

# Miao-Ju Hsu, PT, PhD

## *Educational Background*

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- Ph.D University of Iowa, Iowa, USA  
MS University of Iowa, Iowa, USA  
BS National Taiwan University, Taipei, Taiwan

## *Expertise*

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- Cardiopulmonary physical therapy
- Exercise physiology
- Health promotion
- Physical agents

## *Course Coordinator*

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- Ethics in Physical Therapy
- Introduction to Paper Reading and Critique
- Level I Fieldwork (I)
- Level II Fieldwork (I)
- Specific Issues in Geriatric Physical Therapy
- Special Topics on Exercise Physiology
- Seminar (III)

## *Current Research Projects*

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- The relationship between trunk control ability, respiratory function and diaphragm thickness in patients with stroke
- The application of intermittent pneumatic compression for improving lower extremity edema in heart failure

## *Clinical Experiences*

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- Part-time physical therapist: Department of Rehabilitation, KMU, Koahsiung, Taiwan
- Full-time physical therapist: Mackay Memorial Hospital, Taipei Branch, Taipei, Taiwan

### *Journal Papers (in 5 years)*

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1. Kuo NY, Liu JF, Lu HI, Lo CM, Hsien LC, Chang CL, **Hsu MJ**\*. Home-Based Pulmonary Rehabilitation in Aged Individuals With Lung Tumor After Thoracoscopic Surgery. *Topics in Geriatric Rehabilitation*, 38(2), 110-119, 2022. (SCI)
2. Wei, YY, Koh CL, **Hsu MJ**, Lo SK, Chen CH, Lin JH\*. Effects of transcranial direct current stimulation combined with neuromuscular electrical stimulation on upper extremity motor function in patients with stroke. *American Journal of Physical Medicine & Rehabilitation*, 101(2), 145-151, 2022. (SCI)
3. Lee CT, Chien JY, **Hsu MJ**, Wu HD, Wang LY. Inspiratory muscle activation during inspiratory muscle training in patients with COPD. *Respiratory Medicine*, 190, 106676, 2021. (SCI)
4. Huang CJ, Chan HL, Chang YJ, Chen SM, **Hsu MJ**\*. Validity of the Polar v800 monitor for assessing heart rate variability in elderly adults under mental stress and dual task conditions. *International Journal of Environmental Research and Public Health* 18, 869, 2021.(SCI)
5. Cheng CC, Huang CY, **Hsu MJ**\*. The relationship between six minute walk test, handgrip strength and quality of life in individuals with acute myocardial infarction after percutaneous coronary intervention. *Formos J Phys Ther* 46(1): 13-24, 2021.
6. **Hsu MJ**, Chan HL, Huang YZ, Lin JH, Hsu HH, Chang YJ\*. Mechanism of fatigue induced by different cycling paradigms with equivalent dosage. *Frontier Physiology*. 11:545 | <https://doi.org/10.3389/fphys.2020.00545>, May 2020. (SCI)
7. Tang WT, **Hsu MJ**, Huang YM, Hsu YT, Chuang LL, Chang YJ. Low Intensity Electrical Stimulation to Improve the Neurological Aspect of Weakness in Individuals with Chronic Anterior Cruciate Ligament Lesion. *Biomed Res Int Volume |Article*

ID 7436274 | 8 pages | <https://doi.org/10.1155/2020/7436274>  
(Mar), 2020. (SCI)

8. Chen SC, **Hsu MJ**, Kuo YT, Lin RT, Lo SK, Lin JH. Immediate effects of noxious and innocuous thermal stimulation on brain activation in patients with stroke. *Medicine*. Feb;99(9):e19386, 2020. doi: 10.1097/MD.00000000000019386. (SCI)
9. Chen SC, Lin JH, Hsu JS, Shih CM, Lai JJ, **Hsu MJ \***. Influence of Alternate Hot and Cold Thermal Stimulation in Cortical Excitability in Healthy Adults: an fMRI Study. *J. Clin. Med.* 9(1): 18, 2020. <https://doi.org/10.3390/jcm9010018> (SCI)
10. Chuang CY, Lin SY, Li, MH, Chang YJ, **Hsu MJ\***. Six-Minute Walk Test in Community-Dwelling Older Adults: Treadmill Versus Corridor Walking Distances. *Topics in Geriatric Rehabilitation*. 35(4):266–272, 2019. (SCI)
11. Chuang YF, Chen CC, **Hsu MJ**, Huang NJ, Huang YZ, Chan HL, Chang YJ. Age related changes of the motor excitabilities and central and peripheral muscle strength. *J Electromyogr Kinesiol*. 44:132-138, 2019.
12. Chou YL, Chen HI, **Hsu MJ**, Chen CJ, Chen CH, Lin JH\*. Effects of cycling training on sensorimotor activation and functional recovery of lower extremity in patients with stroke: a preliminary fMRI study. *Formos J Phys Ther* 44(1): 9 - 17 Mar, 2018.
13. Ye ZY, **Hsu MJ**, Hsiao SF, Chen CH, Huang MH, Lin RT, Lin JH\*. Time dependent and age Effects of transcranial direct current stimulation combined with neuromuscular electrical stimulation on corticomotor excitability in healthy adults. *Formos J Phys Ther* 44(1): 18 -28 Mar, 2018. (SCI)
14. Yeh CP, Huang HC, Chang Y, Chen MD, **Hsu MJ\***. The Reliability and Validity of a Modified Squat Test to Predict Cardiopulmonary Fitness in Healthy Older Men. *Biomed Res Int* 2:4863454. doi: 10.1155/2018/4863454. 2018. (SCI)
15. Chen CC, Tang YC, **Hsu MJ**, Lo SK, Lin JH\*. Effects of the hybrid of neuromuscular electrical stimulation and noxious thermal stimulation on upper extremity motor recovery in patients with stroke: a randomized controlled trial. *Top Stroke*

- Rehabil 27:1-7. doi: 10.1080/10749357. 2018. (SCI)
16. Chuang LL, Chuang YF, **Hsu MJ**, Huang YZ, Wong AMK, Chang YJ\*. Validity and reliability of the Traditional Chinese version of the Multidimensional Fatigue Inventory in general population. PloS One 10;13(5):e0189850. doi: 10.1371/journal.pone.0189850. 2018.(SCI)