

# CURRICULUM VITAE

**Dr. Mansoo Ko**

**Assistant Professor –Doctor of Physical Therapy Program**

**Angelo State University**

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## **EDUCATION**

May 2006: Ph.D. in Rehabilitation Science Doctoral Program, Dept of Physical Therapy,  
University of Florida, Gainesville, FL

Feb 1999: Bachelor of Science, Dept of Physical Therapy, Daegu University, Daegu, South Korea

## **PRIMARY EMPLOYMENT**

1999.3-1999.8: Teaching assistant, Physical therapy, Daegu University

1999.9-1999.12: Physical therapist, Park Orthopedic Clinic

2000.8-2002.5: Research assistant, Physical therapy, University of Florida

2002.5-2004.5: Research assistant, Teaching assistant, Physical therapy, University of Florida

2004.8-2005.9: Research assistant (WOC), VA Brain Rehabilitation Research Center

2005.1-2006.5: Teaching assistant, Health Science, University of Florida.

2006.9-2008.8: Assistant Professor, Physical Therapy Program, Dept of Rehab Sci, University of Texas at  
El Paso

2008.8-present: Assistant Professor, Physical Therapy Program, Angelo State University

## **UNIVERSITY TEACHING**

*Teaching assistant and lab instructor (University of Florida)*

### **Physical Therapy Master Program:**

1<sup>st</sup> year MPT program → Soft Tissue injury (3credits), Biomechanics (3credits),  
Applied biomechanics (3credits)

2<sup>nd</sup> year MPT program → Neuro-rehabilitation (4credits)

### **Undergraduate Program:**

Junior in occupational therapy dept → Applied human development I (3 credits)

Senior in public health science dept → Research Method (4credits)

*Instructor (University of Texas at El Paso)*

**Physical Therapy Master Program**

2<sup>nd</sup> year MPT program → Research design (2 credits), Neuro-rehabilitation II (4 credits)

1st year MPT program → Research Method (3 credits),  
Medical Kinesiology and movement science (4 credits)

*Instructor (Angelo State University)*

**Physical Therapy Master and Doctoral Program**

MPT program → Biomechanical Analysis of Movement (5 credits),  
Physical Therapist Examination and Management of  
Neurosensory System Problems I (6 credits)

DPT Program → Functional Biomechanical Relationships (3 credits), Clinical Research Method (2 credits)  
Clinical Anatomy (7 credits)

**UNIVERSITY SERVICE**

University of Texas at El Paso

2006-2008:

Doctoral committee member

Graduate committee member

Faculty search committee member

Enhanced graduate committee member

Chair of research projects (Master level)

Academic adviser for MPT students

Angelo State University

2008-Present:

Student Organization-Martial Art Clubs faculty advisor

College Strategic Planning Committee member

Carr Student Research Award Committee member

Research Enhancement Committee member

2009-Present

Graduate Committee member

Texas Physical Therapy Faculty Summit Committee member

2011-present

SACS Graduate Sub-committee

## **GRANT ACTIVITY**

### **Internal grant**

2006: A start up package of University of Texas at El Paso: Funded \$43,000

2006: Principal Investigator; Bilateral Coordination of Speed Dependent Treadmill Training with Body Weight support System for Persons with Hemiparesis, University Research Institute Grants: Funded \$5,060

2009: Research Enhancement grant: Funded \$5,494.

2010: Faculty Development and Enrichment Fund Grant: Funded \$4,500.

2011: Principal Investigator; Gait Initiation in Persons with Hemiparesis, Research Enhancement grant: Funded \$ 19,185

### **External grant**

2007: Principal Investigator; The Effect of Speed Dependent Body Weight Support Treadmill Training On Return of Functional Ability and Psychological Adaptation among Hispanics Stroke Survivors. Paso Del Norte Health Foundation: not funded \$75,000

2008: Principal Investigator; Interlimb Influence On the Paretic Leg during Repeated Single Limb Flexion Training Among Stroke Survivors. American Heart Association (South Central Affiliate), Beginning Grant-in-Aid: not funded \$ 140,000

2008: Co-investigator; Gross Motor Laboratory, San Angelo Health Foundation grant: funded \$167,918.

## **MEMBERSHIP**

American Physical Therapy Association (Faculty Partner): # 497903  
Kinesio® Taping Association – USA member

## **HONOR**

1993: Korean Air Force Citation (leadership and best soldier)

1996: Academic Excellency Scholarship, Physical therapy, Daegu University, South Korea.

1997: Exchange student, Physical Therapy, University of Iowa, IA, USA

## **AWARD**

2008: American Physical Therapy Association 2008 Annual Conference and Exposition San Antonio, Abstract Recognized for Excellence, Research Report (Neurology), Symmetrical limb loading: the immediate effect on gait initiation in persons with hemiparesis

## **LICENSE**

1999: Registered physical therapist (South Korea): #14228

## **CERTIFICATION**

2010: Certified Kinesio® Taping Practitioner (CKTP)

## **INSTRUMENT EXPERTISE**

Muscle Physiology → Surface EMG

Kinetics → Force Plate, F-scan, Kin-Com, Force transducer and Step monitor

Kinematics → 3D Vicon motion system, 2D Mac-Reflex motion system, Gait Mat, F-Scan, Dartfish 2D video analysis

## **CLINICAL TRAINING**

6-Day Intensive Human Dissection Workshop, San Francisco, CA, April 11-16, 2011

Diagnosis and Treatment of Movement impairment Syndromes, Mar 25-26, 2011

Functional Orthopedics II (presented by the Institute of Physical Art, Inc.) July 15<sup>th</sup> -18<sup>th</sup> , 2010

Kinesio Taping level 3 training, Feb 27<sup>th</sup>, 2010

Kinesio Taping level 1 and 2 training (fundamental and advanced techniques), Nov 13<sup>th</sup>-14<sup>th</sup>, 2009

Electroencephalogram (EEG) Biofeedback training, June 25-28, 2009

Electroencephalogram (EEG) fundamental training, March 16-20, 2009

Differential Diagnosis and Treatment of Mechanical Hip Pain, Oct 25, 2008

Orthopedic Evaluation Skills for Direct Access Practice, Oct 24, 2008

Neural Tension Provocation and Testing, April 26-27, 2008

Proprioceptive Neuromuscular Facilitation (PNF) Basic, Dec 07-10, 2006

Manual Locomotor Treadmill Training with Harness Support (for people with incomplete spinal cord and stroke), University of Florida, 2002-2006.

Fugl Meyer assessment, Dynamic balance test, Gait training for idiopathic toe-walker, Parkinson, and Stroke, University of Florida, 2000-2003.

## **ATHLETIC TRAINING**

Martial Art: Tae Kwon Do (Served as an instructor in Korea Air Force from 1993-1994, 2<sup>nd</sup> Dan Black belt)

## **PEER REVIEWER**

March 2009: Referee for International SportMed Journal

## **BOOKS**

1. Park raejun, **Ko Mansoo**, Therapeutic Modality for athletics, Young-moon, 2001(published in Korea).

## PUBLICATIONS

1. **M Ko**, M Bishop, AL Behrman– The effect of load-related peripheral sensory input during gait initiation in persons with moderate hemiparesis **Topics in Stroke Rehabilitation.2011 May-Jun;18(3):258-68.**
2. **M Ko**, H Lewis, LC Hughes– Walking Speed and Peak Plantar Pressure Distribution during Barefoot Walking in Persons with Diabetes, **Physiotherapy Research International.2011 Jan 13.doi:10.1002/pri.509.**
3. **M Ko**-Plantar pressure and gait in patients with diabetes, **Lower extremity review. 2010 Oct:33-36.**
4. Bishop M, Brunt D, Pathare N, **Ko M**, Marjama-Lyons J. Changes in distal muscle timing may contribute to slowness during sit to stand in Parkinsons disease. **Clin Biomech** (Bristol, Avon). 2005 Jan;20(1):112-7.
5. Brunt D, Woo R, Kim HD, **Ko MS**, Senesac C, Lee S. The effect of Botulinum Toxin Type A on gait of children who are idiopathic toe-walkers: A pilot study. **J Surg Ortho Adv**, 2004 Fall;13(3):149-55.
6. MD Bishop, **M Ko**, N Pathare, D brunt, J Marjama – Lyons. P Fiolkski, Gait termination and Parkinsonism: A review. **J Kor Acad Univ Tra Phys Ther.** 2003;10(4):43-59.

### Paper in preparation

1. **M Ko**, J Lee - Psychosocial adaptation process of Hispanic stroke survivors: Empowerment approach to enhance the quality of life. **Disability and Rehabilitation.**
2. **M Ko**, D Brunt, MD Bishop, N Pathare, BS Choi, J Marjama - Lyons. Determinants of toe-clearance during obstacle crossing in persons with Parkinsons disease. **Clin Biomech** (Bristol, Avon)
3. Yoon SJ, **M Ko** - Managing OA Symptoms: Functional improvement, Glucosamine and Chondroitin Sulfate. **J Aging Health**

## ABSTRACT

### *International*

1. **M Ko**, A Galvan, H Andrews – “Skin Temperature and Sensation With Peak Plantar Pressures Of the Foot In Individuals With Type II Diabetes.” **2010 Diabetic Global Conference, Poster presentation.**
2. Bishop MD, Brunt D, Pathare N, **Ko MS**, Marjama-Lyons J, C Kukulka. Effects of age, accuracy and Parkinsons disease on the ability to stop suddenly. **World Confederation for Physical Therapy, Barcelona 2003.**
3. Pathare N, Brunt D, Bishop MB, **Ko MS**, Lyons JM, Smith L. Analysis of sit to stand task in persons with Parkinson’s disease. **World Confederation for Physical Therapy, Barcelona 2003**

### *National*

1. **M Ko**, R Vinyard, M Cole-“Dynamic balance control in elders: Sway analysis during gait initiation” **PT 2011: Annual Conference & Exposition of the American Physical Therapy Association, Poster presentation.**
2. **M Ko**, SD Hilgenberg – “Repeated Bilateral Step up and down Training and its Effect on Improving Functional Mobility in a Person with Hemiparesis: A Case Report.” **PT 2010: Annual Conference & Exposition of the American Physical Therapy Association, Poster presentation.**
3. **M Ko**, L Hughes, ML Cordes, T Reyes, A Galvan, H Andrews - “Peak Plantar Pressures in Diabetic vs Non-Diabetic Feet.” **PT 2010: Annual Conference & Exposition of the American Physical Therapy Association, Poster presentation.**

4. **M Ko**, Jungeun Lee-"Bilateral coordination between lower limbs during a repeated step up and down training in the person with stroke." **PT 2009: Annual Conference & Exposition of the American Physical Therapy Association, Poster presentation.**
5. **M Ko**, M Bishop, A Behrman-Symmetrical limb loading: the immediate effect on gait initiation in persons with hemiparesis-**PT 2008: Annual Conference & Exposition of the American Physical Therapy Association, platform presentation.**
6. Jungeun Lee, **M Ko** - Psychosocial adaptation process of Hispanic stroke survivors: Empowerment approach to enhance the quality of life-Education Session Proposal for the **2008 American Counseling Association Annual Conference** in Honolulu, Hawaii; **Project/Research Poster Session.**
7. Yoon SJ, **M Ko** - Effect Of Glucosamine With Chondroitin Sulfate (GCS) for Persons With Knee Osteoarthritis (OA). **The Gerontological Society of America's 59<sup>th</sup> Annual Scientific Meeting, November, 2006.**
8. Prithvi Shah<sup>1</sup>, Jennifer E. Stevens<sup>2</sup>, Arun Jayaraman<sup>1</sup>, Neeti C. Pathare<sup>1</sup>, Mark Bowden<sup>1</sup>, Chetan P. Phadke<sup>1</sup>, Preeti M. Nair<sup>1</sup>, **Mansoo Ko<sup>1</sup>**, Glenn Walter<sup>1</sup>, Andrea L. Behrman<sup>1</sup>, Krista Vadenborne<sup>1</sup>.Effect Of Locomotor Training On Skeletal Muscle Size In Individuals With Incomplete Spinal Cord Injury. **Combined Sections Meeting, American Physical Therapy Association, Feb. 2005.**
9. **Ko MS**, Brunt, Bishop, Pathare, Choi, Lyons. Determinants of toe-clearance during obstacle crossing in persons with Parkinsons disease. **The Annual Conference and Exposition of the American Physical Therapy Association, June 2003**
10. N Pathare, D Brunt, MD Bishop, **MS Ko**, BS Choi, JM Lyons, Effect of velocity on force modulation in persons with Parkinson's disease during gait initiation. **The Annual Conference and Exposition of the American Physical Therapy Association, June 2003**
11. D Brunt, R Woo, HD Kim, MS Ko, C Senesac. The initial effect of Botulinum Toxin Type A on gait in idiopathic toe-walkers. **Gait and Clinical Movement Analysis Society, April 2002.**
12. N Pathare, D Brunt , J Marjama - Lyons, MD Bishop, **M Ko**, T Toole, L Smith. Differentiating characteristics of gait initiation in patients with Parkinson's Disease. **Gait and Clinical Movement Analysis Society, April 2002.**
13. T Toole, D Brunt, E Holton, J Marjama-Lyons, M Bishop, N Pathare, **M Ko**, G Maitland. The immediate effects of loading on gait in Parkinsonism. **Gait and Clinical Movement Analysis Society, April 2002.**

### *Regional*

1. MD Bishop, D Brunt, J Marjama-Lyons, Tonya Toole, N Pathare, **M Ko**, Lisa Smith. The generation of force during gait termination in Parkinsonism. **Florida Society of Movement Disorders, Oct 2001**
2. Lawless AR, Davis S, Phadke C, Nair P, Bowden M, Woodbury M, Flynn SM, Hannold E, **Ko M**, Senesac C, Behrman AL. Case report: Locomotor training, progression, and outcomes after incomplete spinal cord injury. **Combined Sections Meeting, American Physical Therapy Association, Feb, 2004 - Nashville, Tennessee**

### *Local*

1. MD Bishop, D Brunt, J Marjama-Lyons, Tonya Toole, N Pathare, **M Ko**, Lisa Smith. The generation of force during gait termination in Parkinsonism. **Graduate Student Forum, University of Florida, 2002**

### **INVITED SPEAKING**

1. **Midwest District Meeting in Texas Physical Therapy Association** "Case Report: Locomotor Training using Body Weight Support in a person with stroke", April 16<sup>th</sup>, 2009
2. Gait Analysis and foot pressure with Fscan/Walkway, Houston for the **Texas Podiatric Medical**

**Association**, April. 11-13<sup>th</sup> 2008

3. Tekscan F-Scan User Workshop at the **Gait & Clinical Movement Analysis Society** in Richmond, VA , April 3<sup>rd</sup> 2008
4. Gait Analysis using a plantar pressure Walkway, **South Central Regional ASB** is in Odessa, TX, Feb. 28-March 1<sup>st</sup> 2008
5. International Global Forum, “Locomotor training.” **Daegu University**, South Korea.2007 June

**DISSERTATION RESEARCH (2003.8-2006.1)**

***Title:*** Symmetrical limb loading: The immediate effect on gait initiation in persons with hemiparesis

***Doctoral Adviser:*** Andrea Behrman, PT. Ph.D.