

BIOGRAPHICAL SKETCH

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NAME: Pao-Feng Tsai

POSITION TITLE: Professor, Associate Dean for Research, Auburn University College of Nursing

EDUCATION/TRAINING

| INSTITUTION AND LOCATION | DEGREE (if applicable) | Completion Date MM/YYYY | FIELD OF STUDY |
|--|---------------------------|----------------------------|-------------------|
| Kaohsiung Medical College, Kaohsiung, Taiwan | BSN | 05/1984 | Nursing |
| National Yang-Ming Medical College, Taipei, Taiwan | MS | 12/1987 | Public Health |
| Wayne State University, Detroit, MI | MSN | 05/1996 | Nursing |
| Wayne State University, Detroit, MI | PhD | 5/1998 | Nursing |
| Building Academic Geriatric Nursing Capacity Scholar, John A. Hartford Foundation | Post-doc | 12/2005 | Geriatric Nursing |

A. Personal Statement

Over the past 22 years, I was the PI, Co-I or Site PI on National Institute of Nursing Research, National Institute on Aging and VA-funded projects, and 16 pilot studies on the topics of non-pharmacological interventions for improve symptoms in elderly patients with chronic health conditions, such as chronic pain, osteoarthritis, impaired cognition, sleep disturbance, and poor physical functions in elderly patient populations. I have published extensively on these topics. I also have experience working with IRB and the office of research compliance, setting up a SOP, training staff, and monitoring the progress and integrity of a major study.

B. Positions and Honors

Positions and Employment

1999-2020 Assistant Professor (1999-2005), Associate Professor (2005-2013), Alice An-Loh Sun Endowed Professor (2010-2020), Professor (2013-2020), College of Nursing, University of Arkansas for Medical Sciences (UAMS), Little Rock, AR

2020- Professor and Associate Dean for Research, College of Nursing, Auburn University, Auburn, AL

Other Experience and Professional Memberships

2007- 2021 Grant reviewer, American Nurses Foundation, Southern Nursing Research Society, Research Grants Council of Hong Kong, or the Dunhill Medical Trust, London England

2007- 2022 Grant reviewer, NIH Study Section

2021 Board member, Biotechnology, Health, and Innovation Research Center Advisory Board, Hungkuang University, Taichung, Taiwan

Honors

2010-2019 Alice An-Loh Sun Endowed Professorship in Geriatric Nursing, College of Nursing, UAMS

2017 Graduate Faculty of the Year and Best PhD Faculty of the Year, College of Nursing, UAMS

2017 Fellow of the American Academy of Nursing

2020 Distinguished Alumni Award for Excellence in Scholarship, Kaohsiung Medical University, Kaohsiung, Taiwan

2022- Betty McClendon Fuller Endowed Professorship, College of Nursing, Auburn University

C. Contributions to Science

1. I developed and published two theories based on the Roy Adaptation Model. The "Theory of Caregiver Stress" explained the relationships among caregivers and the stress encountered when caring for a chronically ill relative. The "Theory of Chronic Pain" described the psychopathological process of chronic pain and its outcomes on older people with arthritis. Both theories were included in theory textbooks and have received international inquiries. This work shows how the Roy Adaptation Model can be used to guide research efforts to better understand caregiver stress or chronic pain.

- a. Tsai, P.F. (2005). Predictors of distress and depression in elders with arthritic pain. *Journal of Advanced Nursing*, 51(2):158-65. PMID: 1593187.
 - b. Tsai, P.F., & Jirovec MM. (2005). The relationships between depression and other outcomes of chronic illness caregiving. *BMC Nursing*, 4(1):3. PMID: PMC554787.
 - c. Tsai P.F., Tak S, Moore C, Palencia I. (2003). Testing a theory of chronic pain. *Journal of Advanced Nursing*, 43(2):158-69. PMID: 12834374.
 - d. Tsai, P.F. (2003). A middle-range theory of caregiver stress. *Nursing Science Quarterly*, 16(2):137-45. PMID: 12728832.
2. My first article (1998), relating to pain in nursing home residents, was one of the most-cited articles for several years in *Nursing Research*. My coauthor and I developed a formula to standardize analgesics to acetaminophen equivalents. This gave researchers a tool to standardize and compare various types of analgesics in published scientific literature. I continue to work in this area to explore factors that influence decisions of pain treatment in nursing homes.
- a. Swafford, K., Miller, L., Tsai, P.F., Herr, K., & Ersek, M. (2009). Improving the process of pain care in nursing homes: A literature synthesis. *Journal of American Geriatrics Society*, 57(6), 1080-1087. PMID: 19507298.
 - b. Tsai, P.F., Landes, R. D., Ghormley, C., Beck, C., Feldman, Z., & Duncan, A. (2008). Analgesic intake, cognitive functioning, and disruptive behaviors in elders with cognitive impairment. *Journal of American Geriatrics Society*, 56(3), 574-5. PMID: 18315677.
 - c. Tsai, P.F., & Chang, J. (2004). Assessment of pain in demented elders. *Journal of Medical Surgical Nursing*, 13(6), 364-369, 390.
 - d. Horgas, A., & Tsai, P.F. (1998). Analgesic drug prescription and use in cognitively impaired nursing home residents. *Nursing Research*, 47(4), 235-242. PMID: 9683119.
3. My work used Tai Chi as an alternative treatment for patients with pain conditions. My NIH-funded project was the first study that focused on treating osteoarthritic knee pain in elders with mild cognitive impairment. I also developed a method to teach Tai Chi to this population. This set of studies illustrated the positive effects of Tai Chi on chronic pain in elders. Specifically, it showed that Tai Chi was effective at reducing pain. Further, the differences in pain perception between the participants receiving Tai Chi and those receiving control activities increased over time. Based on this work and other evidence, Tai Chi has been identified as an evidence-based best practice for treating osteoarthritis pain. We are seeking funding to implement this evidence-based best practice into clinical practice.
- a. Tsai, P.F., Beck, C., Richards, K., Means, K.M., Kuo, Y., & Doan, C. (2011). Non-verbal cues to identify osteoarthritic knee or hip pain in elders. *Research in Nursing & Health*, 34, 218-227. PMID: PMC3100797.
 - b. Tsai, P.F., Chang, J.Y., Beck, C., Kuo, Y. Keefe, F.J. (2013). A cluster randomized trial of a 20-week Tai Chi program in elders with mild cognitive impairment and osteoarthritic knee: Effects on pain and other health outcomes. *Journal of Pain Symptom Management*, 45(4), 660-669. PMID: PMC3543500.

Complete List of Published Work in MyBibliography:

<https://www.ncbi.nlm.nih.gov/myncbi/1DS9fnquddcA1C/bibliography/public/>

D. Additional Information: Research Support and/or Scholastic Performance *within last 5 years* **Ongoing Research Support**

1. Bonnie and Leo Sanderson Annual Fund for Excellence, College of Nursing, Auburn University, Investigating factors affecting pre-frail older Korean immigrants: A pilot study, Role: Co-I, Duration: 06/01/2022-05/31/2023.
2. Research Eureka Accelerator Program, Edward Via College of Osteopathic Medicine-Auburn (VCOM). A feasibility and pilot study of a multiple component mobile-aid pain reduction intervention to decrease myofascial pain syndrome, Role: Co-PI, Duration: 07/01/2022-06/30/2023
3. QuantumTX, Singapore, Pilot-testing the effect of magnetic mitohormesis therapy for treating frailty in older adults, Role: PI, Duration 11/1/2022-10/31/2023.

Completed Research Support

1. Research Eureka Accelerator Program, VCOM. Exploration of objective diagnosis of myofascial pain syndrome of the low back and development of a home intervention program, Role: Co-PI, Duration: 07/01/2021-06/30/2022
2. NIA (1 R43 AG051303-01), Caregiver training app to maintain independence in individuals with Alzheimer's disease (PI: Jakobs). Role: Subaward PI, Duration: 07/01/2016 - 06/30/2018