls. Falls Prevention Alliance and the Utah Commission on Aging Legislative luncheon. SLC, UT, February 11, 2020.

Thackeray A. Move it, don't lose it. Physical activity: our best medicine. Salt Lake County Senior Health Fair. West Jordan, UT, May 29, 2019.

Thackeray A. Management Strategies for Musculoskeletal Conditions. Physical therapy grand rounds, University of Montana, Missoula, Montana, February 5, 2016.

Thackeray A. The use of real-time ultrasound imaging with core stabilization in rehabilitation. Annual Update in Physical Medicine & Rehabilitation, Park City, UT, 2014.

## **BOOKS AND CHAPTERS**

Thackeray A and Miller C. The management of post-surgical orthopedic conditions, In: Geriatric Physical Therapy, Wong R and Avers D ed., Elsevier press, 2019.

## FUNDED/IN REVIEW GRANT ACTIVITY:

1K01HS026518 (**Thackeray**) AHRQ 9/30/2018-9/29/2023

Leveraging Physical Therapy to Improve Physical Activity in Older Adults with Chronic MSK Conditions

This proposal addresses an urgent need for interventions that support physical activity in mid-life and older adults with chronic MSK conditions. We will leverage the physical therapy intervention to address symptoms of chronic musculoskeletal conditions and support long-term physical activity engagement. To achieve this aim, we will adapt the Coach2Move program to our population, implement, and examine the impact of implementation on patient outcomes.

The Greater Plains Collaborative Clinical Data Research Network 2021 Intermountain Healthcare and University of Utah Pilot Program (MPI, **Thackeray**, Minnick) 02/28/2022-03/01/2023 *Patient Profiles in Physical Therapy* 

This proposal is a collaboration with Intermountain Healthcare to examine the use of the PROMIS Global-10 in outpatient physical therapy. Consistent with other measure of psychosocial health, we expect this PROMIS tool to inform prognosis of patients attending physical therapy. We will examine the prevalence of psychosocial needs in the physical therapy population and their association with outcomes.

OTS-LBP-2017C1-6486 (Fritz) PCORI 9/1/2018 - 1/31/2024

Optimizing treatment sequencing for patients with chronic, non-specific low back pain

This project will use a sequential multiple randomization trial design to compare the effectiveness of two common first-line treatments for patients with chronic LBP (physical Therapy and CBT). After 10 weeks we will evaluate if the patient has successfully responded to the initial treatment. Patients who are responders will receive up to 2 additional sessions of the same treatment to assist the transition to self-management. Non-responders to initial treatment will be re-randomized to a second treatment strategy of either *switching* to the other first-line option or mindfulness treatment. The primary aims of the study will compare the effectiveness of PT vs. CBT as first-line treatments and compare the effectiveness of second-line treatments among non-responders. Secondary aims will examine outcomes in pre-specified patient sub-groups and evaluate optimal 2-stage treatment strategies.

1UH3NR019943 (Fritz)

9/25/2020 - 8/31/2025

NINR/NINDS

Nonpharmacologic Pain Management in FQHC primary care clinics

Chronic pain is at the heart of the opioid epidemic and back pain is the most common condition leading to chronic pain. Improving back pain management and reducing disparities are important considerations in reducing the opioid crisis and improving the lives of impacted individuals. The goal of this project to identify effective strategies for providing nonpharmacologic alternatives to opioid pain management for patients with back pain in low income and rural communities using telehealth solutions.

UH3AG067493 (DeBar)

09/30/2019-08/31/2024

NIH/NINDS

Tailored Non-Pharmacotherapy Services for Chronic Pain: Testing Scalable and Pragmatic Approaches Our three-arm comparative effectiveness trial will rigorously evaluate two low-cost, scalable ways to deliver CBT-CP: online via the established PainTRAINER program and by phone using PainTRAINER components.

## **PENDING**

# (NCATS) CTSI Translational Science Pilot study (Thackeray) March 2023 - Feb 2024

Establishing a functional performance index

Using secondary data, we will examine if measures of physical function can be places on single index to support comparison across trials and clinical settings.

## NIH, NCMRR R01 (Thackeray), Submitted October 2022

Optimizing Telehealth Physical Therapy for Chronic Low Back Pain

This factorial trial is designed to examine factors contributing to effective delivery of telehealth physical therapy for chronic low back pain. We will examine delivery mode (in-person, telehealth, or hybrid) with and without motivational enhancement. Secondary analyses will examine these same outcomes among Latinx individuals.

## University of Utah Digital Health Innovations (Thackeray), Submitted January 2022

Adapting a Virtual Motivational Interviewing application to a physical therapy setting

This study will adapt and test a Virtual Motivational Interviewing training app for physical therapists. We will modify an existing app shown to have benefit among Child Welfare employees by developing physical therapy specific scenarios. We will then test knowledge and application of skills among physical therapy students naïve to motivational interviewing.

## **COMPLETED GRANT ACTIVITY**

R03HD094601-01A1 (**Thackeray**)

9/20/2018-8/31/2021

NIH, NCMRR

Developing a Program for Sustaining Physical Activity in Older Adults with Chronic MSK The goal of this project is to examine how routine physical therapy for mid-life and older adults with both physical activity and determinants of physical activity before and after a physical therapy intervention.

1U4U (**Thackeray**)

03/01/2020 - 08/01/2021

University of Utah

Promoting patient engagement and commitment to physical therapy: RCT demonstration of a Brief Motivational Interviewing Training.

Motivational Interviewing is an evidence-based approach for engaging and motivating patients to take steps toward better health. In this project, we will use a hybrid training model with online and face-to-face training – similar to the "flipped classroom" method of learning. The total training time is expected to be 5 hours in length. MI skills will be precisely operationalized and practiced rather than focusing on high-level theory. This intervention will be innovative in providing clinicians with targeted skills and tools designed to focus efforts on promoting client engagement and motivation.

Utah CCTS Community Initiated Translational Research Pilot Program (**Thackeray**) 07/1/2019-06/30/2021

Leveraging 911 Non-transport Falls Data

This grant leverages 911 data and individual interviews to understand non-transport falls. We will examine the proportion of non-transport falls that result in subsequent medical transport. We will also conduct semi-structured interview of individuals who have called 911 after a fall but not received medical transport. This combination of data will drive a community engagement studio to identify resources and interventions that can be implemented to reduce falls.

RG-1701-26763 (Dibble)

10/1/2017-9/30/2020

National Multiple Sclerosis Society

The Effectiveness of a Gaze and Postural Stability program to Standard Care in patients with Multiple Sclerosis

This is a randomized-controlled trial to study the effect of gaze and postural stability training on balance and dizziness in patients with Multiple Sclerosis. Patients will be assessed at baseline, 6-weeks, and 3 months after a 6-week clinical intervention.

Tier A, Pipeline to Proposal Award, PCORI, (Thackeray) 10/1/2017-9/30/2018

BRIDGES, Building support for sustained physical activity in older adults.

The majority of midlife and older adults with chronic MSK conditions visit their primary care physician for help in management. Physicians provide exercise recommendations, but this verbal recommendation is usually not enough to initiate the transition from a sedentary lifestyle to a physically active one. In an effort to understand what will bridge the gap between a physical activity recommendation and actual participation, we will engage a community of midlife and older individuals with chronic MSK conditions, physicians, physical therapists, and community program directors. The aim of this project is to create an advisory committee to examine differing stakeholder priorities and methods for improving management of chronic MSK conditions. This will allow our panel to generate a research proposal matching stakeholder priorities with treatment to optimize the outcomes that matter most to patients and their families.

(Foundation), LS Peery Foundation Discovery Program in Musculoskeletal Restoration, (**Thackeray**) 05/01/14-06/30/17

Improving Function and Enhancing Wellness for Older Adults with Chronic Musculoskeletal Conditions The goals of this project are to examine changes in patient reported function and satisfaction with a wellness program. The program is incorporated after initial physical therapy management to improve support healthy behaviors over six months.

## 1R18HS022641-01, AHRQ, (Fritz) 09/04/14-08/31/18

Management Strategies for Patients with Low back Pain and Sciatica

The major goals of this randomized trial are to compare the effectiveness and costs associated with adding physical therapy to primary care management during the first 4 weeks of care for patients with LBP and sciatica. Outcomes are assessed across a 1-year follow-up and include measures of disability, pain, satisfaction, healthcare utilization and costs.

## 1R18HS018672-01A1, AHRQ, (Fritz) 09/01/10-07/31/15

Comparative effectiveness of management strategies for acute low back pain.

The major goals of this project are to examine the cost-effectiveness of an early intervention program compared with usual care for individuals with acute low back pain.

## Research Contract, EMPI, Inc. (Fritz) 06/01/09-05/31/12

The Value of Adding Traction to Standard Treatment for Patients with Neck or Back Pain
This study was a multi-center randomized trial examining the benefit of adding traction to standard treatment for patients with back or neck pain, and examine the validity of previously-identified subgrouping criteria. Effectiveness was defined by pain and disability scores after 6 weeks with additional examination of outcomes after 6 months and 1 year.

## 1 U 01 OH08083-01, NIOSH, (Hegmann) 01/01/09-01/01/12

Prospective analysis of physical workplace risk factors for low-back musculoskeletal disorders. This was a multi-center prospective study of an occupational cohort designed to study occupational risk factors associated with incident low back pain and subsequent recovery.

## **TEACHING**

RHSCI 7120 Intro to Research Methods PHTH 7220 Advanced techniques, Course Coordinator PHTH 7930 Doctoral Seminar III RHSCI 7900 Independent Study RHSCI 7070 Dissertation Credits

## **MENTORING and TRAINING**

Post-doctoral Fellows

Ward Heij 2022- present

Dissertation Chair

Josh Larson, 2022- present

**Ibrahim Aljulaymi,** 2022, Mediators and moderators of pain neuroscience education on disability of patients with nonspecific chronic low back pain: an observational multisite prospective cohort study **Jason Sharpe,** 2020, Exploring patient choice and the use of physical therapy with multiple methods

## **Dissertation Committee Member**

**Paul Hartman,** 2021- present *Strategies for improving the implementation of patient reported outcomes.* **Abe Dummar,** 2020- present *Identifying usual care for the management of knee osteoarthritis and the implications of guideline adherent care on utilization and value: a 5 year assessment from the US Military Health System (MHS)* 

**Angie Glauser**, 2020-present, Exercise suited to obesity level may enhance self-efficacy outcomes in bariatric surgery patients

**Jed Farley,** 2022 The Effectiveness of Combining Spinal Manipulation and Dry Needling Therapies in Patients with Non-Specific Low Back Pain

**Danica Dummer**, 2022, Predicting post-hospital health care utilization using machine learning **Caitlin Miller**, 2022 Patterns of health care utilization and cost following a new consultation for knee osteoarthritis

**Elizabeth Lane**, 2020, The effectiveness of training physical therapists in pain neuroscience education on outcomes for patients with chronic neck or back pain

**Kate Minick**, 2019, Rehabilitation following rotator cuff repair: considerations for timing, pain catastrophizing, and satisfaction

**Josh Johnson**, 2018, Linking functional status with patient-centered outcomes for patients discharged from acute care

**Doug Santillo,** 2019, Mediators of response to manual therapy in low back pain

## Thesis Committee

**Jason Dude**, 2020, Assessing the usability of People-Like-Me reference charts for rehabilitation programs

## MEMBERSHIP IN SCIENTIFIC/PROFESSIONAL ORGANIZATIONS:

Member, American Physical Therapy Association Academy of Orthopedics, Health Policy and

Academy of Orthopedics, Health Policy and Administration

Member, International Society for Quality of Life Research

Member, Academy Health

## CONSULTATIVE AND ADVISORY POSITIONS HELD:

#### **Reviewer:**

Archives of Physical Medicine and Rehabilitation

Physical Therapy Journal

Qualitative Health Research

American Journal of Physical Medicine and Rehabilitation

Conference abstracts: International Society for Quality of Life Research Annual Meeting, APTA Combined Sections Meeting

Previous: American Physical Therapy Association Annual Conference Programming Association of American Medical Colleges Conference Programming Regional Meeting Society for Medical Decision-Making Annual Conference research abstracts

## **COMMUNITY and OTHER SERVICE:**

Member, NIH Pragmatic Trials Collaboratory:

Implementation Science Core working group, 2022-present

Patient-Reported Outcomes Core working group, 2021-present

Implementation and Dissemination workgroup, American Congress of Rehabilitation, 2019-present Observational Study Monitoring Board, NIAMS HEAL projects, Safety Officer, 2020

NIH grant reviewer (ad-hoc), Section on Health Services Organization and Delivery, 2019 - present Invited participant, APTA Research conference, Philadelphia, PA, 2009

Instructor, Clinical Improvement, Intermountain Healthcare Rehab Agency, Murray, UT 2008

Documentation standardization committee, VA Medical Center, SLC, UT, 2006-2007

Utah Chapter APTA Board of Directors, Membership Chair, 2002-2004

Medical volunteer, Winter Olympic Games, Salt Lake City, UT, 2002

# SERVICES TO THE UNIVERSITY/COLLEGE/SCHOOL ON COMMITTEES/COUNCILS/COMMISIONS:

Grant review committee, Center for Clinical and Translational Science, 2018- present Board Member, Student Run Pro-Bono Physical Therapy Clinic, 2016- present Committee member, Diversity and Inclusion Committee, College of Health, 2016- present Patient Reported Outcomes coordinator for Orthopaedic Physical Therapy Clinics, 2014-present Value Project Lead, Outpatient Physical Therapy, University of Utah Orthopaedics 2015-2017

## **HONORS AND AWARDS:**

Rose Excellence in Research Award Co-Investigator, Orthopaedic Section, American Physical Therapy Association, 2023

American Physical Therapy Association Eugene Michels New Investigator Award 2021

Fellow, Office of Behavioral and Social Science Research, NIH, 2021

Selected for the American Association of Medical Colleges' Early Career Women Faculty Leadership Development Seminar, 2020

Fellow, Training Institute or Dissemination and Implementation Research in Health, NIH, 2019

Rose Excellence in Research Award Co-Investigator, Orthopaedic Section, American Physical Therapy Association, 2017

Vice President's Clinical and Translational Research Scholars Program, 2016-2017, University of Utah School of Medicine

College of Health Student Researcher Award, 2013, University of Utah

Rose Excellence in Research Award Co-Investigator, Orthopaedic Section, American Physical Therapy Association, 2007