



CURRICULUM VITAE

Yeh Ting-Ting

B.Sc. (PT), Ph.D.

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Current Position

Assistant Professor Chang Gung University, Taiwan
(2021.02- present) Mater Degree Program in Healthcare Industry

Education

Ph.D. McMaster University, Hamilton, Canada
(2010.01- 2014.01) Department of Kinesiology

B.Sc. Chung Shan Medical University, Taichung, Taiwan
(2003.09- 2007.06) Honors in School of Physical Therapy

Employment History

Assistant Professor Singapore Institute of Technology (SIT), Singapore
(2018.05- 2021.01) Health and Social Sciences Cluster

Post-doctoral fellow National Taiwan University, Taipei, Taiwan
(2015.04- 2018.04) School of Occupational Therapy

Chang Gung University, Taoyuan, Taiwan (Joint appointment)
Department of Occupational Therapy

Post-doctoral fellow Toronto Rehabilitation Institute, Toronto, Ontario, Canada
(2014.02- 2015.03) Sunnybrook Research Institute, Toronto, Ontario, Canada

**Teaching assistant &
Undergraduate
thesis mentor** McMaster University, Hamilton, Ontario, Canada
(2010.01- 2013.12) Department of Kinesiology

Part-time staff McMaster University, Hamilton, Ontario, Canada
(2010.01- 2013.12) McMaster Physical Activity Centre of Excellence

Research assistant Chung Shan Medical University, Taichung, Taiwan
(2007.07- 2009.12) School of Physical Therapy

Research Interests

Medical technology innovation, wearable devices, rehabilitation robotics, stroke cognitive rehabilitation, biomarkers, elderly balance control and fall prevention, motor control and learning, biomechanics

Peer-reviewed Journal Publications

1. **Yeh, T-T.**, Chang, K-C, Wu, C-Y., Chen C-J, Chuang, I-C. (in press) clinical efficacy of aerobic exercise combined with computer-based cognitive training in stroke: A multicenter randomized controlled trial. *Topics in Stroke Rehabilitation*.
2. Soh SLH, Tan, CW, Lane J, **Yeh, T-T**, Soon B. (2021) Near-falls in Singapore community-dwelling older adults: a feasibility study. *Pilot and Feasibility Studies*.7:25.
3. Pua, YH, Tan, HH, Mentiplay, B, Lim, L, Tham, A, Quek, J, Woon, EL, **Yeh, T-T**, Tan, C, Hunt, MA, Clark, RA. (2020) Immediate effects of valgus bracing on knee joint moments during walking in kneehealthy individuals: potential modifying effects of body height. *Gait & Posture*. 80, 383-390.
4. Tan, HH, Mentiplay, B, Quek, J, Tham, A, Lim, L, Clark, RA, Woon, EL, **Yeh, T-T**, Tan, C, Pua, YH. (2020) Test–retest reliability and variability of knee adduction moment peak, impulse and loading rate during walking. *Gait & Posture*. 80, 113-116.
5. **Yeh, T-T.**, Chang, K-C, Wu, C-Y. (2019) The active ingredient of cognitive restoration: a multicenter randomized controlled trial of sequential combination of aerobic exercise and computer-based cognitive training in stroke survivors with cognitive decline. *Archives of Physical Medicine and Rehabilitation*. 100(5): 821-827.

6. **Yeh, T-T.**, Chang H-Y, Ju Y-Y & Chen, H-Y. (2018) The use of a dual-task paradigm to identify superior sensory organization ability in rhythmic gymnasts. *Journal of Sports Sciences*. 37:7, 772-778.
7. **Yeh, T-T.**, Chang, K-C, Wu, C-Y., Lee, Y-Y, Chen, P-Y, Hung, J-W. (2018) Effects and mechanism of the HECT study (hybrid exercise-cognitive trainings) in mild ischemic stroke with cognitive decline: fMRI for brain plasticity, biomarker and behavioral analysis. *Contemporary Clinical Trials Communications* 9:164-171.
8. **Yeh, T-T.**, Hsieh, Y-W, Wu, C-Y., Wang, J-S, Lin, K-C, Chen, C-L. (2017) A preliminary investigation of the association of sleep with inflammation and oxidative stress biomarkers and functional outcomes after stroke rehabilitation. *Scientific Reports* 17; 7(1):8634.
9. **Yeh, T-T.**, Wu, C-Y., Hsieh, Y-W, Chang, K-C, Lee, L-C, Hung, J-W, Lin, K-C, Teng, C-H., Liao, Y-H. (2017) Synergistic effects of aerobic exercise and cognitive training on cognition, physiological markers, daily function, and quality of life in stroke survivors with cognitive decline: study protocol for a randomized controlled trial. *Trials* 18:405.
10. Centen, A., Lowrey, C.R., Scott, S.H., **Yeh, T-T.**, & Mochizuki, G. (2017) KAPS (kinematic assessment of passive stretch): a tool to assess elbow flexor and extensor spasticity after stroke using a robotic exoskeleton. *Journal of NeuroEngineering and Rehabilitation* 14:59.
11. **Yeh, T-T.**, Cinelli, M., Lyons, J., & Lee, T.D. (2016) Using a manipulation check to uncover age-related difference in focus of attention instruction during a balance task. *Experimental Aging Research* 42: 307-313.
12. **Yeh, T-T.**, Cinelli, M., Lyons, J. & Lee, T.D. (2015) Age-related changes in postural control to the demands of a precision task. *Human Movement Science* 44: 134-142.
13. **Yeh, T-T.**, & Chen, H-Y. (2015) Postural stabilization effects of light touch do not come from axis-specific cues of postural sway: A pilot study. *Perceptual and Motor Skills* 120(1): 247-256.

14. **Yeh, T-T.**, Cluff, T., & Balasubramaniam, R. (2014) Visual reliance for balance control in older adults persists when visual information is disrupted by artificial feedback delays. *PLoS ONE* 9(3): e91554.
15. Mak, L., **Yeh, T-T.**, Boulet, J.W., Cluff, T., & Balasubramaniam, R. (2011) Interaction between delayed visual feedback and secondary cognitive tasks on posture control in older adults. *Science et Motricité: Special Issue on Posture Control* 74: 81-88.
16. **Yeh, T-T.**, Boulet, J.W., Cluff, T. & Balasubramaniam, R. (2010) Contributions of delayed visual feedback and cognitive task load to postural dynamics. *Neuroscience Letters* 481(3): 173-177.
17. **Yeh, T-T.**, Wang, CY., Lin, CF., & Chen, HY. (2010) The hierarchical relationship between mobility limitation and ADL disability in older Taiwanese persons. *Formosan Journal of Physical Therapy* 35(1):1-7.

Conference Presentations (*corresponding author)

1. Melvin Tan, PH, Jason Choi YM, & **Yeh, T-T.***. (2021, May). Dual-task interference during walking: The effects of texting and gaming on gait kinematics and the likelihood of collision in healthy young adults. The XVI International Symposium on 3D Analysis of Human Movement (3D-AHM 2021), Iowa, USA (virtual conference).
2. Xu, T., & **Yeh, T-T.**. (2020, November). Say No To Frailty: A multi-component frailty management program that improves elderly's physical functions. Aging Asia 2020, Singapore.
3. Xu, T., **Yeh, T-T.**, Ng, Y. J., Wong, W. R., & Koh, S. J. (2019, November). Effectiveness of a multicomponent frailty management programme among community-dwelling older adults in Singapore: A pilot-controlled trial. National Occupational Therapy Conference (NOTC 2020), Singapore.
4. **Yeh, T-T.**, Wu, C-Y, Chang, K-C, Chen C-J, & Chuang I-C (2019, June) Hybridized computer-based cognitive training and aerobic exercise in improving cognition following stroke. The

RehabWeek and International Neurorehabilitation Symposium (RehabWeek and INRS 2019), Toronto, Canada.

5. **Yeh, T-T.**, Chang, K-C, & Wu, C-Y (2018, November) Aerobic exercise combined computer-based cognitive training to promote cognitive function in stroke survivors with cognitive decline. The 11th Pan-Pacific Conference on Rehabilitation (PPCR 2018), Kowloon, Hong Kong. **(Outstanding Oral Presentation Award)**
6. **Yeh, T-T.** (2017, October) Hybrid robot-assisted therapy combined with neuromuscular electrical stimulation for upper limb motor recovery in patients with stroke. The 1st Asia-Pacific Occupational Therapy Symposium (APOTS 2017), Taoyuan, Taiwan.
7. **Yeh, T-T.** (2017, October) The effects of sequential combination of aerobic exercise and cognitive training in stroke patients. The 1st Asia-Pacific Occupational Therapy Symposium (APOTS 2017), Taoyuan, Taiwan.
8. Chuang, I-C., **Yeh, T-T.**, Wu, W-C., Chang, C-L., Lo, S-M., Lee, M-C., Chang, S-S., Hsu, W-D., & Wu, C-Y. (2016, October) The effects of sequential combination of cognitive training and aerobic exercise in stroke patients: a pre-experimental study. The 35th Annual Conference of the Taiwan Occupational Therapy Association, Taipei, Taiwan. **(Best Poster Award)**
9. Lin, S-Z., **Yeh, T-T.**, Lin, Z-Y., Huang, I-C., Yan, Y-L., & Wu, C-Y. (2016, October) Comparison of the effects of combined or single physical and mental activity training on cognitive function and quality of life in stroke patients: A pilot study. The 35th Annual Conference of the Taiwan Occupational Therapy Association, Taipei, Taiwan.
10. Wu, C-Y., **Yeh, T-T.**, Lee, Y-Y., Teng, C-H., & Chang, K-C. (2016, October) Synergistic effects of aerobic exercise and cognitive training on cognition and quality of life in stroke patients with cognitive decline. Abstract presented at the American Congress of Rehabilitation Medicine (ACRM), Chicago, Illinois, USA.

11. Wu, C-Y., Lin, K-C., Hung, C-S., Hsieh, Y-W., & **Yeh, T-T.** (2016, October) Pilot comparative study of two robot-assisted therapies in patients with chronic stroke. Abstract presented at the American Academy of Physical Medicine and Rehabilitation (AAPM&R), New Orleans, Louisiana, USA.
12. Ho, C-S., **Yeh, T-T.**, Wu, C-Y. (2016, July) Effect of exercise on improving the cognitive function in stroke patients: A systematic review. The Occupational Therapist Union ROC Conference. Taipei, Taiwan.
13. Wu, C-Y., **Yeh, T-T.**, Lin, K-C., Hsieh, Y-W., & Chen, C-K. (2016, May) Hybrid robot-assisted therapy with neuromuscular electrical stimulation in reducing muscle spasticity and improve movement quality in patients with chronic stroke. Abstract presented at the NeuroTalk-2016, Beijing, China.
14. **Yeh, T-T.**, Scott, S.H. & Mochizuki, G. (2014, December) Deficits in far target reaching in individuals with elbow flexor spasticity after stroke. Abstract presented at the Toronto Rehabilitation 10th Annual Research Day, Toronto, ON, Canada.
15. **Yeh, T-T.**, Lyons, J. & Lee, T.D. (2014, June) Dual-tasking postural control: age-related changes in visuomotor control and attentional capacity. Abstract presented at the International Society for Posture & Gait Research (ISPGR), Vancouver, BC, Canada.
16. **Yeh, T-T.**, Cinelli, M.E., Lyons, J. & Lee, T.D. (2013, October) Decreasing internal focus of attention by executing a secondary task improves postural control in healthy younger adults, but not older ones. Abstract presented at the Canadian Society for Psychomotor Learning and Sport Psychology (SCAPPS), Kelowna, BC, Canada.
17. **Yeh, T-T.**, Li Yuen Fong, J., Graham, J.D. Bray, S.R. & Balasubramaniam, R. (2013, June) Executive function depletion and dual-task interference in postural control. Abstract presented at the North American Society for the Psychology of Sport and Physical Activity (NASPSA), New Orleans, Louisiana, USA.

18. **Yeh, T-T.**, Cinelli, M.E., Lyons, J. & Lee, T.D. (2013, May) The effects of different spatial orientations and a secondary cognitive task on human postural control. Abstract presented at the Southern Ontario Motor Behaviour Symposium-Centre for Motor Control (SOMBS-CMC), Toronto, ON, Canada.
19. **Yeh, T-T.**, Boulet, J.W., Cluff, T. & Balasubramaniam, R. (2012, June) Age-related changes in postural dynamics: Contributions of delayed visual feedback and cognitive task load. Abstract presented at the International Society for Posture & Gait Research (ISPGR), Trondheim, Norway.
20. **Yeh, T-T.**, Boulet, J.W., Cluff, T. & Balasubramaniam, R. (2012, May) Contributions of delayed visual feedback and cognitive task load in postural control in older adults. Abstract presented at the Southern Ontario Motor Behaviour Symposium (SOMBS), Waterloo, ON, Canada.
21. **Yeh, T-T.**, Boulet, J.W., Cluff, T. & Balasubramaniam, R. (2011, June) Contributions of delayed visual feedback and cognitive task load to postural dynamics in older adults. Abstract presented at the North American Society for the Psychology of Sport and Physical Activity (NASPSPA), Burlington, Vermont, USA.
22. **Yeh, T.T.**, Chen, H.Y., Lou, S.Z. (2008, September) Postural stabilization effects of light finger touch do not come from plane-specific sensory cues of postural orientation. The 57th Annual Conference of the Physical Therapy Association of R.O.C. Taiwan, Taichung, Taiwan.
23. **Yeh, T.T.**, Chen, H.Y., Wang, C.Y., Lin, C.F. (2008, September) Using a simple category of mobility to screen falls in community-dwelling elders. The 57th Annual Conference of the Physical Therapy Association of R.O.C. Taiwan, Taichung, Taiwan.
24. Chen, Y.C., Chen, H.Y., **Yeh, T.T.**, Lin, C.F., Wang, C.Y. (2008, September) The relation of functional performance and falls in the elderly in Taiwan: An analysis of a large national database. The 57th Annual Conference of the Physical Therapy Association of R.O.C. Taiwan, Taichung, Taiwan.

25. Chung, S.P., Chen, H.Y., **Yeh, T.T.**, Wang, C.Y., Lin, C.F.. (2008, September) The relation of mobility and ADL measures of elderly in Taiwan: An analysis of a large national database. The 57th Annual Conference of the Physical Therapy Association of R.O.C. Taiwan, Taichung, Taiwan.
26. Yeh, S.W., Chen, H.Y., **Yeh, T.T.**, Wang, C.Y., Lin, C.F. (2008, September) Disability distribution of elderly in Taiwan: An analysis of a large national database. The 57th Annual Conference of the Physical Therapy Association of R.O.C. Taiwan, Taichung, Taiwan.

Grant Awards

Singapore Institute of Technology

1. **Ignition Grant Award** (Project co-PI; July 2020 - July 2022)- MOTIVATE: Multi-mOdal Training program to promote physical activity After sTroKе (SGD\$124,800)
2. **Seed Grant Award** (Project co-PI; July 2019 - July 2020)- Near-falls, balance recovery and falls-efficacy of the community dwelling older adults (SGD\$5,000)
3. **Seed Grant Award** (Project PI; July 2018 - July 2020)- A warning, assisting and reminding mobile application (WARMA) for active mobility, safe traffic environment in the community-dwelling older adults. (SGD\$9,580)

Teaching Experience

Chang Gung University

2021 **Aging Related Physical Changes and Diseases, PT1032**
Module lead

Singapore Institute of Technology

Undergraduate

2018, 2019, 2020 **Physics in Biology and Medicine, PTY1001**
Module lead

2019, 2020 **Engineering and Technology for Healthcare Solution, OTY3008**
Module lead

Postgraduate

2020 **Motor Control and Learning, HSC6006**
Module co-lead

Chang Gung University

2017, 2018

Motor Behavior and Motion Analysis, Master level (Department of Occupational Therapy)

Guest Lecturer

Advanced Motor Control, Master level (Department of Physical Therapy)

Guest Lecturer

Student Supervision

2021-ongoing

Bronson Liew Jiong Hong (B.Sc. (Hons) Physiotherapy), Chng Tong Hoe (B.Sc. (Hons) Occupational therapy)

“Perceptions of allied health professionals on telehealth in Singapore”

Chew Zhisheng Daniel, Lim Li Xin, Sheryl (B.Sc. (Hons) Physiotherapy)

“Investigating the usability, reliability and validity of using the Valedo sensor to assess dynamic balance in healthy adult subjects”

2020

Ivan Tan Yong Tsu, Chua Annette (B.Sc. (Hons) Physiotherapy)

“The prevalence of compassion fatigue and burnout among physiotherapists in Singapore: a cross-sectional study”

Fazliana Binte Mohamad Yusof, Wong Tze Chen Elliot (B.Sc. (Hons) Physiotherapy)

Chu Zhi Qing, Tian Xinying (B.Sc. (Hons) Occupational therapy)

“Risk factors of unplanned repeated acute hospital admission from a nursing home in Singapore: a mixed method analysis”

Goh Shermin (B.Eng (Hons) Mechanical Design Engineering)

“Development of a sensor-based system to measure muscle spasticity for rehabilitation”

2019

Chan Li Yi, Ong Xinping Sarah (B.Sc. (Hons) Physiotherapy)

“Influence of different attentional focus on EMG activity amplitude during a balance task between fallers/non-fallers and high/low fear of falling”

Heidi Yu Qi, Khong Mun Kit (B.Sc. (Hons) Physiotherapy)

“Effects of physical activity level and mental fatigue on endurance and balance performance in healthy young adults”

Lim Zhi Xia Leon, Tham Chi Weng Asher, Quek Jia En Joshua (B.Sc. (Hons) Physiotherapy)

“Biomechanical effects of valgus knee bracing in knee-healthy individuals”

Invited Talks

1. “Experience of studying abroad and teaching.” (2019, December) School of Physical Therapy, Chung Shan Medical University. Taichung, Taiwan.
2. “Current understanding of postural control in older adults.” (2016, December) School of Physical Therapy, Chung Shan Medical University. Taichung, Taiwan.
3. “There is something you didn't know about exercise: not strengthen your body, but also your brain” (2016, November) Health Talks of Sin Rong Cheng Qun Qigong group. Taoyuan, Taiwan.
4. “From kinetics to kinematics: Pursue the research I love.” (2016, March) School of Occupational Therapy, National Taiwan University. Taipei, Taiwan.
5. “Visual reliance for balance control in older adults.” (2016, March) School of Physical Therapy, Chang Gung University. Taoyuan, Taiwan.

Academic Reviewing

2020 Ad hoc reviewer for:

Journal of Family Medicine and Disease Prevention

2019 Ad hoc reviewer for:

Gait and Posture

2018 Ad hoc reviewer for:

Gait and Posture

2016 Ad hoc reviewer for:

Life Sciences

PLoS ONE

Motor Control

Gait and Posture

2015 Ad hoc reviewer for:

Journal of Alzheimer's Disease

Journal of Sports Science & Medicine

Journal of Motor Behavior

PLoS ONE

Rehabilitation Research and Practice

Perceptual and Motor Skills

2014 Ad hoc reviewer for:

Psychology & Neuroscience

Book

Yeh, T-T. *The sensorimotor control of human posture: investigation into the relationship between attention, visual feedback and age.* Doctoral dissertation. McMaster University, Canada, 2014.

Licensure

- Certified Physical Therapist, Department of Health, Taiwan, Certificate No. 62101.

Certification

- CPR & Emergency First Response Team & First Aid and Automated external defibrillation (AED) Certification, McMaster University, Canada, 2010-2013

Awards and Scholarships

1. Gait and Posture recognized Award (journal reviewer), Elsevier, 2019
2. Final 60 of the RehabWeek Poster Award, RehabWeek, Canada, 2019
3. Outstanding Oral Presentation Award, The 11th Pan-Pacific Conference on Rehabilitation, Kowloon, Hong Kong, 2018
4. Graduate Scholarship, Kinesiology, McMaster University, Canada, 2010-2013

5. William Henry Yates Travel Scholarship, McMaster University, Canada, 2012
6. Graduate Student Association Travel Award, McMaster University, Canada, 2012
7. Nomination for the International Excellence Awards, McMaster University, Canada, 2010

Memberships in Professional Societies

1. American Congress of Rehabilitation Medicine (ACRM)
2. Canadian Society for Psychomotor Learning and Sport Psychology (SCAPPS)
3. International Society for Posture and Gait Research (ISPGR)
4. North American Society for the Psychology of Sport and Physical Activity (NASPSPA)
5. Taiwan Physical Therapy Association

Committee

1. **International Scientific Committee:** The 16th International Society of Biomechanics (ISB) Technical Group on the 3-D Analysis of Human Movement, May 2021 (Iowa State University - Ames, Iowa)

Service

1. **Deputy Secretary-General:** Taiwan Long-Term Care Physical therapy association (TLPTA) Feb 2021-current.