

Supplemental Material S1. Description of the aphasia-friendly yoga program.

8-week, aphasia-friendly, virtual, chair yoga program description

Yoga Club for People with Aphasia (PWA) provided a virtual platform for quiet gentle chair yoga practice and social interaction for PWA under the guidance of the yoga teacher who gave verbal and visual instruction and demonstrated the poses.

Instructions and Equipment for the Participant’s Setup

- computer, tablet, or phone
- chair with no wheels
- set up near a sofa, recliner, or bed (for relaxation time)
- make sure floor is clear of clutter
- watch for pets
- optional: blanket or Eye Pillow

Session Schedule (Approximate)

- beginning social time: 5-10 min
- yoga practice – asanas, breathwork, meditation, mudras, affirmations: 30 minutes
- ending social time: 5-10 min

Positioning

All poses were modified to be seated. Participants were given the option to participate in final relaxation either in a bed, sofa, or recliner, yet most opted to stay in the chair. The only time the participants were on the ground (if capable) or resting on a bed/sofa, was during the guided meditation/final relaxation in which the individual closed their eyes.

Aphasia-Friendly Visual Supports

For the weekly sessions, PowerPoint was used before and after the yoga practice to support social prompts and discussions. PowerPoint was also used to prepare for practice: show the class agenda, share the theme, teach mudras (gestures), and support affirmations. More specifically, information was shared with a combination of pictures and short phrases or single words in addition to verbal instruction.

The “spotlight” feature on Zoom was used to highlight the yoga teacher during the session to maximize visibility.

During the session the target asanas and breathwork were demonstrated first by the yoga teacher and modeled by the research assistants.

Aphasia-Friendly Language

In addition to visual supports, the yoga instructor used simplified language when describing tasks, saying short phrases, emphasizing key words, offering consistent and repetitive use of target gestures, asanas, and breathwork (vs multiple names for the same target), and slowed speech rate. Additionally, the yoga teacher would confirm participants' understanding with “yes” and “no” questions.

Asanas and Breathwork Activities

The yoga teacher would demonstrate asanas (body postures) with both, then one arm, offering adaptations for hemiparesis. Visualization of movement (motor imagery) was encouraged to promote muscle engagement when mobility was restricted (e.g., hemiparesis).

The following asanas were practiced throughout the 8-week program:

- seated mountain
- seated torso circles
- seated twists
- seated one leg extension
- seated cat/cow
- seated chest opener
- seated lateral flexion of spine
- marching of feet
- bicycling one foot at a time
- proper postural alignment
- gentle shoulder rolls
- lateral cervical flexion and cervical rotation

The following pranayama/breathwork were practiced throughout the 8-week program:

- Equal Ratio Breath
- Bee's Breath
- Alternate Nostril Breath
- Wave Breath/Ujjayi

Meditation Activities:

All meditations were guided. They focused on body awareness, imagining an inner sanctuary, personal transformation, loving kindness, nature visualizations, envisioning color, pain management, Kirtan Kriya and energy balancing.

Social Interaction:

At the beginning of the sessions, the prompts were "icebreaker" questions, to get to know each other (i.e., family/pets, favorites: vacation, dessert, movie, holiday, music). At the end of the sessions, more contemplative questions were provided which were associated with the theme (i.e., where do you feel connected, safe and at ease, how do you express creativity, what is the most courageous thing you have done?). All attendees were called on to share and given ample time to speak.

Participants were also asked "How do you feel" before and after class. Each student willingly shared in all pre- and post- yoga interactions.

Yoga Teacher Setup:

Sessions occurred virtually and presented from the yoga teacher's home office or the UCF Aphasia House.

Equipment: chair, computer and PowerPoint, Zoom, notes for each session

Positioning: The yoga teacher was seated close to the computer/camera during social time and while teaching mudras (gestures), affirmation, and breathwork. During the asana practice, she was seated in a chair, demonstrating the yoga poses (her full body was on screen).

Monitoring participants and providing feedback during the session:

The yoga teacher was "spotlighted" on Zoom to maximize visual accessibility. The yoga teacher viewed all participants on her computer screen. When more detailed instruction was needed, the yoga teacher would come closer to the screen and break down the instruction (i.e., gestures, breathwork). Additionally, trained student assistants provided support to the yoga teacher, looking to see if any participants were struggling and/or needing additional clarification. They would flag the yoga teacher if someone was not participating or appeared to have difficulties.

Other: Safety Precautions were in place: Emergency contact information and addresses were on hand in the event of needing to call for emergency assistance. Also, the participants were encouraged to stop if they were experiencing pain, or if their medical provider or physical therapist had given them limitations. Education on the following was provided: How the nervous system works (for nervous system regulation), how the body processes sensory information (for pain management), and the role/benefit of nonverbal communication in communication.