

BACKGROUND

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- Alexander technique (AT) is a cognitive embodiment approach using inhibition, body schema, and goal awareness to enhance performance of daily activities.
- Previous studies with people living with Parkinson's (PWP) showed that even brief exposure to AT principles have beneficial effects on head carriage, sway amplitude, step initiation, and axial tone¹, one-to-one sessions led to reduced motor symptoms at 6 months², and in-person AT-based group courses led to improvement in motor symptoms, balance, and overall confidence.³



Purpose

- To assess feasibility of an online AT group course for PWP and their care partners (CP).

RESULTS – EVALUATION FORMS

Rating on Scale (0-10)	PWP	CP
Encountered new ideas	9.3	9.2
Learned practical tools to manage self physically	9.0	9.1
Enjoyed group interaction	8.9	8.0
Instructor was good at delivering info	8.7	9.3
Found review handouts helpful	8.4	9.8
Feel better prepared for daily demands	8.4	8.7
Material presented clearly	8.1	9.7

Quotes from participants:

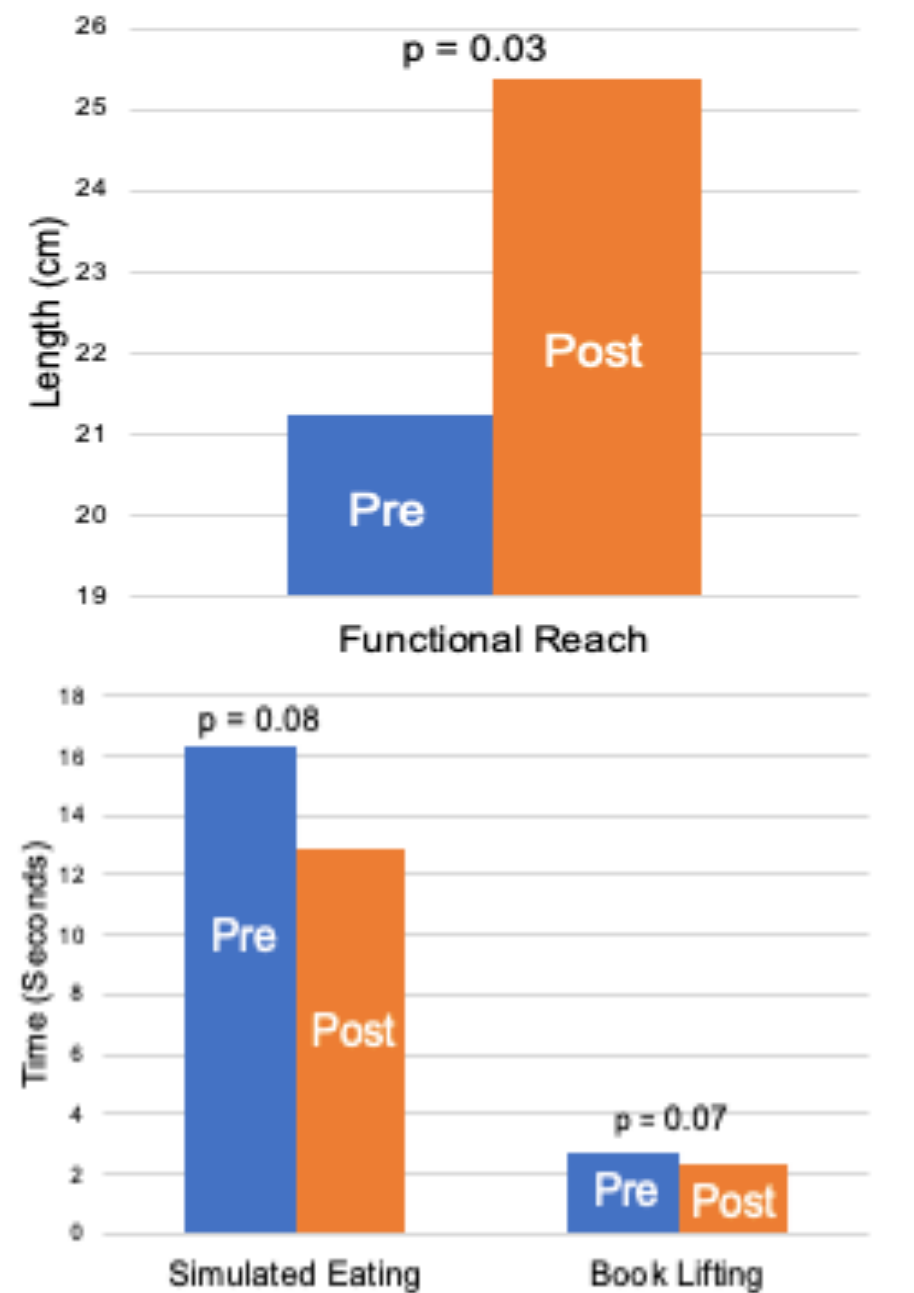
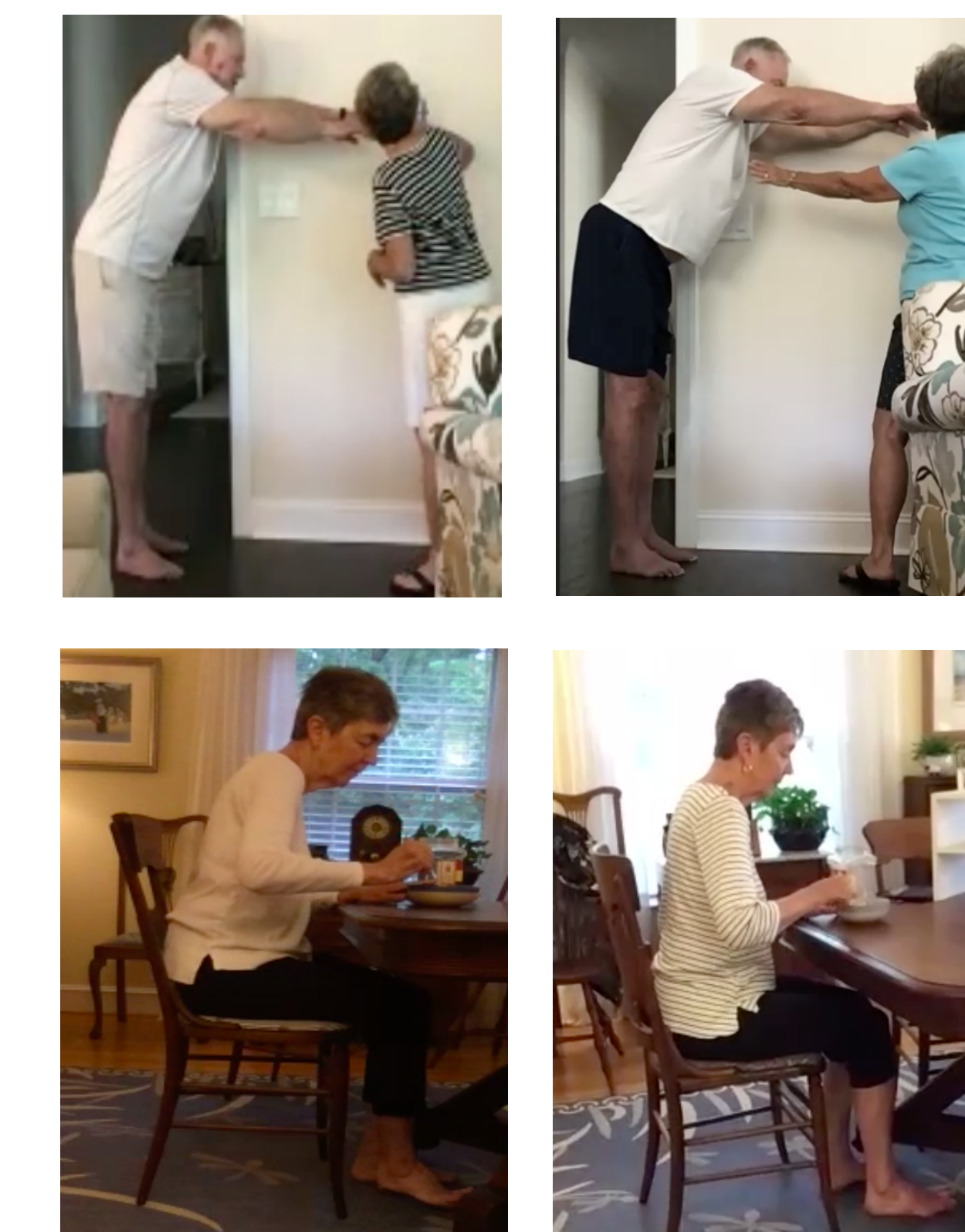
"I learned that I have more power than I think I thought I did. That I have more control over my life and my movement."

"My cousin said I looked more like myself. He asked what I was doing."

"It's a way to combine your mental attitude with your physical being. It's a very calming experience. It's pretty cerebral compared to the LSVT BIG or the Rock Steady Boxing classes where there's a lot of yelling."

"When you have Parkinson's, you can feel that you're not a person anymore and you are at the mercy of this disease. It's nice to know you have some choices."

RESULTS – PHYSICAL PERFORMANCE



9/14 PWP showed improvement in functional reach, simulated eating, lifting a book, and putting on a jacket.

DESIGN AND INTERVENTION

Design

- Feasibility study. 3 courses met twice weekly over 8-9 weeks with 105-minute sessions.
- Classes and data collection via Zoom.

Intervention

- AT-based coursework included functional anatomy and self-management strategies taught via verbal instruction, anatomical models and images, demonstrations, and activities. AT principles were embedded in everyday movement including gait, sit-to-stand, and functional IADLs. CP were included to enhance dyadic relationships and retention of benefits.



PARTICIPANTS

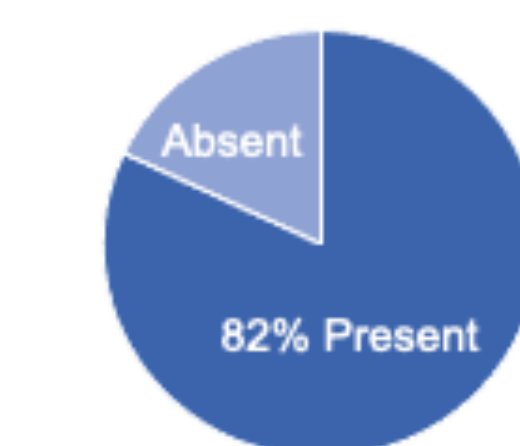
6 married couples and 2 PWP without CP.

PWP participants

Completed Course: Men/Women	8/6
Age: Mean (SD)	69 (9.1)
Race	12 White 1 African American 1 Asian American
Household Income	3 ~ \$15,000-65,000 4 ~ \$75,000-100,000 3 ~ \$125,000-150,000 4 ~ \$150,000 and up
Employment	10 retired 3 disabled 1 unemployed
Years Diagnosed: Mean (SD)	4.9 (4.2)
Hoehn & Yahr: Mean (SD)	2.2 (0.8)

RESULTS – ATTENDANCE AND RETENTION

Online Attendance

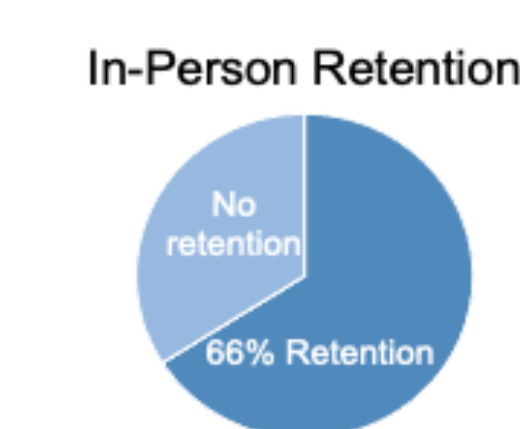
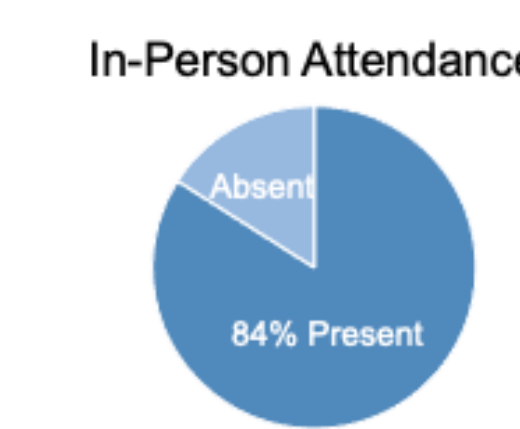


Online Retention



Online course retention exceeded in-person course retention

Online classes are notorious for low attendance and high dropout rates. This course kept participants engaged through full duration with 82% attendance and 93% retention, compared with 66% retention for our in person courses.



RESULTS – DYADIC RELATIONSHIP BENEFITS

Quotes from participant couples

"It really has been a life changing experience for both of us. We have a bunch of tools in our toolkit that we can draw on moving forward."



"I think that it is sort of like a football team. The fact that you do something together – like pre-season summer workouts – it strengthens your relationship."

"It gives us a common language to use for the future. What would Alexander say? 'Pause. Poise.'"

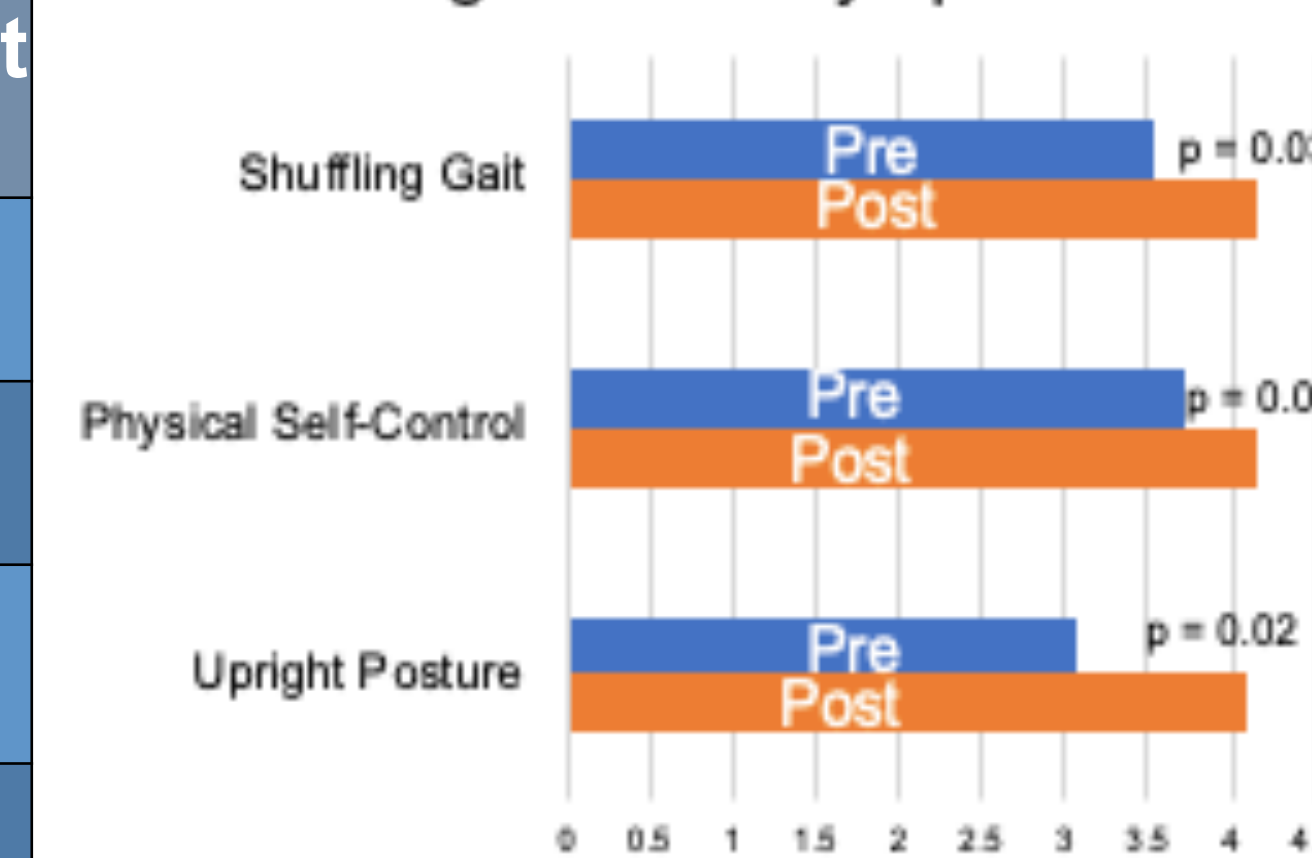
"Our first year, my husband and I didn't communicate. Sometimes Parkinson's symptoms are so hidden. It helped him understand things that I wasn't able to communicate to him. Oh, most definitely, it helps with the relationship. 100%."

RESULTS – SELF AND PARTNER REPORTS

Course improved symptom management *

Symptom	# Reported symptom PWP/CP	% Reported improvement PWP/CP
Shuffling Gait	11/8	91/88%
Balance	12/9	83/67%
Upright Posture	10/8	70/100%
Anxiety	11/5	64/80%

PWP Reported Better Management of Symptoms

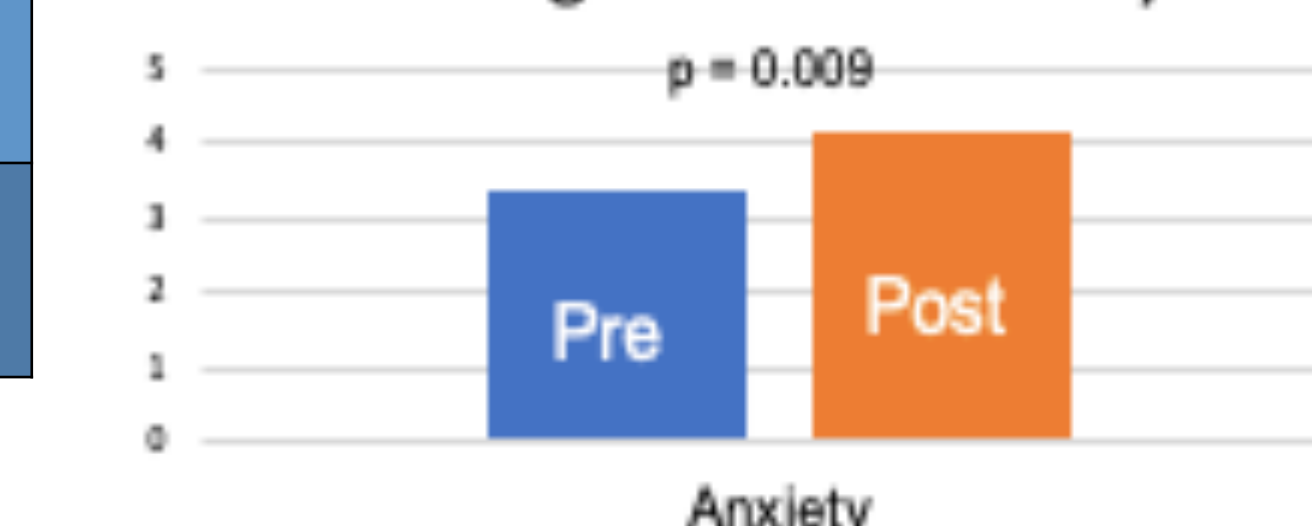


Course improved personal agency

Attribute	% Reported improvement PWP/CP
Independence	93/83%
Physical Self-Control	79/92%
Confidence	71/92%

PWP reported better management of shuffling gait, physical control, upright posture, and anxiety.

PWP Reported Improved Management of Anxiety



*Only analyzed symptoms reported by at least 60% of participants

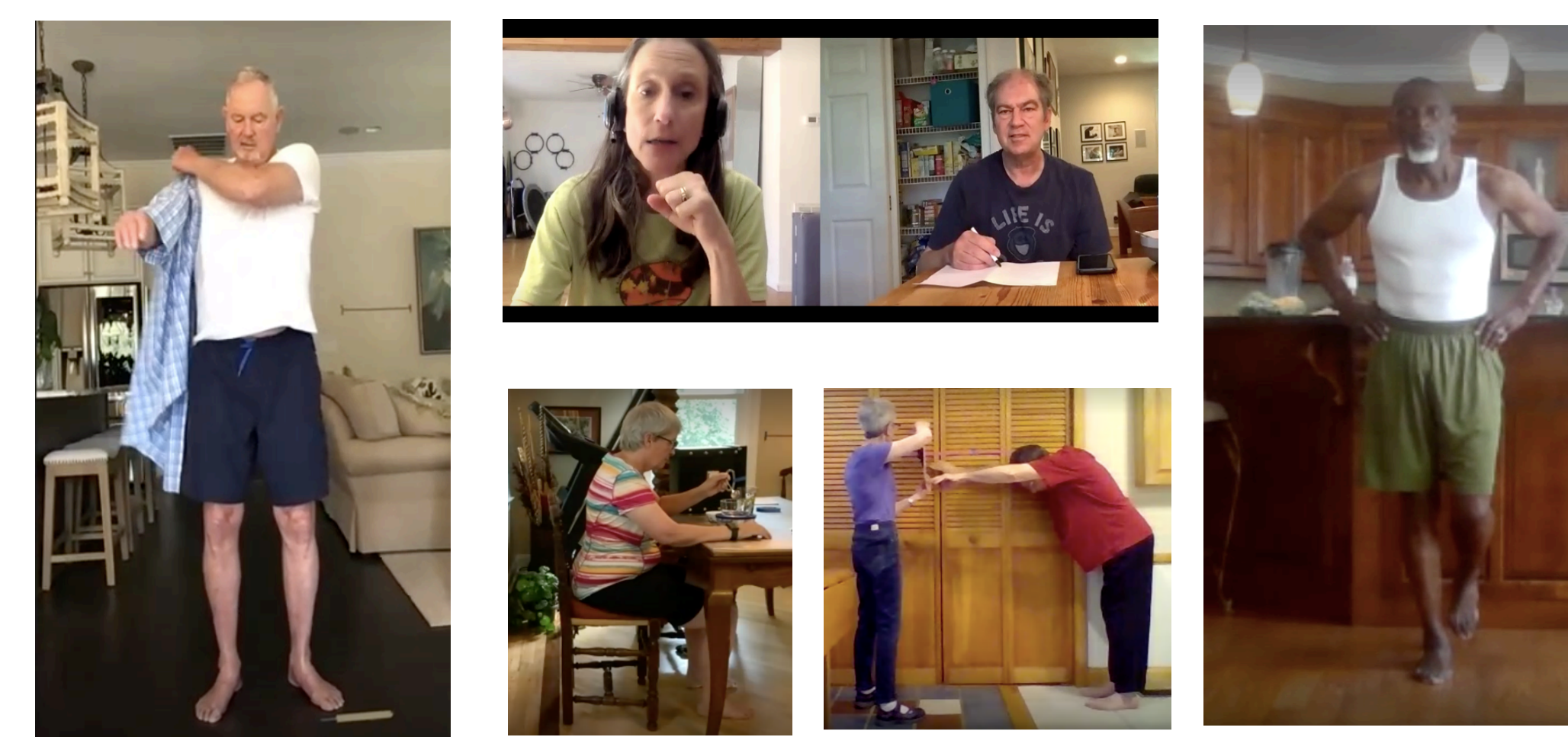
MEASURES

❖ PWP and CP:

- Surveys about symptom management
- Anonymous course evaluations
- Audio interviews

❖ PWP only:

- Physical Performance Test (PPT): Tests 7 domains of physical function
- Activities Balance Confidence (ABC) Scale
- Functional reach, one leg stands, and TUG
- Posture angles from photos (tragus-C7-sternal notch)



CONCLUSIONS

- Alexander technique training shows promise to improve self-management of Parkinson's motor and non-motor symptoms and enhance dyadic relationships. Online classes increase potential accessibility and retention of PWP and CP at risk for social isolation.
- Larger RCTs are needed to statistically verify improvement, optimize delivery, compare to other approaches, and investigate AT combined with exercise. Six-month follow-up data are being collected for presentation.

REFERENCES

- Cohen, R.G., Gurfinkel, V.S., Kwak, E., Warden, A. C., & Horak, F.B.,(2015). Lighten up: Specific postural instructions affect axial rigidity and step initiation in patients with Parkinson's disease. *Neurorehabilitation and Neural Repair*, 29(9), 878-888.
- Stallibrass, C., Frank, C., & Wentworth, K. (2005). Retention of skills learnt in Alexander technique lessons: 28 people with idiopathic Parkinson's disease. *Journal of Bodywork and Movement Therapies*, 9(2), 150-157.
- Gross, M., Cohen, R., Ravichandra, R., Basye, M., & Norcia, M. (2019). Poised for Parkinson's: Alexander Technique Course improves Balance, Mobility and Posture for People With PD. *Archives of Physical Medicine and Rehabilitation*, 100(12), 193.

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