

LoveYourBrain Yoga, Mindfulness, and Community Building for TBI

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Employed by LoveYourBrain Foundation

Disclosures

Learning Objectives

LEARN THE RESEARCH & THEORY
UNDERPINNING LOVEYOURBRAIN
YOGA

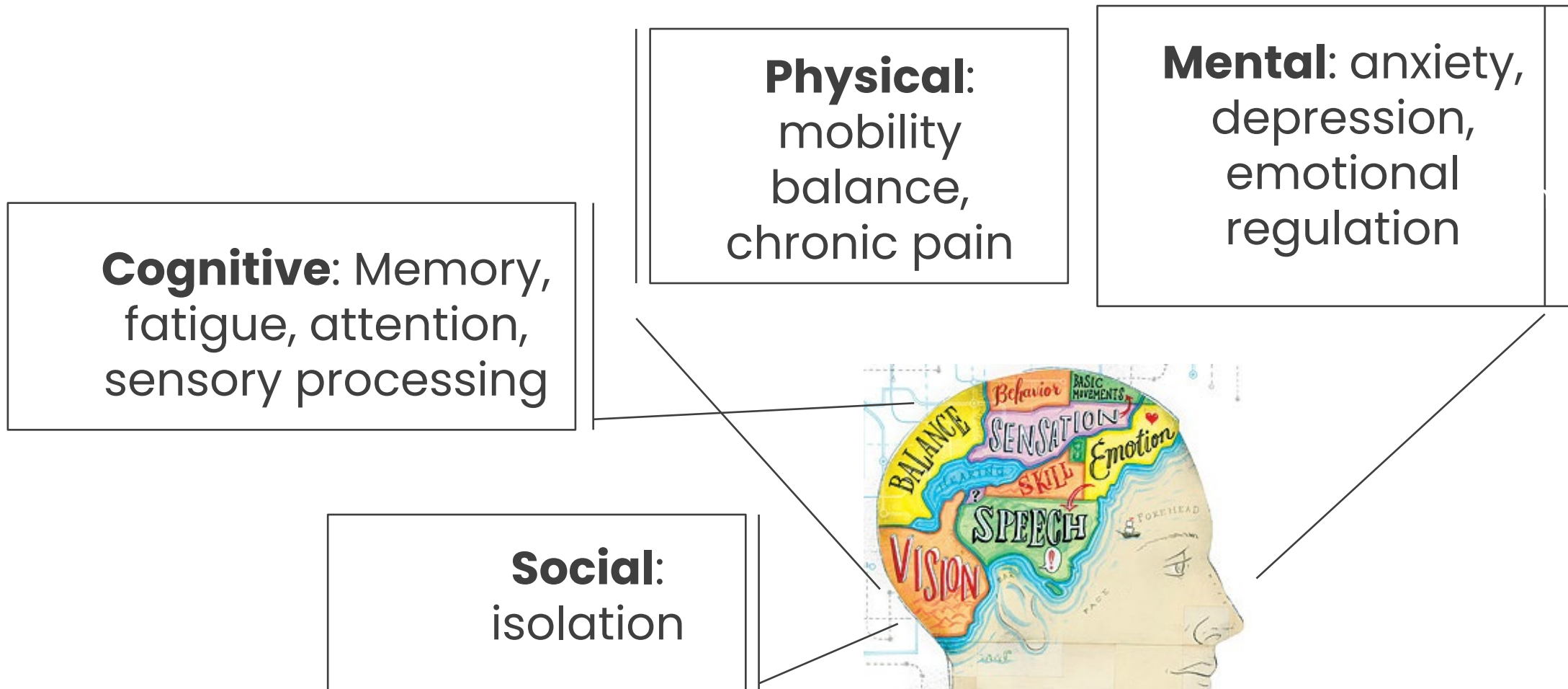
UNDERSTAND CORE BEST
PRACTICES FOR ADAPTING YOGA
FOR BRAIN INJURY

EXPLORE HOW TO BRIDGE THE
RESEARCH TO IMPLEMENTATION
GAP

EXPERIENCE TBI FRIENDLY MICRO-
PRACTICES FOR YOGA AND
MINDFULNESS

C.A.L.M.

TBI is common, chronic, complex



Lower QOL and Adjustment Difficulty



Siloed medical care, gaps in long-term community services, increased demand for online services



Mindfulness, yoga, and social connection offer evidence-based benefits & outcomes > largely inaccessible

That's where LoveYourBrain comes in

Pioneering a model of holistic health programs, trainings, research, and outreach



Programs

**Skills
Training**

**Research
&
Outreach**

RESILIENCE *VERSUS* RECOVERY

resilience 

Process of adapting well to adversity and significant sources of stress

recovery 

A return to a normal state of health, mind, or strength

Research shows our programs work

9 studies > improvements in mental, physical & social health

BRAIN INJURY
<http://dx.doi.org/10.1080/02699052.2023.2168062>

ORIGINAL ARTICLE

The feasibility and effectiveness of an online yoga, mindfulness and psychoeducation intervention for people with traumatic brain injury: a pilot study

Kyla Z. Donnelly¹, Kate L. Leabanon², Shari Golob³

¹The Dartmouth Institute for Health Professions, Colby-Sawyer College, Lebanon, NH, USA; ²no affiliation

ABSTRACT

Objective: This pilot study explored the feasibility and effectiveness of an online yoga, mindfulness and psychoeducation intervention for people with traumatic brain injury (TBI). **Methods:** Thirty-one adults with TBI completed the intervention. **Results:** Significant improvements were observed in quality of life, mental health, and physical health. **Conclusions:** The intervention was feasible and effective.

IMPLICATIONS FOR REHABILITATION

- Traumatic brain injury survivors benefit from holistic therapy.
- Yoga is a holistic therapy that can be delivered in a community-based setting.
- Participants in a community-based yoga program showed improvements in mental health and physical health.
- Group-based yoga with psychoeducation is an effective mode of rehabilitation for people with TBI.

DISABILITY AND REHABILITATION
<https://doi.org/10.1080/09638288.2018.1511111>

ORIGINAL ARTICLE

A retrospective study of the effectiveness of the LoveYourBrain Yoga program for people with traumatic brain injury

Kyla Z. Donnelly^a, Shari Golob^b

^aThe Dartmouth Institute for Health Professions, Colby-Sawyer College, Lebanon, NH, USA; ^bno affiliation

ABSTRACT

Purpose: To explore the effectiveness of the LoveYourBrain Yoga program for people with traumatic brain injury (TBI). **Materials and methods:** We conducted a retrospective study of 15 participants who completed the LoveYourBrain Yoga program. **Results:** Significant improvements were observed in quality of life, mental health, and physical health. **Conclusions:** The LoveYourBrain Yoga program was effective for people with TBI.

IMPLICATIONS FOR REHABILITATION

- Traumatic brain injury survivors benefit from holistic therapy.
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RESEARCH ARTICLE

A retrospective study of the effectiveness of the LoveYourBrain Yoga program for people with traumatic brain injury

Kyla Z. Donnelly^{a,b}

^aDepartment of Psychiatry, Colby-Sawyer College, Lebanon, NH, USA; ^bThe Dartmouth Institute for Health Professions, Colby-Sawyer College, Lebanon, NH, USA

ABSTRACT

Purpose: To conduct a retrospective study of the effectiveness of the LoveYourBrain Yoga program for people with traumatic brain injury (TBI). **Materials and Method:** We conducted a retrospective study of 15 participants who completed the LoveYourBrain Yoga program. **Results:** Significant improvements were observed in quality of life, mental health, and physical health. **Conclusions:** The LoveYourBrain Yoga program was effective for people with TBI.

IMPLICATIONS FOR REHABILITATION

- People with traumatic brain injury benefit from holistic therapy.
- Yoga is a holistic therapy that can be delivered in a community-based setting.
- Participants in a community-based yoga program showed improvements in mental health and physical health.
- Group-based yoga with psychoeducation is an effective mode of rehabilitation for people with TBI.

International Journal of Yoga

Research

Best Practices of Yoga for People with Traumatic Brain Injury and Canada

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Abstract

Emerging benefits of yoga programming is important for people with traumatic brain injury. An online survey was conducted to assess the feasibility and effectiveness of the LoveYourBrain Yoga program for people with traumatic brain injury. The survey instrument included text questions assessing the effectiveness of the program.

> Complement The Online ahead of print

A crossover study of the effectiveness of the LoveYourBrain Yoga program for people with traumatic brain injury

Kyla Z. Donnelly¹, C. Martha L. Bruce^{2,4}

Affiliations + expand
PMID: 35780542

Abstract

Background and purpose: To improve fatigue and assess the feasibility of psychoeducation in a rural, community-based setting.

Methods: This non-randomized crossover study among 15 people with traumatic brain injury, all English-speaking, all mean differences in the Test, NIH Neuro-QoL recruitment and retention measures.

DISABILITY AND REHABILITATION
<https://doi.org/10.1080/09638288.2018.1511111>

ORIGINAL ARTICLE

The feasibility and effectiveness of the LoveYourBrain Yoga program for people with traumatic brain injury

Kyla Z. Donnelly^a

^aThe LoveYourBrain Foundation, Colby-Sawyer College, Lebanon, NH, USA; ^bno affiliation

ABSTRACT

Purpose: To evaluate the feasibility and effectiveness of the LoveYourBrain Yoga program for people with traumatic brain injury (TBI). **Materials and methods:** We conducted a feasibility study of 15 participants who completed the LoveYourBrain Yoga program. **Results:** Significant improvements were observed in quality of life, mental health, and physical health. **Conclusions:** The LoveYourBrain Yoga program was effective for people with TBI.

IMPLICATIONS FOR REHABILITATION

- Ongoing, holistic therapy for people with traumatic brain injury (TBI) is effective.

Research Article

LoveYourBrain Mindset: Feasibility, Acceptability, and Effectiveness of an Online Yoga, Mindfulness, and Psychoeducation Intervention for People with Traumatic Brain Injury

Christine E. Callahan¹, Ling Beisecker², Shilo Zeller³ & Kyla Z. Donnelly⁴

Received 25 Apr 2022, Accepted 09 Jan 2023, Published online: 24 Jan 2023

Download citation | <https://doi.org/10.1080/02699052.2023.2168062>

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ABSTRACT Objective

Despite the benefits of yoga, mindfulness, and psychoeducation after traumatic brain injury, limited programming exists. This study investigated the feasibility, acceptability, usability, and effectiveness of the LoveYourBrain Mindset online program for people with TBI.

Research Design

Pre-post, retrospective intervention.

1. Largest TBI & Yoga study

Single arm, pre-post, mixed methods, retrospective study

Intervention: Manualized, 6-week, yoga with psychoeducation intervention, taught to groups of 7-13 people by 2 Yoga teachers.

Setting: 45 community-based studios in 18 states & 3 CAN provinces

Eligibility: TBI, caregiver, 15-70 years, ambulatory

Data collection:

- TBI-QOL scales
- Quality of Life After Brain Injury overall scale (QOLIBRI-os)

Analysis: Mixed effects linear regression controlling for age, severity, gender, yrs since injury, attendance & content analysis on perceived benefits and improvement

LoveYourBrain Yoga Intervention

6 session, 1.5 hr classes

10 min: Breathing techniques

nervous system regulation & attention control

45 min: Hatha yoga

improve functional mobility

15 min: Meditation

attention control, mood, & nervous system regulation

20 min: Psychoeducation

build social connectedness & resilience skills

Trauma Informed Methods

Simple, slow, repeated

Creating a safer space

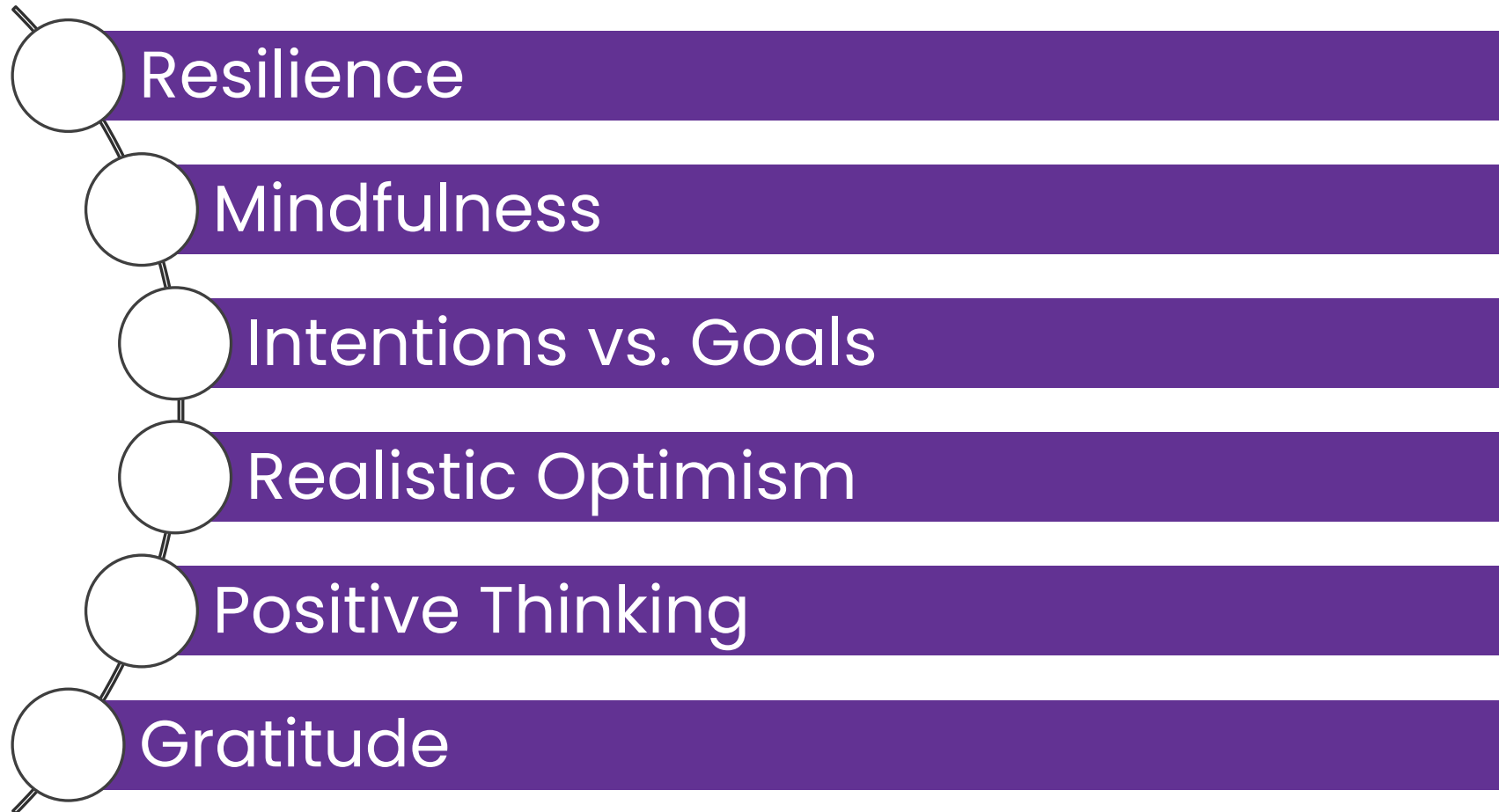
Position of the head and neck

Demonstration

Importance of props

Environmental factors

Psychoeducation Weekly Themes



Feasible, Acceptable, Improved Outcomes

- 156 / 168 programs successfully implemented (93%) over 2 yrs
- 2,050 signed up, including 1,563 people (82%) participated
- Mean class attendance was 7.3 people (SD 2.3)
- 68.5% feedback response rate
- High satisfaction - 9.3 out of 10 (SD 1.0)

Feasible, Acceptable, Improved Outcomes



Qualitative results:

- Integration of accessible movement, relaxation, group conversation, and meaningful quotes
- Perceived safety of the program environment
- Improvements – 8 weeks, shorter class duration, sensory adjustments, further modifications for dizziness

Feasible, Acceptable, Improved Outcomes

705 people with TBI significant improvements:

Qualitative results: better ability to regulate anger, anxiety, stress, impulsivity

Quantitative Results: significant improvements in Resilience, Well-being, Cognition, QOLIBRI-OS

Caregivers perceived improvements in physical & psychological health



Yoga for TBI practice



Pre-post retrospective study in 5 diverse outpatient sites in US & CAN



84 LYB Yoga programs offered for 442 unique patients 2017 - 2025

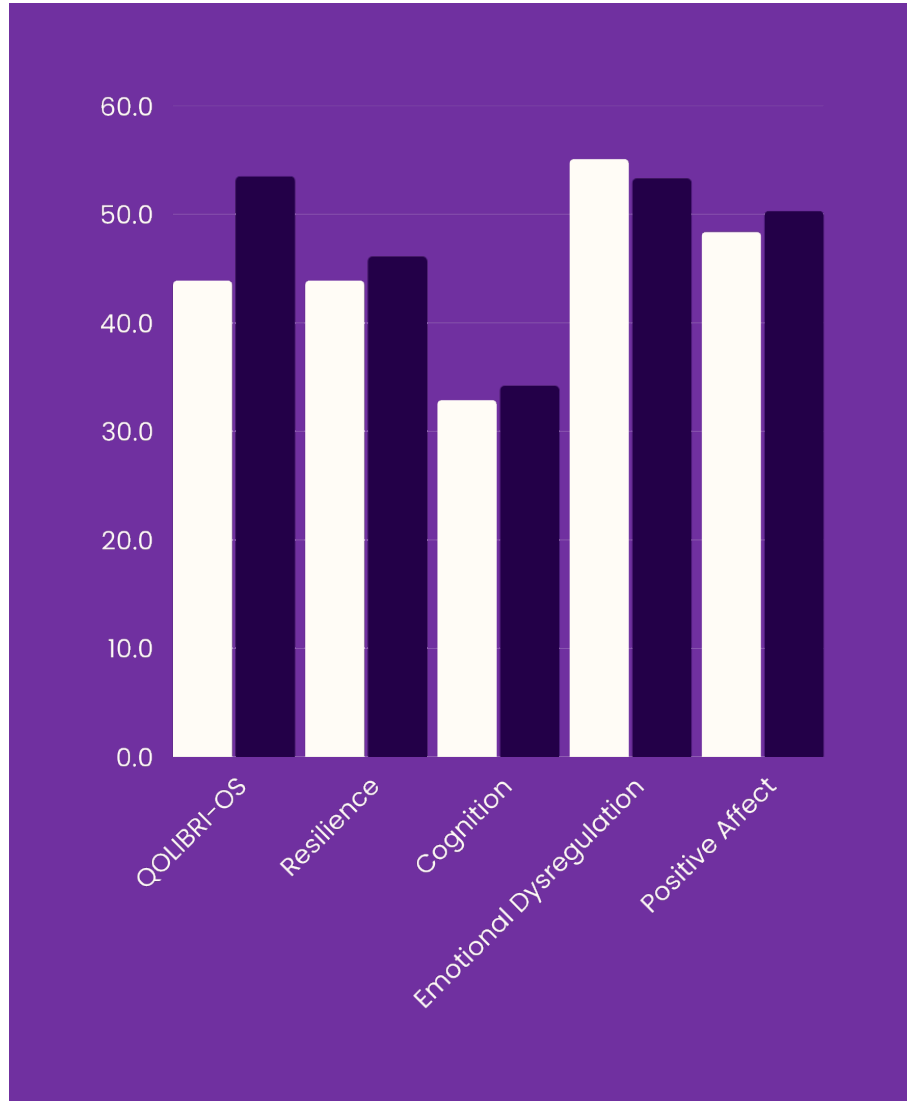


Mean satisfaction 9.3/10 (SD 1.28)



145 patients significant improvement in 5 outcomes

2. Study of LoveYourBrain Yoga in Outpatient services



Quantitative results found that all five clinical outcomes significantly improved

Qualitative results found 6 benefit areas: *physical health, mental well-being, social connection, self-management skills, nervous system regulation, accessible program design*

Curriculum Adaptations

60-75
minute
classes

Chair &
wheelchair
practice

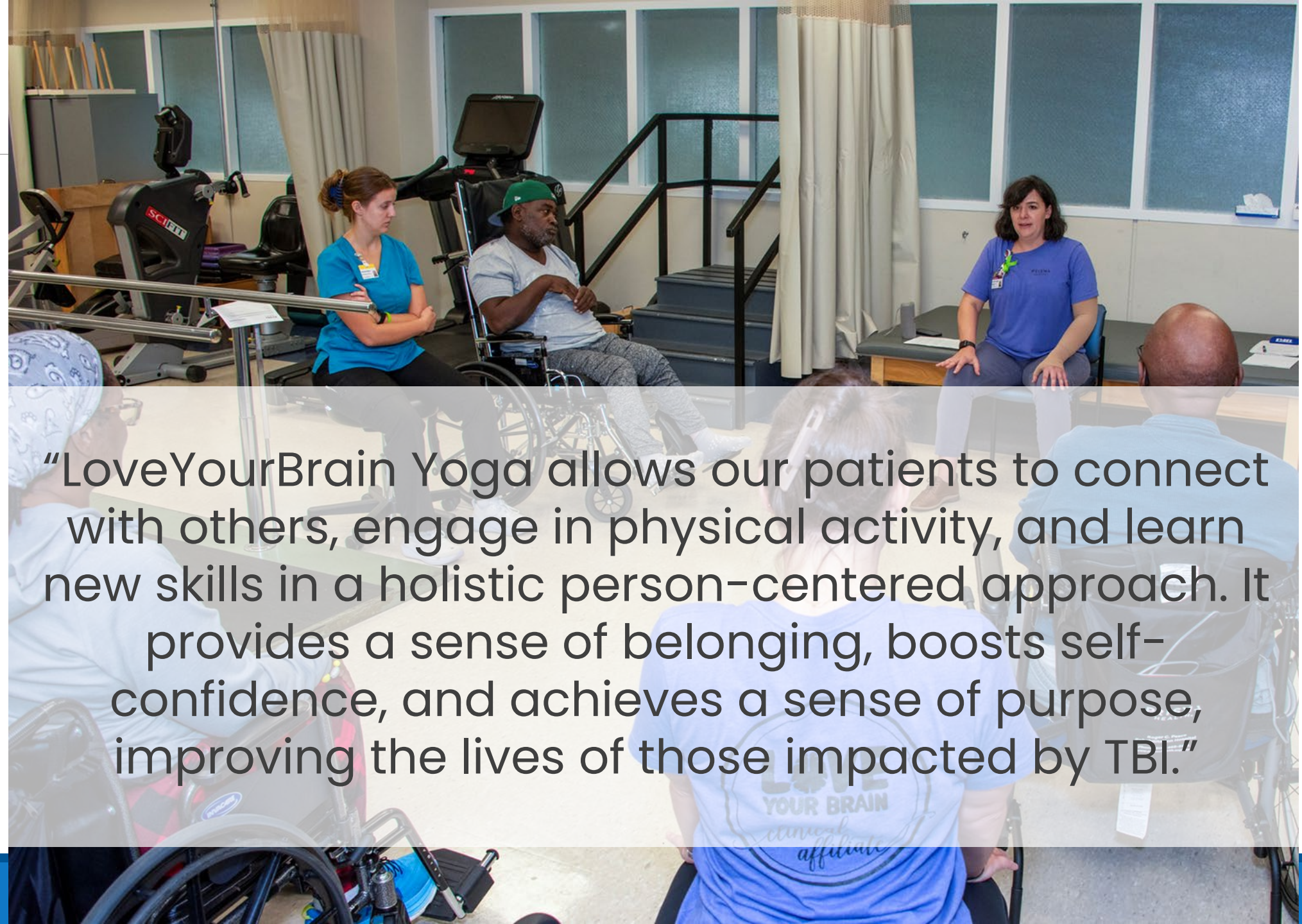
Simplify
topics for
cog
impairments

Skilled
hands-on
techniques
for transfers

in-clinic vs.
online

1:1 and in
groups

Work directly with Clinical Affiliates to
adapt curriculum to meet patient needs



“LoveYourBrain Yoga allows our patients to connect with others, engage in physical activity, and learn new skills in a holistic person-centered approach. It provides a sense of belonging, boosts self-confidence, and achieves a sense of purpose, improving the lives of those impacted by TBI.”

3. Largest **Online** Yoga for Brain Injury study

LoveYourBrain Mindset: 6-week yoga with psychoeducation program with design features that promote digital accessibility.

1

Weekly live Zoom class, choice of:

- Group Discussion - 45 min or
- Yoga & Discussion - 75 min



2

Pre-recorded mindfulness tools emailed weekly:

- Psychoeducation video - 1.5 min
- Gentle yoga class - 40 min
- Meditation - 10 min
- Yoga nidra relaxation - 20 min



Single arm, pre-post, retrospective study

Eligibility: TBI and caregivers age 15+, follow instructions, independently mobile, participated in LYB Mindset from Sept 2020 – June 2021

Data collection: self-reported, demographic, injury history, 5 clinical outcomes via electronic forms

Analysis: Multiple linear regression controlling age, severity, gender analyzed changes in mean scores. Subgroup analyses by interactive class type. Program attendance, quality, frequency of tool utilization.

Feasibility & Acceptability

1,539 signed up | 1,093 (71%) participated
28% no shows, 1% withdrew

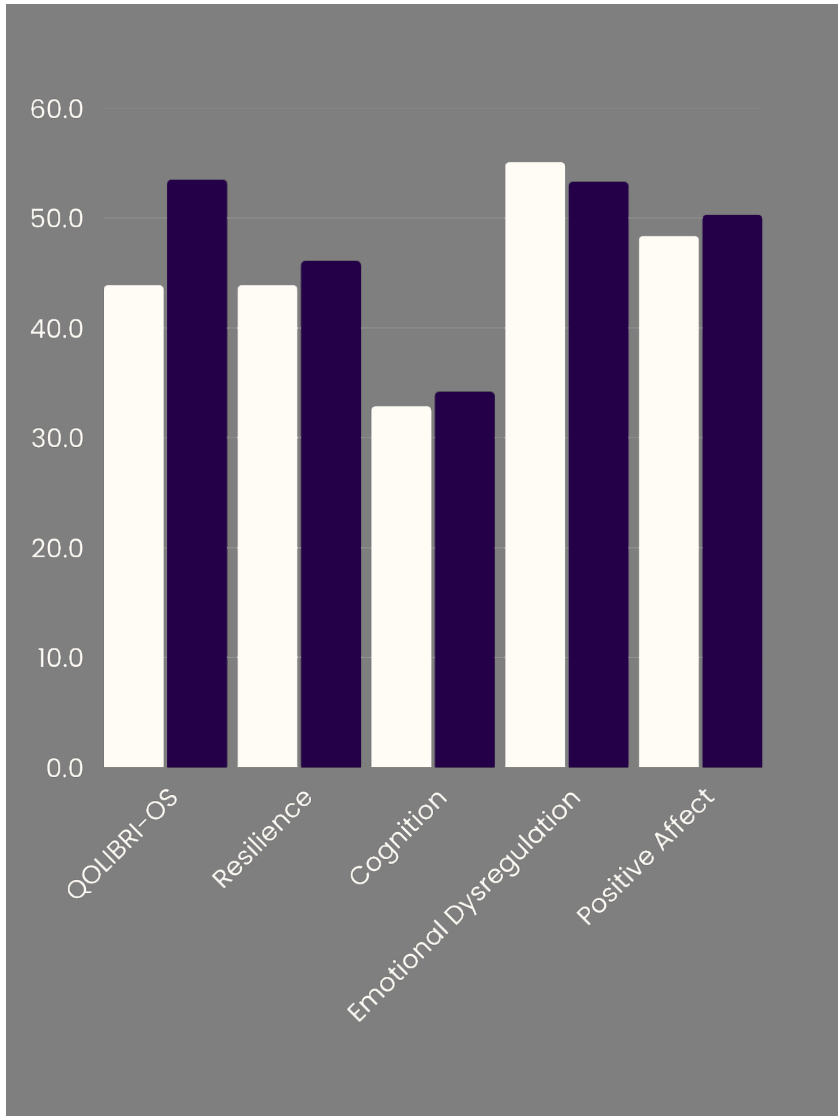
127 programs > 0 canceled

TBI (89%), Caregivers (8%), Clinicians (2%)
66 LYB Facilitators, 46% have TBI/caregivers

High quality – 9.09/10 (SD 1.28)

Majority (63%) used mindfulness tools
weekly






Effectiveness

Significant improvements in all outcomes

→ Controlled for age, severity, gender

A person with long brown hair is lying on their back on a patterned mat on a wooden floor. They are wearing a dark blue long-sleeved shirt and dark pants. Their eyes are closed, and they appear to be in a state of relaxation or meditation. The background is slightly blurred, showing a room with a desk and some items on it.

Meditation for TBI:

Progressive Muscle Relaxation

Conclusions and Ways Forward

Increases Access to Effective Rehabilitation

- Improvements in QOL outcomes suggests effective holistic rehabilitation service
- High quality and high attendance → in-person and online delivery models

Increases Community Reintegration

- Programs delivered across the continuum of care—in hospitals, community settings, and online—facilitate community participation

Future Directions

- Randomized controlled trials to determine efficacy
- Partnerships and funding to bring to scale to maximize access



Let's collaborate
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LOVE
YOUR BRAIN[®]

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Thank you!