



**NORTH TEXAS
Traumatic Brain Injury
Model System**

Baylor Scott & White Institute for Rehabilitation
UT Southwestern Medical Center
John Peter Smith Hospital

Baylor Scott & White
Institute for Rehabilitation

TBI Model System: Organization and Opportunities

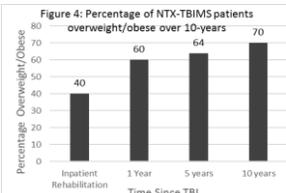
What does it mean to be a Model System?

- 1. Longitudinal assessment** (inpatient, 1, 2, 5, 10, 15.... Years)
- 2. Local research project**
 - Efficacy of an evidence-based weight-loss intervention post TBI
- 3. Module Projects** (10 total across 16 sites)
 - Physical activity and its relationships with cognition and secondary conditions after TBI
 - Health literacy following traumatic brain injury and impact on health-related outcomes
 - Development and assessment of crosswalks in the TBIMS database
 - Problem solving training for care partners
- 4. Special Interest Groups**
 - Aging; Caregiver and Family; Geocode; VA Collaborative; Cultural; DOC; PCORI; MSKTC

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Weight loss after TBI

Figure 4: Percentage of NTX-TBIMS patients overweight/obese over 10-years



Time Since TBI	Percentage Overweight/Obese
Inpatient Rehabilitation	40
1 Year	60
5 years	64
10 years	70

- Lack of evidence-based approaches to support weight loss after TBI

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What is the Group Lifestyle Balance program?

- **Diabetes Prevention Program (DPP)**
 - 1-1 program
 - Demonstrated lower risk for:
 - Type 2 diabetes through weight loss and increased physical activity
- **Group Lifestyle Balance (GLB) program**
 - A *direct adaptation of the DPP*
 - Group based delivery – 12-month self-management program
 - In multiple community settings, demonstrated same benefits as DPP
- **GLB-TBI**
 - Modified for people with TBI
 - Reduced content, involved caregivers, modified dietary and activity guidelines



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Tenets of Group Lifestyle Balance™

Goal: 5-7% weight loss through **moderate calorie/fat diet** and gradual increase of **physical activity to 150 minutes per week**

- Trained lifestyle coaches teach skills including:



- self-monitoring
- goal-setting
- problem solving
- stress management
- assertiveness
- cues

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Eligibility

INCLUSION CRITERIA

- 1) Between 18 and 64 years of age
- 2) ≥ 6 months post TBI
- 3) Moderate to severe TBI
- 4) Being overweight or obese as evidenced by BMI ≥ 25
- 5) Speak English
- 6) Obtaining physician signed clearance to participate in the program

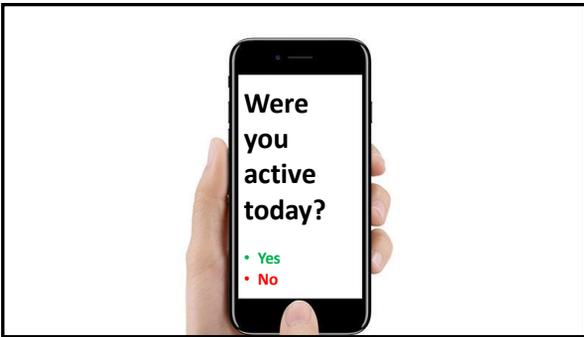
EXCLUSION CRITERIA

- 1) Medical issues for which exercise is contraindicated
- 2) Mild TBI (e.g., concussion)
- 3) Pregnant
- 4) Not fluent in English language
- 5) Inability to provide consent due to low cognitive function

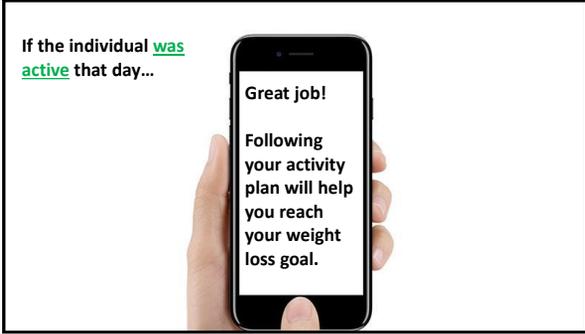
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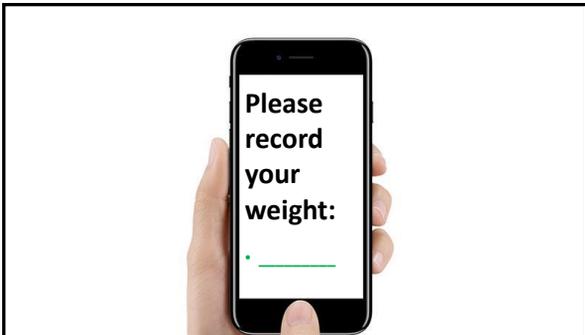
**Examples of App questions:
Daily, weekly, and monthly**

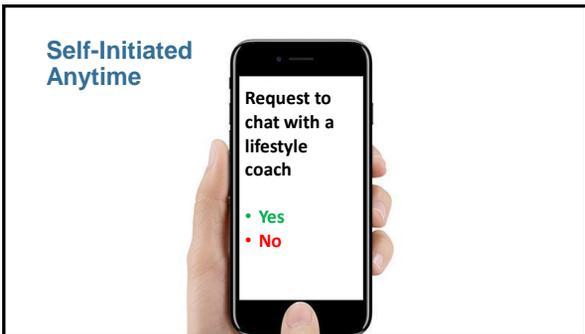


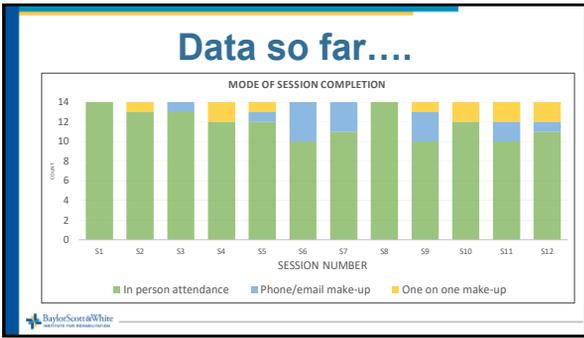


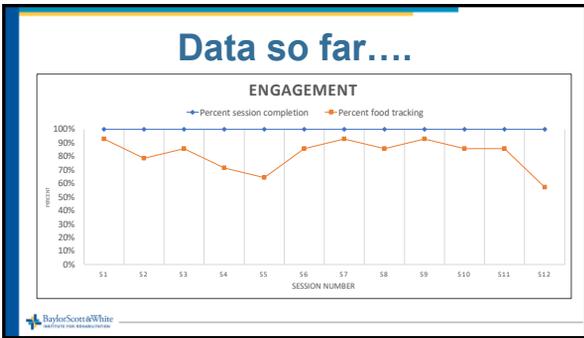












Brain Health Group

- This is an education-based support group that aims to provide education regarding traumatic brain injuries and overall brain health through instructional sessions, group discussion, and structured tasks geared towards improving mental well-being.

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before the insurance

Our Goal

- **Mental health:** a state of well being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to contribute to his or her community. – *as defined by the World Health Organization*
- **Long-term goal:** Participants will improve their mental well-being, as measured by subjective assessments, assessing the participant's ability to realize his/her own potential, work productively and fruitfully, contribute to his/her community, and implement strategies to cope with the challenges of life after a traumatic brain injury.



Value of a Support Group

- Support groups often answer questions that patients may feel uncomfortable bringing up with physicians and family members (i.e. alcohol, sexuality, dating/relationships, etc.)
- Allows survivors to seek community and develop friendships with individuals who share similar experiences
- Allows survivors to process emotions and ongoing challenges as they continue to adjust to life after TBI
- Allows survivors to share advice regarding their experiences and resources they have utilized



Understanding Traumatic Brain Injury

- Education-based topics (incorporating MSKTC factsheets):
 - Understanding TBI
 - What's "normal" after a TBI?
 - Dealing with Depression and Anxiety after TBI
 - Return to Work and Role Changes after TBI
 - Fatigue and TBI
 - Sleep and TBI
 - Memory and Attention after TBI
 - Communication, Relationships and Dating after TBI
 - Alcohol and Substance Abuse after TBI
 - Sexuality and TBI



Brain Health

- The concept of brain health refers to steps you can take to improve your brain’s performance from the inside out. Making the decision to appreciate, protect and nourish your brain with knowledge, nutrition and self-love will lead to a healthier brain — and a healthy brain is a happy brain.



Brain Health Education

1. Diet
2. Sleep
3. Exercise/active lifestyle
4. Alcohol
5. Finding a purpose (motivation)
6. Smoking
7. Social connections
8. New learning/cognitive stimulation
9. Automatic negative thoughts (ANTS)
10. Community support (family, church, school, support group, etc.)



Brain Health Topics

- How to live a “brain healthy” lifestyle
- Mindfulness/Meditation
- Finding your Purpose
- Learning to Practice Gratitude
- Your brain doesn’t control you- YOU control your brain
- How to develop a “Brain Exercise Program”



Establishing “Brain Health” Goals

- Participants set long-term and short-term goals targeting improved brain health.
- “SMART” goals
 - Specific
 - Measurable
 - Achievable
 - Realistic
 - Time-bound



Topics for Brain Health Goals

- | | |
|------------------------------------|----------------------------|
| • Happiness | • Drugs/Smoking cigarettes |
| • Gratitude | • Meditation |
| • Alcohol consumption | • Trying new things |
| • Brain healthy diet | • School |
| • Improve hydration (water intake) | • Sleep |
| • Active lifestyle | • Anxiety |
| • Social engagement | • Depression |
| • Cognitive challenges | • Stress management |
| • Work-related | • Leisure activities |
| • Memory | • Relationships |



Sample Goals

- **LTG:** I will improve my brain health by incorporating omega-3 rich foods into my diet and reducing my consumption of saturated fats.
- **STG:** I will trial minimum of 3 healthy seafood recipes by the end of the month.
- **STG:** I will prepare one salmon dish this week for myself and a friend/family member.
- **STG:** I will eat fish (salmon, tuna, tilapia, etc.) at least one time per week, for one month, to increase my omega-3 intake.



Sample Goals

- **LTG:** I will return to a part-time job that is flexible in hours, provides physical/cognitive accommodations for my injury, and motivates me to live a healthier and happier life by January 1, 2020.
- **STG:** I will use my resources (Internet, family members, support group peers, therapists, etc.) to find three potential part-time/full-time jobs that interest me.
- **STG:** I will write pros/cons for each job opportunity and discuss these pros/cons with a friend/family member.
- **STG:** I will complete a minimum of one job application by (insert date) to prepare for return to work on a part-time schedule.



Additional Support

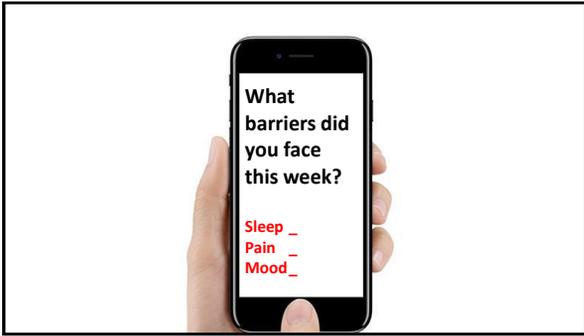
- **Brain Health Support Group:** A community that serves to motivate you, hold you accountable, and listen to your challenges and achievements during group discussion.
- **Accountability Partner:** An individual person who is able to reach out and talk to you on a 1:1 basis. This person will check-in with you periodically to listen to your progress and provide helpful ideas if he/she can. Please be mindful of your accountability partner's time and remember that he/she isn't your therapist – this person's role is to be there and hold you accountable to yourself.
- **TBI Coach/Medical Professional:** A medical professional who is familiar with recovery following traumatic brain injury will provide specific strategies, recommendations and advice geared towards individuals living with TBI.



Brain Health App

- We have also developed a "Brain Health App" that sends reminders to participants about health tips, fun facts, strategies and motivational quotes.







Brain Health Group Motto

"Starting today I will acknowledge what's gone, appreciate what still remains, and look forward to what's coming next."

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and more care connections

Questions?



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