

Ali Hamad S Alnahdi

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Rehabilitation sciences Department
College of Applied Medical Sciences
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EDUCATION

Doctor of Philosophy in Biomechanics and Movement Science, 2012

University of Delaware, Newark, DE, USA.

Advisor: Lynn Snyder-Mackler

Dissertation Title: Altered Loading and Quadriceps Strength after Unilateral Total Knee Arthroplasty

Master of Science in health and rehabilitation sciences, 2007

University Of Pittsburgh, Pittsburgh, PA, USA

Bachelor of Science in Rehabilitation – Physical Therapy, 2002

King Saud University, Riyadh, Saudi Arabia with second class honor

PROFESSIONAL EXPERIENCE

- **Assistant professor**, Rehabilitation Sciences Department, College of Applied Medical Sciences, King Saud University, Riyadh, Saudi Arabia. (November 2012 to present).
- **Teaching Assistant**, Rehabilitation Sciences Department, College of Applied Medical Sciences, King Saud University, Riyadh, Saudi Arabia. (December 2004 to November 2012).
- **Physical Therapist**, Physical Therapy department, Riyadh Armed Forces Hospital, Riyadh, Saudi Arabia. (October 2003 to December 2004)
- **Intern Physical Therapist**, King Khalid university hospital, Riyadh, Saudi Arabia; King Abdulaziz Medical City, Riyadh, Saudi Arabia; Riyadh Armed Forces Hospital, Riyadh, Saudi Arabia. (August 2002 to July 2003)

RESEARCH INTERES

- Interrelationships between impairments, functional limitations and participation restrictions in patients with musculoskeletal dysfunctions.
- Examining the effect of manual physical therapy interventions in patients with musculoskeletal dysfunctions in different body regions
- Examining the influence of various Physical therapy interventions on functional recovery in patients with musculoskeletal dysfunctions
- Development and validation of patient-reported outcome measures using classical and modern test methods
- Biomechanics of common daily activities and the implications of altered movement patterns during functional activities.
- Biomechanical effect of physical therapy interventions in patients with musculoskeletal dysfunctions.

PUBLICATIONS

- **Alnahdi AH.** Rasch Validation of the Arabic version of the Lower Extremity Functional Scale. Disabil Rehabil. Accepted
- Al-Sobayel HI, Al-Hugail HA, AlSaif RM, Albawardi NM, **Alnahdi AH**, Daif AM, Al-Arfaj HF. Validation of an Arabic Version of Fatigue Severity Scale. Saudi Med J. 2016 Jan;37(1):73-8.
- Alamrani S; Alsobayel H; **Alnahdi AH**; Moloney N; Mackey M. Cross-Cultural Adaptation and Validity of the Back Beliefs Questionnaire to the Arabic Language. Spine. 2016 June;41(11): E681-6.
- **Alnahdi AH**, Alderaa AA, Aldali AZ, Alsobayel H. Reference values for the Y balance test and the lower extremity functional scale in young healthy adults. J Phys Ther Sci. 2015; 27(12):3917-3921
- **Alnahdi AH.** Confirmatory factor analysis of the Arabic version of lower extremity functional scale. Int J Rehabil Res. 2016 Mar; 39(1):36-41.
- **Alnahdi AH**, Zeni JA, Snyder-Mackler L. Quadriceps strength asymmetry predicts loading asymmetry during sit-to-stand task in patients with unilateral total knee arthroplasty. Knee Surg Sports Traumatol Arthrosc. 2016 Aug;24(8):2587-94.

- **Alnahdi AH**, Alrashid GI, Alkhaldi HA, Aldali AZ. Cross-cultural adaptation, validity and reliability of the Arabic version of the Lower Extremity Functional Scale. *Disabil Rehabil.* 2016 May; 38 (9):897-904.
- **Alnahdi AH**. Outcome Measures Capturing ICF Domains in Patients With Total Knee Arthroplasty. *Int J Rehabil Res.* 2014 Dec; 37(4):281-9.
- **Alnahdi AH**, Zeni JA, Snyder-Mackler L. Hip Abductor Strength Reliability and Association With Physical Function After Unilateral Total Knee Arthroplasty: A Cross-Sectional Study. *Physical Therapy.* 2014 Aug; 94(8):1154-62.
- Marmon AR, Pozzi F, **Alnahdi AH**, Zeni JA. The validity of plantarflexor strength measures obtained through hand-held dynamometry measurements of force. *International journal of sports physical therapy.* 2013;8:820-827.
- **Alnahdi, AH**, Zeni, J. A. and Snyder-Mackler, L. Gait after unilateral total knee arthroplasty: Frontal plane analysis. *J Orthop Res.* 2011 May; 29(5):647-52.
- **Alnahdi, AH**, Zeni, Joseph A. and Snyder-Mackler, L. Muscle Impairments in Patients with Knee Osteoarthritis. *Sports Health: A Multidisciplinary Approach.* 2012 July; 4: 284-292.

PLATFORM PRESENTATIONS

- Alsobayel H; Alhugail H; Alsaif R; Albawardi N; **Alnahdi AH**; Daif A; Alarfaj H. Development and Validation of an Arabic version of the fatigue severity scale. WCPT Congress 2015, Singapore. May 1-4, 2015.
- **Alnahdi AH**, Alrashid GI, Alkhaldi HA, Aldali AZ. Cross-cultural adaptation, validity and reliability of the Arabic version of the Lower Extremity Functional Scale. Third Gulf Physical Therapy Colloquium, AlKhobar, Saudi Arabia. March 28-29, 2015.
- **Alnahdi, Ali H**; Zeni, Joseph A; Snyder-Mackler, Lynn. Quadriceps Strength Moderates The Relationship Between Quadriceps Volitional Activation and Physical Function after Unilateral Total Knee. CSM Meeting 2015, Indianapolis, IN. February 6, 2015. *J Orthop Sports Phys Ther* 2015;45(1):A33.
- **Alnahdi, Ali H**; Zeni, Joseph A; Snyder-Mackler, Lynn. Quadriceps Activation Deficit Is Associated With Poor Functional Performance After Unilateral Total Knee. CSM Meeting 2014, Las Vegas, NV. February 4, 2014. *J Orthop Sports Phys Ther* 2014;44(1):A24.

- **Alnahdi, Ali H**; Zeni, Joseph A; Snyder-Mackler, Lynn. Interlimb Loading Differences During Sit To Stand Task After Total Knee Arthroplasty. CSM Meeting 2011, New Orleans, LA. February 11, 2011. *J Orthop Sports Phys Ther* 2011;41(1):A18.
- Zeni, Joseph A; **Alnahdi, Ali H**; McClelland, Jodie A; McGinnis, Kevin M; Snyder-Mackler, Lynn. Development of a Normative Sample for the Delaware Osteoarthritis Profile in Patients Pre- and Post- Total Knee Arthroplasty. CSM Meeting 2011, New Orleans, LA. February 11, 2011. *J Orthop Sports Phys Ther* 2011;41(1):A19.

POSTER PRESENTATIONS

- Alamrani S; Alsobayel H; **Alnahdi AH**; Moloney N; Mackey M. Cross-Cultural Adaptation, Reliability and Validity of The Arabic Version Of Back Beliefs Questionnaire. WCPT Congress 2015, Singapore. May 1-4, 2015.
- **Alnahdi, Ali H**; Snyder-Mackler, Lynn. Impairments and Functional Performance After Total Knee Arthroplasty. CSM Meeting 2010, San Diego, CA. February 20, 2010. *J Orthop Sports Phys Ther* 2010;40(1):A56
- **Alnahdi, Ali H**; Zeni, Joseph A; McGinnis, Kevin M; Snyder-Mackler, Lynn. Gait After Unilateral Total Knee Arthroplasty: Frontal Plane Analysis. ASB Meeting 2010, Providence, RI. August 20, 2010.
- McGinnis, Kevin M; Zeni, Joseph A; **Alnahdi, Ali H**; Snyder-Mackler, Lynn. Dynamic Knee Joint Stiffness and Knee Joint Moment After TKA. ASB Meeting 2010, Providence, RI. August 20, 2010.
- **Alnahdi, Ali H**; McClelland, Jodie A; Zeni, Joseph A; Snyder-Mackler, Lynn. Quadriceps Strength and Gait after Unilateral Total Knee Arthroplasty. ORS Meeting 2011, Long Beach, CA. January 13-16, 2011.
- **Alnahdi, Ali H**; Zeni, Joseph A; Snyder-Mackler, Lynn. The Effect of Progressive Strengthening Programs on Sit to Stand Mechanics After Unilateral Total Knee Arthroplasty: Preliminary Results of A Randomized Clinical Trial. CSM Meeting 2012, Chicago, IL. February, 2012. *J Orthop Sports Phys Ther* 2012;42(1):A98
- **Alnahdi, Ali H**; Zeni, Joseph A; Snyder-Mackler, Lynn. The Effect of Progressive Strengthening Programs on Function and Gait Mechanics after Unilateral Total Knee Arthroplasty: A Randomized Clinical Trial. OARSI Meeting 2012, Barcelona, Spain. April 26-29, 2012.

- **Alnahdi, Ali H**; Zeni, Joseph A; Snyder-Mackler, Lynn. Quadriceps Inhibition and Physical Function After Unilateral Total Knee Arthroplasty. ESSKA Meeting 2012, Geneva, Switzerland. May 2-5, 2012.
- **Alnahdi, Ali H**; Zeni, Joseph A; Snyder-Mackler, Lynn. Hip Abductors Strength: Reliability and Association With Physical Function after Unilateral Total Knee Arthroplasty. ESSKA Meeting 2012, Geneva, Switzerland. May 2-5, 2012.
- Federico Pozzi; **Alnahdi, Ali H**; Marmon Adam; Snyder-Mackler, Lynn. Comparison of Handheld Device and Electromechanical Dynamometer for Measuring Plantarflexion Force. ACSM Meeting 2012, San Francisco, CA. May 29- June 2, 2012.
- Federico Pozzi; **Alnahdi, Ali H**; Zeni Joseph A; Snyder-Mackler, Lynn. Loading Patterns During A Step-Up-And-Over Task In Individuals Following Total Knee Arthroplasty. ASB Meeting 2012, Gainesville, FL. August 15-18, 2012.

AWARDS

- Academic award from the Saudi Arabian cultural mission in the USA for graduating (MSc program) from one of the top 10 university with high GPA (July, 2007)
- Academic award from the Saudi Arabian cultural mission in the USA for graduating (PhD program) from one of the top 10 university with high GPA (August, 2012)
- Publication award from the College of Applied Medical Sciences Research Center and the Deanship of Scientific Research at King Saud University (2014)
Project title: Hip abductor strength reliability and association with physical function after unilateral total knee arthroplasty: a cross-sectional study.
- Publication award from the College of Applied Medical Sciences Research Center and the Deanship of Scientific Research at King Saud University (2014)
Project title: Outcome measures capturing ICF domains in patients with total knee arthroplasty.
- Publication award from the College of Applied Medical Sciences Research Center and the Deanship of Scientific Research at King Saud University (2016)
Project title: Confirmatory factor analysis of the Arabic version of the lower extremity functional scale.
- Publication award from the College of Applied Medical Sciences Research Center and the Deanship of Scientific Research at King Saud University (2016)
Project title: Reference values for the Y balance test and the lower extremity function scale.
- Research grant from the deanship of scientific research at King Saud University (Raed 3 program; research project No. NFG-14-02-15) (2014)
Project title: Cross-cultural adaptation, validity and reliability of the Arabic version of the lower extremity functional scale

ORGANIZATIONS AND SOCIETIES MEMBERSHIP

- Member of the Saudi Physical Therapy Association (1-5-2005 to present)
- Member of the American Physical Therapy Association (12-3-2008 to present)
- Member of the Canadian Physical Therapy Association (6-5-2014 to 6-5-2015)
- Member of the Saudi International Rehabilitation Research Network (28-4-2015 to present)

PROFESSIONAL LICENSURE

- Licensed Consultant Physical Therapist in Saudi Arabia
- Physical Therapy licensure in the state of Delaware (USA)

COMMITTEES MEMBERSHIP

- Chairman of the curriculum committee in the Rehabilitation sciences department (10-11-2012 to 31-8-2014)
- Member of the recruitment committee in the Rehabilitation sciences department (10-11-2012 to 1-9-2013)
- Chairman of the curriculum committee in the Rehabilitation sciences department (23-8-2015 to present)
- Supervisor of the physical therapy program at the rehabilitation sciences department (29-10-2013 to 26-1-2014)
- Member of Ad-hoc committee to review scientific production of a faculty member for promotion purpose (15-9-2013 to 22-9-2013)
- Member of Ad-hoc committee to review scientific production of a faculty member for promotion purpose (5-5-2014 to 12-5-2014)
- Chairman of Ad-hoc committee to review scientific production of a faculty member for promotion purpose (13-4-2015 to 20-4-2015)
- Member of the postgraduate studies and research committee in the Rehabilitation sciences department (1-10-2014 to 18-9-2016)
- Member of the consular board for the Rehabilitation sciences department (25-4-2016 to present)
- Member of Master students admission committee (20-2-2013 to 12-3-2013)
- Member of Master students admission committee (16-3-2014 to 13-4-2014)
- Member of Master students admission committee (12-2-2015 to 11-3-2015)
- Member of Master students admission committee (24-2-2016 to 23-3-2016)
- Member of an Ad- hoc faculty recruitment committee to India to hire Faculty for the Occupational therapy and Respiratory therapy programs at the rehabilitation sciences department (from 11-8-2013 to 24-8-2013)

- Chairman of an Ad- hoc committee to review an online academic course “ Therapeutic Exercise” for King Saud University (from 26-8-2013 to 2-9-2013)

EXAMINING COMMITTEE FOR GRADUATE STUDENTS

- Member of a PhD dissertation examining committee for Mishal Aldaihan (KSU lecturer) at Texas Woman’s University, USA (2-9-2015 to present)
Dissertation title: Cross-cultural adaptation of the Arabic version of the patient reported impact of spasticity measures in Arabic speaking people with spinal cord injury in Saudi Arabia.
- Member of a Master thesis examining committee for Hani Alkhawajah at the University of Dammam, Saudi Arabia
Thesis title: The effect of mobilization with movement on pain and function among patients with knee osteoarthritis (defense date: 23-11-2016)
- Member of a Master thesis examining committee for Nazar Alkhadhrawi at the University of Dammam, Saudi Arabia
Thesis title: Effects of myofascial trigger point dry cupping on plantar heel pain (defense date: 23-11-2016)

COMMUNITY SERVICES

- **Services to professional organizations**
 - Leader of the outcome measures research interest group at the Saudi International Rehabilitation Research Network (24-6-2016 to present)
 - Ad hoc reviewer for the Saudi Commission for health specialties (June 2016- present)
 - Ad hoc reviewer for Prince Sattam Bin Abdulaziz University (8-12-2014 to present)
 - Ad hoc reviewer for University of Hail (21-4-2015 to present)
- **Services to the profession**
 - Invited lecture “Searching scientific databases”. Invitation from students’ activities committee of the College of Applied Medical Sciences at king Saud University on October 30th 2013.
 - Invited lecture “Current Concepts in Rehabilitation after Total Knee Arthroplasty”. Invitation from Madinah Physical Therapy Club on Jan 1st 2014.
 - Invited lecture “Rehabilitation after total knee replacement”. Invitation from king Saud University Physical Therapy student Club on April 23rd 2014.
 - Invited Workshop “Lumbar Spine Examination and Treatment”. Invitation from king Saud University Physical Therapy students Club on Jan 19th 2016.
 - Invited lecture “Low Back Pain”. Invitation from king Saud University Physical Therapy students Club on Feb 10th 2016.

- **Services to professional Publications**

- Ad hoc reviewer for Open Access Rheumatology Research and Reviews (9-10-2014 to present)
- Ad hoc reviewer for Open Journal of Therapy and Rehabilitation (5-5-2014 to present)
- Ad hoc reviewer for PLOS ONE (22-10-2015 to present)
- Ad hoc reviewer for JOSPT(Journal of Orthopaedic & Sports Physical Therapy (6-3-2016 to present)
- Ad hoc reviewer for BMC musculoskeletal Disorders (21-2-2016 to present)

CONFERENCES AND WORKSHOPS ATTENDED

- Certified Mulligan Practitioner (CMP), November 20, 2016
 - Mulligan Concept Part A, Upper quadrant, Dubai, UAE. November 15-16, 201
 - Mulligan Concept Part B, Lower quadrant, Dubai, UAE. November 17-18, 201
 - Mulligan Concept Part C, Follow-up & Advanced, Dubai, UAE. November 19, 2016
- Kinesio Taping Fundamentals and Advanced (KT1 & KT2). Kinesio University, Doha, Qatar. October 7-8, 2016
- Dry Needling Certification (CMTPT). Myopain Seminars
 - Dry Needling-Foundation I. Myopain Seminars, Dubai, UAE. February 4-6, 2016
 - Dry Needling-Foundation II. Myopain Seminars, Dubai, UAE. March 24-26, 2016
 - Dry Needling-Advanced. Myopain Seminars, Dubai, UAE. April 15-17, 2016
- Certificate of Orthopaedic Manual Therapy. Manual Concepts, Perth, Australia. June 29- July 24, 2015.
- Clinical Gait Analysis- An Impairment Focused Interpretation Approach. University of Salford Manchester, Salford, UK. May 20-22, 2015.
- Intermediate Rasch Analysis. University of Leeds, Leeds, UK. May 18-20, 2015.
- Introduction to Rasch Analysis. University of Leeds, Leeds, UK. May 13-15, 2015.
- Gait and Clinical movement Analysis Society Conference. Portland, Oregon, USA. March 18-21, 2015.
- Combined Sections Meeting of the American Physical Therapy Association. Indianapolis, IN, USA. February 4-7 2015.
- Multimodal Physical Therapy and Interventional Pain Medicine in Managing Neck Pain. Indianapolis, IN, USA. February 14, 2015.
- Diagnosis and Treatment of Movement System Impairment Syndromes: Upper Quarter Advanced Applications. Edmonton, Canada. June 18-19, 2014.
- Canadian Physiotherapy Congress, Edmonton, Canada. June 19 –22, 2014.
- The Thorax & Pelvis - Understanding the Relationships between the Thorax and the Pelvis using The Integrated Systems Model for Pain & Disability. Lugano, Switzerland, March 20-23, 2014.
- Advanced Thrust and non-thrust manipulation of the cervical spine and thorax with integration of exercise. , Las Vegas, NV, USA. February 2-3, 2014
- Combined Sections Meeting of the American Physical Therapy Association, Las Vegas, NV, USA. February 3-6, 2014

- Annual Meeting of the American Physical Therapy Association, Salt Lake, UT
June 22-26, 2012
- Combined Sections Meeting of the American Physical Therapy Association, San Diego, CA.
February 17-20, 2010
- Combined Sections Meeting of the American Physical Therapy Association, New Orleans,
LA. February 9-12, 2011
- Combined Sections Meeting of the American Physical Therapy Association, Chicago, IL.
February 8-12, 2012
- American Society of Biomechanics Meeting, Providence, RI. August 18-21, 2010.
- Orthopedic Research Society Meeting, Long Beach, CA. January 13-16, 2011.
- Osteoarthritis Research Society International Meeting, Barcelona, Spain. April 26-29, 2012.
- European Society of Sports Traumatology, Knee Surgery and Arthroscopy Meeting, Geneva,
Switzerland. May 2-5, 2012.
- Annual Meeting of the American Physical Therapy Association, Boston, MA
June 16-19, 2010
- Evidence-Based Practice in Your Clinic, Preconference workshop, Boston, MA
June 16, 2010
- Manipulation of Sacroiliac Joint, conducted at security forces hospital, Riyadh, Saudi Arabia
on April 20, 2006.
- Introduction to Clinical Statistics, conducted at King Fahad National Guard hospital, Riyadh,
Saudi Arabia on March 22-23, 2006.
- Finding Evidence of Effect of Therapy, Conducted at Alfaisaliah Hotel, Riyadh, Saudi Arabia
on December 06, 2005.
- Orthopedic Manual Physical Therapy part four: elbow-forearm, hand and upper cervical spine:
conducted at Riyadh Armed Forces hospital, Riyadh, Saudi Arabia on May 15-19, 2004.
- Orthopedic Manual Physical Therapy part three: the lumbo-pelvic and thoracic region:
conducted at Riyadh Armed Forces hospital, Riyadh, Saudi Arabia on February 14-18, 2004.
- Orthopedic Manual Physical Therapy part Two: the lower extremity: conducted at Riyadh
Armed Forces hospital, Riyadh, Saudi Arabia on December 13-17, 2003.
- Orthopedic Manual Physical Therapy part one: cervical-shoulder complex: conducted at
Riyadh Armed Forces hospital, Riyadh, Saudi Arabia on September 13-17, 2003.
- Cyriax Generalities and Lower Extremities Modules: conducted at Saudi German Hospital,
Riyadh, Saudi Arabia on January 12, 16-18, 2003.
- The Role of Electrodiagnostic Techniques in Physical Therapy: conducted at King Fahad
Hospital of the University, Al-Khobar, Saudi Arabia on May 8-9, 2002.

CLINICAL MEETINGS ATTENDED

- Saudi Physical Therapy Association (SPTA) clinical meeting: Introduction to Neural Tissue
Pain Disorder on December 20, 2004.
- SPTA clinical meeting: Physical Therapy Role in NICU on November 29, 2004.

- SPTA clinical meeting: Neurodynamics: An Overview of principles Related to Clinical Practice on May 17, 2004.
- SPTA clinical meeting: Lumbar Pain: How to Reach a Useful Diagnosis in Order to Define a treatment Strategy by Using Cyriax Assessment Form on March 8, 2004.
- SPTA clinical meeting: Back Pain and Related Conditions on September 9, 2003.
- SPTA clinical meeting: Basics of Acute Care of Spinal Cord Injury on July 15, 2003.
- SPTA clinical meeting: Evaluation and Treatment of the Patient with Osteoarthritis on June 17, 2003.
- SPTA clinical meeting: Bobath Concept on May 5, 2003.
- SPTA clinical meeting: Painful Hemiplegic Shoulder on April 22, 2003.
- SPTA clinical meeting: Uses of Application of Ilizarov Technique & Role of Physical Therapy on March 23, 2003.
- SPTA clinical meeting; Myofascial Trigger Points: Diagnosis & Treatment on March 9, 2003.

COURSES TAUGHT

- 507 RHS Biomechanics (Master level)
- 228 BMT Introduction to Biomechanics
- 341 RHS Kinesiology
- 301 RHS functional Anatomy
- 322 RHS Therapeutic Exercises
- 433 RHS Clinical Practice 3
- 434 RHS Selected Clinical Topics
- 333 RHS Clinical Practice 1