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An Adapted Yoga Program for Adults with Neuromuscular Impairments Designed to Improve Balance, Mood, Quality of Life, and Engagement in Daily Occupations

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An Adapted Yoga Program for Adults with Neuromuscular Impairments Designed to Improve Balance, Mood, Quality of Life, and Engagement in Daily Occupations

Hayes Miller, OTS; Mary Smith, PhD, OTR/L; Christienne Parten, OTD, MEd, OTR

Background

Neuromuscular impairments such as Parkinson's disease (PD) and multiple sclerosis (MS) can lead to fatigue, decreased body awareness, social deprivation, depression, & anxiety, leading to difficulties with balance, fear of falling, and social deprivation (Arsovski, 2023; Broch, 2020; Puymbroeck, 2018).

Yoga is holistic & adaptable, creating unity between mind and body (Callahan, 2023; Cox, 2020; Crowley, 2022).

Occupational therapists (OTs) can use their skills of adaptation and grading to develop a client-centered yoga program while addressing environmental barriers (Love, 2019).

Problem

There is a lack of accessible adapted community yoga programs to improve occupational engagement for individuals with neuromuscular conditions.

Purpose

Provide an accessible & adaptable community program addressing balance, mood, quality of life (QoL), & activity participation through the incorporation of mindfulness, meditation, breathing, and physical movement techniques included in yoga.

Research Question

Does a 6-week program using yoga improve balance, balance confidence, fatigue, ability to participate in daily occupations, mood, and QoL. What perceived benefits did the participants receive?

Methods & Design

After receiving USAHS IRB approval, we proceeded with a pre-experimental mixed methods design.

Recruitment

- Contacted support groups and local clinicians with flyers seeking referrals.
- Conducted telephone screening for eligibility.

Inclusion Criteria

- Individuals with neuromuscular conditions between the ages of 21-90.
- Ambulate independently with or without a device.
- Have internet access with a laptop or tablet.

Sample **** Refer to data

• 6 90-minute in person sessions

• Demographic questionnaire

• Fatigue Severity Scale (FSS)

POST-PERFORM

• Berg Balance Scale (BBS)

Measurements (pre & and post-test)

• Canadian Occupational Performance

• Activity-Specific Confidence Scale (ABS)

COPM MEAN SCORES

PRE-SATISFACTION POST-SATISFACTION

Implementation ****

• 7 telehealth sessions

Measure (COPM)

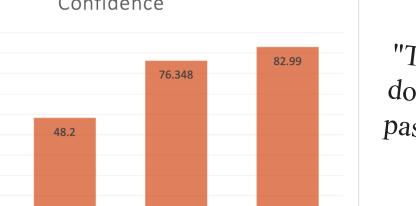
PRE PERFORM

• Focus group discussion

• 8 individuals were recruited, 5 participated.

Gender 1 = Female 1 = PD 2 = MS **1 2 1 2**

Participant (pt) Years with Dx



Pre-ABC

Post-ABC

Mean Scores Balance & Balance Confidence

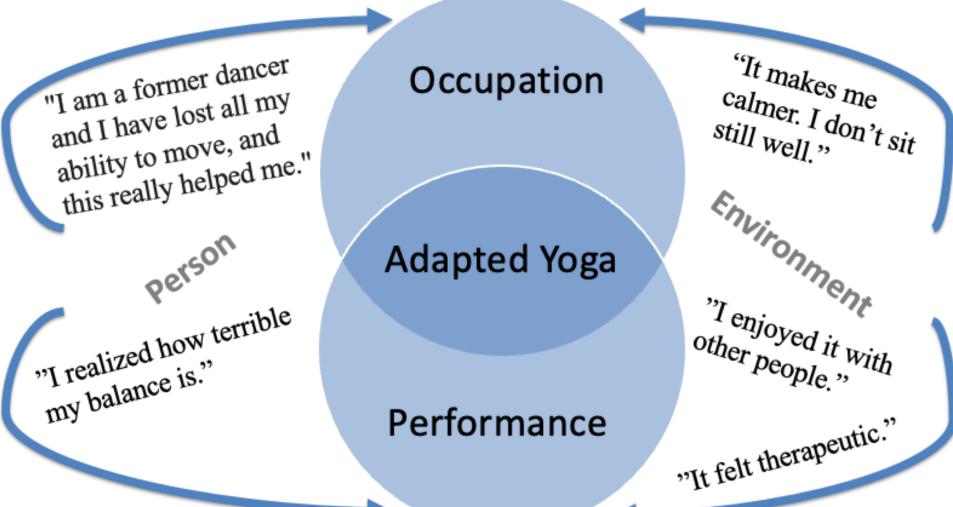
Pre-Berg



Results

"It surprised me how difficult it was. Because I went to 4 classes and didn't feel anything; this actually feels a lot." "Rolling over and getting out of bed."

"I can't hold a plate & serve my plate from a buffet very well without the food going flying off."



"The hands-on approach enabled me to do the poses better than I've done in the past and to really know how it feels."

Future Direction

Homogenous group

Centralized location

Longer than 6-weeks

Use multidimensional

awareness (MAIA)

assessment of interoceptive

"We're all energetic beings, and the arm motions that we use here, even without us being consciously focused on it, it helps our energy field to expand and center, just using that."

Strengths & Weaknesses

- + 3 OTs available
- + 1 certified yogi
- Not a homogenous group
- High-functioning group

Pre- to Post-test Gains

Minimal changes due to high-ceiling effect.

Interoceptive Awareness Challenging **Functional Limitations**

References

Focus Group Themes Hands-on Atmosphere Comradery Mental & Spiritual

This project involved human subjects; it has been reviewed and approved by the IRB.