

Whole Health for Traumatic Brain Injury:

Harnessing Qualitative Methods to Develop and Optimize Mind-Body Interventions

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Traumatic Brain Injuries (TBIs)

- The most common neurological disorders
- Higher levels disability and death than any other traumatic injury



TBI treatment
is
traditionally
exclusively
biomedical

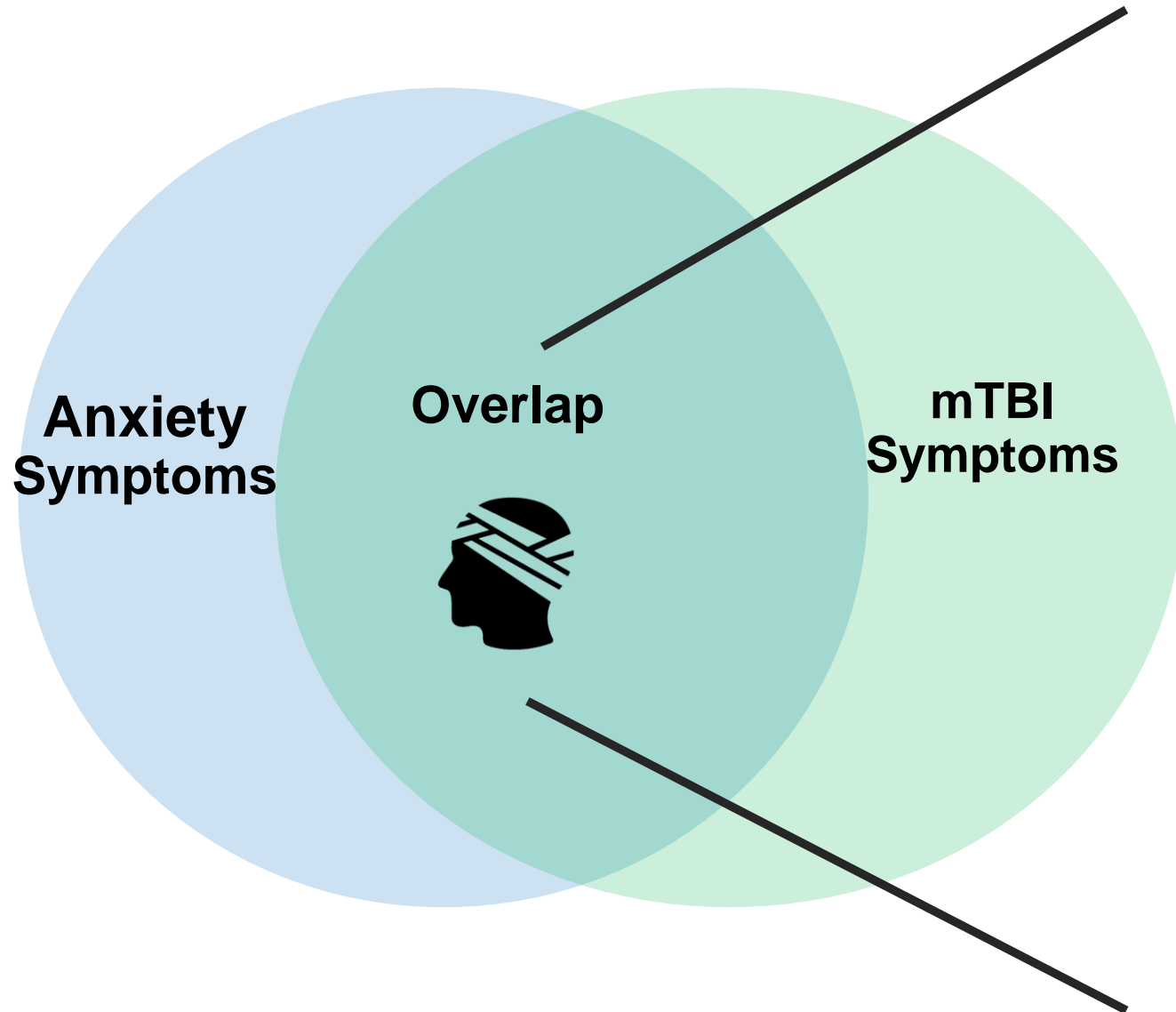


Psychosocial factors play a critical role in recovery from TBI, but are often neglected

- Anxiety
- Depression
- Social support and isolation
- Coping skills



Overlap between anxiety and mild traumatic brain injury symptoms



Stress

Fatigue

Headaches

Irritability

Memory Problems

Nausea

Poor Concentration

Sleep Issues / Insomnia

Avoidance

Mind-body
programs show
promise in TBI, but
are typically not
tailored to fit the
needs of TBI
survivors



Understanding TBI survivors' experiences, in their own words, is critical for developing interventions that meet their needs



Aim of this symposium:

How can qualitative research methods be utilized to inform, tailor, capture, and optimize the effects of mind-body interventions for individuals living with traumatic brain injury?

“Hidden Gains”? Measuring the Impact of Mindfulness-based Interventions for People with mild traumatic brain injury: a Scoping Review

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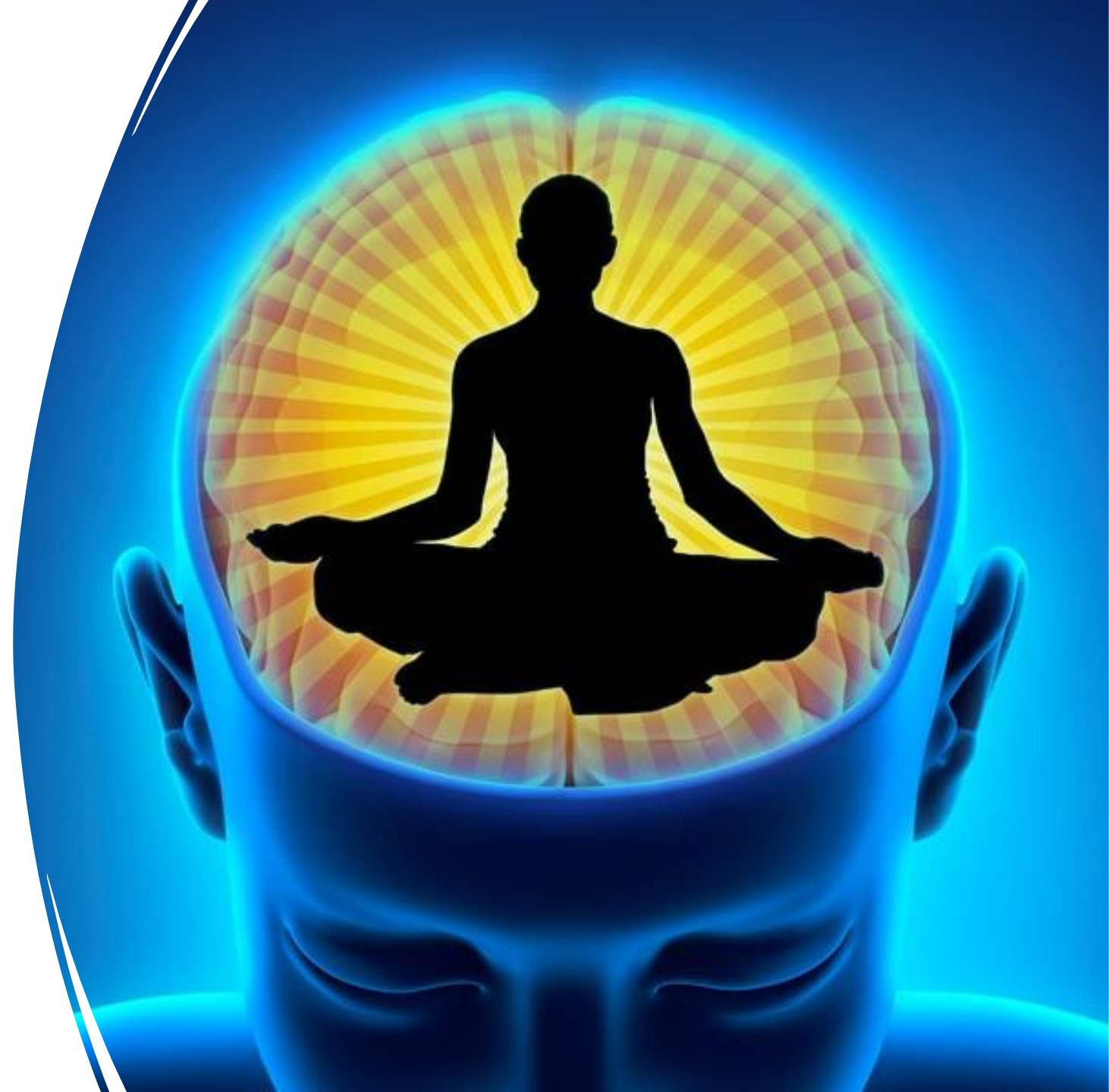
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Mindfulness-
Based
Interventions can
help individuals
with mild
traumatic brain
injury



WHAT and HOW we measure in mindfulness programs for mTBI:

- Impacts outcomes
- Can help us understand what works, why, and for whom
- Important for informing intervention targets



3 Study questions about mindfulness interventions for mild TBI:



What is being measured?

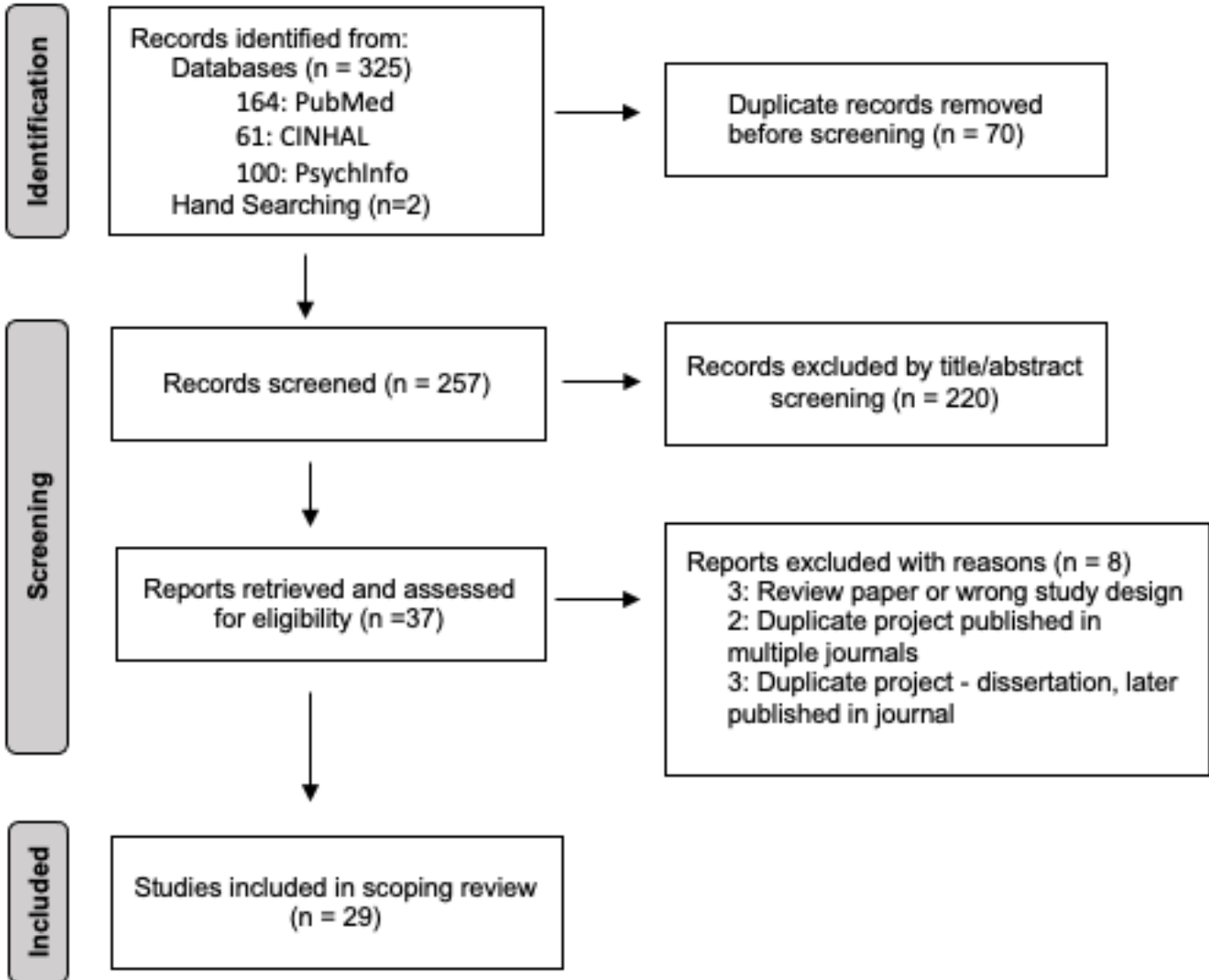


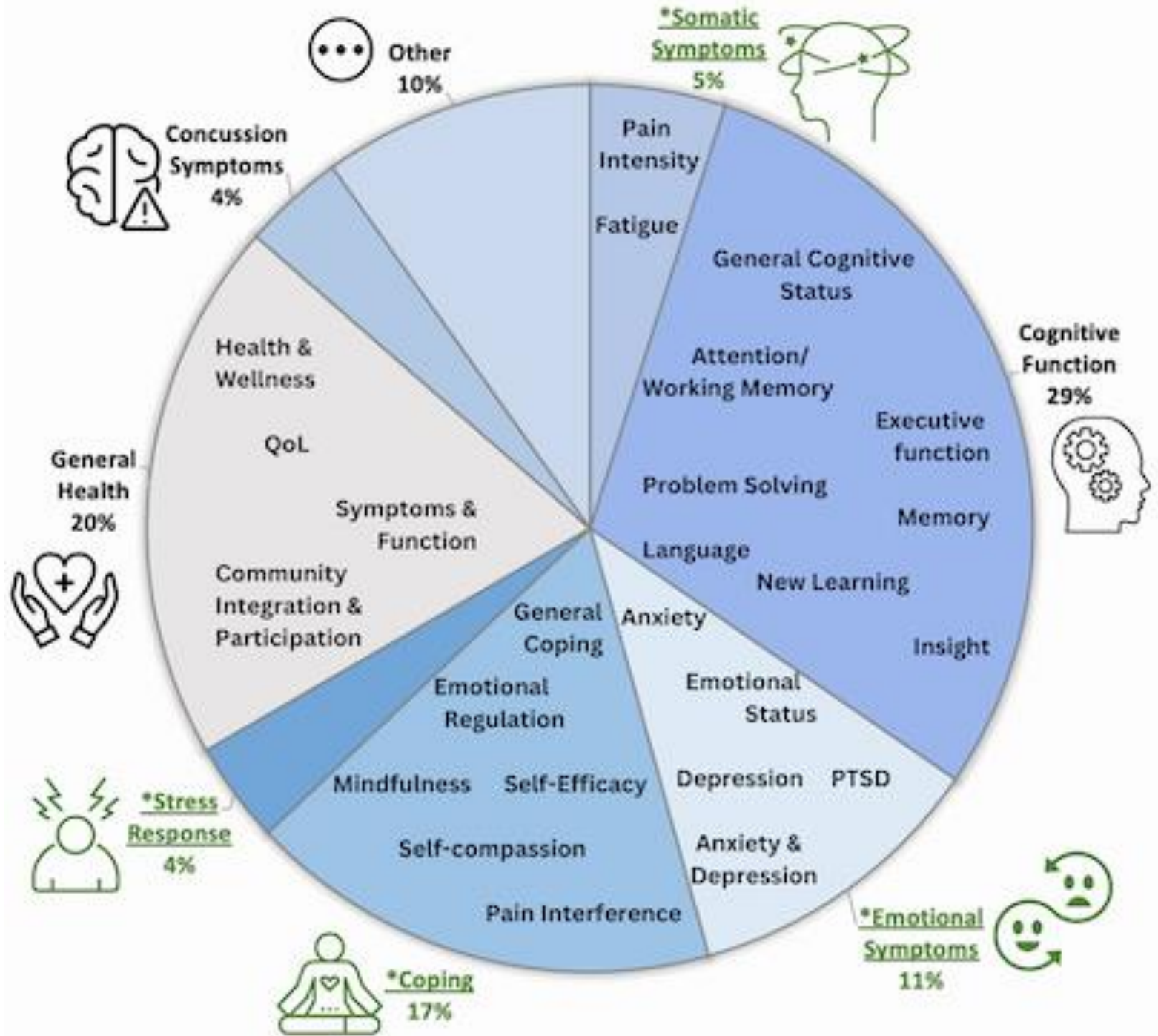
How is it measured?



What works?

Figure 1: PRISMA-ScR Flow Diagram





Qualitative methods/findings

- Scarcely used
- Benefits in all domains
- Highlighted novel areas for investigation:
 - Sleep
 - Interpersonal skills & relationships
 - Sense of community & belonging



Summary

- Mindfulness-based interventions for mTBI impact a range of clinical domains
- Integrating qualitative and mixed methods can help inform, and fortify and better capture the intervention effects



“I wish I had that!”: A qualitative analysis of psychosocial treatment preferences among young adults with recent concussion and anxiety

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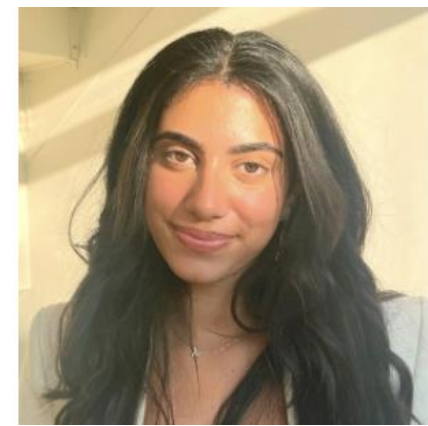
Millan Kanaya



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Ariel Emrani

Gaps in psychosocial care after concussion in young adults

- Young adults are susceptible to concussions or mild traumatic brain injuries (mTBIs) and co-occurring anxiety^{1,2}
- Persistent concussion symptoms (headaches, sleep disturbance, and fatigue) can disrupt functioning^{3,4}
- Current treatments focus mainly on physical & cognitive symptoms of concussion, neglecting the anxiety and worry¹
- Gap: understand treatment preferences using qualitative methods to develop feasible and effective psychosocial treatment

Aims of current study

To identify:

1. Preferences for psychosocial treatment **topics and skills**
2. Preferences for treatment **logistics** (e.g., structure, modality, duration)
3. Perceived **barriers and facilitators** to participation

Recruitment and Eligibility Criteria

- At concussion clinics, providers and centralized platforms within MGB

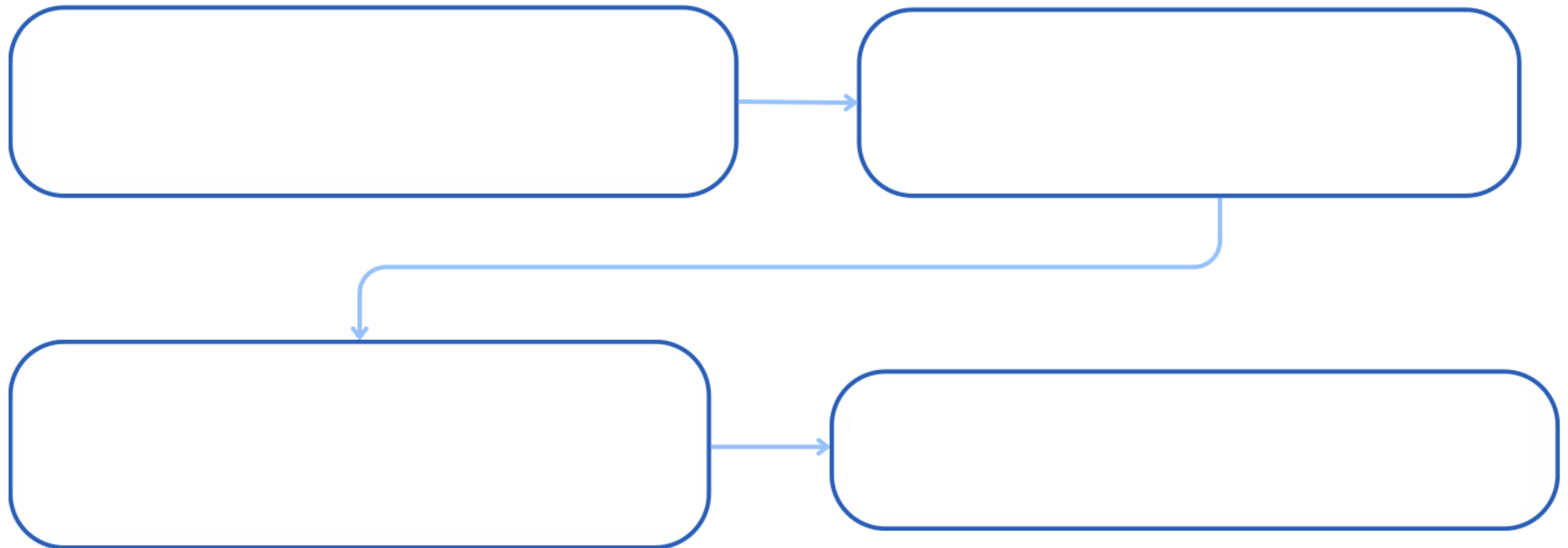
Inclusion criteria	Exclusion criteria

Qualitative interviews with young adults

- ~45-minute semi-structured interview with a male clinical psychologist (JG) over Zoom
- Topics:
 - preferences for a psychosocial treatment program, including preferred topics/skills
 - perceptions of a proposed virtual 4-session program
 - perceived barriers and facilitators to participation

Data Analysis

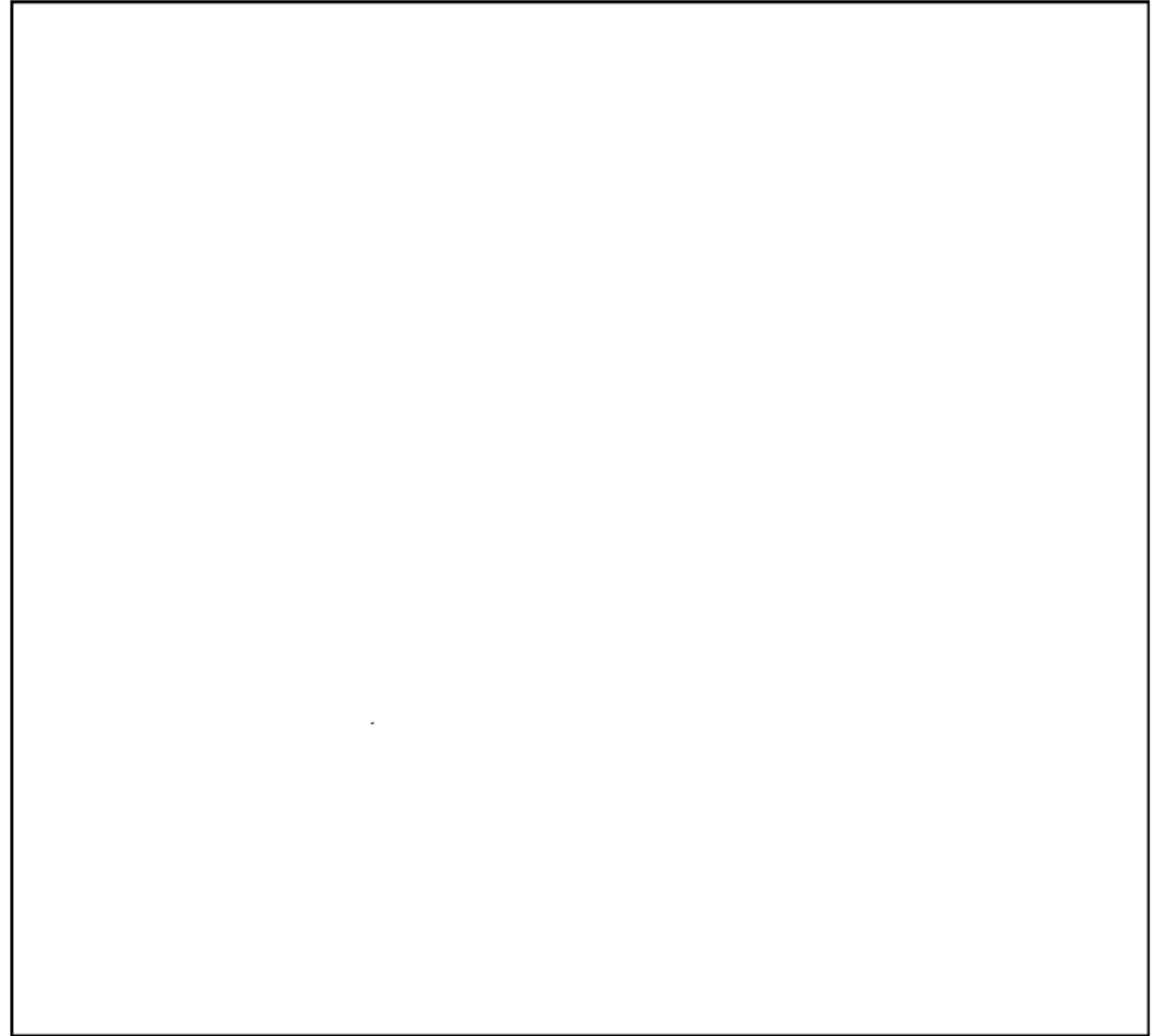
- Deductive and inductive process
- Identified themes & subthemes relevant to aims



Psychosocial Treatment Preferences of Young Adults with Recent Concussion and Anxiety



4 Key Takeaways

An empty rectangular box with a black border, intended for the first key takeaway.An empty rectangular box with a black border, intended for the second key takeaway.An empty rectangular box with a black border, intended for the third key takeaway.A large empty rectangular box with a black border, intended for the fourth key takeaway.

References

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Comprehensive experience
feedback with Brain Injury ID
cards

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The need for policy and large-scale interventions for brain injury

- Brain injuries are often “invisible” and have lifelong consequences¹
- Survivors experience stigma and challenges related to misattribution of symptoms to other causes that are barriers to recovery¹⁻²
- Survivors report unfulfilled social, medical, workplace, and support needs³⁻⁴

Aims / Objectives

To comprehensively characterize the impact of one initiative- Brain Injury Identification Cards- among survivors before further refining the resource

BRAIN INJURY IDENTIFICATION CARD
I have a brain injury which may affect my behavior and ability to communicate.



Name: **John Doe**
Emergency Contact: **Jane Doe**
Emergency Phone: **212-555-5555**

Avoid Misunderstandings. Please Read Reverse Side for Symptoms

SYMPTOMS OF A BRAIN INJURY INCLUDE:

- Poor coordination, balance, or muscle control
- Blurred speech, vision, or impaired hearing
- Difficulty with attention, concentration, memory, or understanding
- Difficulty controlling anger and/or aggressive behavior
- Confusion, disorientation, dizziness
- Difficulty processing and slow response time
- Impatience, anxiety, or agitation
- Seizures, headaches, or fatigue

I can best communicate in a calm, non-confrontational manner. If I am experiencing a crisis and you need further information or assistance please call the emergency contact number on the other side of this card. Thank you for your courtesy and assistance!

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Participant Characteristics

Screening and recruitment:

- Recruited from listserv of individuals who applied for and obtained Brain Injury ID card from law firm
- Included individuals were: over 18, endorsed at least one brain injury on the Brain Injury Screening Questionnaire

Table 1: Participant Characteristics

Participants (N=17)	
Sex	
Age at Interview	
Mean (SD)	49.04 (13.14)
Range	27.23-71.93
Median	45.69
Form of Brain Injury	
Traumatic Brain Injury	16
Aneurysm	1
Years Since Injury	
Mean (SD)	13.12 (12.00)
Range	3.16-44.89
Median	7.60
Brain Injury Exposure History	
Organized Sports Participation*	8
Military History*	0
Intimate Partner Violence History*	4
Brain Injury Identification Card Characteristics	
Endorsed Card Use	14
Positive Experience	11
Negative Experience	1
Neutral Experience	5

*As endorsed on the Brain Injury Screening Questionnaire (N=14).

Focus groups and data analytic plan

- ~60-minute focus group with two psychologists held over Zoom
- Semi-structured interview script focused on uses of card, impact of card, and proposed changes
- Rapid data analysis with a combination of deductive and inductive coding strategies to identify themes within a-priori domains

Theme 1: Process/ reasons for obtaining cards

- Obtaining cards through community (peers, support groups, organizations, personal contacts) was easy and not time-consuming.
- Cards were requested based on perception that card would improve safety, ability to communicate about brain injury and symptoms, and increase self-advocacy.

“The process was very easy but it seemed a little scammy. I’m like ‘this is too easy. Nothing is ever that easy, but it is.’”

“[The card was] timely during a time when it was hard to understand other things”

Theme 2: Overall Impressions of the Cards

- Participants indicated that cards were perceived by others as legitimate and included helpful information for communicating about brain injury symptoms.
- There were some concerns about disclosing brain injury history when using the cards, and about legal or policy implications of cards.

“It was life changing. It totally changed my life because I didn’t feel like I was making up my problems”

“The card is helpful for things like police officer comments like ‘You look fine, your driver's license doesn't say you are disabled.”

Theme 3: Uses of the Cards

- Cards were used to communicate about brain injury symptoms and needs.
- Cards increased participants' sense of safety in multiple contexts (e.g., legal, medical, driving).

“People don’t understand illnesses they can’t see”

“I really love that it says I can best communicate in a calm non-confrontational manner. I think that that especially is crucial and I love it. It makes me feel better having it.”

Theme 4: Feedback and Proposed Changes

Need for more personalization of cards based on specific symptoms, contact information, and instructions or guidance on needs.

Suggestions for legal, public policy, and medical policy integration.

Preferences for technological enhancement and diagnostic verification.

"It would be nice to have a unique QR code that has your personal information so that anyone could scan it and it would give you personalized contacts and other information – for emergency medical events, interactions with police."

"For me, it needs to look more legitimate and not something that I typed up on my computer and went to get laminated."

Main Conclusion:

Brain Injury Identify Cards
improve survivors' sense of
safety, self-advocacy, and ability
to participate in daily activities.

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