

FOTO Research Publications

The FOTO Research Publications list is an excellent resource for clinicians, researchers, policy makers, and insurers who are interested in learning more about the reliability and validity of the FOTO patient reported outcome measures (PROMs) and the clinical application of FOTO's database. All publications listed in this resource are included and outlined below in a Table of Contents (TOC). The TOC includes the following major categories:

1. Recent and previous peer-reviewed articles examining FOTO data over the past 3 decades. The publications support the psychometric properties of FOTO PROMs and/or their clinical application during routine clinical practice. This resource also includes studies that do not examine FOTO data directly but were published in collaboration with FOTO's science research team,
2. Internal FOTO Research Reports to compliment and expand upon results of peer-reviewed publications.
3. Conference Presentations, and
4. Non Peer-Reviewed Publications and Other Reports

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2023 FOTO Peer-Reviewed Publications

1. Deutscher D, Kallen MA, Werneke MW, Mioduski JE, Hayes D. Reliability, validity, and efficiency of an item response theory-based balance confidence patient-reported outcome measure. Phys Ther 2023 (in print).
2. Deutscher D, Kallen MA, Hayes D, Werneke MW, Mioduski JE, Levenhagen K, Pfarr M, Cook KF. Lower quadrant edema patient-reported outcome measure is reliable, valid, and efficient for patients with lymphatic and venous disorders. Phys Ther 2023 (under review).
3. Deutscher D, Kallen MA, Hayes D, Werneke MW, Mioduski JE, Toczylowski T, Petitti JM, Cook KF. The Stroke Upper and Lower Extremity Physical Function Measures Were Supported for Score Reliability, Validity, and Administration Efficiency for Patients Post Stroke. Phys Ther 2023 (under review)

2022 FOTO Peer-Reviewed Publications

4. Bekmuratova S, Bahle-Lampe A, Pflaster T. Physical therapists' experience using focus on therapeutic outcome in outpatient clinics: A qualitative study. *Health Serv Manage Res.* 2022 Aug 9;9514848221118749. doi: 10.1177/09514848221118749. Epub ahead of print. PMID: 35943297.
5. Cheema C, Baldwin J, Rodeghero, Werneke MW et al. The effectiveness of post-professional physical therapist training in the treatment of chronic low back pain using a propensity score approach with machine learning. *Musculoskeletal Care.* 2022;1-16. <https://doi.org/10.1002/msc.1626>.
6. Deutscher D, Hayes, D, Kallen MA, Werneke MW et al. Stroke Upper and Lower Extremity Physical Function Patient-Reported Outcome Measures Were Reliable, Valid, and Efficient. *CSM* 2022 NE11507.
7. Deutscher D, Kallen M, Werneke M, Myers A, Hayes D. Reliability, Validity and Efficiency of an Item Response Theory-based Balance Confidence Patient Reported Outcome Measure. *APMR* 2022;103:e65.
8. Edmonds S, Werneke MW, Grigsby D, Young M, Harris G. The association between self-efficacy on function and pain outcomes among patients with chronic low back pain managed using the McKenzie approach: a prospective cohort study. *JMMT* 2022. DOI: 10.1080/10669817.2022.2075202: <https://doi.org/10.1080/10669817.2022.2075202>.
9. Feldman R et al. Patients' Perceptions and Outcome Measures after Undergoing the Enhanced Transtheoretical Model Intervention (ETMI) for Chronic Low Back Pain: A Mixed-Method Study. *Int J Environmental Res and Public Health* 2022.
10. Hayes D, Kallen M, Werneke M, Deutscher D. New Item-response Theory-based Dizziness Impact Measures Were Reliable, Valid, and Efficient. *APMR* 2022;103:e97.
11. Kallen M, Orhbach R, Deutscher D, Sharma S, Hayes D, Werneke MW. The Revised Item Response Theory–Based Jaw Functional Limitation Scale was Reliable, Valid, and Efficient. *JOSPT* 2022;52:CSM5-6.
12. Lentz TA, Kallen MA, Deutscher D, George SZ. Development of Reliable and Valid Negative Mood Screening Tools for Orthopaedic Patients with Musculoskeletal Pain. *Clin Orthop Relat Res.* 2022 Feb 1;480(2):313-324. <https://pubmed.ncbi.nlm.nih.gov/34878414/>
13. Lentz TA, Kallen MA, Deutscher D, George SZ. Efficient Screening for Fear of Movement in Outpatient Settings: Short Form and Computer Adaptive Tests for Fear Avoidance and Negative Pain Coping. *Phys Ther.* 2022 Jan 12 <https://pubmed.ncbi.nlm.nih.gov/35022785/>
14. Perreault T, Cummings M, Dommerholt J, Hayes D, Hobbs J. Periosteal Needling to the Cervical Articular Pillars as an Adjunct Intervention for Treatment of Chronic Neck Pain and Headache: A Case Report. *Appl. Sci.* 2022, 12, 3122. <https://doi.org/10.3390/app12063122>.
15. Werneke M, Deutscher D, Hayes D, Grigsby D, Resnik L. Associations Between Telerehabilitation and Outcomes for Patients with Low Back Pain During the COVID-19 Pandemic. *APMR* 2022;103:e62
16. Werneke MW, Deutscher D, Hayes D, Grigsby D, Mioduski J, Resnik L. Is Telerehabilitation a Viable Option for Patients With Low Back Pain? Associations Between Telerehabilitation and

Outcomes During the COVID-19 Pandemic. Phys Ther 2022;102:1–9.
<https://doi.org/10.1093/ptj/pzac020>

2021 Peer-Reviewed Publications

17. Alodaibi F, Beneciuk J, Holmes R, Kareha S, Hayes D, Fritz J. The Relationship of the Therapeutic Alliance to Patient Characteristics and Functional Outcome During an Episode of Physical Therapy Care for Patients With Low Back Pain: An Observational Study. Phys Ther 2021;101:19 <https://doi.org/10.1093/ptj/pzab026>.
18. Berezo M, Budman J, Deutscher D, Hess CT, Smith K, Hayes D. Predicting Chronic Wound Healing Time Using Machine Learning. Adv Wound Care (New Rochelle). 2021 Oct 11.
19. Burgess R, Lewis M, Hill JC. Musculoskeletal case-mix adjustment in a UK primary/community care cohort: Testing musculoskeletal models to make recommendations in this setting. Musculoskeletal Science and Practice. Musculoskeletal Science and Practice. 2021. <https://doi.org/10.1016/j.msksp.2021.102455>
20. Deutscher D, Kallen MA, Hayes D, Werneke MW, Mioduski JE, Tucker CA, Cook KF. The Lower Extremity Physical Function (LEPF) Patient-Reported Outcome Measure (PROM) was Reliable, Valid, and Efficient for Patients with Musculoskeletal Impairments. APMR 2021;102:1576-1587. <https://pubmed.ncbi.nlm.nih.gov/33684367>.
21. Deutscher D, Hayes D, Cook KF, Werneke MW, Tucker CA, et al. Upper Quadrant Edema Patient-Reported Outcome Measure was Reliable, Valid, and Efficient for Patients with Lymphatic and Venous Disorders. Phys Ther 2021;101 Issue 12, December 2021. <https://pubmed.ncbi.nlm.nih.gov/34636891>.
22. Rufa A, Kolber MJ, Rodeghero J, Cleland J. The impact of physical therapist attitudes and beliefs on the outcomes of patients with low back pain. Musculoskeletal Science and Practice. 2021 Oct;55:102425.
23. Walston Z and Barrios RB. The impact of graft type on rehabilitation outcomes following ACL reconstruction: Bone patellar tendon bone versus quadriceps tendon grafts. Physical Therapy in Sport 2021;52:234-238.
24. Werneke MW, Deutscher D, Grigsby D, Tucker CA, Mioduski JE, Hayes D. Telerehabilitation During the Covid-19 Pandemic in Outpatient Rehabilitation Settings: A Descriptive Study. Phys Ther 2021;101:1-11. <https://pubmed.ncbi.nlm.nih.gov/33848335>.

Additional FOTO Peer-Reviewed Publications

25. Amato AL, Dobrzykowski EA, Nance T. The effect of timely onset of rehabilitation on outcomes in outpatient orthopedic practice: a preliminary report. *J Rehabil Outcomes Meas.* 1997;1(3):32-38.
26. Brooks G, VanBeveren P, Dolphin M, Hart DL. Referral source and outcomes of physical therapy care in patients with low back pain. *JOSPT*, 2012;42(8):705-15.
27. Burgess R, Bishop A, Lewis M, Hill J. Models for case-mix adjustment of patient reported outcome measures (PROM) in musculoskeletal healthcare: A systematic review of the literature. *Physiotherapy* 2019;105:137-146.
28. Childs D, Harman J, Rodeghero J, Horn M, George S. Implications of Practice Setting on Clinical Outcomes and Efficiency of Care in the Delivery of Physical Therapy Services. *JOSPT*, 2014: 44(12):955-963
29. Cook KF, Kallen MA, Hayes D, Deutscher D, Fritz JM, Werneke MW, Mioduski JE. Calibration and validation of an item bank for measuring general physical function of patients in medical rehabilitation settings. *Patient Related Outcome Measures.* 2018;9:11-16. DOI <https://doi.org/10.2147/PROM.S148788>
30. Cook C, Rodeghero J, Cleland J, Mintken P. A Preliminary Risk Stratification Model for Individuals with Neck Pain. *Musculoskeletal Care* 2015 Mar 2. DOI: 10.1002/msc.1098.
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32. Cotter DJ and Hamilton-Cotter A. Physical Therapy Outpatient Practice Patterns for Treatment of Urinary Incontinence. *Urologic Nursing* 2019;39:111-118
33. Crane PK, Hart DL, Gibbons LE, Cook KF. A 37-item shoulder functional status item pool had negligible differential item functioning. *J Clin Epidemiol.* 2006; 59(5):478-484.
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39. Deutscher D, Hart DL, Stratford PW, Dickstein. Construct validation of a knee-specific functional status measure: a comparative study between the United States and Israel. *Phys Ther.* 2011;91(7):1072-1084.
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1. Advancing Measurement for Low Back Function
2. Advancing Measurement for Shoulder Function
3. FOTO Outcome Measures: Efficiency, Reliability, and Clinical Interpretation
4. Linking Measure Scores from the FOTO Neck Functional Status [Computer Adaptive Test (Neck CAT) and the Neck Disability Index (NDI)]
5. Crosswalk Functionality in MIPS Clinical Quality Measures #217-222 and 478: Public Access to FOTO Measures: at links: provided here and <https://fotoinc.com/science-of-foto/nqf-measure-specifications/>

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