

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 and presence in everyday life.



Purpose

To determine whether AT group classes will provide physical and psychological benefits for care partners of people with Parkinson's disease.

INTERVENTION

Classes were designed to

- ❖ Counter care partner isolation
- ❖ Allow peer-to-peer learning to a group setting
- ❖ Encourage independent peer interactions post-course
- ❖ Remove economic barriers through cost effective delivery



Classes were held in non-clinical settings in Ashville and Concord, NC.

DESIGN

90-minute AT group classes were held weekly over 10 weeks. Participants were tested immediately before and after the class series, and 3 months and 6 months after completion. Surveys and evaluation forms were completed by participants at home. Other data were collected on site.



MEASURES

- ❖ NIH Toolbox: Self-Efficacy
- ❖ NIH Perceived Stress
- ❖ Stress and Burnout Questionnaire
- ❖ The Zarit Burden Interview
- ❖ Mindfulness and Awareness Scale
- ❖ PROMIS: Self-Efficacy for Managing Emotions
- ❖ NIH Toolbox: Positive Affect
- ❖ PROMIS: Emotional Distress & Depression
- ❖ NIH Toolbox: Fear
- ❖ PROMIS: Fatigue
- ❖ PROMIS: Mobility
- ❖ PROMIS: Pain Interference
- ❖ Digit Span (forward and backward)
- ❖ Stroop Test (color word naming)
- ❖ Mini-BEST – Balance Evaluation Systems Test



PARTICIPANTS



- ❖ All participants were women
- ❖ Most care for a spouse/partner with Parkinson's disease (mean HY stage 2.4)
- ❖ Mean age = 68.7 (+/- 6.4) years
- ❖ Mostly
 - white Non-Hispanic
 - college graduates
 - \$50,000 - \$74,000 annual income
- ❖ 15 completed pre and post study measures
- ❖ 9-10 completed 3 and 6-month follow-up

RESULTS

Measure	Pre	Post	3 Months	6 Months	n	p-value (t-test)	n	p-value (ANOVA)	Partial Eta-Squared
NIH Self Efficacy	30.5	32.4	31.4	32.3	15	0.19	10	0.79	0.038
NIH Perceived Stress	26.3	24.3	23.8	26.6	15	0.18	10	0.97	0.057
Stress and Burnout Scale	9.8	6.9	6.7	8.6	15	0.43	10	0.75	0.043
Zarit Questionnaire	31.8	22.3	26.6	32.3	15	0.06	10	0.24	0.157
Mindfulness	65.3	68.4	60.7	69.9	15	0.46	9	0.40	0.114
Self-Efficacy - Emotions	66.2	75.4	73.1	63.1	15	*0.04	9	0.14	0.202
Positive Affect	58.1	61.9	57.8	57.9	15	0.10	9	0.79	0.042
Emotional Distress	46.2	39.2	41.3	42.6	15	*0.04	9	0.51	0.06
Fear	48.0	39.2	46.0	45.6	15	*0.004	9	0.47	0.098
Fatigue	115.4	117.3	117.3	112.8	15	0.39	10	0.98	0.006
Mobility	71.3	70.8	71.3	71.7	15	0.34	9	0.98	0.008
Pain Interference	46.4	52.2	51.3	57.1	15	0.32	9	0.49	0.095
Digit Span - Forward	6.8	7.0	7.0	7.6	15	0.29	8	0.19	0.2
Digit Span - Backward	5.3	5.5	5.8	5.0	15	0.41	8	0.12	0.238
Stroop Colour	34.9	35.9	31.2	30.9	15	0.31	8	*0.004	0.597
Stroop Word	25.2	25.2	22.7	24.0	15	*0.01	8	0.06	0.295
Stroop Conflict	83.7	74.3	68.5	68.5	15	*0.03	8	*0.04	0.325
MiniBEST	23.4	25.5	21.9	22.9	15	*0.001	8	0.07	0.277

* p < 0.05 medium effect size large effect size

The first 4 columns indicate mean scores at the 4 time points. The next 2 columns show sample size and p-values from t-tests comparing pre- and post-course. The last 3 columns show sample sizes, p-values from 1 x 4 ANOVAs, and effect sizes.

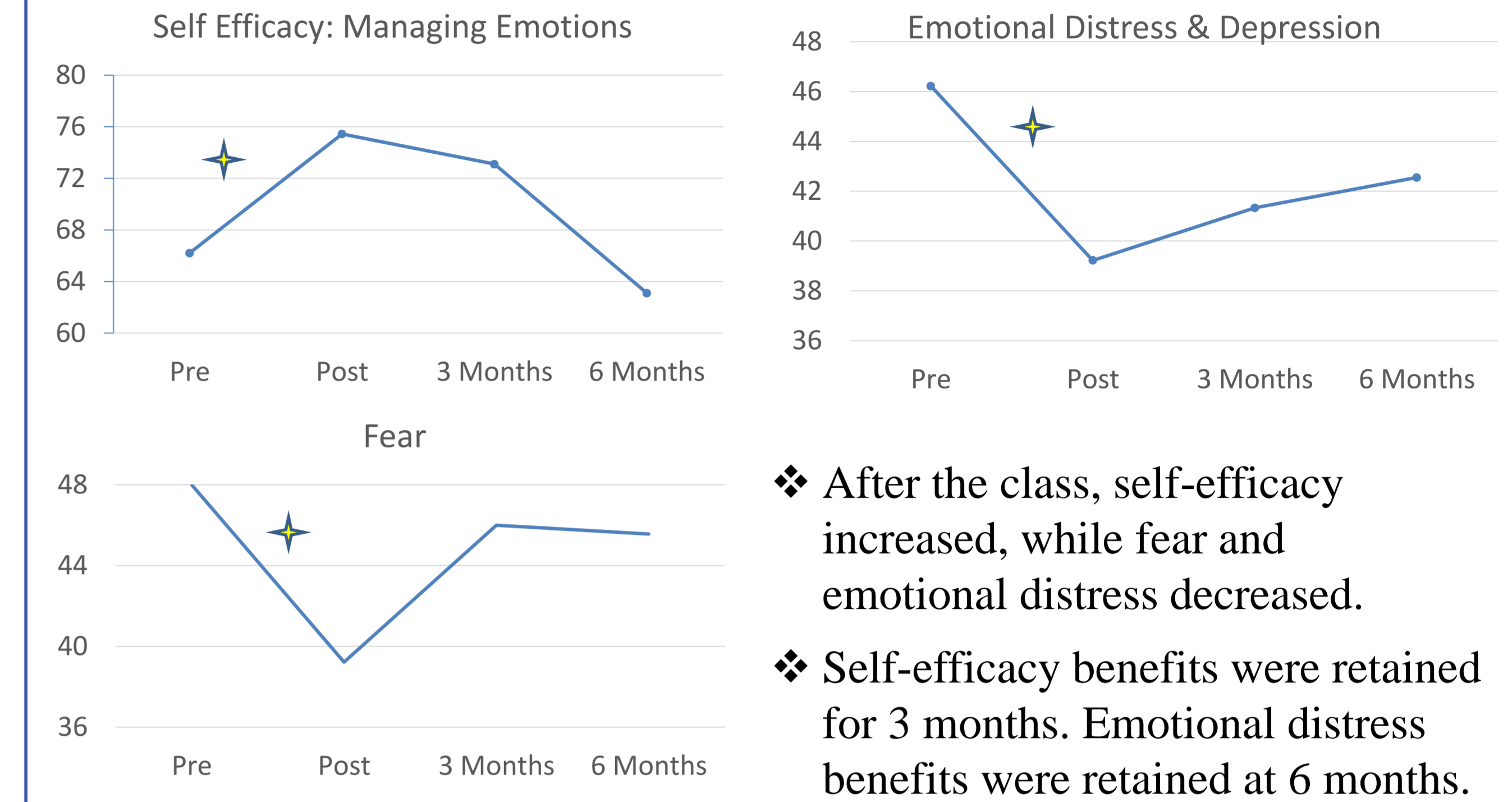
ACKNOWLEDGEMENTS

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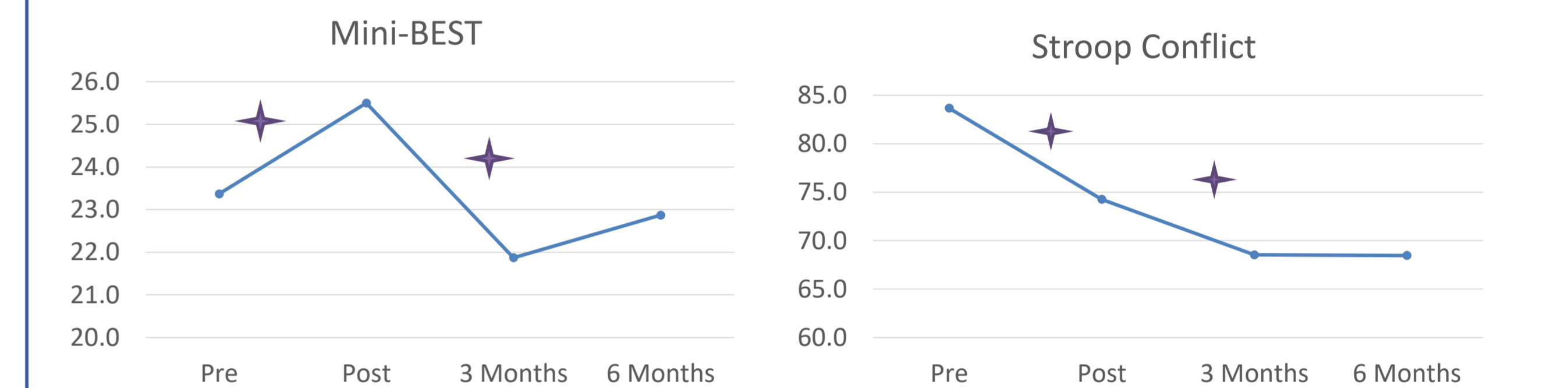
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RESULTS



- ❖ After the class, self-efficacy increased, while fear and emotional distress decreased.
- ❖ Self-efficacy benefits were retained for 3 months. Emotional distress benefits were retained at 6 months.



- ❖ Balance and inhibitory control improved after the course.
- ❖ Inhibitory control benefits were retained at 6 months.

On an anonymous post-course evaluation (1-10 scale), mean agreement was >8 for "enjoyed interaction with classmates," "learned practical tools to take care of myself physically," and "encountered new ideas." Agreement was >7 for "class was enjoyable," "learned tools to take care of myself emotionally," "learned how my habits contribute to my stress level," and "likely to use what I learned in my everyday life." Agreement was only 1.4 for "would have preferred a private session format."

LIMITATIONS

- ❖ There was no control group for this pilot study.
- ❖ This sample size is small. We are currently analyzing data collected from 6 additional sites where classes were held.
- ❖ We did not correct for multiple comparisons. With this many statistical tests, the likelihood of some false positives is high.

CONCLUSIONS

This is the first study of Alexander technique for care partners of people with Parkinson's disease. The high retention rate and participant enjoyment suggest good feasibility. Participants appreciated the group aspect of the instruction; group classes may offer a path to make Alexander work more widely available. Benefits from some of the most promising measures (Fear, Zarit Burden, Self-Efficacy for Emotion Management) were not retained at 6 months, suggesting that a longer class series (possibly with occasional refresher sessions) would be beneficial.