| Brain Injury and Co-Occurring Challenges:        |
|--|
| Information and Strategies for Service Providers |



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Brain Links is supported by the Administration for Community Living (ACL) of the U.S.

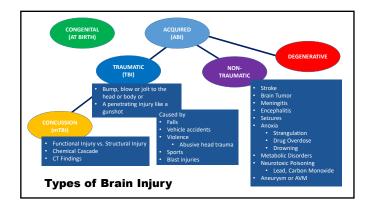
Department of Health and Human Services under Grant No. 90TBSG0051-01-00 and in part by the TN Department of Health, Traumatic Brain Injury Program.



## Agenda

- What is Brain Injury?
- \* Importance of Identifying Brain Injury
- \* Relationship to Common Comorbidities
- Screening Tools
- \* Strategies & Accommodations for Use in Non-Brain Injury Programs
- \* Referral Options
- \* Resources







| Zack   |   | Not a concussion – a more significant TBI |
|--|---|---|
| Age: 4 years   | Age: 5 yea  | irs                                       |
| <ul> <li>In an ATV accident</li> <li>Loss of consciousness</li> <li>Initial Glasgow Coma Scale = 8         <ul> <li>(agitated, non-verbal, moves all extremities)</li> </ul> </li> <li>Multiple skull and facial fractures</li> <li>Brain shifted to the left</li> <li>(Not a concussion)</li> <li>Recovers "beautifully"</li> </ul> | * Hitting of  * Wanderin  * Disruptiv  * Impulsive  * Not ident |   |

#### Nathan

#### Age: 10 months

- Falls down a flight of steps
- \* Crying, no loss of consciousness
- \* Seen at hospital, "no concussion"
- \* No recommendations
- \* Bruising around his right eye for weeks

#### Age: 24 years

- Is currently in prison
- \* Is an addict ("tried everything")
- \* Can't/won't hold a job
- \* Very smart but struggled in school
- Few friends
- \* Borderline personality disorder

Usually with these kids, the mom says, "He won't get help."



#### Aleea





- Was in a domestic violence situation
- · She was strangled multiple times and hit
- in the head too many times to count Trying to get on her feet in a shelter
- Misses appointments
- Can't tolerate the noise
- Difficulty following the rules • Sometimes sleeps on the streets
- · Concussion during football practice
- Grades dropping in school
- Impulsive, low frustration tolerance
- Getting into fights
- Arrested over the weekend for buying drugs "to make his head feel



## John

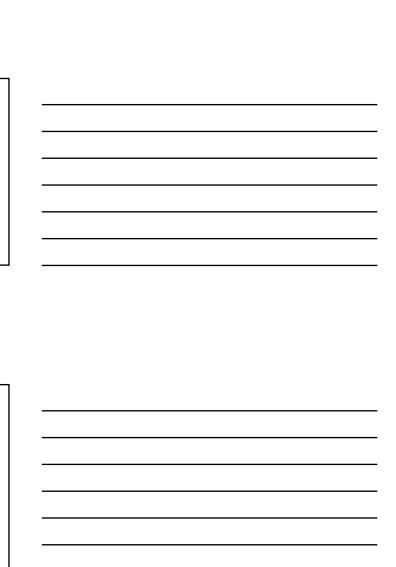
- Has been incarcerated twice
- Has a high ACE score
- Had a brain injury in middle school from PE class
- Started stealing; went to a juvenile detention center where he sustained another injury
- Fell in with a bad crowd and started stealing cars



**James** 



- In a substance abuse program
- Says he wants to get clean, but doesn't do what he says he's going to
- Doesn't participate when he comes to group Doesn't seem interested
- Was screened and found a history of TBI in high school
- Further cognitive testing revealed problems with memory, attention and speed of processing



| "We | haven'        | 't seen | anyone  | with a   | brain  | iniury | ı." |
|-----|---------------|---------|---------|----------|--------|--------|-----|
|     | I I G V C I I | COCCII  | urryone | TTICII G | DIGILI | ,      | ,.  |



...they have seen you.

#### When MTBI Occurs in Preschool, then... at age 14 -16:

Significantly more likely to show symptoms of

- ADD/ADHD
- Conduct Disorder & Oppositional Defiant
- Substance Use
- Mood Disorder

McKinlay, et al (2009)



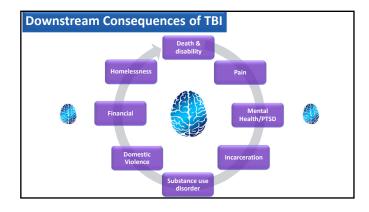
#### MTBI in childhood (up to age 16), then... at age 21 – 25:

More likely to abuse substances, commit violent and property offenses McKinlay, et al (2013)

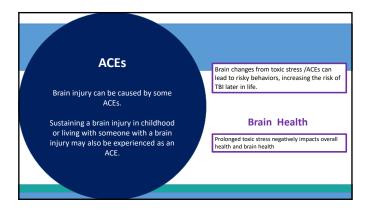
## Those With Brain Injury at a Higher Risk

- \* Have another injury
- \* Become obese
- \* Be incarcerated
- \* Abuse substances
- \* Become depressed; anxious
- \* Be socially isolated
- \* Lower educational attainment
- Learning disability; ADD/ADHD
- Speech and Language Problems
- \* Bone, joint and muscle problems





|        | Common Problems after TBI   |  |
|--------|---|--|
| Physic | al Balance, incoordination, vision, difficulty walking, movement disorders  |  |
| Cognit | tive, Speech and Language Slurring, forgetting words, slow to respond, difficulty understanding, "over" talking/rambling, under responding, problem with attention, decreased reasoning |  |
|        | Executive functioning: impulsivity, initiation, planning, organization, judgment, self-monitoring, flexibility  |  |
| Behav  | ior<br>Impulsive, aggressive, angry, rude, belligerent, loud,<br>don't know boundaries, overly emotional  |  |



#### **Mental Health**

After Brain Injury:

Social Isolation; poor social skills Anxiety; PTSD; other stress disorders Depression; Bipolar Aggression Oppositional Defiant Obsessive Compulsive Psychosis; Paranoia

- Brain injury can create mental health issues, as well as worsen pre-existing ones. Can make coping harder.
- 6 months to 1 year following an injury: one third will experience a mental health problem – that number will grow over time.
- People with BI have a 2-4 time increased risk of attempting or having death by suicide.
- As high as 75% of people seeking mental health and substance use treatment also have a brain injury.

Recommendation from ACL's Behavioral Health Guide: All people seeking Mental Health treatment should be screened for lifetime history of brain injury & provided with accommodations that fit their symptoms. Voluntary cognitive screening may also be offered.

#### **Substance Use**

After Brain Injury: 70-80% discharged from health care facilities with a Rx for opioids

People with TBI are 10x more likely to die of accidental overdose.

10-20% develop a substance abuse problems 8 -12 months after injury

As high as 75% of people seeking mental health and substance use treatment also have a brain injury.

- Approximately HALF of people receiving substance abuse treatment have at least one brain injury.
- 25% of people entering brain injury rehabilitation are there as a result of drugs or alcohol.
- Those with childhood TBI are more likely to abuse drugs & alcohol as adults.

For every overdose death, there are approximately fifty overdose survivors, 90% of whom become impaired because of insufficient oxygen to the brain.

#### **Domestic Violence**

- As many as 20 million women each year could have a TBI caused by domestic violence.
- Head, neck and face among most common targets of intimate partner assaults.
- Women who are abused are more likely to have repeated injuries to the head.
- Survivors of DV with a TBI are likely to experience difficulty with attention, concentration, memory, executive functioning and processing information.
   Makes it harder to
  - Assess danger, make decisions related to safety, adapt to living in a shelter

ODVN Findings from the Fiel

85% experienced blows to the head

83% experienced strangulation

of those

50% experienced it too many times to count

of those 88% experienced it multiple times

#### • Of those in the Juvenile Justice System, 41% have had a TBI. They are likely to sustain more **Justice System** $\label{eq:injuries} \textbf{injuries} \ \text{as they age}.$ With TBI, they are at a 69% higher risk of recidivism. After Brain Injury: Within 5 years post injury, • In the adult Justice System, 50-80% nearly 1/3 report some have had a TBI. involvement with criminal • People with TBI 12Xs less likely to justice system achieve discretionary release • Close to 100% of women in the justice system have a history of TBI.

#### TBI is both a cause & consequence of Homelessness homelessness. Over half of those who are homeless ...25% were moderate to severe or are in an insecure living situation brain injuries. (10Xs higher than have a TBI. the general population) They have poorer general People who are homeless and have a health and functioning than TBI are more likely to report people who are homeless childhood trauma or violence. without brain injury.

#### **Chronic Pain** More likely to be prescribed opioids Common problems following brain After Brain Injury: injury, like poor judgment and memory and increased impulsivity Pain is the most common make it harder to self-regulate chronic medical condition substance use & make overdose more likely. reported by people with TBI Over half of people with TBI Pain can exacerbate other brain injury symptoms develop chronic pain Have more frequent headaches People with TBI are at 11Xs greater that may be medicated risk of accidental overdose death

#### **Child Abuse**

**30 - 60%** of perpetrators of DV/IPV also abuse children in the household

Brain Injuries can be the result of neglect, punching, kicking, striking with hand or object, throwing against an object, suffocation or strangulation, shaking

- Abusive Head Trauma includes Shaken Baby Syndrome
  - Injury to the Brain
    - Diffuse Axonal Injury
      - Oxygen Deprivation
      - •Swelling of Brain
      - •Skull injures Brain





## **Disproportionate Impact**

- People with disabilities At least 5.3 million Americans live with a TBIrelated disability. That's one in every 60 people. ABIs put that number much higher. Some disabilities put people at a higher risk of sustaining a brain injury.
- Veterans "More than 450,000 U.S. service members were diagnosed with a TBI from 2000 to 2021." Many also have depression and PTSD. Blast injuries are the most common cause.
- People in Rural Areas are more likely to die from TBI and have less access to care.



#### **Disproportionate Impact**

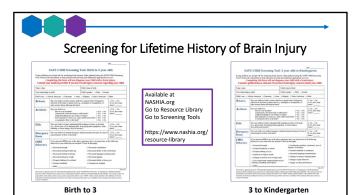
- People in Racial and Ethnic Minorities more likely to have poorer outcomes after TBI & have less access to care.
- Aging In TN, the age group with the highest number of TBIs is 81+ years. Older adults are more likely to be hospitalized and die from a TBI compared to all other age groups.<sup>11</sup> Still, TBIs may be missed or misdiagnosed in older adults because symptoms of TBI overlap with other medical conditions that are common among older adults, such as dementia. cdc.gov/traumaticbraininjury
- Gender Men have a higher incidence in young adulthood. Women are significantly more likely to die from a head injury than men. Women are more likely to die from a head injury by assault.

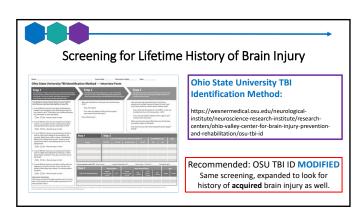


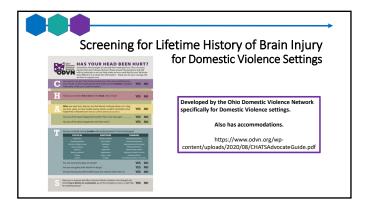
## **Screening Tools**

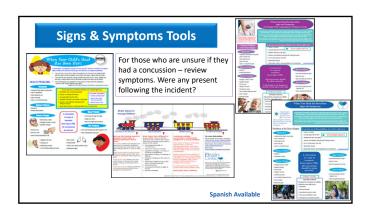
#### Formal Screening Tools

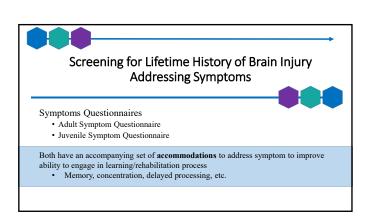
- Incorporating Questions into Existing Intake
  - NOTE Dr. Amen: Sometimes have to ask the question 9Xs!
- \*Brain Links is happy to work with your system to incorporate screening, staff training and client education into your protocols.











| Training Clinicia | ins to Assess Cognition   |
|-------------------|---|
| An In             | ning Tests for Mental Health Clinicians:<br>tensive Short Course<br>Kim Gorgens, PhD.   |
| \$150             | Who should sign up?  • Masters-level clinicians  • Social workers  • VR counselors  • Addiction professionals  • Community rehabilitation programs  • School staff evaluators  • Mental health counselors |

## **Brain Injury's Impact on Treatment Programs**

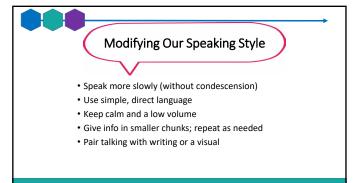
- Cognitive and behavior changes make it harder to participate
  - Problems with
     Memory
     Attention
  - Information Processing
     Frustration
- Less ability to maintain improvement without continued structure and support
  - Judgment
  - Impulsivity
  - Memory



## Brain Injuries are REASONS, not EXCUSES

The brain changes make the need for rules, boundaries, requirements, expectations and accommodations even greater...

... because that structure is NOT coming from within the individual.





#### **Example Accommodations**

**People with TBI will have a harder time using services** and maintaining positive change without accommodations:

- Write things down/encourage them to take notes
- Set up alarms for appointments
- Ask them to paraphrase
- Support efforts to be organized notebooks, calendars, lists
- Education about brain injury, brain injury resources
- Judgement and impulsivity may be issues help to plan ahead, anticipate triggers, think about consequences

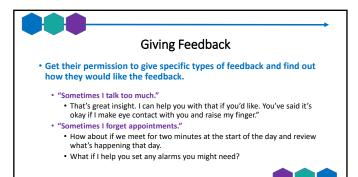


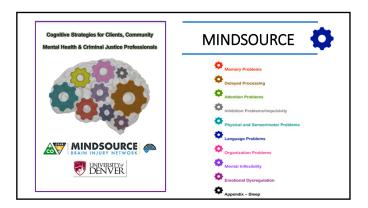


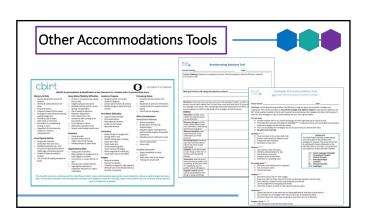
## More Accommodations

- Help them be successful
  - Help them understand their injury and what is a challenge, but always give a way to overcome the difficulty:
    - "You've told me that sometimes you forget things. I've noticed that you remember when you use your planner."
  - Cue them
    - "You were saying...."
    - "I think you took notes on that."
    - "Do you have any appointments tomorrow?"
    - "Did you set your watch alarm for that meeting?"
  - Give positive feedback.









## Refer Out if Needed

- Use Accommodations within YOUR program whenever possible.
- If necessary, refer out
  - Service Coordinators (for help accessing services)
  - Neuropsychologist for cognitive testing
  - Cognitive Rehabilitation Program
  - Symptom-specific specialist
- Examples: Neuro-ophthalmologist, speech-language pathologist, OT, PT, neurologist, counselor, psychiatrist, etc.
   Our Dream Network of Master's Level Cognition Screeners?



## **Brain Links Documents with Referral Options Built-in**



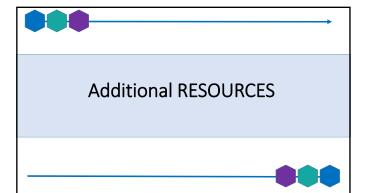
tndisability.org/brain

| Changes                 | Watch for these Changes Since Injury   | Specialist   |  |
|-------------------------|--|--|--|
| Emotions/Feelings       | Irritable/fussy, crying or tantrums, sad/depressed, more<br>nervous, change from happy to tantrum quickly, have<br>trouble calming themselves, upset and you can't tell why, hard<br>to adjust to new situations, feeling overwhelmed or alone | Counseloe, Psychologist  |  |
| Sleep                   | Sleeps more or less than usual, tired during day, trouble<br>falling asleep, wakes often at night, wets the bed, nightmares  | Pediatrician, Neurologist  |  |
| Appetite/Tood           | Eats more or less since injury, stomachaches   | Pediatrician   |  |
| Cognitive/Thinking      | Thinks slowly and reacts slowly, has trouble putting things<br>in order, harder to concentrate, forgetting   | Neuropsychologist, Speech<br>Language Pathologist,<br>Occupational Therapist             |  |
| Development/Progress    | Struggling to learn new skills, needs to relearn skills like:<br>using a spoon, tying a shoe, potty training, counting,<br>handwriting, typing   | Occupational Therapist, Physical<br>Therapist, Neuropsychologist                         |  |
| Play                    | Less interested in toys or books, can't stay on task<br>playing, struggles with how to use/play with toys, doesn't<br>pretend play like other children their age   | Speech Language Pathologist,<br>Occupational Therapist                                   |  |
| Social/Friends/Behavior | ocial/Friends/Behavior More hitting, pushing, taking toys, less sharing, harder to make friends, withdrawn, clingy   |  |  |
| Flexibility/Changes     | hanges Upset by changed routine, schedule or people Behavior Specialist,<br>Neuropsychologist  |  |  |
| Language/Talking        | Difficultly naming objects, understanding directions, telling<br>stories. Using shorter sentences than before injury.  | ing Speech Language Pathologist  |  |
| Physical                | Headaches, dizziness, head or neck pain, tightness,<br>weakness, balance, visual problems, reduced stamina,<br>fatigue, sensitive to lights and sounds, seizures   | Pediatrician, Physical Therapist,<br>Neurologist, Chiropractor,<br>Neuro-Ophthalmologist |  |

## **Brain Links Documents with Referral Options Built-in**



tndisability.org/brain





## Survivors, Families & Caregivers Toolkit

- Essential Resources
- Signs & symptoms and Fact Sheets
- Mental Health
- Domestic Violence
- Behavior Resource
- Returning to School
- Family Caregiver Resources
- Financial & Residential Resources



Survivors, Families, and Caregivers Toolkit https://www.tndisability.org/brain-toolkits

15

#### Survivors, Families & Caregivers Toolkit Raising a Child with TBI: • Family Caregiver Raising a child with TBI can be a daunting job. How can you give your child the help that he or she needs while still maintaining some semblance of a normal life

Resources

nce is a tough enough time. What happens when a brain injury is added to

Traumatic Brain Injury: A Guide for Caregivers of Service Members and Veterans:

This guide is a recovery support tool to assist caregivers of service members and veterans who have sustained a traumatic brain injury at any seventy level.

<u>Video: Be Ready: Disaster Preparedness for Families with Children & Youth with Special Healthcare Needs</u>



## Service Professionals Toolkit

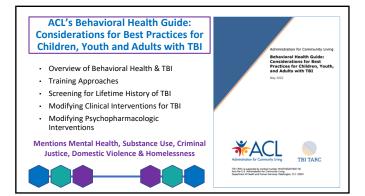
- Tools for developing plans and services
- Mental health information and factsheets
- Domestic violence
- Returning to school and work
- Residential resources
- Family and caregiver resources
- Social media
- Professional development
- Programs and resources

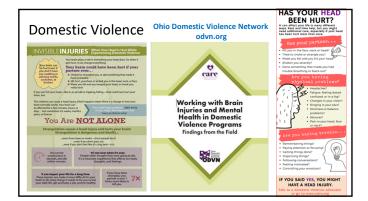


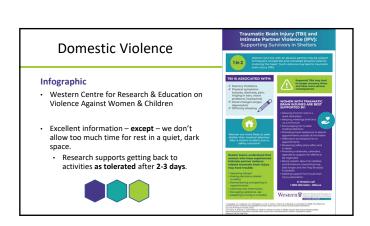
Service Professionals Toolkit

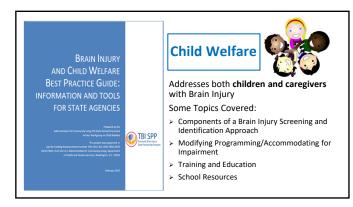
https://www.tndisability.org/brain-toolkits

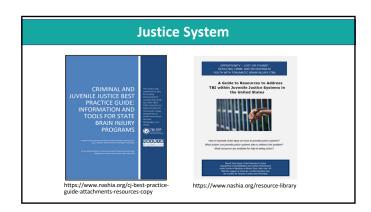
# **Important Resources:** When Concussion Symptoms Are Not Going Away THAN YOUR CHEEP HAD A CONCUSSION? Your office is concusion, see cable a red from your, then we called many you should take to the case fine furthers, (Suday concusion syndrom and likes to fine to refer from not distinct, agreement all gar ages, in less it has values, research, some product have agreement size to imper the feet months. 5 and Under School-Aged

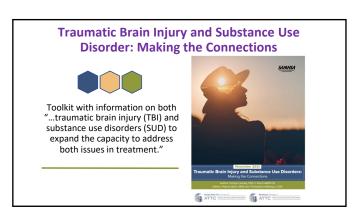














## Disability Rights of NC's TBI Justice Database

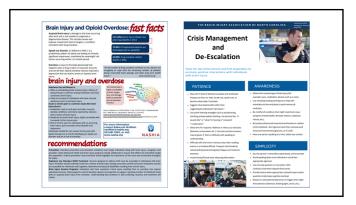


• The country's first **national database** on TBI and Justice

• CIT

- Centralizing information on criminal legal system-related brain injury screening and supportive service programs, including pilots, academic studies, and projects from the past 30 years.
- Search based on population type:
- Juvenile Justice
   Adult Men
- Adult Women
- Adult Corrections Segregation Units
- CIT
   Public Education
   Veterans
   Domestic Violence
   Mental Health Court
   Problem Solving Courts
- Segregation Units
   Law Enforcement







# Trainings Available

#### **Brain Links' YouTube Training Channel**

- Variety of recorded trainings on many topics related to Brain Injury, as well as Brain Health and Resilience.
- · Playlists created for specific types of audiences



youtube.com/channel/UC5NeDDc1pzWyt0YKDHx015A/playlists

You Tube



## **Trainings Available**



Attend a scheduled training or

Request a Brain Links Training Tailored to your Population Served

- > Then let us work with you to
  - > Choose the right screening
  - > Answer any questions



## **Other Online Training Sources**

- The Ohio State University Wexner Medical Center training modules for professionals, including:

  - Neurobehavioral Impairments
     Accommodating the Symptoms of Brain Injury
- Alabama TBI Program, including:
  - The Justice System and TBI
     Certificates Available



- Brain Injury and Behavior
   Juvenile Justice
   Brain Injury and Executive Functioning
   Intervention for Students with mTBI
   Challenging Behavior and Executive Function



## In Your Programs...



- Screen because of the incredible prevalence of Brain Injury in all the populations we serve
  - · Lifetime History of Brain Injury
  - Cognitive Changes
- Accommodate for cognitive and other brain injury changes within your programs
- Educate the person and staff about brain injury
- · Incorporate New Resources
- · Seek Out Additional Training



| Brain<br>Links                          |  |
|---|--|
| Questions                               |  |
| Wendy Ellmo MS CCC-SLP, BCNCDS, CBHP    |  |
| wendy e@tndisability.org (908) 458-7532 |  |
| tndisability.org/brain                  |  |
|   |  |