## Hamid Reza Mokhtarinia, Ph.D.

# **Department of Ergonomics,**

## University of Social Welfare and Rehabilitation Sciences,

**Tehran, Iran** (19857-13834)

Telephone: (+98) 21 22 18 0199 E-mail: <u>Hrmokhtarinia@yahoo.com</u> hrmokhtarinia@uswr.ac.ir

### Interests

Ergonomics Physiotherapy Occupational Biomechanics

Nonlinear Analysis Postural control Manual therapy

## Education

09/06-10/11 Ph.D. in Physiotherapy

Tarbiat Modares University, Iran.

Thesis Title: The Effect of Velocity, Movement asymmetry and External load on Dynamic Postural Stability and Inter segmental Coordination In Nonspecific Low back Pain and

Healthy subjects.

10/00-08/02 M.Sc. in Physiotherapy

University of Social Welfare and Rehabilitation (USWR), Iran Thesis Thesis Title: *The effect of patellar taping on knee joint proprioception.* 

10/96-08/00 B.Sc. in Prosthetics & Orthotics

Iran University of Medical Sciences, Iran

Thesis Title: Comparison evaluation of static and dynamic endurance of back and

abdominal muscles in two genders.

## Academic experiences

04/03-08/06 Lecturer (University of Social Welfare & Rehabilitation Sciences, Iran)

Teaching some units of under graduated students and supervisor of physiotherapy students in the hospital and clinic centers

- Exercise therapy for students of Physical Education and Sports Science
- Movement Disorder in Geriatrics. (short course)
- Spinal cord injury (short course)
- Physiotherapy in Mental Retard Children,

11/12- current Assistant professor (University of Social Welfare & Rehabilitation Sciences, Iran)

- Electromyography in Ergonomics
- Occupational biomechanics course
- Anthropometry course
- Manual Material Handling course
- Seminar unit
- Basic of occupational ergonomics (short course for social welfare organization worker).
- Ergonomics principle in work place. In official workers.
- Ergonomics considerations in workplace, preventing injury and musculoskeletal disorders. University of Economic science.

### **Publication**

Mokhtarinia HM, Ebrahimi E, Salavati M. Comparative Criteria Study of Dynamic Balancing in Patients with Patello-Femoral Pain. JOURNAL OF REHABILITATION. 2005;22(33):3.

Mokhtarinia HM, Goharpei SH. Static and dynamic endurance of back extensor muscle in two genders. Razi Journal of Medical Sciences.No (1), 2005.

Mokhtarinia HR, Ebrahimi I, et al. Dynamic stability indexes after patellar taping in PFPS. Iranian Journal of rehabilitation, no (3), 2004.

**Mokhtarinia HR**, Ebrahimi I, salavati m. The effect of patellar taping on knee joint proprioception. Acta Medica Iranica, 46(3): 183-190; 2008.

Mokhtarinia HR, Kahrizi S, Parnianpour M, Sanjari MA. Test retest reliability of dynamic postural measures in healthy and CNLBP GROUP. Journal of Rehabilitation, 13(4):8-19, 2013.

**Mokhtarinia HR**, Kahrizi S, Parnianpour M, Sanjari MA. Test- retest reliability of coordination and movement pattern stability measures during repetitive trunk bending in healthy and non specific low back pain groups. Razi Journal of Medical Sciences . 2012, Apr, 94(19), p10-19.

Mohamadi S, **Mokhtarinia HR**, Tabatabai F, Nejabat R. Surveing ergonomic factors of backpack in Tehran primary school children. Razi Journal of Medical Sciences ,19(102), Nov-Dec 2012.

**Mokhtarinia** HR, Sanjari MA, Parnianpour M. The effect of external load on postural stability during quit standing in healthy and non-specific low back pain subjects. Razi Journal of Medical Sciences. 2013; 20(114):49-58.

Mokhtarinia HR, Parnianpour M, Sanjari MA. The effect of fatigue on postural control in healthy and LBP. Journal of Research in Rehabilitation Sciences, Isfahan. Vol 4, No.8, 2012.

M Ziaei, SH Nabavi, **Mokhtarinia HR**,SF Tabatabai Ghomshe The Effect of Shoe Sole Tread Groove Depth on the Gait Parameters during Walking on Dry and Slippery Surface. IJOEM, Vol 4 Number 1; January, 2013.

**Mokhtarinia H.R**, Shiri H, Saremi M, Reza-soltani P, Dadkhah A, Assessment of awkward seating postures effects on an attention test performance while working with computer. Razi Journal of Medical Sciences 20 (112):36-44, 2013.

M Ziaei, SF Tabatabai Ghomshe, **HR Mokhtarinia**, M Maghsoudipor. The effect of change in the design of shoe's sole on the human stability during walking. Razi Journal of Medical Sciences Vol. 19, No. 105, Feb-Mar 2013.

**Mokhtarinia HR**, Kahrizi S, Parnianpour M, Sanjari MA. Reliability of COP measures in healthy and chronic low back pain subjects: different conditions of speed, symmetry and external load. Journal of manipulative and Physiological theraputical Therapeutics. (Submitted).

Mokhtarinia HR, Sanjari MA, Parnianpour M. Investigating the effects of symmetrical-distributed external loads on the static postural control in low back pain subjects: A comparison with normal subjects. Journal of ergonomics, 2013.

J. Ghamari, **HR Mokhtarinia**, M Parnianpour. Ergonomic design and construction of lumbarspine supporting and evaluation of its effect on Biomechanical factors in sitting position. Industrial Ergonomics. (Submitted)

M. Rfiee, **HR Mokhtarinia**, et al. survey of the prevalence of musculoskeletal disorders in laptop user. Journal of Razi. (Submitted)

Sahari T, Farahpour N, **Mokhtarinia HR**. The effects of general warm up, specific warm up and taping on electrical activity of lower limb's muscles in reaction to sudden unloading while walking. Journal of Foot and Ankle Research. 2014;7(Suppl 1):A130.

Mirbagheri S, Rassafiani M, Bahramizade M, Arazpoor M, Mokhtarinia H. Effect of Neoprene Dynamic Orthosis on Gait Parameters in Child with Spastic Diplegia Cerebral Palsy: A Case Study. Journal of Rehabilitation. 2012;12(4):22-9.

Farahini H, Ebrahimi Takamjani E, MOKHTARINIA H, GOUHARPEY S. The Effect of Endurance Training on the Dynamic and Static Back Extensor Muscles. JOURNAL OF IRAN UNIVERSITY OF MEDICAL SCIENCES, 2005.

Abo-Mandour R, Amira O, Amirabadi M, Askarian M, Azizi M, Balali-Mood M, et al. A Note of Thanks

## **Presentation**

Comparative evaluation of static and Dynamic muscle endurance in healthy subjects. 13 th physiotherapy congress of iran. 21-23 may 2002, Tehran.

The effect of endurance training exercise on muscle endurance, 13<sup>th</sup> Physiotherapy congress of Iran, 2003, Tehran.

Pain evaluation in orthopedic patients. 3th international seminar of pain. International association for the study of pain, Tehran, 2003, Iran.

The effect of patellar taping on knee joint position sense of PFPS. 14<sup>th</sup> physical therapy congress of Iran, 13-15 May, 2003, Tehran.

Poster presentation in the 4<sup>th</sup> international congress on physical Education and Sports Scinces, university of Tehran, 18/02/04.

Gait analysis in total knee arthroplasty patients. Biomechanics and motor control congress. Tehran, 2003, Iran.

Dynamic stability of patella in PFPS. Second Iranian student's seminar, 10/12/03, Tehran.

The effect of pain on balance in PFPS patients. Biomechanics and motor control congress. 2003, Tehran, Iran.

Relation between muscle fatigue and low back pain. 4<sup>th</sup> seminar in specific spinal physical therapy. 2003, Tehran, Iran.

Dynamic stability indexes in PFPS. 15<sup>th</sup> physical therapy congress of Iran, 12/05/2004, Tehran

Static and dynamic endurance of postural muscle. 15<sup>th</sup> physical therapy congress of Iran, 12/05/2004, Tehran.

Proprioception training in athletic with PFPS. 4<sup>th</sup> international congress on physical education and sports science held in university of Tehran, 2004, Iran.

Postural stability in patellofemoral pain syndrome, 16<sup>th</sup> congress of physiotherapy. 17-19/05/05, Tehran.

Test retest reliability of postural stability in dynamic situation in healthy and LBP. 12<sup>th</sup> physiotherapy in spine seminar. Tehran, 28/12/2011, Iran.

The effect of different sitting postures on efficacy of cognitive function during human-computer interaction task.12<sup>th</sup> congress in spine. 29/12/11, Tehran, Iran.

The ergonomics factors considerations of backpack in elementary school children. 13<sup>th</sup> congress of physiotherapy in spine, 26/12/12, TEHRAN..

The effects of a new back belt on para spinal muscle activity during prolonged sitting posture: A pilot study. 13<sup>th</sup> congress of physiotherapy in spine, 27/12/12 Tehran.

## Student projects supervised

- M.R. Fallah, "Ergonomic evaluation of interior design of SHOKA Vehicle and proposing Recommendations for Improvement" (Completed 2010)
- M. Ziaei, "The determination of shoe sole tread groove size based on ergonomics principles and increasing human stability factors during walking on the dry and slippery surface (completed 2010).
- H. Shiri, "Determination of relationship between muscular fatigue induced by seated posture with cognitive function and mental fatigue" (completed 2011).
- J. Ghamari, "Ergonomic design and construction of lumbarspine supporting and evaluation of its effect on Biomechanical factors in sitting position" (Completed 2011).
- F. Mirbagheri, "The effect of Lygra othosis on gait pattern of cerebral palsy children" (complted 2012).
- A. Keikh moghadam, "Ergonomics Evaluation of Occupational Low back pain using Digital human Modeling" (competed 2012).
- S.Mohammadi, "Surveing Ergonomic factors of Backpack in primary school children" (completed 2012).
- M.Rafiea. Survey of musculoskeletal disorder incidence in laptop users (completed 2013).
- T Sahari. The effect of general warming and taping on EMG of lower limb muscle in perturbed condition (completed 2013).
- M. Bavafa. The effect of high and low heel shoes on EMG of lower limb muscle in perturbed condition (completed 2013).
- V. Kavandi. Evaluation of the effects of flexible and viscoelastic foam in car seats on comfort, mental work load & fatigue of car- drivers (completed 2013).
- M. Daemi. The relation between performance and anthropometric parameters in active and passive subjects (completed 2013).
- A. Shafeai: Reliability and validity of Orebro questionnaire in Persian version (completed 2014).
- M. Alizadeh. Relation between grip strength and anthropometric dimensions in CTS patients (in progress).

Pashmdar Fard, Reliability and Validity of SOFI questionnaire in Persian version (in progress).

Derakhshan A. Ergonomics evaluation of computer lab of USWR, (in progress).

Arman. Survey of Reliability and validity of Persian version of Rosa checklist (in Progress).

M. Moeatamed, Ergonomics evaluation of a battry construction company in Isfahan (in progress).

## **Grants**

The effect of fatigue on postural stability and coordination during repetitive trunk bending motion in healthy and non-specific low back pain subjects (completed Apr 2012).

The effect of external load on postural stability during quit standing in healthy and non-specific low back pain subjects (completed Nov 2012).

Test retest reliability of postural stability in healthy and low back pain subjects (in progress).

Survey of reliability and validity of Persian version of NASA TLX questionnaire (in progress).

Survey of reliability and validity of Persian version Extended Nordic questionnaire (in progress).

Survey of reliability and validity of Persian version MUEQ questionnaire (in progress).

## Non-Academic Experience

## **Clinical Physiotherapist**

- Clinical Physiotherapist, Fatimah Zahra clinic, 08/00-08/02
- Director of Rehabilitation unit of Negin Home care center, 08/00-08/2006.
- -Clinical physiotherapist in Imam Reza clinic, 01/10-current.

## Reviewing paper

01/12- current	Journal of Rehabilitation Research (JRRS) Isfahan medical University, Iran. (16 papers).
01/12- current	Journal of rehabilitation science. University of Social Welfare and Rehabilitation sciences, Iran, (10 papers).
01/13- current	International journal of environmental and occupational medicine, (IJEOM) (2 paper).
01/12- current 01/13- current	Razi journal of Medical science, Iran (3 papers). Journal of physic therapy, Iran (6 papers).

## **Continuing Education and Recent Trainings**

### Posture and balance workshop

- Iran university of Medical sciences, Tehran, 1999.

#### **Sport Rehabilitation**

- First Iranian Students congress on sport Rehabilitation Tehran, 1999.

### Rehabilitation of sacroiliac Joint

- Iran university of Medical sciences, Tehran, 16/04/00-18/04/00

### Spinal cord injury seminar

- Participation in the 3th congress of spinal cord injury. 24-25/02/04, Tehran, Iran.

### Neurorehabilitation seminar

- University of social welfare and Rehabilitation Sciences, 25/10/03, Tehran.

## Rehabilitation Technology

- University of social welfare and Rehabilitation Sciences, 16-17/12/03, Tehran.

### Soft tissue mobilization

- University of social welfare and Rehabilitation Sciences, 25/12/03, Tehran.

### Laser workshop

- University of social welfare and Rehabilitation Sciences, 12/04/04, Tehran.

### Massage, Clinical practice and theory.

- University of social welfare and Rehabilitation Sciences, 20/04, Tehran.

#### Scientific writing and communication

- Faculty of medicine sciences, Tarbiat Modares University, 10/12/06- 20/02/07.

### Macro ergonomics

- University of social welfare and Rehabilitation Sciences, 05/10, Tehran.

### Scientific writing

- University of social welfare and Rehabilitation Sciences, 23/05/12, Tehran.

#### Dry needling course

- Faculty of medicine sciences, Tarbiat Modares University, 16-19/06/12.

### **Knowledge | Education Scholarships**

- University of social welfare and Rehabilitation Sciences, 18/07/12, Tehran.

#### **Organizational Ergonomics**

- University of social welfare and Rehabilitation Sciences, 20/06/12, Tehran.

### **Academic and Professional Societies**

- Iranian physiotherapy association
- Iranian Medical Council

### Other interests

- Driving
- Swimming