

ZAKARIYA H. NAWASREH

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EDUCATION

University of Delaware, Newark, DE Feb 2012 – Jun 2015
PhD in Biomechanics and Movement Sciences

University of Pittsburgh, Pittsburgh, PA Aug 2010 - Aug 2011
Master of Science in Musculoskeletal Physical Therapy

Jordan University of Science and Technology, Irbid, Jordan Sep 2002 - Jun 2006
Bachelor of Science in Physical Therapy

RESEARCH EXPERIENCE

Research Assistant Jan 2015 – Jun 2015
Biomechanics and Movement Science Dept. & Physical Therapy Dept
University of Delaware, Newark, DE

Previous Projects:

R01AR48212 Snyder-Mackler (PI) 04/15/05-03/31/16
Can Neuromuscular Training Alter Movement Patterns?
Role: Investigator

R37HD037985 Snyder-Mackler (PI) 02/08/01-02/28/17
Dynamic Stability of the ACL Injured Knee
Role: Investigator

R44HD068054 Greenwald (PI) 04/01/11-02/28/14
Dynamic Perturbation Training System for ACL Rehabilitation
Role: Investigator

No number Snyder-Mackler (PI) 04/11/20- May 2015
Muscular and Hop Performance Characteristics of Uninjured Individuals
Role: Investigator

No number Snyder-Mackler (PI) 03/10/2010- May 2015
Uninjured Gait Data
Role: Investigator

My duties included writing research proposal and IRB documents for new projects with a focus on surgical and non-surgical ACL intervention and outcomes. Communicate and coordinate with physicians and physical therapists, explain study's purposes, and interact with patients during patients' recruitment processes. Schedule patients' testing, training sessions, and follow-ups testing to investigate the effectiveness of rehabilitation programs and to track patients' changes using different clinical and biomechanical

outcomes. Conduct clinical testing and motion analysis testing (Vicon workstation, Nexus). Administering the study rehabilitation program and processing motion data using different software including, LabVIEW, Visual3D, DICOM, and some experience with MATLAB. Assist and contribute in multiple projects. Interact with team colleagues and external staff for troubleshooting and problem solving. Collaborating with follow PhD students and faculty members. Create and develop software codes for analyzing biomechanical and EMG data (LabVIEW, Visual3D, DICOM, some experience with MATLAB). Use statistical software (SPSS) for data analysis and data interpretation. Write and review journal manuscripts. Write studies' annual reports and abstracts, and present at national and international conferences (i.e. ACSM, CSM, ORS, and ESSKA), as well as write a dissertation proposal, and journal manuscripts.

Jordan University of Science and Technology, Irbid, Jordan

The Middle East "Stepping forward" Project

Oct 2009-Jul 2010

Role: Investigator

Coordinating with community based health centers for patient recruitment and organizing testing and treatment sessions which aimed to improve the balance and functionality of patients with neurological disorders. Testing patients at different time points of the study to evaluate the efficacy of two rehabilitation technologies on activity of daily living of patients with neurological disorders. Creating database and sharing the patients' data with other research sites to compute the outcome measures from larger sample size in attempt to report the study's results.

TEACHING EXPERIENCE:

Jordan University of Science and Technology, Applied Medical Science faculty, Jordan

Assistant Professor

Sep 2015 - Current

P.T 205 Biomechanics
P.T 206 Kinesiology
P.T 231 Physical Modalities

Lecturer

Sep 2011- Dec 2011

P.T371-Introduction to physical therapy clinics
P.T221-Musculoskeletal assessment
P.T244-Therapeutic exercises (1)
P.T372-Clinical practice in orthopedics

Teaching Assistant

Sep 2006-Jul 2010

Supervise and maintain the physical therapy's labs and materials
Supervise and coordinate the students' clinical training (at King Abdullah University Hospital, Al-basheer Hospital (Amman), Basma Hospital (Irbid))
Assist in administrative aspects (courses schedules, exam schedules, training center management, staff assessments implementation, materials, and equipment tenders).

Alneelain University, faculty of physical therapy, Sudan

Assistant Professor/ part time

April 2016- May 2016

GAAN721 Gait analysis
PATH723 Pathomechanics

PUBLICATIONS:

Nawasreh Z, Logerstedt D, Marmon A, Snyder-Mackler L, Axe M No Differences Between Manual and Mechanical Perturbation Training on Knee Biomechanics and Functional performance After ACL-Rupture. In preperation

Nawasreh Z, Logerstedt D, White K, Snyder-Mackler L, Axe M, Risberg M. Do Patients Failing Return-To-Activity Criteria Six Months after ACL Reconstruction Continue Demonstrating Deficits at Two Years? **Accepted.**

Nawasreh Z, Logerstedt D, White K, Snyder-Mackler L, Axe M, Risberg M. Knee functional performance six months predicts return to participate in the same preinjury activity level 12 and 24 months after anterior cruciate ligament reconstruction (ACLR). In review

Nawasreh Z, Wellsandt E, Logerstedt D. Clinical Concepts on ACL injury, surgery, and rehabilitation. GSC home study course. 2013

PEER- REVIEWED ABSTRACTS

Nawasreh Z, Marmon A, Logerstedt D, Snyder-Mackler L. Does Pre-surgical Treatment Affect Joint Loading and Motion Five years after ACL-Reconstruction. Poster presentation. ORS 2015 Annual Meeting, Las Vegas, Nevada; March 28-31, 2015.

Nawasreh Z, Logerstedt D, White K, Snyder-Mackler L. Subjects Who Fail Return To Activity Criteria Six Months After ACL Reconstruction Continue To Demonstrate Deficits at Two Years. Podium presentation, CSM Meeting 2015, Indianapolis, Indiana. February 4-7, 2015.

Nawasreh Z, Logerstedt D, White K, Snyder-Mackler L. Knee functional performance and self-reported knee function at six months predicts return to preinjury activity level two years after anterior cruciate ligament reconstruction. Oral presentation. 16th European Society of Sports Traumatology, Knee Surgery & Arthroscopy (ESSKA). Amsterdam, the Netherlands. May 14-17/2014.

Nawasreh Z, White K, Logerstedt D, Snyder-Mackler L. Pre-operative Measures Predict the Time to Pass Return to Activity Criteria after ACL-Reconstruction. E-Poste, 16th, European Society of Sports Traumatology, Knee Surgery & Arthroscopy (ESSKA). Amsterdam, Netherlands; May 14-17/ 2014.

White K, **Nawasreh Z**, Logerstedt D, Snyder-Mackler L. Despite returning to pre-injury activities, failing return to activity criteria identifies limb-to-limb asymmetries one year after ACLR. E-Poste, 16th ESSKA European Society of Sports Traumatology, Knee Surgery & Arthroscopy (ESSKA). Amsterdam, the Netherlands. May 14-17/2014.

Nawasreh Z, Logerstedt D, White K, Snyder-Mackler L. Do Athletes with ACL-Reconstruction Maintain Their Limb Symmetry 6 Months After Passing Return-to-Activity Criteria? Orthopedic Research Society annual meeting. New Orleans, LA. March 2014

Nawasreh Z, Logerstedt D, White K, Snyder-Mackler L. Knee Performance and Function at Six Months Predicts Return to Preinjury Activity Level One Year After Anterior Cruciate Ligament Reconstruction (ACLR). Finalist for Excellence in Research Award-Sports Section. Podium presentation. CSM Meeting 2014, Las Vegas, NV. February 4, 2014. J Orthop Sports Phys Ther 44(1):A60-61, 2014.

Nawasreh Z, Logerstedt D, White K, Snyder-Mackler L. Knee Biomechanical Differences between Graft Types at Six Months after ACLR. Podium presentation. 2013 ACSM Annual Meeting. Indianapolis, IN. May 30, 2013.

AWARDS and HONORS

ACSM BIG Travel Award, American College of Sport Medicine 60th Annual Meeting, May 2013
Academic Scholarship for MS, Jordan University of Science and Technology, August 2010
Academic Scholarship for PhD, Jordan University of Science and Technology, February 2012
Dean's List, Jordan University of Science and Technology (2004-2006)

PROFESSIONAL DEVELOPMENT

Ad-hoc Manuscript Reviewer
Journal of Sports Sciences, 2015
Scandinavian Journal of Medicine & Science in Sports, 2014
Journal of Sport Rehabilitation, 2013

"Neurodynamic course"
Tolido Hotel, Amman, Jordan (26th -27th July/2008)

"Mechanical Diagnosis and Therapy course"
Part A, The Lumber spine, Amman, Jordan, Nov 28th – Dec 1st / 2009

"Mechanical Diagnosis and Therapy course"
Part B, the cervical spine, Amman, Jordan, 3rd – 6th Dec /2009

RESEARCH INTERESTS:

Investigating the effectiveness of rehabilitation programs by monitoring patients' changes using different clinical and biomechanical outcomes

Studying the abnormal biomechanics of human movement and their contribution to the develop musculoskeletal injuries

Studying neuromuscular deficits in healthy athletes and designing prevention programs to reduce the incidences of injuries during participation in sport activities

SKILLS

Bilingual (Arabic and English), Computer, Internet, and MS Office

REFERENCES:

Lynn Snyder-Mackler, PT, ScD, FAPTA
Alumni Distinguished Professor
Department of Physical Therapy
Francis Alison Professor
Faculty Athletics Representative
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David Logerstedt, PT, PhD, MPT, MA, SCS
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