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BACKGROUND & PURPOSE

Background

Alexander technique (AT) is a non-exercise approach that uses attention and inhibition to change functional patterns, reduce excessive muscular co-contraction, and improve coordination in everyday life.



Purpose

To develop and test a group course using Alexander technique (AT) to improve functional mobility and quality of life for people living with Parkinson's disease (PlwPD).

DESIGN

Non-randomized three-group pretest-posttest design:

- Experimental group
- Wait-list control group
- Control group

90-minute AT group classes two times/week over 8 weeks. Care partners participated where possible.

Self-reports and assessments were done pre and post course and 3 and 6 months after AT class.



PARTICIPANTS

	Experimental Group	Waitlist Control Group	Control Group
N (Men/Women)	6/4	3/2	5/0
Age	65.9 ± 5.4	70.6 ± 9.3	73.5 ± 3.7
Race	White	White	White
Income	\$50,000-\$75,000	\$50,000-\$75,000	\$50,000-\$75,000
Employment	Retired (6) Disabled (4)	Retired (4) Working (1)	Retired (5) Working (1)
Years diagnosis	5.7 ± 3	7.6 ± 4.5	3.7 ± 3.8
Hoehn & Yahr	2.5 ± 0.8	2 ± 0.9	2 ± 0.6



MEASURES

- ❖ Survey about symptom management: PlwPD and care partners surveyed separately
- ❖ Anonymous course evaluations
- ❖ Physical Performance Test (PPT): Assesses 7 domains of physical function
- ❖ BriefBEST: A short, validated version of the Balance Evaluation Systems Test
- ❖ Posture angles from photos (tragus-C7-sternal notch)
- ❖ Activities Balance Confidence (ABC) Scale

RESULTS – PlwPD SUBJECTIVE REPORTS

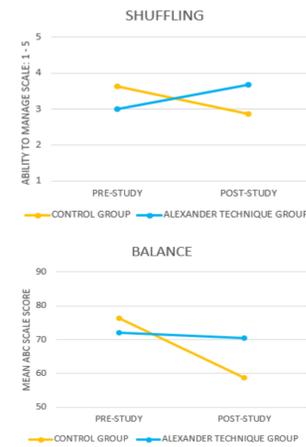
Anonymous Course Evaluations

On a scale of 0-10, agreement surpassed 8 for:

- ❖ I encountered new ideas.
- ❖ I learned practical tools to manage myself physically.
- ❖ I am likely to use this in my daily life.
- ❖ I enjoyed the interaction with others in the group.
- ❖ the material was presented clearly.
- ❖ I would recommend this class to a friend.

Symptom Management

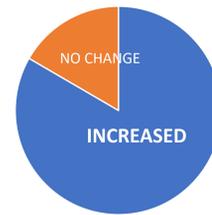
Compared to the control group, participants in the Alexander group reported reduced shuffling, freezing, and anxiety, increased upright posture, and improved ability to roll over, while control participants reported decreased balance confidence.



DESCRIPTIVE RESULTS – CARE-PARTNER SUBJECTIVE REPORTS

Percent of care partners reporting symptom improvement in PlwPD*

Overall confidence in PlwPD ability to manage living with Parkinson's after Alexander Technique course increased in 10/12 care partners.



Fatigue	100%
Anxiety	100%
Posture	91%
Rigidity	86%
Rolling over	86%
Bradykinesia	82%
Vocal volume	75%
Self-awareness	75%
Balance	75%
Tremor	71%
Dyskinesia	67%
Insomnia	63%
Independence	58%
Pain	50%
Emotional control	42%
Fine motor skills	40%
Handwriting	40%

Quotes from care partners after class

"More of a general sense of emotional ease"

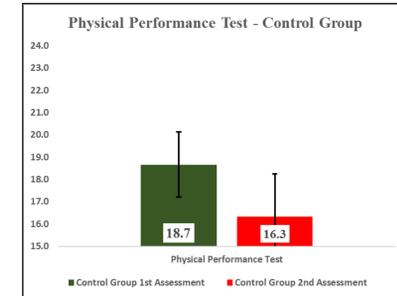
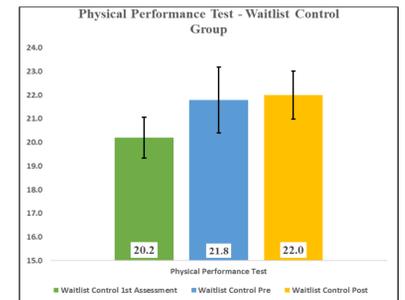
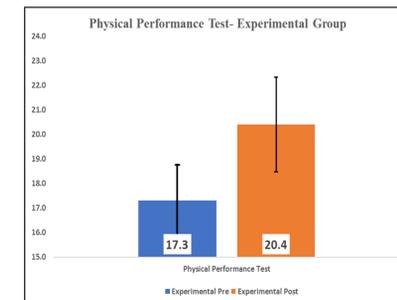
"More aware of posture, more aware of voice"

"Walks on her whole foot rather than tip-toe a lot more now"

"Overall he feels better so is more active"

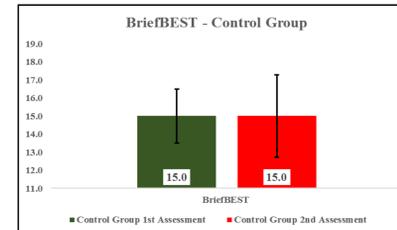
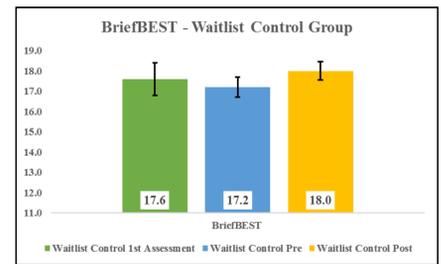
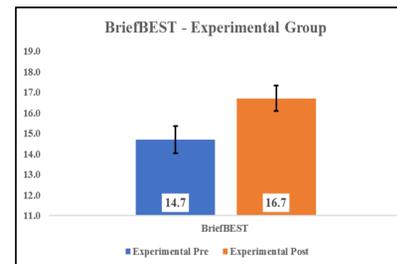
*Only analyzed symptoms/issues experienced by at least half of PlwPD, according to care partners.

RESULTS – PHYSICAL PERFORMANCE TEST



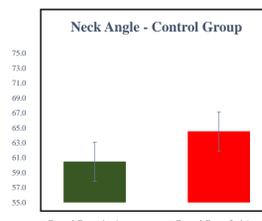
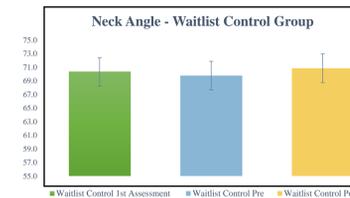
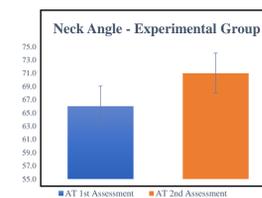
Physical performance in the experimental group significantly improved after the course. Physical performance in the waitlist control group did not show significant improvement. Control group participants significantly worsened between assessments.

RESULTS – BRIEF BEST



Balance in the experimental condition showed significant improvement after the course. Balance in the waitlist and control groups did not show significant improvement.

RESULTS – POSTURAL ALIGNMENT



Postural alignment, as assessed by neck angle, became significantly more upright after the Alexander classes but not after the control period.

CONCLUSIONS

Eight weeks of Alexander technique training led to significant improvement in physical performance and balance, compared to a control group. Care partners reported symptom management improvement not observed by PlwPD. Including care partners in the intervention and assessment is a major contribution of the study.

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