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## Implementation of Tai Chi Among Individuals with Dementia in Long-Term Memory Care

Patricia I. Cordova

*University of St. Augustine for Health Sciences, p.cordova@usa.edu*

Lisa Griggs-Stapleton

*University of St. Augustine for Health Sciences, lstapleton@usa.edu*

Kim Broussard

*University of St. Augustine for Health Sciences, kbroussard@usa.edu*

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# Implementation of Tai Chi Among Individuals with Dementia in Long-Term Memory Care

Patricia I. Cordova; Lisa Griggs-Stapleton, PhD, OTR; Kim Broussard, PhD, OTD, OTR, MOT, MSW

## BACKGROUND

Dementia is one of the leading causes of disability in the world (Dafsari & Jessen, 2020). It can impact physical skills, leading to postural and dynamic sitting imbalances (Arvanitakis & Bennett, 2019). Tai Chi has shown to decrease the progression of motor symptoms in adults living at home (Abou et al., 2020).

## PROBLEM

There is a current gap in the literature about the benefits of implementing Tai Chi into the daily routines of individuals with dementia residing within a long-term care facility to increase dynamic sitting balance and improve the performance of activities of daily living.

## PURPOSE

To develop and implement a Tai Chi program into the daily routine of individuals with dementia residing within long-term care to improve dynamic sitting balance.

### Outcome objectives:

- 1.) A Needs Assessment
- 2.) Program Implementation
- 3.) Program Manual
- 4.) Collection of data

## METHODS

- 30 residents invited
- 10 residents interested

### Measures/Instrumentation:

- Pre/Post Surveys
- Function in Sitting Test (FIST)
- Section GG Self-Care Scores
- Interviews with Caregivers (CNAs)
- Daily Attendance

**Surveys:** Contained open-ended questions pertaining to the knowledge of Tai Chi and perceptions of functional balance.

**Function in Sitting Test (FIST):** Instrument used to gather information on the ability to perform tasks in sitting.

**Section GG Self-Care:** Collected from caregivers; Instrument used to gain better understanding of independence with daily self-care tasks.

**Interviews with Caregivers:** Questions addressing individual perceptions of the program and its benefits for the residents.

### Program Summary:

- 14 weeks long, 5 days a week for 30 minutes
- 8 Modules, 16 total movements
- Tai Chi performed with music
- Seated aerobic exercise included
- ADLs tied into Tai Chi movements

## PROGRAM

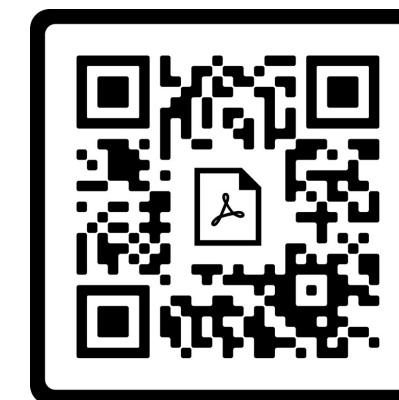
### General Program Goals:

1. Increase dynamic sitting balance in participants
2. Increase performance of occupations
3. Increase independence with the performance of occupations

### Theoretical Framework:

1. The Rehabilitation Frame of Reference

### Program Manual:



### Modules:

1. Commencing Form + Broadening One's Chest
  - Extending laundry, doffing a jacket
2. Painting a Rainbow + Full Circles
  - Reaching/donning a hat, rinsing in shower
3. Swimming Arms with Twist + Row The Boat with Both Arms
  - Reaching behind for donning jacket, reaching high places
4. Hold the Ball + Carry the Moon
  - Putting on seatbelt, wiping table

## Conclusions / Future Directions

**Conclusion:** Tai Chi did not prove to be beneficial in improving dynamic sitting balance in the older adults with dementia living in long-term memory care.

**Implication:** Occupational therapists can advocate and educate for the adoption of this program in other facilities within the community to promote physical activity and social participation.

**Strengths:** Consistency of the program, in-person instruction, and performed in sitting position

**Limitations:** Short duration of program

**Recommendations:** Future studies are recommended to last longer than 6 months and to keep track of performance levels of each participant.

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Abou, L., Rice, L., Frechette, M., Sosnoff, J. (2020). Feasibility and preliminary reliability and validity of remote sitting balance assessments among wheelchair users. *International Journal of Rehabilitation Research*, 44(2), 177-180. <https://doi.org/10.1097/MRR.0000000000000458>

Arvanitakis, Z., & Bennett, D. A. (2019). What is dementia? *JAMA*, 322(17), 1728. <https://doi.org/10.1001/jama.2019.11653>

Dafsari, F.S., Jessen, F. (2020). Depression—an underrecognized target for prevention of dementia in Alzheimer's disease. *Translational Psychiatry* 10, 160. <https://doi.org/10.1038/s41398-020-0839-1>.