

CURRICULUM VITAE

Patima Silsupadol, PT, PhD
Credentialed Balance & Falls Professional
Assistant Professor
Division of Physical Therapy
Decker College of Nursing and Health Sciences
48 Corliss Ave., Johnson City, NY, 13790
patimas@binghamton.edu

EDUCATION/DEGREES

- Sep 6, 2008 Doctor of Philosophy in Motor Control, Department of Human Physiology, University of Oregon, USA
- Dec 10, 2005 Master of Science in Motor Control, Department of Exercise and Movement Science, University of Oregon, USA
- Mar 2, 1997 Bachelor of Science in Physical Therapy: First Class Honor Degree, Department of Physical Therapy, Chiang Mai University, Thailand

POSITIONS

- 2023 - Assistant Professor, Division of Physical Therapy, Decker College of Nursing and Health Sciences, Binghamton University, NY
- 2022 - 2023 Visiting Assistant Professor, Division of Physical Therapy, Decker College of Nursing and Health Sciences, Binghamton University, NY
- 2013 - 2021 Assistant Professor, Department of Physical Therapy, Faculty of Associated Medical Sciences, Chiang Mai University, Thailand
- 2012 - 2021 Committee for the Bachelor of Science Program in Physical Therapy, Faculty of Associated Medical Sciences, Chiang Mai University, Thailand
- 2008 - 2021 Committee for the Doctor of Philosophy Program in Biomedical Sciences, Faculty of Associated Medical Sciences, Chiang Mai University, Thailand
- 2013 - 2019 Head of Geriatric Physical Therapy, Department of Physical Therapy, Faculty of Associated Medical Sciences, Chiang Mai University, Thailand
- 2008 - 2013 Lecturer, Department of Physical Therapy, Faculty of Associated Medical Sciences, Chiang Mai University, Thailand
- 2002 - 2008 Graduate Research Fellow, Department of Human Physiology, University of Oregon, USA
- 1997 - 2002 Physical Therapist, Department of Orthopedics, Faculty of Medicine, Chiang Mai University, Thailand

PHYSICAL THERAPY LICENSURE INFORMATION

State and Registration Number: New York State 051462

International: Thailand #1439

CERTIFICATIONS

2024 Credentialed Balance and Falls Professional
2024 An Otago Exercise Program Trained Therapist (ID#19451)
2024 Administer Montreal Cognitive Assessment

HONORS AND AWARDS

2024 Individual Development Award, the New York State/United University Professions (UUP) Joint Labor-Management Committees
2020 High Impact Factor Researcher of the Year, Department of Physical Therapy, Faculty of Associated Medical Sciences
2019 Elite reviewer for the Archives of Physical Medicine and Rehabilitation
2018 The World Council of Biomechanics Senior Scientist Travel Award: Involvement With The Development of Biomechanics Related Research And Education in Your Country
2017 Elite reviewer for the Archives of Physical Medicine and Rehabilitation
2002 - 2008 Royal Thai Government Scholarship to pursue graduate education in the United States of America

FUNDING

2025-2027 Co-investigator, Development of a web-based dashboard to deliver fall risk information to older adults in Broome County, NSF- Seed Translational Research Projects (STRPs) (\$235,500)
2025 Co-investigator, Development of a web-based dashboard to deliver fall risk information to older adults in Broome County, Pre-SEED funds (\$10,000)
2024-2025 PI, Fall risk evaluation of community-dwelling adults in Broome County, Research Expense Grant, Decker College of Nursing and Health Sciences (\$2,000)
2018-2019 Co-investigator, A smartphone-based assessment of free-living gait in young adults and older adults with and without a history of falls, Chiang Mai University (60,000 Baht)
2018-2019 PI, Validity of a smartphone-based assessment of gait during straight walking, turning, and walking speed modulation in laboratory and free-living environments, Chiang Mai University (51,600 Baht)
2017-2018 Co-investigator, Development of mobile emergency alert device for dependent people, Chiang Mai University (60,000 Baht)

2016-2017	PI, Validity of a smartphone-based accelerometer for gait assessment in older adults, Chiang Mai University (52,302 Baht)
2014-2015	PI, Falls and functional mobility in older adults who practice mindfulness meditation, Chiang Mai University (60,000 Baht)
2014-2016	Co-investigator, Development of a physical fitness assessment tool to perform activities of daily-living related high risk of disability for Thai elderly, National Research Council of Thailand (500,000 Baht)
2014-2015	Co-investigator, Gait speed during different walking conditions in patients with chronic neck pain, Chiang Mai University (40,320 Baht)
2013-2014	Co-investigator, Physiological factors and functional ability predicting recurrent falls in the elderly, Chiang Mai University (51,620 Baht)
2013-2014	Co-investigator, The effect of hip protector on falls in the elderly, Chiang Mai University (45,000 Baht)
2012-2013	Co-investigator, Physiological factors associated with fall and functional ability in Thai community-dwelling elderly, Chiang Mai University (60,000 Baht)
2011-2012	Co-investigator, Effects of sit-to-stand home-based exercise on muscle performance, physical performance and quality of life in the elderly, Chiang Mai University (57,145 Baht)
2010-2011	PI, Correlations between dividing and allocating attention during sitting and dual-task gait performance in older adults, Chiang Mai University (48,180 Baht)
2009-2010	Co-investigator, The effectiveness of aerobic exercises using VCD on physical fitness in obese children, Chiang Mai University (60,000 Baht)

AREAS OF SPECIAL INTEREST

- Motor Control
- Biomechanics
- Cognitive Functions
- Geriatric Physical Therapy

RESEARCH INTERESTS

- Falls in Older Adults
- Balance and Gait
- Training and Rehabilitation
- Smartphone-based Assessment and Intervention

MEMBERSHIPS

American Physical Therapy Association
The Physical Therapy Association of Thailand
International Society of Biomechanics

SERVICE TO THE FIELD

Manuscript Reviewer:

- Aging, Neuropsychology and Cognition
- American Journal of Physical Medicine & Rehabilitation
- Archives of Physical Medicine and Rehabilitation
- BMC Sports Science, Medicine and Rehabilitation
- Frontiers in Medicine
- Gait and Posture
- Journal of Applied Developmental Psychology
- Journal of Associated Medical Sciences
- Journal of Motor Behavior
- Journal of Neurology
- Medicine
- Psychological Research
- Health and Quality of Life Outcomes
- Hong Kong Physiotherapy Journal
- International Journal of Therapy and Rehabilitation
- Journal of the American Aging Association
- Restorative Neurology and Neuroscience
- Scientific Reports
- Somatosensory and Motor Research
- Srinagarind Medical Journal
- The Physician and Sportsmedicine
- Thai Journal of Physical Therapy
- World Scientific Annual Review of Biomechanics

Selected Invited Speaker:

- March 2023, “Falls in older adults: risk assessment and prevention strategies” organized by Retiree Service, Binghamton University
- November 2022, “Thailand’s health care system” organized by Dr. Serdar, Global Policy Course, Binghamton University
- August 2020, “Health screening and assessment in older adults” and “Assessment and prevention of falls in older adults” organized by Physical Therapy Council
- November 2019, “Health ageing: Fall prevention technologies and implications for clinical practice” organized by Faculty of Medicine, Chiang Mai University

- July 2019, “Physical function and cognition in older adults” organized by Tha Wang Tan Subdistrict Municipality
- May 2019, “Transform the smartphone into a user-friendly portable gait monitoring system” organized by Department of Physical Therapy, Chiang Mai University
- November 2018, “Health promotion: exercise and physical activity” organized by Geriatric Medical Center, Chiang Mai University
- November 2017, “Outcome measures in geriatric physical therapy” organized by Naresuan University
- August 2017, “Exercise for older adults” organized by Ban Thammapakorn Chiang Mai Elder Aid Center
- February 2017, “Dual-task motor-cognitive training” organized by Professor Stephen Lord and Department of Physical Therapy, Chiang Mai University
- February 2016, “Fall risk factors and prevention strategies” organized by Department of Physical Therapy, Chiang Mai University
- October 2015, “Physical therapy in fall prevention and assessment” organized by Faculty of Medicine, Chiang Mai University
- February 2013, “Line dance for people with Parkinson's disease” organized by Faculty of Medicine, Chiang Mai University
- February 2013, “Falls in older adults” organized by Faculty of Medicine, Chiang Mai University
- December 2012, “Line dance for patients with Stroke” organized by Faculty of Medicine, Chiang Mai University
- November 2012, “Balance and fall screening in older adults” organized by Faculty of Associated Medical Sciences, Chiang Mai University
- November 2011, “Falls in older adults” organized by Faculty of Associated Medical Sciences, Chiang Mai University
- December 2010, “Tai Chi in fall intervention” organized by Faculty of Associated Medical Sciences, Chiang Mai University
- November 2010, “Balance and gait in older adults” organized by private physical therapy clinic
- June 2010, “Physical health care for the elderly” organized by Chiang Mai Central Prison
- June 2010, “Senior Fitness Test” organized by Hangdong Hospital
- April 2010, “Risk of falling in older adults” organized by Faculty of Associated Medical Sciences, Chiang Mai University
- February 2010, “Senior Fitness Test” and “Fall prevention exercises” organized by Faculty of Associated Medical Sciences, Chiang Mai University

- November 2009, “Falling in older adults” organized by Faculty of Associated Medical Sciences, Chiang Mai University
- March 2009, “Best practice in geriatric physical therapy: falling assessment & intervention” organized by Department of Physical Therapy, Chiang Mai University

PEER-REVIEWED PUBLICATIONS

- Torbitt M, O’Brien SR, MacDonald G, Mooney K, **Silsupadol P**, Turner I, Bautista S, Lugade V. Differential impacts of psychological and social factors on fear of falling amongst community-dwelling older adults. *Aging Ment Health*. 2025;1-13. doi:10.1080/13607863.2025.2590084
- Lugade V, Torbitt M, O’Brien SR, **Silsupadol P**. Smartphone- and paper-based delivery of balance intervention for older adults are equally effective, enjoyable, and of high fidelity: a randomized controlled trial. *Sensors*. 2023;23:7451. doi:10.3390/s23177451
- Sriburi C, Musikarat P, **Silsupadol P**, Srisupornkornkool K. Effects of backward and forward walking training on balance, spatiotemporal gait characteristics and risk of fall in elderly. *Thai J Phys Ther*. 2022;44:12-28.
- Lugade V, Kuntapun J, Prupetkaew P, Boripuntakul S, Verner E, **Silsupadol P**. Three-day remote monitoring of gait among young and older adults using participants’ personal smartphones. *J Aging Phys Act*. 2021;29:1026-33.
- Phirawatthakul C, **Silsupadol P**, Chamnongkich S. Comparison of balance ability in elderly with and without history of falls using Will Balance Board. *Thai J Phys Ther*. 2021;43:111-22.
- Kuntapun J, **Silsupadol P**, Kamnardsiri T, Lugade V. Smartphone monitoring of gait and balance during irregular surface walking and obstacle crossing. *Front Sports Act Living*. 2020. doi:10.3389/fspor.2020.560577
- Sittikraipong K, **Silsupadol P**, Uthaikhup S. Slower reaction and response times and impaired hand-eye coordination in individuals with neck pain. *Musculoskelet Sci Pract*. 2020. doi:10.1016/j.msksp.2020.102273
- Silsupadol P**, Prupetkaew P, Kamnardsiri T, Lugade V. Smartphone-based assessment of gait during straight walking, turning, and walking speed modulation in laboratory and free-living environments. *IEEE J Biomed Health Inform*. 2020;24:1188-95.
- Lersilp S, Putthinoi S, Lettrakarnnon P, **Silsupadol P**. Development and usability testing of an emergency alert device for elderly people and people with disabilities. *ScientificWorldJournal*. 2020. doi:10.1155/2020/5102849
- Kuntapun J, Lugade V, Kamnardsiri T, **Silsupadol P**. Effects of walking over uneven surfaces and crossing an obstacle on gait and balance parameters in young and older adults. *Thai J Phys Ther*. 2020;42:186-97.

- Prupetkaew P, Lugade V, Kamnardsiri T, **Silsupadol P**. Cognitive and visual demands, but not gross motor demand, of concurrent smartphone use affect laboratory and free-living gait among young and older adults. *Gait Posture*. 2019;68:30-6.
- Prupetkaew P, Lugade V, Kamnardsiri T, **Silsupadol P**. Validity of a smartphone-based assessment of spatiotemporal gait parameters and center of mass displacement during single- and dual-task walking. *Thai J Phys Ther*. 2019;41:42-53.
- Silsupadol P**, Teja K, Lugade V. Reliability and validity of a smartphone-based assessment of gait parameters across walking speed and smartphone locations: body, bag, belt, hand, and pocket. *Gait Posture*. 2017;58:516-22.
- Teja K, Lugade V, **Silsupadol P**. Effect of smartphone location and walking speed on spatiotemporal gait parameters in older adults. *J Assoc Med Sci*. 2017;50:507-15.
- Srimaloon K, **Silsupadol P**, Sungkarat S. Effect of dual task on balance in older adults with mild cognitive impairment. *J Assoc Med Sci*. 2017;50:605-16.
- Wongcharoen S, Sungkarat S, Munkhetvit P, Lugade V, **Silsupadol P**. Home-based interventions improved trained, but not novel, dual-task balance performance in older adults: A randomized controlled trial. *Gait Posture*. 2017;52:147-52.
- Wongcharoen S, Munkhetvit P, Sungkarat S, Lugade V, **Silsupadol P**. The effect of walking task contexts on dual-task walking performance among older adults. *Thai J Phys Ther*. 2016;38:103-13.
- Viriyawattanakul M, **Silsupadol P**, Shin-Yu W, and Prasartwuth O. Effectiveness of Hornsby Healthy Hip Pants on hip fracture prevention from falls in the elders living in institution. *Journal of Medical Technology and Physical Therapy*. 2015;27:287-97.
- Silsupadol P**. Exercise as an intervention for preventing falls in community-dwelling older adults. *Thai J Phys Ther*. 2012;34:180-92.
- Puipanichsiri P, **Silsupadol P**. The role of age, balance ability, additional task characteristics, and ability to allocate attention to gait. *Thai J Phys Ther*. 2012; 34: 168-79.
- Hawkes TD, Siu KC, **Silsupadol P**, Woollacott MH. Why does older adults' balance become less stable when walking and performing a secondary task? Examination of attentional switching abilities. *Gait Posture*. 2012;35:159-63.
- Wongcharoen S, Uthaikhup S, **Silsupadol P**. Contributing factors to dual-task related gait changes in elders. *Thai J Phys Ther*. 2012;34:24-36.
- Kumfu S, **Silsupadol P**, Sungkarat S. Effects of executive function and attention on gait in individuals with mild cognitive impairment. *Thai J Phys Ther*. 2012;34:12-23.
- Hensangvilai K, Pratanaphon S, **Silsupadol P**, Sunanchai A. The effectiveness of using VCD aerobic exercises on physical fitness in obese children. *Bull Chiang Mai Assoc Med Sci*. 2012;45:52-8.

- Chouchay S, Sungkarat S, **Silsupadol P**. Impact of footwear styles on postural control ability of female elderly. *J Gerontol Geriatric Med*. 2010;11:25-35.
- Silsupadol P**, Lugade V, Shumway-Cook A, van Donkelaar P, Chou LS, Mayr U, Woollacott MH. Training-related changes in dual-task walking performance of elderly persons with balance impairment: a double-blind, randomized controlled trial. *Gait Posture*. 2009;29:634-9.
- Silsupadol P**, Shumway-Cook A, Lugade V, van Donkelaar P, Chou LS, Mayr U, Woollacott MH. Effects of single-task versus dual-task training on balance performance in older adults: a double-blind, randomized controlled trial. *Arch Phys Med Rehabil*. 2009;90:381-7.
- Silsupadol P**, Siu KC, Shumway-Cook A, Woollacott MH. Training of balance under single- and dual-task conditions in older adults with balance impairment. *Phys Ther*. 2006;86:269-81.

BOOKS AND OTHER PUBLICATIONS

Book:

Silsupadol P, Verner O, Verner E, Lugade V. A guide to English conversation for physical therapists. Chiang Mai: Department of Physical Therapy, Faculty of Associated Medical Sciences, Chiang Mai University; 2014.

Book and CD:

Uthaikhup S, Kongswasdi S, **Silsupadol P**, Boripuntakul S, Thonglorm N, Kanthain R, Sremakaew M. Stretching exercise and aerobic exercise for older adults. Chiang Mai: Department of Physical Therapy, Faculty of Associated Medical Sciences, Chiang Mai University; 2014.

VDO clip:

Fall prevention exercise - https://www.youtube.com/watch?v=eq2MQ_hkrSA

PEER-REVIEWED PRESENTATIONS AND PROCEEDINGS

- Silsupadol P**, O'Brien SR, Bautista S, Turner I, Torbitt M, Mooney K, MacDonald G, Lugade V. Smartphones can accurately evaluate postural sway and fall risk among older adults in community settings. The XXX Congress of the International Society of Biomechanics, Stockholm, Sweden. 2025.
- O'Brien SR, Torbitt M, Turner I, **Silsupadol P**, Lugade V. Prediction of fall risk in community-dwelling older adults in a rural county using clinically accessible tools: a machine learning approach. The American Physical Therapy Association Combined Sections Meeting (APTA CSM), Houston, Texas. 2025.
- Lugade V, Torbitt M, O'Brien S, **Silsupadol P**. Smartphone- and paper-based delivery of balance intervention for older adults is equally effective, enjoyable, and of high fidelity. American Society of Biomechanics, Knoxville, Tennessee. 2023.

- Magid M, Lugade V, **Silsupadol P**, Ertem Z. Prediction of Parkinson's Disease progression using gait data. Quality and Productivity Research Conference, Houston, Texas. 2023.
- Silsupadol P**, Prupetkaew P, Kamnardsiri T, Lugade V. Effect of motor, visual, and cognitive demand of smartphone use on gait among young and older adults in laboratory and free-living environments. The 2018 World Congress of Biomechanics. Dublin, Ireland. 2018.
- Wongcharoen S, Lugade V, **Silsupadol P**. Factors contributing to increased risk of falling in community-dwelling older adults. International Graduate Research Conference 2015. Chiang Mai, Thailand. 2015.
- Lugade V, **Silsupadol P**, Wongcharoen S. Effect of mindfulness meditation on gait and cognitive performance in the elderly. Annual Whitaker International Enrichment Seminar. Budapest, Hungary. 2015
- Sungkarat S, Uthaikhup S, **Silsupadol P**. Physiological and functional factors predicting recurrent falls in community-dwelling older adults. The International Physical Therapy Conference 2014. Chiang Mai, Thailand. 2014.
- Lugade V, **Silsupadol P**. Effect of mindfulness meditation on cognitive performance and gait: differences between Thai and US older adults. Annual Whitaker International Enrichment Seminar. Rome, Italy. 2014.
- Hawkes T, Siu KC, **Silsupadol P**, Woollacott MH. Why does older adults' balance become less stable when walking and performing a secondary task? Examination of attention. Progress in Motor Control VIII. Cincinnati, Ohio. 2011.
- Lugade V, Ewers S, Chen C-J, Boonyong S, **Silsupadol P**, Chou LS. Quantifying the base of support in adults during gait. Proceedings of the 2008 Northwest Biomechanics Symposium. Boise State University. 2008.
- Lugade V, Ewers S, Chen C-J, Boonyong S, **Silsupadol P**, Chou LS. Defining the base of support during gait: Identifying balance impairment in the elderly. North American Conference on Biomechanics. Ann Arbor, Michigan. 2008.
- Lugade V, Ewers S, Chen C-J, Boonyong S, **Silsupadol P**, Chou LS. Detection of gait imbalance using the extrapolated center of mass. North American Conference on Biomechanics. Ann Arbor, Michigan. 2008.
- Silsupadol P**, Lugade V, Chou LS et al. Effects of single- vs. dual-task training in older adults with balance impairment. International Society of Biomechanics XXI Congress, Taipei, Taiwan. 2007.
- Silsupadol P**, Siu KC, Shumway-Cook A et al. Training of balance under single and dual task conditions in older adults with balance impairment: Three case reports. International Society of Posture & Gait Research, Marseille, France. 2005.
- Ratanapinunchai J, **Silsupadol P**. Factors influencing self-selected throwing styles of young children under the maximum distance thrown effort. Poster

presentation in the 5th Biennial Motor Control and Human Skill Research workshop. Gold Coast, Queensland, Australia. 2000.

SELECTED CONTINUING EDUCATION ATTENDED

- September 2025, “Creating/Building Community & Classroom Climate” by Michelle D. Withers from The Center for Learning and Teaching, Binghamton University
- August 2025, “Engage and connect your students with team-based learning” by Dr. Billie Franchini from University at Albany, SUNY
- May 2025, “Writing winning NIH grant applications” by John Robertson from Grant Writers’ Seminars & Workshops, LLC
- October 2024, “The Otago Exercise Program: falls prevention training” by Piedmont Area Health Education Center (AHEC)
- June & October 2024, “Balance and fall prevention in community-dwelling older adults: an APTA Geriatrics Credentialing Course Series” by APTA Geriatrics
- May 2024, “STEADI: empowering healthcare providers to reduce fall risk (web-based) by The Centers for Disease Control and Prevention (CDC)
- March 2024, “Working with the research foundation to maximize your efforts to secure external research funding” by Linda Hoke and Emilee Bobik from Binghamton University
- February 2024, “Strategies for successful grant funding: part 2: how to write an NIH specific aims section” by Office of strategic research initiatives from Binghamton University
- February 2024, “Strategies for successful grant funding: part 1: navigating the funding landscape” by Office of strategic research initiatives from Binghamton University
- October 2023, “FATE” workshop by Shawn Simonson from Boise State University
- May 2023, “Healthcare simulation best practices” by Pattie Reuther and Lori Sprague from Binghamton University
- April 2023, “Master adaptive learning: utilizing competency-based education to drive expertise development” by Professor William Cutrer from Vanderbilt University School of Medicine
- January 2023, “Evidence-based teaching institute” by Mobile Institutes on Scientific Teaching and Binghamton University
- January 2023, “Teaching only certification program” by the Center for Learning and Teaching (CLT) from Binghamton University
- December 2019, “Management of cervical disorders: assessment to recovery” by Emeritus Professor Gwendolen Jull from the University of Queensland

- November 2019, “Physical therapy management and exercise concepts for scoliosis” by Faculty of Medicine and Faculty of Associated Medical Sciences, Chiang Mai University
- February 2019, “Health and social innovations for aging populations” by Thai Society of Gerontology and Geriatric Medicine
- December 2018, “Management and recovery of respiratory muscle function from respiratory failure” by Professor Rik Gosselink from University of Leuven
- February 2017, “Falls in older people: risk factors and prevention strategies” by Professor Stephen Lord from Neuroscience Research Australia
- July 2014, “Applied functional science concepts for therapeutic exercise” by Wiyada Saksee and Department of Physical Therapy, Chiang Mai University
- June 2014, “Moving the profession forward toward healthier lifestyles” by Professor Marilyn Moffat from New York University
- May 2014, “The need for specificity in exercise in neck rehabilitation” by Emeritus Professor Gwendolen Jull from the University of Queensland
- May 2013, “Stepping and dual tasking: implications for fall risk assessment and fall prevention in older people” by Professor Stephen Lord from Neuroscience Research Australia
- January 2013, “Introduction to craniosacral therapy” by Mark Levine from Canada
- December 2012, “Falls prevention in older adults” by Professor Keith Hill from Curtin University
- November 2012, “Vestibular rehabilitation” by Bernard Tonks from University of Toronto
- August 2012, “Challenges to translating neurorehabilitation research into practice: A perspective from one clinical scientist” by Professor Carolee Winstein from University of Southern California
- December 2011, “Hand therapy” by Faculty of Medicine and Faculty of Associated Medical Sciences, Chiang Mai University
- March 2011, “Manual therapy of the sacroiliac joint: integrative assessment and management” by Department of Physical Therapy, Chiang Mai University
- October 2010, “Falls in older people: risk factors, assessment and strategies for prevention” by Professor Stephen Lord from Neuroscience Research Australia
- May 2010, “Management of thoracic spine and scoliosis: a physical therapy approach” by Department of Physical Therapy, Chiang Mai University
- April 2009, “Quality of life, health and social work” by Professor David Phillips from University of Sheffield
- March 2009, “Mobilization of the thoracic spine: examination and treatment” by Department of Physical Therapy, Chiang Mai University