

IN THE NAME OF GOD

Curriculum Vitae

I. PERSONAL DATA

Name: Ailin

Surname: Talimkhani

Date of Birth: 1985

Place of Birth: Hamedan

Nationality: Iranian



II. ADDRESS AND EMAIL

*School of Rehabilitation Sciences
Hamadan University of Medical Sciences
Hamadan, Islamic Republic of Iran
Tel: (98)8138381571 (Office)*

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III. EDUCATION

2013-2018: Ph.D. in Physical Therapy, University of Social Welfare and Rehabilitation Sciences, Tehran, Iran.

Dissertation Title: "The effect of transcranial direct current stimulation on motor skill learning in stroke patients and healthy individuals"

Accepted with score 19.94 / 20

Supervisors: Dr. Iraj Abdollahi & Dr. Shapour Jaberzadeh

Advisors: Dr. Mohammad Ali Mohseni-Bandpei & Dr. Mehrdokht Mazdeh

2009-2011: M.Sc. in Physical Therapy, University of Social Welfare and Rehabilitation Sciences, Tehran, Iran.

Dissertation Title: "The effects of consecutive supervised functional lumbar stabilizing exercises on the postural balance and functional disability in women with chronic non-specific low back pain"

Accepted with a score of 19.80/20

Supervisor: Dr. Nouredin Karimi

Advisors: Dr. Zahra Mosallanezhad & Dr. Amir Massoud Arab

2005-2009: B.Sc. in Physical Therapy, University of Social Welfare and Rehabilitation Sciences, Tehran, Iran.

Dissertation Title: "Change in lumbar lordosis during prone lying knee flexion test in subjects with and without low back pain"

Accepted with a score of 20 /20

Supervisor: Dr. Amir Massoud Arab

Advisor: Dr. Nouredin Karimi

IV. ENGLISH-LANGUAGE CERTIFICATE

MSRT (MCHE) Total Score: 58/100

V. RESEARCH INTERESTS:

Integration of neuroscience, transcranial direct current stimulation, motor learning biomechanics, and electrical stimulation, to investigate the neural control of human movement, postural control, and motor learning processes in healthy individuals and patients.

Current areas of interest include:

- *Neural Control of Human Movements*
 - *Neuroplasticity/Brain Cortical Reorganisation in response to therapeutic intervention*
 - *Sensory/Motor skill acquisition*
 - *Motor training and motor learning*
 - *Virtual Training (motor imagery, action observation, and action listening)*
 - *Electrical stimulation, Biofeedback, EMG-triggered Electrical Stimulation, Transcranial Direct Current Stimulation (tDCS)*
 - *Pain and neural control of human movements*
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VI. TEACHING RESPONSIBILITIES:

1. *Physiotherapy in Neurology for BSC PT students*
2. *Specialized language for BSC PT students*
3. *Physiotherapy in Orthopedic for BSC PT students*
4. *Introduction to Biomechanics & Vertebral Column Kinesiology for BSC PT & OT students.*
5. *Exercise therapy in Patients with Hemiplegia for BSC PT students*
6. *Neuro-Motor Development of Child for BSC PT & ST students.*
7. *Proprioceptive Neuromuscular Facilitation (PNF) for BSC PT students*
8. *Clinical Supervisor and Instructor for BSC PT students at Hamadan University of Medical Sciences.*
9. *Clinical Supervisor and Instructor for BSC PT students at the University of Social Welfare and Rehabilitation Sciences from September to December 2013.*
10. *Rehabilitation principles and techniques for Medical Engineering students at Hamedan University of Technology, from 2017 to 2018*
11. *Rehabilitation principles and techniques for Public Health students.*
12. *A-13-hour course on " Effect of stability exercise on low back pain " at Reference Laboratory, Hamedan, 2012.*
13. *A-15-hour course on " Scoliosis" at Reference Laboratory, Hamedan, 2012.*
14. *A-12-hour course on "Sacroiliac Dysfunction" at Reference Laboratory, Hamedan, 2012.*
15. *A-6-hour course on "Prevention and treatment of knee pain" at Reference Laboratory, Hamedan, 2012.*
16. *A-15-hour course on "Physiotherapy in Hemiplegic Patients" at Reference Laboratory, Hamedan, 2013.*
17. *A-15-hour course on "Muscle Imbalance and Movement Impairment Syndrome" at Reference Laboratory, Hamedan, 2013.*
18. *A-14-hour course on "Transcranial direct current stimulation (tDCS)" at Reference Laboratory, Hamedan, 2014.*
19. *A one-day scientific conference on "Hand Rehabilitation" at Hamedan University of Medical Sciences, 2013.*

20. *A one-day scientific conference on "Nursing Care Plan for Stroke Rehabilitation" at Farshchian Hospital, Medical University of Hamedan, 2014.*
 21. *Two-5-hour teaching workshops on "Writing a Scientific Article in English" at the University of Social Welfare and Rehabilitation Sciences, 2013 and 2014*
 22. *A-5-hour Teaching workshop on "Research Methodology" at the University of Social Welfare and Rehabilitation Sciences, 2014.*
 23. *A 1-hour Teaching workshop on "tDCS Application in Neuro-Rehabilitation " at Hamedan University of Medical Sciences, September 2019.*
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VII. THESIS ADVISOR:

1. *Comparison of drug therapy and selective functional exercises in the balance of spastic diplegia children. By R. Torkeman, Master of Corrective Exercises, Islamic Azad University Borujerd Branch, 2012.*
2. *The effect of scaphoid and hamate mobilization on treatment of patients with carpal tunnel syndrome. By V. Dinarvand, Department of Physical Therapy, University of Social Welfare and Rehabilitation Sciences. 2015.*
3. *The comparison of tDCS effects on motor learning in elderly with active and passive mobility. By R. Abedi, Department of Physical Therapy, Faculty of Rehabilitation, Shahid Beheshti University of Medical Sciences.2021.*
4. *The effect of consecutive and supervised stability exercises on the EMG activity of lumbopelvic muscles during prone hip extension in low back pain patients. By Rezaei, Master of Corrective Exercises, Hamedan University of Medical Sciences, 2020.*
5. *The effects of transcranial direct current stimulation during observation of an expert model on motor learning. By Qasemi, Master of Motor Behavior, Hamedan University of Medical Sciences, 2020.*
6. *The effect of corrective exercises on plantar pressure characteristics in obese children with pes planus during walking. By M. Jambozorg, Master of Corrective Exercises, Hamedan University of Medical Sciences, 2020.*
7. *Investigating the effectiveness of Transcranial direct current stimulation (tDCS) on the working memory and narrative discourse of healthy elderly, By A. Moshtagh, Master of Speech Therapy. Ongoing*

8. *Comparison of the effectiveness of transcranial direct current stimulation and galantamine and fluoxetine on aphasia after stroke, By M. Talimkhani, Doctor of Medicine(MD). Ongoing*
 9. *The effect of dual site intracranial alternating direct current stimulation (tACS) in the prefrontal and temporal lobes on the improvement of cognitive function and depression and quality of life in MS patients with depressive symptoms at Basat Hospital in Hamedan, By A. Fathi Jozadani, Doctor of Medicine(MD). Ongoing*
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VIII. JOURNAL PAPERS

1. *H Baharlouei, MA Salehinejad, A Talimkhani (Corresponding Author), MA Nitsche. The effect of non-invasive brain stimulation on gait in healthy young and older adults: a systematic review of the literature. Neuroscience. 2023; 516(15): 125-140.*
2. *S Naimi, S Rahbar, MR Asadi, H Radinmehr, A Talimkhani, A Doosti-Irani, GhR Hajvalie. The Immediate Effects of Aerobic Exercise with and Without External Loads on Blood Glucose, Cardiovascular, Respiratory, and Body Temperature Indices in Type II Diabetic Patients. The Journal of Tehran University Heart Center. 2023; 18(1): 39–45.*
3. *H Radinmehr, N Radnia, A Tabatabaei, MR Asadi, S Rahbar, A Talimkhani, A Doosti Irani, GhR Hajvalie. Transcutaneous tibial neurostimulation and Solifenacin in urgent incontinence of postmenopausal women. European Journal of Translational Myology. 2023; 33(2): 11358.*
4. *R Abedi, A Talimkhani, Z Mohammadzadeh, A Daryabor, S Naimi. The impact of anodal transcranial direct current stimulation of primary motor cortex on motor learning in older adults with low levels of activity. International Journal of Therapy And Rehabilitation. 2022; 29(10): 1-13.*
5. *A Talimkhani, I Abdollahi, MA Mohseni-Bandpei, M Mazdeh, B Rezaei. Evaluation of the Effects and Complications of Transcranial Direct Current Stimulation (tDCS) on Motor Learning Process in Chronic Unilateral Stroke Patients. Iranian Journal of Ageing. 2022; 16 (4): 530-549.*

6. S Mohamadi, A **Talimkhani**, M Khalilic. Biomechanical differences between individuals with chronic ankle instability, copers, and healthy controls in the countermovement jump on the force plate. *Journal of Computational Applied Mechanics*. 2022; 53 (3): 356-362.
7. MR Asadi, H Saremi, H Radinmehr, S Rahbar, A **Talimkhani**, GhR Hajvalie, L Majidi. Effect of Low-Level Laser Therapy Combined with Therapeutic Ultrasound on Hand Pain and Function Following Carpal Tunnel Syndrome: A Randomized Controlled Trial. *Middle East Journal of Rehabilitation and Health Studies*. 2021; 8 (4).
8. MR Asadi, H Saremi, H Radinmehr, S Rahbar, A **Talimkhani**, GhR Hajvalie, L Majidi. Comparison of Therapeutic Ultrasound and Laser Therapy in Treatment of Patient with Mild-to-Moderate Carpal Tunnel Syndrome: A Randomized Clinical Trial. *Avicenna Journal of Clinical Medicine*. 2020; 27(3): 149-156.
9. AM Salehi, MM Talimkhani, M Khatiban, A **Talimkhani (Corresponding Author)**. New Option of Virtual Education in Corona Days: Flipped Classroom. *Strides in Development of Medical Education*. 2020; 17(1): 1-2.
10. A **Talimkhani**, I Abdollahi, M A Mohseni-Bandpei, F Ehsani, S Khalili, Sh Jaberzadeh. Differential effects of unihemispheric concurrent dual-site and conventional primary motor cortex transcranial direct current stimulation on motor sequence learning in healthy individuals: A randomized sham-controlled study. *Basic and Clinical Neuroscience*. 2019; 10 (1): 59-72.
11. A **Talimkhani**, I Abdollahi, M Zoghi, E Talebi Ghane, Sh Jaberzadeh. The Effects of Unihemispheric Concurrent Dual-Site Transcranial Direct Current Stimulation on Motor Sequence Learning in Healthy Individuals: A Randomized, Clinical Trial. *Iranian Red Crescent Medical Journal*. 2018; 20 (7); e64147.
12. V Dinarvand, I Abdollahi, SA Raeissadat, MA Mohseni Bandpei, M Babaee, A **Talimkhani**. The effect of scaphoid and hamate mobilization on treatment of patients with carpal tunnel syndrome. *Anesthesiology and Pain Medicine*. 2017; 7(5): e14621.
13. Z Ghorbanpoor, Z Mosallanezhad, J Minaee Javid, A **Talimkhani**, N Akbar Fahimi. Research Paper: The Relationship Between the Spine Curvature Disorders and the Resting Habits of University Students. *Physical Treatments*. 2017; 7(2):97-102.
14. F Ehsani, AH Bakhtiary, S Jaberzadeh, A **Talimkhani**, A Hajihassani. Differential effects of the primary motor cortex and cerebellar transcranial direct current stimulation on motor learning in healthy individuals: a randomized double-blind sham-controlled study. *Neuroscience research* 2016; 112:10-19. doi: 10.1016.

15. A Nodehi Moghaddam, S Amiri Arimi, L Ghamkhar, S Mohammadi Rad, M Emami, A Zadmehr, E Bakhshi, **A Talimkhani**. Relationship Between Physical Activity and Risk Factors in Patients Suspected with Coronary Artery Disease (CAD) With the Number of Involved Arteries in Tehran City. *Physical Treatments*. 2016; 6 (1): 3-8.
16. **A Talimkhani**, A Nodehi Moghadam, L Ghamkhar , Sh Mohammadi rad , S Amiri Arimi , B Zeynalzadeh ghoochani. The immediate effect of the whole body vibration on postural control in young adults. *Journal of Modern Rehabilitation*. 2016; 9 (S3): 28-36.
17. **A Talimkhani**, I Abdollahi, B Akhbari, F Ehsani, O Abaspour. The effects of motor learning after unilateral stroke: A systematic review. *Journal of Research Rehabilitation Science* 2015; 10(8): 964-978.
18. **A Talimkhani**, N Karimi, AM Arab, Sh Emdadi. Changes in Lumbar Lordosis During the Prone Knee-Flexion Test in Healthy Subjects. *Jentashapir Journal Health Research*. 2015; 6(1): e27197.
19. AM Arab, **A Talimkhani**, N Karimi, F Ehsani. Change in lumbar lordosis during prone lying knee flexion test in subjects with and without low back pain. *Chiropractic & Manual Therapies*. 2015; 23:18.
20. F Ehsani, AM Arab, M Salavati , R Hedayati , **A Talimkhani**. Effect of exercise therapy in an unstable surface on muscle activity pattern in patients with low back pain: A systematic review. *Koomesh, Journal of Semnan University of Medical Sciences* 2015; 16(4): 495-504.
21. N Karimi, **A Talimkhani (Corresponding Author)**, Z Mosallanezhad, AM Arab, R Keshavarz. The effects of Consecutive Supervised Functional Lumbar Stabilizing Exercises on the Postural Balance and Functional Disability in low back pain. *Iranian Rehabilitation Journal*. 2014; 12 (20).
22. H Shakeri, R Keshavarz, AM Arab, F Tabatabai Ghosheh, **A Talimkhani**. Scapular Position and Orientation during Abduction, Flexion, and Scapular Plane Elevation Phase. *Iranian Rehabilitation Journal*. 2014; 12 (1):22-30.
23. **A Talimkhani**, R Torkeman, Z Mosallanezhad, S Mirbaqeri, E Talebi Ghane , M Taghipour. Relationship between Spinal postural abnormalities and quality of life in nurses. *Physical Treatments*. 2013; 3 (1): 67-73.

24. F Ehsani , I Abdollahi , **A Talimkhani** , Z Ahmad zadeh. *The effects of rehabilitation techniques in brain plasticity after stroke: A Systematic Review. Physical Treatments Journal.* 2013; 3(4) : 35-45.
25. Z Ghorbanpour, Z Mosallanezhad, J Minaie Javid, **A Talimkhani**, A Shahab. *Relationship between spinal abnormal deviations, low back pain and body mass index in female students. Physical Treatments Journal.* 2013; 2 (2):49-55.
26. N Karimi, MR Golpour, AM Arab, K Ezati, **A Talimkhani (Corresponding Author)**, M Zarvar. *The effects of Consecutive Supervised Functional Lumbar Stabilizing exercises in chronic non-specific low back pain patients. Physical Treatments Journal.* 2012;1 (1):35-42.
27. K Ezati, N Karimi, **A Talimkhani**, K Esmaili, S Sherafat. *The effects of supervised core stability training on clinical symptoms range of motion, and endurance of lumbar muscles in female patients with non-specific chronic low back pain. Physical Treatments Journal.* 2012; 2 (1):23-30.
28. N Karimi, K Ezati, M Rahgozar, M Zarvar, K Esmaili, **A Talimkhani**. *The Evaluation of Satisfaction Level of Stability Training Exercises in the Patients with Mechanical Nonspecific Chronic Low Back Pain. Avicenna Journal of Clinical Medicine.* 2009; 16 (2):39-44.

IX. Books:

1. *Step-by-step physical activity training in the workplace and at home with a prevention and health promotion approach. Fourth Author: Ailin Talimkhani. Publisher: Setayesh Hasti. June 2019.*
2. *Pediatric Occupational Therapy. Scientific Editor: Ailin Talimkhani. Publisher: Vice-chancellor for Research & Technology of Hamadan University of Medical Sciences. 2020.*
3. *Transcranial Direct Current Stimulation and its application in rehabilitation. First Author: Ailin Talimkhani. Publisher: Setayesh Hasti. 2022*
4. *Virtual Flipped Classroom as New Pedagogical Approach in E-learning: 16th Shahid Motahari Educational Festival. Collector: Ailin Talimkhani. May 2023; Tehran; Iran.*

X. JOURNAL REVIEWS / EDITORIAL BOARD

1. *Reviewer of Papers of Physical Treatments Journal from 2013 until now.*
 2. *Reviewer of Papers of Iranian Rehabilitation Journal from 2018 until now.*
 3. *Reviewer of Papers of Avicenna Journal of Clinical Medicine from 2019 until now.*
 4. *Reviewer of Proposals from the Vice-Chancellor for Research & Technology of Hamadan University of Medical Sciences from 2019 until now.*
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XI. PAPERS PRESENTED IN CONGRESS & SEMINAR – INTERNATIONAL & NATIONAL:

1. **A Talimkhani, H Shakeri.** *Anticipatory postural adjustment to arm movement reveals complex control of the paraspinal muscle in the thorax. 9th National Seminar in Specific Spinal Physical Therapy; December 2008; University of Social Welfare and Rehabilitation Sciences; Tehran; Iran.*
2. **AM Arab, A Talimkhani, S Emdadi.** *Change in lumbar lordosis during prone knee flexion test in subjects with and without low back pain. 3rd International Conference on Movement Dysfunction; Manual Therapy; October 2009.*
3. **A Talimkhani, N Karimi, K Ezati.** *The effects of supervised core stability training on clinical symptoms, range of motion, and endurance of lumbar muscles in female patients with non-specific chronic low back pain. The 2nd National Congress of Rehabilitation; March 2011; University of Social Welfare and Rehabilitation Sciences; Tehran; Iran.*
4. **A Talimkhani, N Karimi, Z Mosallanezhad, AM Arab.** *The effects of Consecutive Supervised Functional Lumbar Stabilizing Exercises on the Postural Balance and Functional Disability in Women with Chronic Non-Specific Low Back Pain. 12th National Seminar in Specific Spinal Physical Therapy, December 2011; University of Social Welfare and Rehabilitation Sciences; Tehran; Iran.*
5. **A Talimkhani, R Torkeman, Z Mosallanezhad, S Mirbaqeri, E Talebi Ghane , M Taghipour.** *To determine the spinal postural abnormalities and their relationship with quality of life in nurses. The 14th National and the 1st International Seminar in Specific Spinal Physical Therapy, December 2013; University of Social Welfare and Rehabilitation Sciences; Tehran; Iran.*

6. **A Talimkhani**, R Torkeman, Z Mosallanezhad, S Mirbaqeri, E Talebi Ghane. *Relationship between low back pain and quality of life in nurses. The 19th National Congress of Occupational Therapy; November 2014; Tehran; Iran.*
7. **A Talimkhani**, I Abdollahi, B Akhbari, F Ehsani, O Abaspour. *The effects of motor learning after unilateral stroke: A systematic review, The 25th Annual Congress of the Iranian Physiotherapy; April 2014; Tehran; Iran.*
8. **A Talimkhani**, A Nodehi Moghadam, L Ghamkhar , S Mohammadi rad , S Amiri Arimi , B Zeynalzadeh ghoochani. *The immediate effect of the whole body vibration on postural control in young adults. 16th National Seminar in Specific Spinal Physical Therapy; December 2015; University of Social Welfare and Rehabilitation Sciences; Tehran; Iran.*
9. **A Talimkhani**, I Abdollahi, S Jaberzadeh. *The effects of transcranial direct current stimulation on motor skill learning in healthy individuals: A review study. The 2nd Avicenna Congress of Neurorehabilitation; November 2017; Hamedan; Iran.*
10. **A Talimkhani** , Z Ghorbanpoor. *prevention of scoliosis. 18th National Seminar in Specific Spinal Physical Therapy; December 2017; University of Social Welfare and Rehabilitation Sciences; Tehran; Iran.*
11. **A Talimkhani**, I Abdollahi, M Mazdeh, S Jaberzadeh. *Does unihemispheric concurrent dual-site anodal transcranial direct current stimulation (a-tDCS UHCDS) of primary motor (M1) and dorsolateral prefrontal cortexes (DLPFC) affect motor skill learning in healthy individuals? A randomized clinical trial. The 3rd Avicenna Congress of Neurorehabilitation; November 2018; Hamedan; Iran.*
12. **A Talimkhani**, I Abdollahi. *Differential effects of unihemispheric concurrent dual-site and conventional primary motor cortex transcranial direct current stimulation on motor sequence learning in healthy individuals. The 3rd International and 30th Annual Congress of the Iranian Physiotherapy Association; Jun 2019; Tehran; Iran.*
13. **A Talimkhani**, I Abdollahi. *The effects of multiple sessions Unihemispheric concurrent dual site anodal transcranial direct current stimulation of primary motor and dorsolateral prefrontal cortices on motor learning in healthy individuals. The 3rd International and 30th Annual Congress of the Iranian Physiotherapy Association; Jun 2019; Tehran; Iran.*
14. **A Talimkhani**. *Virtual Flipped Classroom in Corona Days. 22nd Iranian Conference on Health Professions Education. Speech on Work Breakfast. May 2021; Tehran; Iran.*

15. **A Talimkhani**, Abedi R, Naimi S, Daryabor A. *The comparison of tDCS effects on motor learning between high and low physical activity older adults. 33th Annual Congress of the Iranian Physiotherapy Association; December 2022; Tehran; Iran.*
 16. **A Talimkhani**, AM Salehi. *Design, Implementation, and Evaluation of a Virtual Flipped Classroom in Improving Undergraduate Physiotherapy Students' Satisfaction, Attitude, and Knowledge. 24th Iranian Conference on Health Professions Education. May 2023; Tehran; Iran.*
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XII. ACTIVITIES & HONORS:

1. *An active professor in the field of new methods of virtual education. April 2023.*
2. *The best poster extended abstract award in the 3rd International and 30th Annual Congress of the Iranian Physiotherapy Association; Jun 2019; Tehran; Iran.*
3. *The best reviewer of Physical Treatment Journal, 2018.*
4. *The member of the Research in Education Committee at Hamadan University of Medical Sciences from February 2019 until now.*
5. *The member of the Empowering Professors Committee at Hamadan University of Medical Sciences from June 2023 until now.*
6. *The member of the educational council at the virtual education center of the university from March 2023 until now.*
7. *Contribution during the data gathering process in the paper "Healthy Older Adults Balance Pattern under Dual Task Conditions: Exploring the Strategy and Trend" published in Health Promotion Perspectives journal(An international journal), 2016.*
8. *A member of the Students Committee of "English Scientific Writing" at the University of Social Welfare and Rehabilitation Sciences from 2014 to 2015.*
9. *The active member of the Students Research Committee at the University of Social Welfare and Rehabilitation Sciences from 2010 to 2011.*
10. *The first place of top BSC PT student in the University of Social Welfare and Rehabilitation Sciences, 2009.*

11. *The active member of EDC (Education Development Center) at the University of Social Welfare and Rehabilitation Sciences from 2005 to 2009.*

XIII. EXECUTIVE/ADMINISTRATIVE RESPONSIBILITIES:

1. *Head of Education Development Office (EDO) of the School of Rehabilitation Sciences, Hamadan University of Medical Sciences (From June 2020 until now).*
 2. *Supervisor and Instructor for BSC PT students at Kashani Mobasher Rehabilitation Clinic, Mahdie Avenu, Hamedan, Iran (From 2019 until now).*
 3. *Supervisor and Instructor for BSC PT students at Farshchian (Sina) Hospital: 2018-2019.*
 4. *Shaheed Beheshti Hospital for 1 month (September 2018)
Hamedan, Iran.*
 5. *Farshchian (Sina) Hospital, Human resource program (October 2011- August 2013)
Mirzadeh Eshqi St, Hamedan, Iran.*
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