Tahir Masood

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Research Profiles

ORCID: ID: 0000-0002-7543-9021
ResearcherID: X-2473-2019
Scopus: 56091351800
Google Scholar: https://scholar.google.com/citations?user=FDfVul0AAAAJ&hl=en&oi=sra

Work Experience

Assistant Professor — Oct 2018 - to date
Program Coordinator
Physical Therapy and Health Rehabilitation,
College of Applied Medical Sciences,
Jouf University, *Sakaka*
SAUDI ARABIA

Professor of Physical Therapy — Mar 2018 - Aug 2018
Head of Post-Graduate Programs,
Riphah College of Rehabilitation Sciences,
Riphah International University, *Islamabad*
PAKISTAN

Associate Professor — July 2015 – March 2018
Assistant Professor — Jan 2015 – June 2015
Head Sports Medicine and Manipulative Physical Therapy
Head Health, Physical Education, and Sport Sciences
Isra Institute of Rehabilitation Sciences,
Isra University, *Islamabad Campus*, PAKISTAN

Doctoral Researcher
University of Jyväskylä, *Jyväskylä* — Aug 2009 – Dec 2014
Department of Biology of Physical Activity,
Neuromuscular Research Center,
FINLAND

Lecturer
School of Allied Health Sciences, CH & ICH, *Lahore* — Aug 2005 - July 2006

Taught courses: "Therapeutic Exercises and Techniques", "Kinesiology", and "Muscle Testing"

Education

Doctor of Sport Sciences (PhD) (*Biomechanics*)
University of Jyväskylä, *Jyväskylä,* FINLAND
May, **2015**
Thesis: "*Calf muscle activation strategies in healthy and injured Achilles tendon conditions*." Weblink: https://jyx.jyu.fi/dspace/handle/123456789/45739

Master of Sport Sciences (*Biomechanics*) (2010)
University of Jyväskylä, *Jyväskylä,* FINLAND
Thesis: "*Biomechanical comparison of gait characteristics of MBT and normal shoe walking; a longitudinal study*."

Master of Science (*Phase 2*) (2007)
University of Limerick, *Limerick*, IRELAND
2nd semester of Erasmus Mundus Master in Adapted Physical Activity (EMMAPA)
Thesis: "*Calf muscle stiffness and electromechanical delay in subjects with acute unilateral Achilles tendon injury*."

Master of Science (*Phase 1)*
Catholic University of Leuven, *Leuven*, BELGIUM
1st semester of Erasmus Mundus Master in Adapted Physical Activity (EMMAPA)

Bachelor of Science (*Physiotherapy*)
School of Physiotherapy, Mayo Hospital, *Lahore*,
PAKISTAN
September **2003**
4-year honors degree

Research Interests
Human movement, Neuromuscular rehabilitation, Physical activity, Gait training, Muscle mechanics and architecture, Electromyography, Sports sciences

Professional Skills
Conventional bipolar and multi-channel surface electromyography
3D motion analysis, Human gait kinematics and kinetics
Quantification of skeletal muscle glucose uptake via PET imaging
Ultrasonography, Power Doppler, Dynamometry
Physical Therapy/Rehabilitation techniques
Respiratory gas analyses, SPSS, NVivo, R, Microsoft Office

Scientific Roles
Program reviewer: Post-graduate program at University of Jeddah, Saudi Arabia.
Associate Editor: International Journal of Rehabilitation Sciences (Jan, 2017 - present)
Manuscript reviewer for Medical Engineering & Physics, *Scandinavian Journal of Medicine and Science in Sports*, *Journal of Sports Science and Medicine*, *theHealth*

Other Roles
Member steering committee, In-charge congress workshops, 3rd IRSC 2017
Member steering committee, In-charge congress workshops, ICRSE 2015
Organizer, Sports for All 2010, Jyväskylä, Finland

Achievements/ Awards
Recipient of Erasmus Mundus scholarship for APA master's degree, 2006-07
Recipient of University of Jyväskylä Rector's Grant for doctoral studies, 2011
Youngest professor in Pakistan in the field of rehabilitation sciences
Only Pakistani Physical Therapist to have supervised a PhD dissertation
First ever Pakistani Physical Therapist to be an HEC-approved PhD supervisor
First ever HEC-trained PhD supervisor in physical therapy in Pakistan

Professional Associations
Member International Society of Biomechanics (ISB)
Member Finnish Society of Sport Sciences

References
Professor Dr. Taija Finni, PhD (taija.finni@jyu.fi)
Professor Dr. Kari Kalliokoski, PhD (kari.kalliokoski@tyks.fi)

List of Publications

Book:

"*Calf Muscle Activation Strategies in Healthy and Injured Achilles Tendon Conditions*"
Tahir Masood, 2015 (ISBN 978-951-39-6167-1)
Jyväskylä University Printing House, Jyväskylä, FINLAND

ISI-indexed:

"*Muscle-tendon Glucose Uptake in Achilles Tendon Rupture and Tendinopathy Before and After Eccentric Rehabilitation: Comparative case reports*"
Tahir Masood et al. 2016. Physical Therapy in Sport, 21: 14-19

"Effects of Eccentric Calf Muscle Training on Skeletal Muscle Glucose Uptake and EMG in Chronic Achilles Tendon Pain Patients"
Tahir Masood et al. 2014. Journal of Applied Physiology, 117(2): 105–111

"*Plantarflexor Muscle Function in Healthy and Chronic Achilles Tendon Pain Subjects Evaluated by EMG and PET*"
Tahir Masood et al. 2014. Clinical Biomechanics, 29 (5) 564–570

"*Differential Contributions of Ankle Plantarflexors during Submaximal Isometric Muscle Action: A PET and EMG Study*"
Tahir Masood et al. 2014. Journal of Electromyography and Kinesiology, 24 (3) 367–374

"*Botulinum Toxin A and Task-Specific Training for Hand Dystonia due to 5-Year Old Stroke*"
Tahir Masood and M. Umar. 2018. JCPSP, Vol. 28 (Special Supplement 1): S60-S62

"*Task-oriented training and exer-gaming for improving mobility after stroke: a randomized trial*"
A.N. Malik and Tahir Masood. 2021. J Pak Med Assoc, 71 (1b), 186-90

"*Common Balance Measures and Fall Risk Scores among Older Adults in Pakistan: Normative Values and Correlation*"
F. A. Siddiqi, Tahir Masood, et al. 2019. J Pak Med Assoc, 69 (2), 246-49.

"*Training on Biodex Balance System Improves Balance and Mobility in the Elderly: A Pilot Randomized Control Trial*"
F. A. Siddiqi & Tahir Masood. 2018. J Pak Med Assoc, 68 (11), 1655-59

"*The effectiveness of an incentivized physical activity program (Active Student) among female medical students in Pakistan*"
A.R.Memon, Tahir Masood, et al. 2018. J Pak Med Assoc, 68 (10) 1438-44

"*Effects of Virtual Reality Training on Mobility and Physical Function in Stroke*"

A.N. Malik and Tahir Masood. 2017. J Pak Med Assoc, 67 (10), 1618-20.

"*Effect of Botulinum Toxin A & Task Specific Training on Upper Limb Function in Post-Stroke Focal Dystonia*"
M Umar, Tahir Masood, et al. 2018. J Pak Med Assoc, 68 (4), 526-31

"*Effectiveness of Therapeutic Ultrasound with or Without Thumb Spica Splint in the Management of De Quervain's Disease*"
WA Awan, M.N. Babur, Tahir Masood, J Back Musculoskelet Rehabil. 2017;30(4):691-697

"*A Randomized Controlled Trial of Intermittent Cervical Traction in Sitting Vs. Supine Position for the Management of Cervical Radiculopathy*"
Khan RR, Awan WA, Rashid S, Masood T. Pak J Med Sci. 2017;33(6):1333-1338

"*Comparison Between Manual Traction, Manual Opening Technique and Combination in Patients with Cervical Radiculopathy: Randomized Control Trial*"
Afzal, R, Ghous, M, Rehman, SS, Tahir Masood. 2019. J Pak Med Assoc, 69 (9), 1237-41

Scopus-indexed:

"*Association among Determinants of Physical Activity and Mental Health in Physiotherapy Students*"
Tahir Masood. 2020 Pak J Med Health Sci: 14 (4), 1287-90

"*Effects of Interval Training Exercises on Athletic Performance and Physical Fitness*"
Tahir Masood. 2020 Pak J Med Health Sci: 14 (1), 610-13

"*Changes in Muscle Torque and Single Leg Stability after Static or Dynamic Strength Training in Athletes with Knee Pain*"
Tahir Masood et al. 2019 Pak J Med Health Sci, 13(3), 987-90

"Training Reduces Fall Risk and Improves Mobility among Elderly: A Randomized Controlled Trial"
F. A. Siddiqi, Tahir Masood, et al. 2018 Rawal Med J, 43(4), 677-681

"*Comparison of Isokinetic and Isometric Strength Training Effects on Hamstring and Quadriceps Torques and Physical Function in Knee Pain*"
Tahir Masood and H.M.M.H. Khan. 2017. Rawal Med J, 42(3), 320-325

"*Effects of isokinetic strength training on subjective and objective knee performance of an Anterior Cruciate Ligament (ACL) injured athlete*"
Tahir Masood et al. 2017 J Med Sci; 25: (1) 88-89.

"*Effects of Dynamic Posturographic Balance Training Versus Conventional Balance Training On Mobility and Balance in Elderly*"
F. A. Siddiqi & Tahir Masood. 2017. Rawal Med J; 42(4): 522-527.

"*Virtual reality training improves turning capacity and functional reach in stroke patients*"
A. N. Malik and Tahir Masood. 2017. Rawal Med J; 42(2): 158-161.

"*Role of Stretching Exercises in The Management of Constipation in Spastic Cerebral Palsy*"
WA Awan & Tahir Masood. 2016, J Ayub Med Coll; 28(4) 798-801

Others:

"*Nutritional Status And its Association With Constipation In Spastic Cerebral Palsy*"
WA Awan, Tahir Masood, et al. 2019. Pak J Physiol; 15(2): 66-71

"*Botulinum Toxin and Task Specific Training in Treating Post-Stroke Focal Hand Dystonia*"
M. Umar, Tahir Masood, et al. 2018. Professional Med J; 25(2):205-210

"Arm Motor Function after Botulinum Toxin-A Injection and Physiotherapy in Post-Stroke Hand Dystonia"
M. Umar, Tahir Masood, et al. 2017. Ann. Pak. Inst. Med. Sci. 13(1):95-98.

"*Knee Biomechanics and Physical Performance of an ACL-Reconstructed Athlete Before and after Isokinetic Strength Training*"
H.M.M.H. Khan & Tahir Masood. 2017. Professional Med J;24(12):1921-1926

"Effectiveness of Stretching Exercises in Symptomatic and Asymptomatic Phase in Primary Dysmenorrhea"
R Kanwal, Tahir Masood, et al. 2017. Pak J Physiol. 13(2), 6-10

"*Effectiveness of Digital Manipulation of Thyroid Cartilage in The Management of Stuttering In Adults*"
N Khan, Tahir Masood, et al. 2017. Khyber Med Univ J 9(1)

"Effect of Virtual Reality Training on Dynamic Balance of Chronic Stroke Patients"
A. Zafar, A. N. Malik, Tahir Masood.2018. JIIMC 13(1), 21-25

"*Virtual Reality Training Improves Balance Outcome in Stroke Patients*"
A. N. Malik and Tahir Masood. 2017. Int J Rehabil Sci. 5(2), 8-12

"*Isokinetic Strength Training Improves Knee Symptoms and Function as Evaluated with 2000 IKDC*"
H.M.M.H. Khan & Tahir Masood, 2016. MOJ Orthopedics & Rheumatology: 6(4)
DOI: 10.15406/mojor.2016.06.00227

"*Effects of Dynamic Stability Training on Balance in Healthy Older Adults*"
F. A. Siddiqi & Tahir Masood. 2017. Int J Rehabil Sci. 5(2), 31-36

"*Isometric Strength Training Improves Knee Symptoms and Function as Evaluated with IKDC*"
HMMH Khan & Tahir Masood, 2017. Int J Rehabil Sci. 5(2), 44-48

"*Effectiveness of TENS Versus Stretching Exercises on Primary Dysmenorrhea in Students*"
R Kanwal, Tahir Masood, et al. 2017. Int J Rehabil Sci. 5(2), 18-24

"*National Curriculum Review, Doctor of Physical Therapy: Mixed Method Case Study*"
M.N. Babur, Tahir Masood, et al. 2016 Int J Rehabil Sci: 5(1), 7-12

"Calf Muscle and Achilles Tendon Glucose Uptake in Chronic Unilateral Achilles Tendon Pain".
Tahir Masood et al.
Proceedings of International Society of Biomechanics, Congress XXIII, Brussels, Belgium
http://isbweb.org/images/conf/2011/ScientificProgram/ISB2011_ScientificProgram.htm

"*Unstable Shoe Construction: Influence on Gait and Posture*".
Tahir Masood
theHealth, 2011 (2)1:13-15

Abstracts & Academic Presentations

"*Herald of Change? Snapshots of Objectivity in National Rehabilitation Research"*

Keynote Speech. 3rd International Rehabilitation Sciences Congress, Islamabad, March 25, 2017

"*Role of Empowering Patient Education (EPE) in Physical Rehabilitation"*

Keynote Speech. International Conference on Rehabilitation Sciences Education, Islamabad, November 14, 2015

"*Calf Muscle Activation Strategies in Healthy and Injured Achilles Tendon Conditions"*

Lectio Praecursoria (Introductory Lecture) during the public examination of the doctoral dissertation. Jyväskylä, Finland, May 12, 2015.

"*Use of PET and EMG to Study Differential Contributions of Ankle Plantarflexors in Health and Achilles Tendinopathy*"

14th International Symposium. "Biomechanics From Basic research to Practical Applications", Jyväskylä, Finland. November 28, 2013.

"*How Eccentric Exercise affects Muscle Glucose Uptake and EMG in Achilles Tendinopathy Patients"*

TBDP 7th Annual Meeting, Tampere, Finland. November 7-8, 2013.

"Calf Muscle and Achilles Tendon Glucose Uptake in Unilateral Achilles Tendon Pain"

International Society of Biomechanics, ISB 2011 Congress XXIII, Brussels, Belgium. July 6, 2011

"Calf Muscle-Tendon Unit Glucose Uptake and EMG in Chronic Unilateral Achilles Tendon Pain"

TBDP 5th Annual Meeting, Helsinki, Finland. June 9, 2011

"*Plantarflexor Muscle Glucose Uptake and EMG in Chronic Achilles Tendon Pain Patients"*

11th International Symposium. "Mechanisms of Motor Control Adaptation: from Brain to Muscle Function", November 20, 2010, Jyväskylä, Finland

"Muscle Activation Strategies with Healthy and Injured Achilles Tendon"

TBGS 4th Annual Meeting, Helsinki, Finland. June 11, 2010

"Kinetic and kinematic changes on MBT shoe walking induced by 4 weeks of MBT shoe walking intervention"

Research Seminar: "Technological innovations in physical activity and elite sports". Vuokatti, Finland. March 20, 2009