Developing Evidence-Based Behavior Management Tools with Caregivers of Veterans and Service Members with TBI to Maximize Adoption

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I-HEAL
Improving Access to Care for Persons with TBI

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Acknowledgement

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TeamBI

Non-Disclosure and Disclaimer

- **Non-Disclosure:** None of the authors have conflicts to report.

- **Disclaimer:** The views expressed in this presentation are those of the authors and do not necessarily represent the official policy or position of the Department of Veterans Affairs or any other U.S. government agency.
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TeamBI

Learning Objectives

01

Identify three caregiver-defined priorities for improving behavior management education for SM/V with TBI.

02

Explain how caregiver feedback shaped revisions to the TeamBI behavior management handouts.

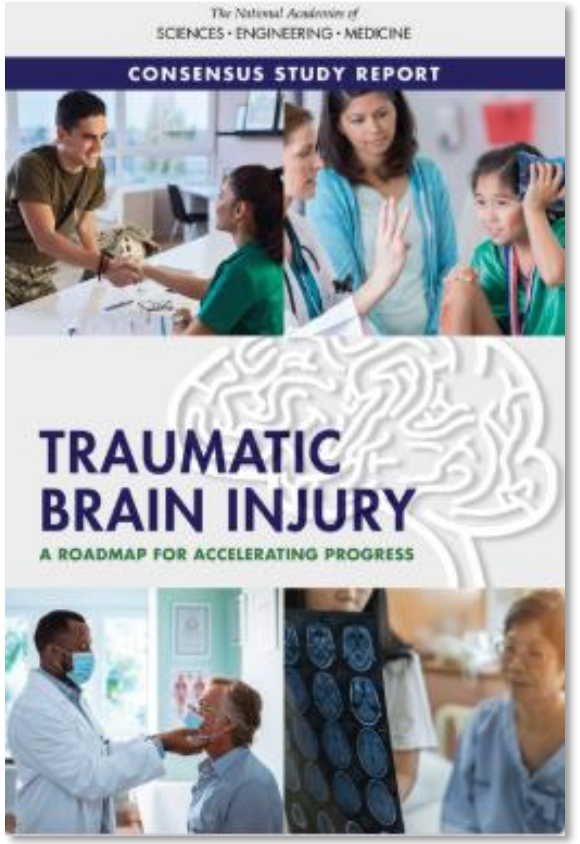
03

Describe how the caregiver engagement may enhance the acceptability and appropriateness of TeamBI.

TeamBI

NASEM[1] Recommendations

1. Update the Clinical Classification System for TBI
2. Integrate Acute and Long-Term Person- and Family-Centered Management
3. Reduce Variability and Gaps in Administrative and Clinical Care Guidance
4. Enhance Awareness and Identification of TBI
5. Establish Local and Regional Integrated Care Delivery Systems
6. Expand and Modernize Data Infrastructure for TBI
7. Accelerate Research to Address Critical Knowledge Gaps
8. Strengthen the TBI Workforce



[1]National Academies of Sciences, Engineering, and Medicine 2022. *Traumatic Brain Injury: A Roadmap for Accelerating Progress*. https://doi.org/10.17226/25394.

TeamBI

I HEAL[2]

Improving Access to Care for Persons with TBI

https://ihealbrain.org

CDMRP Award #:
HT9425-23-1-0621

Study Organization

Executive Leadership

Engagement
MPI: Megan Moore

Administration
PI: Risa Nakase-Richardson

Implementation
MPI: Jolie Haun

Supportive Cores

- Community Engagement Council
- Operations
- Data & Communication
- Implementation Science

I-HEAL Projects

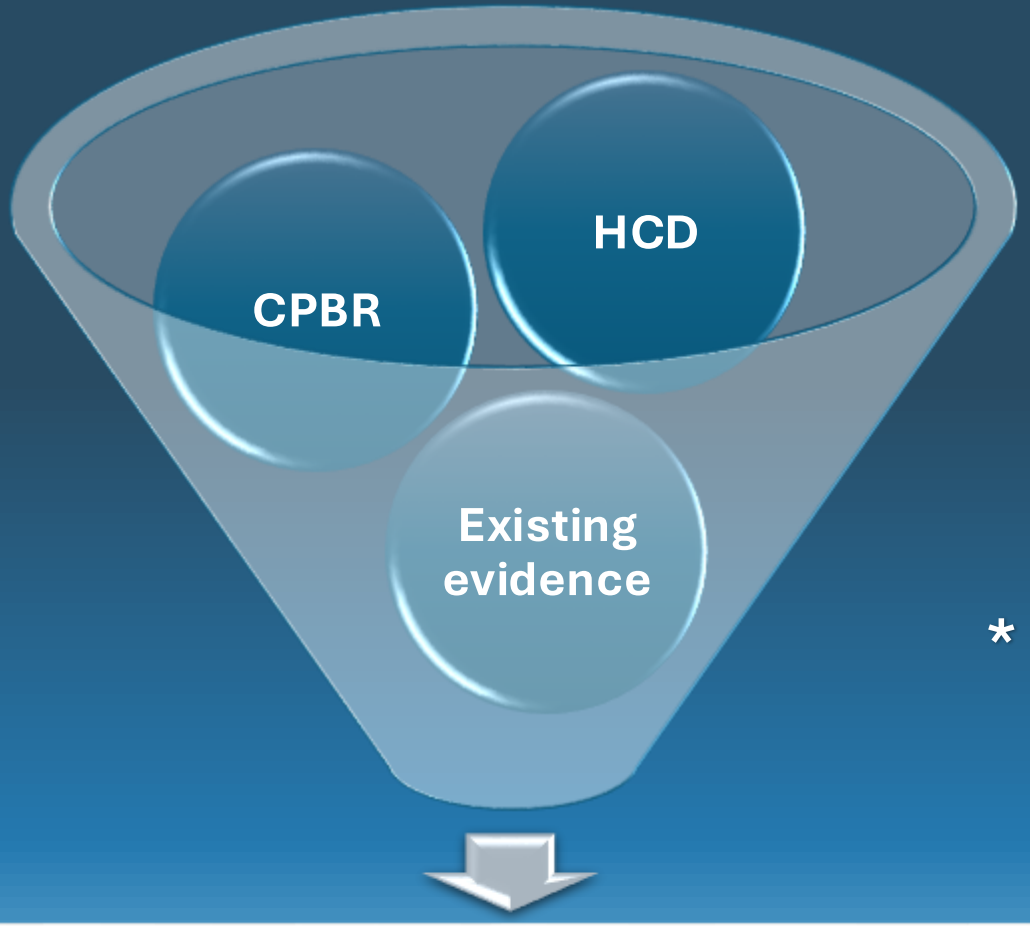
- **Project 1:** Cognitive Nudge Decision Support Tool — **PIs:** Dams-O'Connor, Silva, Coulter
- **Project 2:** Adapting Behavioral Health Interventions — **PIs:** Hoffman, Martin, Goldschmidt
- **Project 3:** Team-Based Behavioral Intervention — **PIs:** Bogner, Kretzmer
- **Project 4**: Data Driven Policy Recommendations — **PI:** Haun

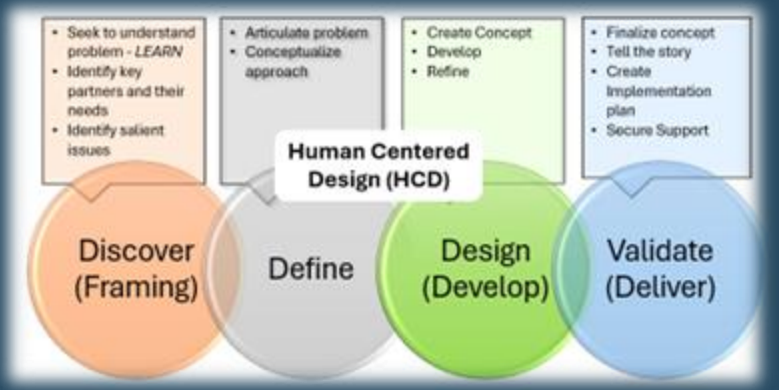
Study Objectives

1. **Adapt existing interventions** to promote access and engagement in healthcare.
2. **Engage partners** to maximize uptake and translation.
3. **Promote research translation** that informs policy and practice through **knowledge translation products** that **target diverse audiences**.
4. **Foster early/mid-career researcher development** to expand the implementation science workforce in field of TBI.

[2]Nakase-Richardson R. *JMIR Res Protoc*. 2026;15:e79738. doi:10.2196/79738

An I-HEAL Process





*** Primes End-User Buy-In ***

Co-creation of knowledge translation products that are readily acceptable to end-users

I-HEAL Project 3: TeamBI

The "Problem"

- Behavior change after TBI[3]
- Limits therapy participation and rehab outcomes[4]
- Leads to staff burnout and turnover[5] and caregiver distress[6]

The "Solution"

Barriers to Behavior Management[7]

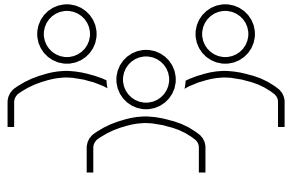
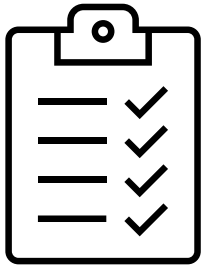
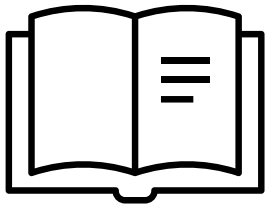
- Poor team communication
- Lack of workforce skill
- Limited specialized staff
- Inconsistent treatment strategies

TeamBI[2]

- Develop staff training for TBI inpatient rehab
- Include stakeholder input

3. Stéfan A. *Ann Phys Rehabil Med*. 2016;59(1):517. doi:10.1016/j.rehab.2015.11.002
4. Lequerica AH. *JHTR*. 2007;22(3):177-183. doi:10.1097/01.HTR.0000271118.96780.bc
5. Kretzmer T. *Arch. Phys. Med. Rehabil.* 2023; 104(3): e34
6. Tam S. *Brain Injury*. 2013; 29(7–8), 813–821. https://doi.org/10.3109/02699052.2015.1005134
7. Nakase-Richardson R. *Arch. Phys. Med. Rehabil.* 2023; 104(3): e45-46

I-HEAL Project 3: TeamBI Methods

DISCOVER	DEFINE	DEVELOP	VALIDATE
			
Engage persons with TBI and caregivers (focus groups)	Engage rehab professionals (workgroup meetings)	Produce the TeamBI playbook	Pilot test with rehab team leaders

TeamBI

DISCOVER

Engage persons with TBI and caregivers (focus groups)

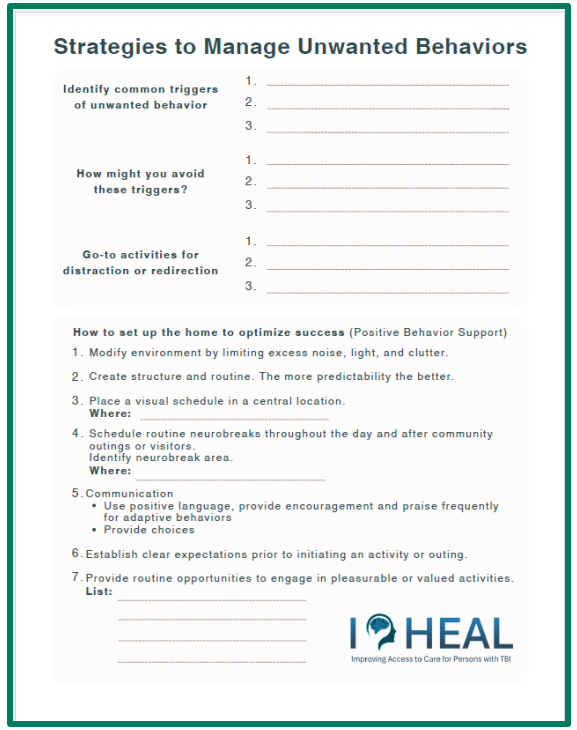
Objective: To gather caregiver feedback on TeamBI handouts that will be used to educate and train families on behavior management for SM/V with TBI

Interviewer:
"What modifications do you think should be made to the materials? Is there anything missing?"

Handouts

Approach:

- Recruit/Screen/Consent
- Conduct Focus Groups
- Code Data
- Identify Themes
- Revise Handouts



Strategies to Manage Unwanted Behaviors

Identify common triggers of unwanted behavior
1. _____
2. _____
3. _____

How might you avoid these triggers?
1. _____
2. _____
3. _____

Go-to activities for distraction or redirection
1. _____
2. _____
3. _____

How to set up the home to optimize success (Positive Behavior Support)

1. Modify environment by limiting excess noise, light, and clutter.
2. Create structure and routine. The more predictability the better.
3. Place a visual schedule in a central location.
   Where: _____
4. Schedule routine neurobreaks throughout the day and after community outings or visitors.
   Identify neurobreak area.
   Where: _____
5. Communication
   - Use positive language, provide encouragement and praise frequently for adaptive behaviors
   - Provide choices
6. Establish clear expectations prior to initiating an activity or outing.
7. Provide routine opportunities to engage in pleasurable or valued activities.
   List: _____

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Checklist

Things to ask your treatment team about behavior changes

- How are the behavior changes in my loved one related to TBI?
- Why are these behaviors occurring?
- How long might these behavioral changes last?
- How do I explain these changes to family, friends, children?
- What strategies can I use to manage these behaviors at home?
- How can I set up the home for my loved one's success?
- Are there providers in the community that treat behavioral changes?
- Are there medications that can help manage behavioral changes?
- What resources are available for education and training family on how to best understand and manage the behavioral changes?

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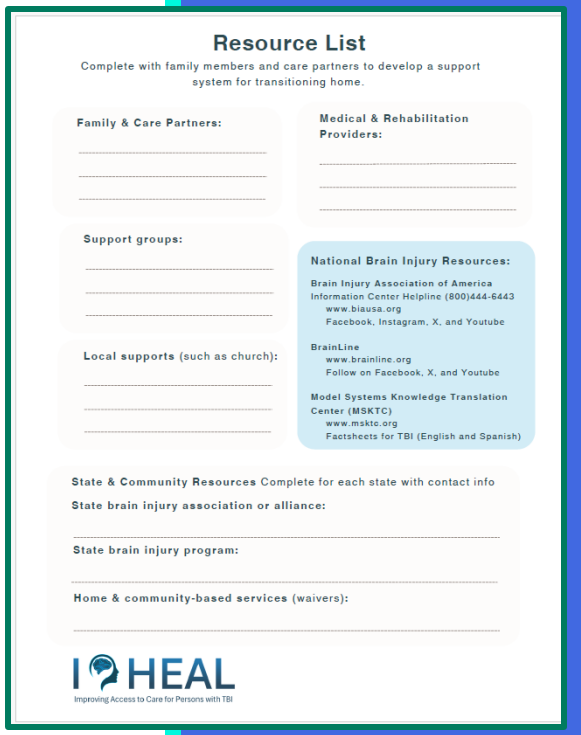

Resource List

Complete with family members and care partners to develop a support system for transitioning home.

Family & Care Partners:

Medical & Rehabilitation Providers:

Support groups:

Local supports (such as church):

National Brain Injury Resources:

Brain Injury Association of America
Information Center Helpline (800)444-6443
www.biausa.org
Facebook, Instagram, X, and Youtube

BrainLine
www.brainline.org
Follow on Facebook, X, and Youtube

Model Systems Knowledge Translation Center (MSKTC)
www.msktc.org
Factsheets for TBI (English and Spanish)

State & Community Resources Complete for each state with contact info

State brain injury association or alliance:

State brain injury program:

Home & community-based services (waivers):

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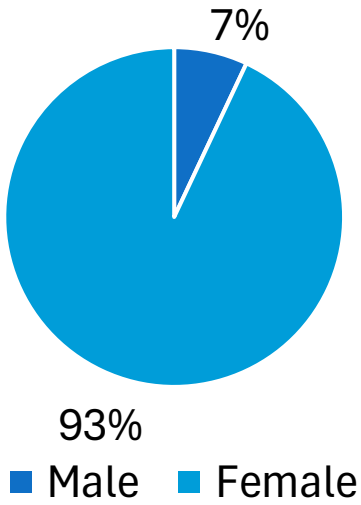
TeamBI

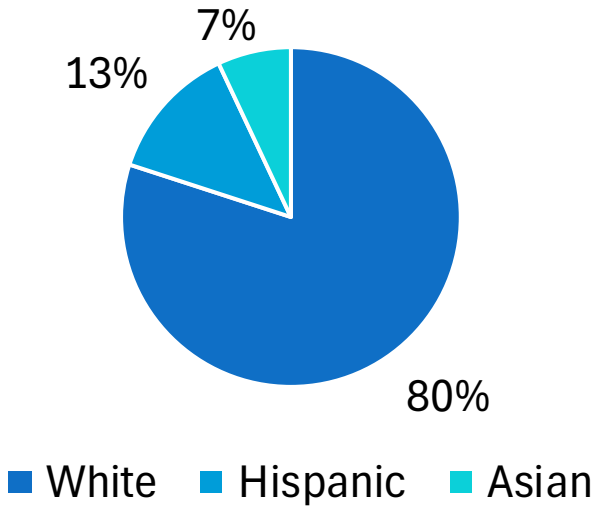
Sample Characteristics

- **Age (mean in years)**
  - Caregiver: 62.7
  - Person with TBI:
    - Current: 40.2
    - At injury: 33.7
- **Post-TBI behavior issues**
  - 100 % of cases
- **Discharge location**
  - 93% home with family
  - 7% different facility

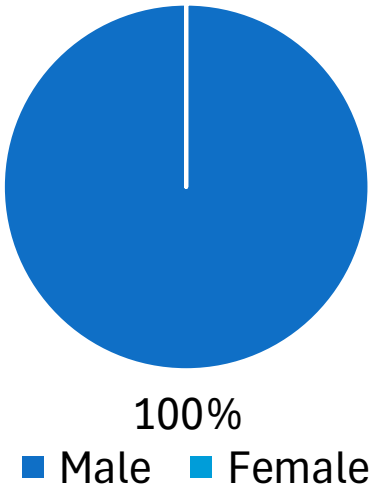
Sex of Caregiver



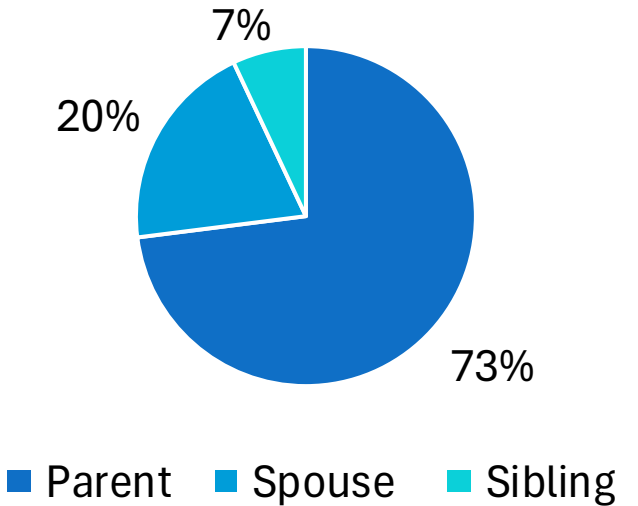
Race/Ethnicity



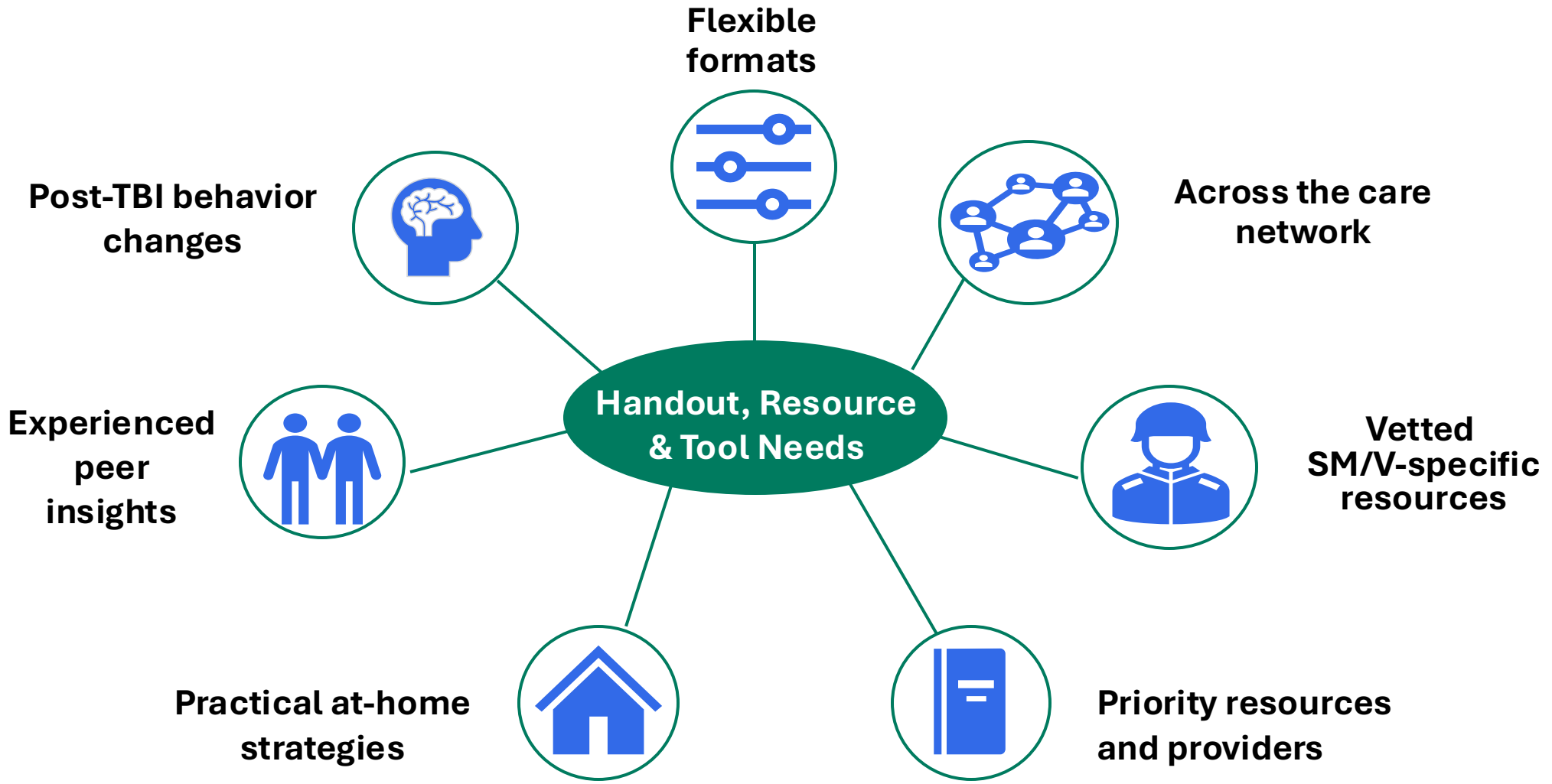
Sex of person with TBI



Relationship to person with TBI

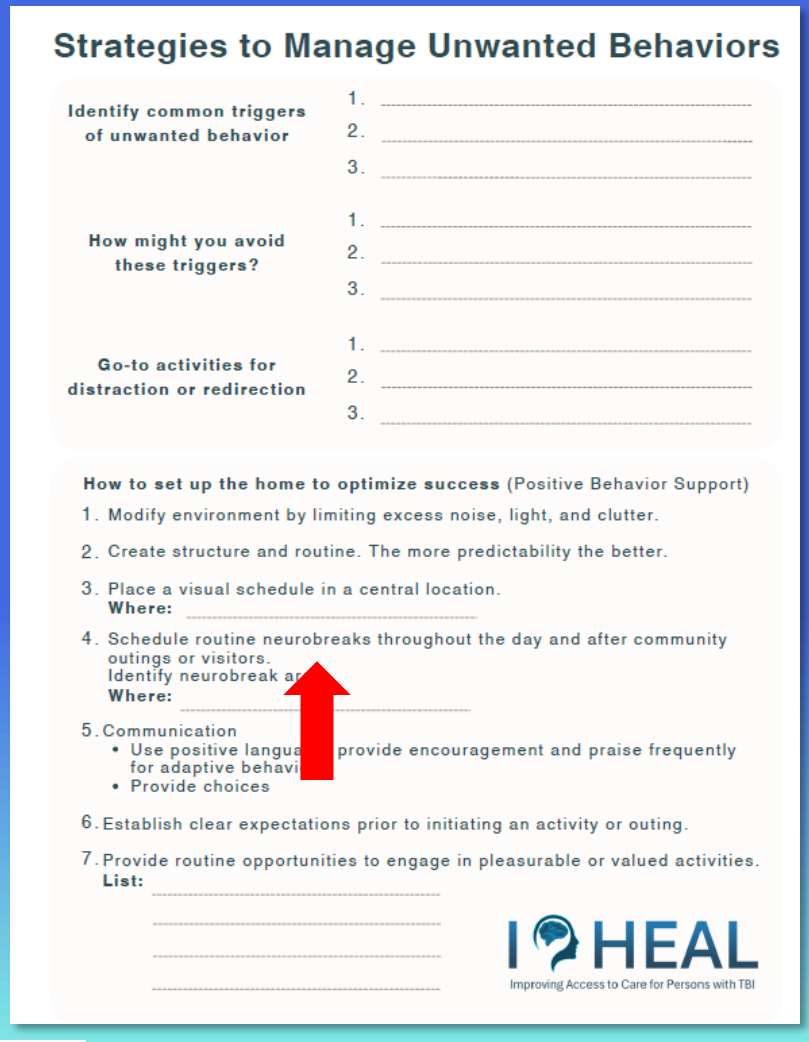


Themes from Caregiver Focus Groups



Caregiver Input Informed Handout Revisions

Before



Strategies to Manage Unwanted Behaviors

Identify common triggers of unwanted behavior
1. _____
2. _____
3. _____

How might you avoid these triggers?
1. _____
2. _____
3. _____

Go-to activities for distraction or redirection
1. _____
2. _____
3. _____

How to set up the home to optimize success (Positive Behavior Support)

1. Modify environment by limiting excess noise, light, and clutter.
2. Create structure and routine. The more predictability the better.
3. Place a visual schedule in a central location.
   Where: _____
4. Schedule routine neurobreaks throughout the day and after community outings or visitors.
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   Where: _____
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   - Provide choices
6. Establish clear expectations prior to initiating an activity or outing.
7. Provide routine opportunities to engage in pleasurable or valued activities.
   List: _____

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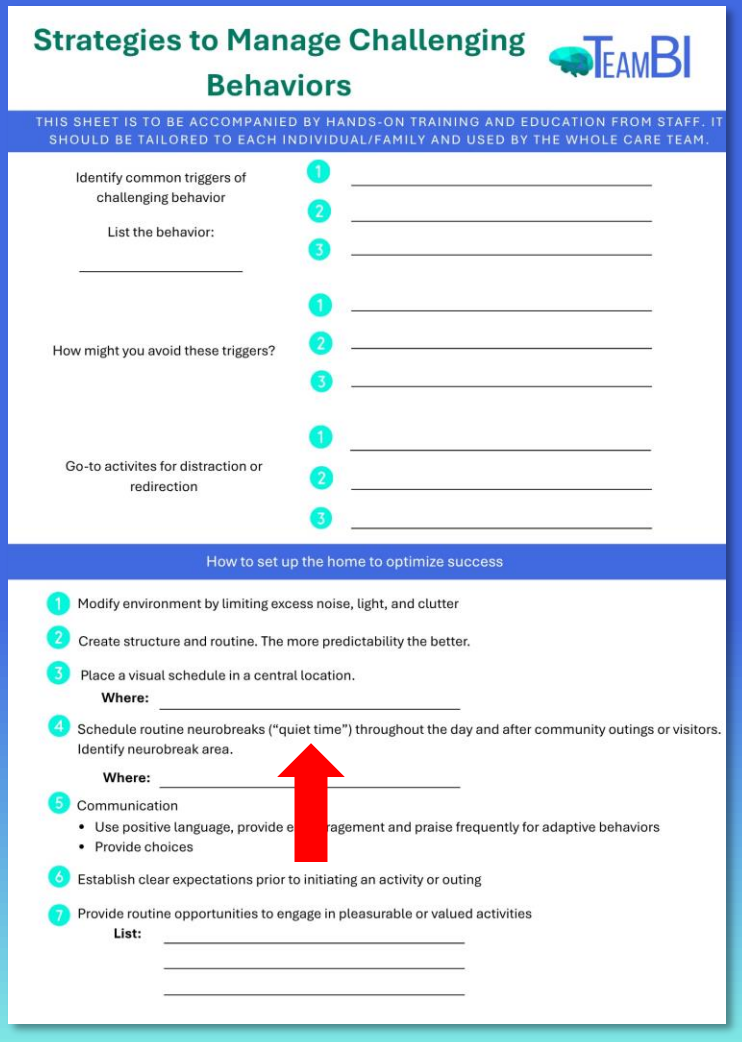
Co-development process

Example change:

Remove or define "jargon"

After



Strategies to Manage Challenging Behaviors

TeamBI

THIS SHEET IS TO BE ACCOMPANIED BY HANDS-ON TRAINING AND EDUCATION FROM STAFF. IT SHOULD BE TAILORED TO EACH INDIVIDUAL/FAMILY AND USED BY THE WHOLE CARE TEAM.

Identify common triggers of challenging behavior
List the behavior: _____
1. _____
2. _____
3. _____

How might you avoid these triggers?
1. _____
2. _____
3. _____

Go-to activites for distraction or redirection
1. _____
2. _____
3. _____

How to set up the home to optimize success

1. Modify environment by limiting excess noise, light, and clutter
2. Create structure and routine. The more predictability the better.
3. Place a visual schedule in a central location.
   Where: _____
4. Schedule routine neurobreaks ("quiet time") throughout the day and after community outings or visitors.
   Identify neurobreak area.
   Where: _____
5. Communication
   - Use positive language, provide e ragement and praise frequently for adaptive behaviors
   - Provide choices
6. Establish clear expectations prior to initiating an activity or outing
7. Provide routine opportunities to engage in pleasurable or valued activities
   List: _____

TeamBI

Caregiver Input Informed New Handouts

Explaining TBI to children

Helping Children Understand a Loved One's Behavioral Changes After TBI

When a parent or loved one is recovering from a traumatic brain injury, children may notice changes in behavior—such as irritability, emotional "ups and downs", impulsivity, or difficulty thinking clearly. This handout is designed to help adults talk with children in a calm, honest, and age-appropriate way during inpatient rehabilitation and while preparing for discharge home. It offers guidance for helping children understand that these changes are part of the brain-healing process, not related to something about them.

Choose the Right Time to Talk

Choose a calm, familiar moment when neither you nor the child is rushed. Avoid stressful times—like right before school or bedtime—so the child can stay regulated and engaged. Share information as soon as you feel calm enough to talk. Children often sense when something is wrong and may feel more worried if they're left guessing. Give them plenty of time to ask questions and process their feelings.

Choose the Right Amount of Detail

When the injury happened in a difficult or sensitive way—such as a self-inflicted injury or an assault—you can still be truthful without giving specifics. A child-appropriate explanation might be, "They were hurt in a very serious way, and the doctors are taking care of them now." Avoid describing intent, method, or details that may create fear, confusion, or guilt.

Amanda is a proud female Veteran, TBI survivor, and mom.

Message from an experienced caregiver

To You, Who Are Showing Up Every Day

I remember being exactly where you are now— overwhelmed and trying to make sense of a world that changed in an instant. If I could offer you one thing today, it would be reassurance: you don't have to know everything right now, and you don't have to carry the whole journey at once.

In these early days, I learned to focus on what was right in front of me—the next hour, the next decision, the next update or bit of progress. Over time, I started to see the emergence of patterns, the return of strength, and the arrival of new hope. There were difficult experiences, yes, but also meaningful ones I never expected.

You'll discover your own rhythm too. You'll learn when to push, when to pause, when to accept help, and when to lean on the people who truly understand what this road feels like. You'll navigate emotions—yours and your loved one's—with more compassion and strength than you knew you had.

Below, I've shared a few reminders that carried me through my hardest days. I hope they offer you some grounding and a sense of connection as you take your own steps forward. You are not alone in this, and you don't have to figure it all out today.

I see your courage.
I see your effort.
And I believe in you and your loved one.

If you ever need a reminder of that, come back to this letter.

With understanding and hope,
Someone a little further down the path

Jill is a caregiver, spouse of a Veteran, and advocate for those living with TBI.

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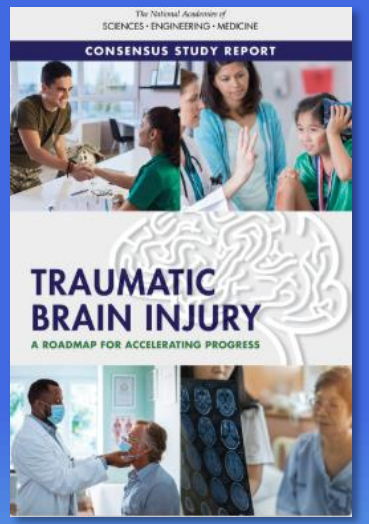
Co-developing TeamBI with end-users promotes relevance, trust, and rapid adoption.

Enhances Relevance and Design

Builds Trust and Participation

Improves Spread and Use



Aligns with NASEM

Integrating CPBR and HCD primes end-user buy-in.

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Thank you!
Questions?

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I-HEAL PIs: risa.richardson@va.gov, mm99@uw.edu, jolie.haun@va.gov

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