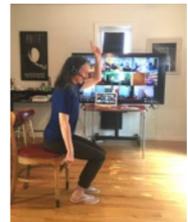


Poised for Parkinson's: Retention of benefits 6-7 months after Alexander technique synchronous online group course

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BACKGROUND AND RESEARCH OBJECTIVES



- **Background:** Alexander technique (AT) is a cognitive embodiment approach that combines training in inhibition, body schema, and goal awareness to enhance the performance of daily activity. In-person one-to-one and group training have shown benefits that were retained at 1-12 months [1-5].
- **Purpose:** To test retention of symptom-management skills for people living with Parkinson's disease (PWP) after participation in an online AT group course that showed benefits post-course [6].

DESIGN & PARTICIPANTS

Pre-course, post-course, and 6-month follow-up data collected.

- 14 PWP (H&Y1-3) & 12 care partners (CP) from North and South Carolina completed course. CP were included to increase retention of learning over time.

"I know a lot better how to manage the freezing. I've got something that I know to do. It's that pay attention to the leg you are on, not the leg you are about to stand on. That's the biggest thing."

- 6 PWP completed 6-month functional assessments.
- 8 PWP & 6 CP completed 6-month surveys & interviews. (See interview quotes throughout poster.)

"The sitting down lessons, I think, had a big impact on him because he literally would just fall in the chair, and now he has much more control, and that he has maintained."

INTERVENTION AND MEASURES

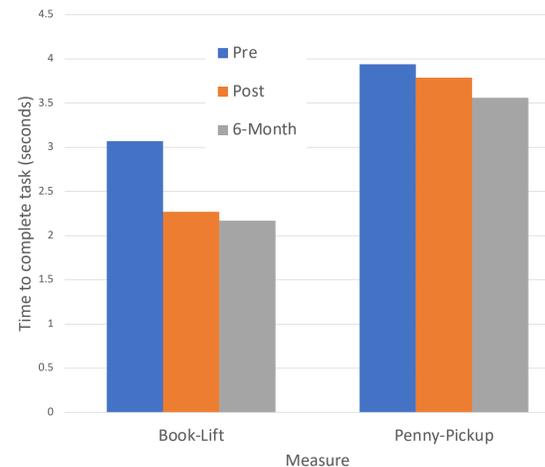
- 105 minutes Zoom classes 2x/week x 8-9 weeks
- Coursework: Functional anatomy & self-management strategies through verbal instruction, physical demonstration, visual aids, & activities
- PWP and CP completed surveys about symptom management, anonymous course evaluations, and interviews.
- PWP also completed the Physical Performance Test (PPT), Activities Balance Confidence (ABC) Scale, Functional Reach, One Leg Stands, and TUG.

"I think she is more forgiving of me now and she gets what I am going through a little bit better. And she gives me a break."



RESULTS – PHYSICAL PERFORMANCE

- At 6-months, book-lift & penny-pickup showed continued improvement in time to complete.
- Handwriting, simulated eating, transitions & gait stability were better than pre-course.
- Donning a jacket, 50-foot walk, and functional reach measures declined from pre- and post-course.



RESULTS – SELF-REPORT OF AGENCY

PWP and CP reported improved physical control. CP noted overall agency and continued improvement in emotional control.

Measure	PWP Pre	PWP Post	PWP 6 Mo.	CP Pre	CP Post	CP 6 Mo.
Confidence	4.00	4.13	3.38	3.50	4.16	4.16
Independence	3.88	4.50	4.00	4.16	4.00	4.00
Physical Awareness	4.38	4.50	3.75	3.83	4.33	4.00
Physical Control	3.88	4.38	4.25	3.66	4.16	4.00
Emotional Awareness	4.00	4.13	4.00	4.00	4.16	4.16
Emotional Control	3.63	4.38	3.63	3.66	3.66	3.83

KEY: Participant reported that symptom management... Improved vs Pre and Post Improved vs Pre Declined vs Pre

"Things happen and you decline, but it expands the time that you can control stuff. You can be independent for longer."

"I think he has more confidence. I think he's been more positive."

"I think I'm probably better able to manage multiple tasks and this kind of thing because I'm not focused on the fear."

RESULTS - INTERVIEWS

"I think the main advantage of the Alexander technique would be to help you with awareness. You become aware of your physical condition. You become aware of your surroundings. You become aware of your partner more."

"It was something we both learned together, and we remind each other sometimes of things that we went over in the class. Practical things in our daily life."

"I spiral down to play with the grandkids, but I don't think that I'm doing Alexander technique. I'm just spiraling down. You interact with the world differently. With purpose."

"It's amazing to have been able to do that online. It sort of doesn't seem that would be possible, but it actually worked! I know it worked because of the differences I found in my movement and that kind of thing."

RESULTS - SYMPTOM MANAGEMENT

Symptoms are included if 6 out of 8 PWP and 4 out of 6 CP agreed that the PWP experienced the symptom at pretest.

PWP and CP often reported different management observations.

- PWP and CP agreed that pain management was even better at follow-up than post-course.
- PWP reported continued improvement in upright posture, task focus, fine motor, and depression.
- CP reported continued improvement in off-periods, bradykinesia, shuffling gait, balance, handwriting, vocal volume, swallowing, and fatigue.
- Both PWP and CP saw a decline in tremor, dystonia, and memory.

Symptom Management	PWP Pre	PWP Post	PWP 6 Mo.	CP Pre	CP Post	CP 6 Mo.
Off Periods	3.9	4.3	3.3	3.6	3.6	4.0
Bradykinesia	3.7	4.1	3.6	4.0	4.3	4.5
Shuffling Gait	4.0	4.7	4.4	3.3	4.0	4.3
Balance	3.7	4.2	4.2	3.8	4.0	5.0
Upright Posture	2.9	4.1	4.7	3.6	4.0	3.2
Tremor	3.9	3.5	3.3	4.0	4.4	3.6
Dyskinesia	4.3	4.5	3.0	3.8	5.3	4.0
Dystonia	3.9	5.0	3.1	4.8	4.5	3.5
Fine Motor	3.1	4.3	4.3	3.2	4.0	3.5
Handwriting	3.1	3.7	3.6	2.3	3.3	4.3
Rolling Over	3.2	4.3	3.2	2.5	3.8	3.2
Vocal Volume	3.7	3.8	3.3	3.5	3.2	4.0
Swallowing	4.2	4.8	4.2	3.3	3.3	4.3
Pain	2.8	3.5	3.6	4.0	3.5	4.2
Insomnia	3.2	3.5	2.8	2.7	2.8	2.7
Fatigue	3.4	3.6	3.1	3.5	3.2	4.3
Task Focus	4.0	3.7	4.2	3.8	5.0	3.8
Memory	3.5	3.4	3.0	4.2	4.2	3.6
Anxiety	3.1	4.1	4.0	4.2	4.5	3.8
Apathy	3.1	4.3	3.3	3.8	4.7	4.3
Depression	4.2	4.8	5.2	3.8	4.8	4.6

KEY: ability to manage symptom on 1-5 scale. Participants reported that symptom management... Improved vs Pre and Post Improved vs Pre Declined vs Pre

"Alexander technique doesn't take time. It makes time."

CONCLUSIONS

- Alexander technique shows strong potential for long-term retention of symptom-management skills for PWP with increased benefits after 6 months in some areas, especially in pain management.
- At 6 months, most symptoms were still better than pre scores but somewhat worse than post. This could be due to a loss of benefit or to the progression of PD. Practice effects may be present due to the same measures being used and the absence of a control group. Ultimately, participants maintained more than they lost. Occasional drop-in classes to reinforce learning could be beneficial. Larger RCTs are needed to verify.

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