RESEARCHER PROFILE

One out of three adults age 65 and older falls each year. Falls are the leading cause of injury death, as well as the most common cause of nonfatal injuries and hospital admissions for trauma (CDC, Falls Among Older Adults: An Overview). Persons with dementia, such as Alzheimer’s Disease (AD), experience a 3-fold risk of falling compared to non-demented adults, and when falling, they have a 3- to 4-fold risk of severe fall-related injuries or mortality.

Tai Chi, a Chinese form of physical exercise characterized by a series of slow and smooth body movements, is one of the fall prevention exercises recommended by the American Geriatrics Society. However, little is known about its effect on persons with AD due to their inability to participate in and adhere to regular exercise programs.

Dr. Yao’s program of research focuses on utilizing residual emotional and procedural learning reserves in the AD to tailor physical exercise interventions that affect functional ability, fall risks, and quality of life in patients with AD and their caregivers. She examines the influence of cognition on mobility improvement in persons with AD, and explores caregiver issues that enhance or undermine their participation in this type of dyadic exercise intervention.

Considering that regular physical activity may also mitigate adverse health costs of caregiving, the dyadic model may result in improved exercise participation, mobility, mood, and ultimately health-related quality of life for both the AD person and the caregiver. Data will assist in defining the scope and target population, and may provide valuable information for future dyadic exercise studies.