A TREATMENT COURT TOOLKIT FOR

Supporting Individuals with Acquired Brain Injury

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Treatment courts perform their duties without manifestation, by word or conduct, of bias or prejudice, including, but not limited to, bias or prejudice based on race, gender, national origin, disability, age, sexual orientation, language, or socioeconomic status.

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The structure of treatment courts lends itself to improving outcomes for individuals who experience mental illness, substance use, and other factors that make navigating the criminal legal system a challenge. These courts have three primary goals: reducing recidivism rates, reducing substance use among participants, and supporting participants' mental health and rehabilitation.[1] Regardless of the particular population, treatment courts have 10 common elements, according to the Drug Court Standards Committee.[2] Treatment courts:

- Integrate alcohol and other drug treatment services
- Use a nonadversarial approach
- Provide early identification and placement
- Provide access to a continuum of alcohol, drug, and other related treatments
- Monitor for abstinence
- Use a coordinated strategy
- Include ongoing judicial interaction with participants
- Use monitoring and evaluation measures
- Offer continuing interdisciplinary education
- Forge partnerships

In 2012, key information from National Institute of Justice-supported research was gathered and translated into practice terms under a joint Adult Drug Court Research to Practice (R2P) initiative with the Bureau of Justice Assistance. The R2P program—a collaboration among Department of Justice branches working with research and practice experts—identified seven program design features for adult drug courts:[3]

- *Screening and assessment:* Legal and behavioral screening, and assessment of risk, needs, and responsivity
- *Target population:* The specific offender subgroup(s) the program is designed to serve
- *Procedural and distributive justice:* Fair process and equitable outcomes, and the perception of them, through graduated sanctions and incentives, information regarding compliance, and meaningful responses to participants
- *Judicial interaction:* Decisions based on frequent and respectful interactions with defendants and a clear understanding of program resources and court requirements
- *Monitoring:* Community-based surveillance and supervision to manage compliance, including drug testing, home and office visits, GPS monitoring, and curfew supervision
- *Treatment and other services:* Alcohol and other drug treatment, employment, and rehabilitative services such as mental health treatment and trauma care with gender and culturally competent lenses
- *Relapse prevention, aftercare, and community integration:* Identification of triggers and supports to prevent relapse and sustain recovery

1 Office of National Drug Control Policy, *Drug Courts: A Smart Approach to Criminal Justice*, Fact Sheet (May 2011). https://obamawhitehouse.archives.gov/ondcp/ondcp-fact-sheets/drug-courts-smart-approach-to-criminal-justice

2 All Rise, formerly National Association of Drug Court Professionals, Drug Court Standards Committee, and Drug Courts Program Office, Office of Justice Programs, *Defining Drug Courts: The Key Components* (1997). https://allrise.org/publications/defining-drug-courts-the-key-components-2/

3 Paul A. Haskins, "Problem-solving courts: Fighting crime by treating the offender," *National Institute of Justice Journal*, Vol. 281 (November 2019). https://nij.ojp.gov/topics/articles/problem-solving-courts-fighting-crime-treating-offender

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> Evidence indicates that justice-involved individuals with a traumatic brain injury (TBI) recidivate at rates that are much higher than their peers without a TBI, 69 percent compared to 37 percent.[4]

These key program design features of treatment courts have led to successful outcomes for justice-involved individuals and the courts. However, achieving success, at both the individual and court levels, can be challenging if a person has a brain injury, especially if the brain injury is not identified. Brain injury can make it challenging for justice-involved individuals to navigate the justice system successfully. The sequelae of brain injury can add to these individuals' challenges, especially regarding executive dysfunction. Individuals who experience executive dysfunction may struggle with problem-solving, disinhibition, emotional regulation, organization, and impulse control. Additionally, those with brain injury who are engaged in the justice system have a much higher rate of co-occurring conditions that further complicate their ability to be successful. These include behavioral health conditions such as mental illness and substance use, which the treatment courts are designed to address. Finally, a particular challenge is that justice-involved individuals often may not even be aware that a history of brain injury adds to their challenges. Therefore, the courts are also unaware of this. When a brain injury is not identified, it can appear that an individual is just being oppositional, is failing to comply with the court, is unmotivated, etc. This can ultimately lead to failure in treatment courts.

4 Adam L. Piccolino and Kenneth B. Solberg, "The impact of traumatic brain injury on prison health services and offender management," *Journal of Correctional Health Care*, Vol. 20, No. 3 (2014), pp. 203–212. http://doi.org/10.1177/1078345814530871

Overview of Brain Injury and Why It Is Important in the Context of Treatment Courts

A Note on Terminology

It is important to note that most of these data are related explicitly to *traumatic brain injury* (TBI). Traumatic brain injury is defined by the Centers for Disease Control and Prevention (CDC) as an injury that affects how the brain works. It may be caused by a bump, blow, or jolt to the head or a penetrating injury such as a gunshot to the head. However, it is essential to recognize other mechanisms of brain injury, especially in the context of criminal and juvenile justice. The term *acquired brain injury* (ABI) encompasses both traumatic and nontraumatic mechanisms of brain injury. Nontraumatic mechanisms include internal events such as stroke, aneurysm, brain tumor, and anoxia. Anoxia, caused by a lack of oxygen to the brain, is of particular importance in this context. It can result for several reasons, including strangulation and drug overdose. Notably, the prevalence of brain injury among female offenders is very high. There is some evidence to suggest that a high percentage of these women have experienced brain injury due to domestic violence.[5] Strangulation is a common cause for these injuries, in addition to physical blows to the head.

The term *brain injury* will be used throughout this document to include both traumatic and nontraumatic mechanisms of brain injury unless referring to specific data related to TBI. The information, tools, and strategies provided apply to anyone with a brain injury, regardless of the mechanism of injury.

Other terms associated with brain injury are *mild*, *moderate*, and *severe*. These classifications are assigned at the time of injury. Mild brain injury is characterized as altered mental status or loss of consciousness for up to 30 minutes. Moderate is defined as a loss of consciousness from 30 minutes up to 24 hours. A severe brain injury involves a loss of consciousness of 24 hours or greater, otherwise known as a coma. It is important to note that while there is a correlation between severity and long-term function, this does not mean that individuals with multiple mild brain injuries (concussions) and those with moderate brain injuries will not have long-term, often lifelong, consequences from these injuries.[6]

The CDC considers TBI to be a serious public health issue. Each year, approximately 1.5 million Americans sustain a brain injury, and an estimated 5.3 million Americans are living with the effects of TBI. TBI is "an alteration in brain function, or other evidence of brain pathology, caused by an external force" and is the leading cause of death and disability among children and young adults in the United States. Examples of external force are motorcycle/automobile crashes, assaults, and falls. Approximately 19 percent of individuals sustaining a TBI will experience long-term consequences following their injury, such as cognitive deficits (e.g., short-term memory loss, delayed speed of processing) or psychosocial vulnerabilities (e.g., increased aggression and a lack of impulse control).[7]

While the incidence of brain injuries in the general population is alarming, the prevalence among justice-involved individuals is staggering, so much so that the CDC recognizes brain injury in prisons and jails as an important public health problem.[8]

5 Kristi Wall, Kim Gorgens, Judy Dettmer, Terri M. Davis, and Jennifer Gafford, "Violence-related traumatic brain injury in justice-involved women," *Criminal Justice and Behavior*, Vol. 45, No. 10 (2018), pp. 1588–1605. https://doi.org/10.1177/0093854818778082

6 Centers for Disease Control and Prevention. *Get the facts about TBI*. (n.d.). https://www.cdc.gov/traumaticbraininjury/get_the_facts.html

7 Centers for Disease Control and Prevention, *Report to Congress: Traumatic Brain Injury in the United States: Epidemiology and Rehabilitation*. National Center for Injury Prevention and Control, Division of Unintentional Injury Prevention (2015). https://www.cdc.gov/traumaticbraininjury/pubs/congress_epi_rehab.html

8 Centers for Disease Control and Prevention, *TBI in Prisons and Jails: An Unrecognized Problem* (n.d.). https://www.cdc.gov/traumaticbraininjury/pdf/prisoner_tbi_prof-a.pdf

> The incidence of TBI history in incarcerated populations ranges from 41 percent to as high as 82 percent.[9]

Individuals with a TBI report a greater number of incarcerations than individuals without a TBI, and inmates with a TBI have a higher rate of disciplinary actions while incarcerated.[10] Importantly, as mentioned earlier, there is some indication that TBI increases the risk for recidivism after release from correctional settings.[11] Additionally, research conducted in Colorado demonstrated a dramatic convergence of psychosocial vulnerabilities among justice-involved individuals with brain injury, as shown in Table 1.

Table 1. Occurrence of psychosocial vulnerabilities among justice-involved individuals with brain injury compared to the general population

Vulnerability	Rate Among Justice-Involved Individuals with Brain Injury[12]	Rate Among General Population[13]
Substance use	92%	7%
Mental illness	68%	19%
Exposure to childhood violence	50%	10%
Violent victimization as an adult	47%	2%
Suicide attempts	28%	1%

In addition to these psychosocial vulnerabilities, the prevalence of brain injury is higher among certain groups. For example, the prevalence of brain injury among justice-involved women can be as high as 95 percent, according to the research in Colorado. This research also determined that close to 100 percent of the women in this study sustained their injury from intimate partner violence.[14]

Veterans also experience higher rates of justice involvement and brain injury compared to those who have not served in the armed forces. Fourteen percent of combat veterans who served in Vietnam sustained a TBI.[15] During peacetime, more than 7,000 veterans are admitted to military and veterans' hospitals with a diagnosis of TBI annually.[16] More than 2.5 million veterans serving after September 11, 2001, have sustained a TBI, and 80 percent of these injuries are non-combat related. Additionally, of veterans who served in Operation Enduring Freedom and Operation Iraqi Freedom, 46 percent screened positive for deployment-related TBI.[17]

9 Thomas J. Farrer and Dawson W. Hedges, "Prevalence of traumatic brain injury in incarcerated groups compared to the general population: A meta-analysis," *Progress in Neuro-Psychopharmacology and Biological Psychiatry*, Vol. 35, No. 2 (2011), pp. 390–394. https://doi.org/10.1016/j.pnpbp.2011.01.007

10 Piccolino and Solberg, "The impact of traumatic brain injury on prison health services and offender management."

11 Bradley Ray and Nicholas J. Richardson, "Traumatic brain injury and recidivism among returning inmates," *Criminal Justice and Behavior*, Vol. 44, No. 3 (2017), pp. 472–486. https://doi.org/10.1177/0093854816686631

12 Kim A. Gorgens, Laura Meyer, Judy Dettmer, Molly Standeven, Cory Marchi, Emily Goodwin, and Hollis Lyman, "Traumatic brain injury in community corrections: Prevalence, comorbidities, and long-term outcomes," *Criminal Justice and Behavior*, Vol. 48, No. 12 (2021), pp. 1679–1693. https://doi.org/10.1177/00938548211010316

13 Katie A. McLaughlin, Jennifer Greif Green, Michael J. Gruber, Nancy A. Sampson, Alan M. Zaslavsky, & Ronald C. Kessler, "Childhood adversities and first onset of psychiatric disorders in a national sample of US adolescents," *JAMA Psychiatry*, Vol. 69, No. 11 (2012), pp. 1151–1160, https://doi.org/10.1001/archgenpsychiatry.2011.2277; Substance Abuse and Mental Health Services Administration, *Key substance use and mental health indicators in the United States: Results from the 2017 National Survey on Drug Use and Health* (2018) (HHS Publication No. SMA 18-5068, NSDUH Series H-53), https://www.samhsa.gov/data/sites/default/files/cbhsq-reports/NSDUHFFR2017/NSDUHFFR2017.pdf

14 Wall et al., "Violence-related traumatic brain injury in justice-involved women."

15 Andrea Brioschi Guevara, Jean-François Démonet, Elena Polejaeva, Kristine M. Knutson, Eric M. Wassermann, Frank Krueger, and Jordan Grafman, "Association between long-term cognitive decline in Vietnam veterans with TBI and caregiver attachment style," *Journal of Head Trauma Rehabilitation*, Vol. 30, No. 1 (2015), pp. E26–E33. https://doi.org/10.1097/HTR.0000000000000046

16 Department of Defense, *DoD Worldwide Total Numbers for TBI*, 2000–2023. https://health.mil/Military-Health-Topics/Centers-of-Excellence/Traumatic-Brain-Injury-Center-of-Excellence/DOD-TBI-Worldwide-Numbers

17 Brett D. Owens, John F. Kragh, Jr, Joseph C. Wenke, Joseph Macaitis, Charles E. Wade, and John B. Holcomb, "Combat wounds in Operation Iraqi Freedom and Operation Enduring Freedom," *Journal of Trauma: Injury, Infection, and Critical Care*, Vol. 64, No. 2 (2008), pp. 295–299. https://doi.org/10.1097/TA.0b013e318163b875

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Opioid addiction and overdose are particularly concerning issues related to brain injury. Opioid use can cause brain injury when someone overdoses and experiences a lack of oxygen to the brain, causing an anoxic injury. Additionally, individuals with brain injury are more likely to become addicted to opioids than their peers without brain injury.[18] TBIs often result in headaches and orthopedic injuries, leading to prescriptions for opioids. Seventy to eighty percent of all patients with a TBI are discharged with a prescription for opioids.[19] A Traumatic Brain Injury Model Systems (TBIMS) study indicated that individuals with TBI were 10 times more likely to die from accidental poisoning than the general population. Further, this study found that 90 percent of accidental overdose deaths were drug related: 67 percent were from narcotic drugs, 14 percent from psychostimulants, and 8 percent from alcohol.[20]

Finally, the prevalence of brain injury among individuals who experience homelessness or are unhoused is much higher than in the general population. In one study of over 2,000 participants, 43 percent of respondents reported a history of brain injury, with the mean age of the first injury being 15. Furthermore, the study found that individuals with brain injury become homeless at a younger age and are more likely to report mental health diagnoses, substance use, suicidality, victimization, and difficulties with activities of daily living. Fifty-one percent of the sample reported sustaining their first injury before becoming homeless or at the same age as their first homelessness episode.[21]

These data are amplified in a justice population. According to the Bureau of Justice Statistics, more than 2 million people currently reside in U.S. prisons and jails.[22] Given that 41 to 82 percent (or as high as 95 percent of female offenders) of these inmates and probationers have a history of TBI and are therefore at greater risk for poor community outcomes and recidivism, it is critical to identify and support justice-involved individuals with brain injury to improve their outcomes.

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18 Maryland Department of Health, *Opioids and Brain Injury Facts*, Fact Sheet (n.d.). https://health.maryland.gov/bha/Documents/Opioids%20and%20Brain%20Injury%20Facts.%20for%20individuals%20and%20families.pdf

19 Rachel Adams, John Corrigan, and Kristen Dams-O'Connor, "The intersection of lifetime history of traumatic brain injury, pain, and the opioid epidemic," *Archives of Physical Medicine and Rehabilitation,* Vol. 100, No. 10 (2019), E131. https://doi.org/10.1016/j.apmr.2019.08.397

20 Rachel S. Adams, John D. Corrigan, and Kristen Dams-O'Connor, "Opioid use among individuals with traumatic brain injury: A perfect storm?" *Journal of Neurotrauma*, Vol. 37, No. 1 (2020), pp. 211–216. https://doi.org/10.1089/neu.2019.6451

21 Jessica L. Mackelprang, Scott B. Harpin, Joseph A. Grubenhoff, and Frederick P. Rivara, "Adverse outcomes among homeless adolescents and young adults who report a history of traumatic brain injury," *American Journal of Public Health,* Vol. 104, No. 10 (2014), pp. 1986–1992. https://doi.org/10.2105/AJPH.2014.302087

22 Paige M. Harrison and Allen J. Beck, *Prison and jail inmates at midyear 2005*, Bureau of Justice Statistics Bulletin (2006). https://bjs.ojp.gov/library/publications/prison-and-jail-inmates-midyear-2005

Common Challenges Associated with Brain Injury

Brain injury can result in a variety of medical, cognitive, neurobehavioral, and/or psychosocial impairments leading to chronic disability lasting throughout a lifetime.[23] Some of the most common effects of brain injury include fatigue, chronic headaches, difficulties with expressive and receptive language, sensitivity to light or sound, short-term memory loss, difficulties with attention and concentration, mood changes/swings, feeling depressed or anxious, and sleep disruptions.

In the context of criminal justice, the fact that many individuals experience executive dysfunction following brain injury can create particular challenges. As discussed earlier, executive dysfunction can cause deficits in reasoning, planning, mental flexibility, motivation/initiation, difficulties with problem-solving, disinhibition, and poor impulse control. While having a brain injury is not an excuse for committing a crime, it can cause challenges that lead to antisocial behavior and can be seen as a risk factor for being unable to successfully navigate the conditions of the criminal justice system. Executive dysfunction and other challenges a person experiences following brain injury can be misinterpreted as intentional, defiant, and/or noncompliant behavior. For example, an individual with memory difficulties may forget appointments and tasks to be completed. This might include not showing up for court or meetings with their probation officer, which leads to noncompliance and the risk of being jailed.

- Some specific neurocognitive challenges to treatment success for an individual with brain injury include:[24]
- Problems with the regulation of thoughts, feelings, and behavior
- Difficulties benefiting from the experience and remembering information from one session to the next
- Disconnection of intention and behavior
- Not fitting well with others and the environment because of problems perceiving, understanding, and behaving according to social norms
- Differences in communication or learning style, making participation in didactic training and group interventions more difficult and frustrating for the individual
- Lack of experienced staff and referral sources who understand how to adjust their approaches to help individuals with brain injury
- Misinterpretation of symptoms of brain injury by the provider, e.g., labeling an individual as "noncompliant" or "resistant," which undermines the treatment relationship
- Lack of a consistent and rich environment to provide stimulation, structure, and support
- Discontinuation of treatment before goals are met

Brain Injury in the Context of the Risk, Need, Responsivity (RNR) Model

The RNR model provides a good framework for conceptualizing how brain injury fits into the principles of criminology. This model can provide a roadmap for what can be done to mitigate the impact of brain injury and improve outcomes for justice-involved individuals with brain injury. Using the RNR framework can also reassure justice personnel that they can support someone with a brain injury by making some simple accommodations to what they are already doing. This will be explored further in the next section. The RNR model builds a case for why criminal justice sites would benefit from screening for brain injury (risk/need) and providing support to accommodate individuals with brain injury (responsivity) within the justice-involved population. It is critical to recognize that brain injury is a common and crucial variable regarding both risk and responsivity to treatment. Often professionals without specific expertise lack confidence in supporting people with brain injury. In fact, with a little foundational knowledge, justice personnel and treatment providers can effectively support these individuals.

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23 John D. Corrigan and Flora M. Hammond, "Traumatic brain injury as a chronic health condition," *Archives of Physical Medicine and Rehabilitation*, Vol. 94, No. 6 (2013), pp. 1199–1201. https://doi.org/10.1016/j.apmr.2013.01.023

24 Ohio Valley Center for Brain Injury Prevention and Rehabilitation, *Information and Education for Professionals.* https://wexnermedical.osu.edu/neurological-institute/neuroscience-research-institute/research-centers/ohio-valley-center-for-brain-injury-prevention-and-rehabilitation/for-professionals

Interacting with an individual who has a brain injury can be challenging. It is important to note that the courts and treatment providers are not expected to "treat" the brain injury. Instead, the focus is on understanding and identifying the individuals' deficits so that accommodations can be implemented to achieve better outcomes. Accommodation means providing services in a manner that considers an individual's special needs, in much the same way that one would accommodate a person who uses a wheelchair. Providing accommodation creates an opportunity to address potential barriers to treatment success.

The table below provides a crosswalk related to criminogenic need and brain injury in the context of the RNR model. It can be useful when considering how to support someone with a brain injury within treatment courts.

Table 2. Overlay of brain injury within the RNR model: Criminogenic needs and brain injury crosswalk
(Source: Adapted from R. Knauer, presentation at the 2022 National Association of State Head Injury Administrators Leading Practices Academy on Criminal and Juvenile Justice and Brain Injury.[25])

Criminogenic Need	Indicators	Brain Injury Impacts	Brain Injury Impairments	Target for Intervention
Low self-control	Arrested at a young age, large number of prior offenses, rule violations on conditional release	Frontal lobe injuries impact ability to control urges and impulses; TBI is highly associated with arrest; TBI is associated with higher disciplinary incidents and lower ability to maintain rule-abiding behavior; TBI is associated with more prior incarcerations and higher rates of recidivism	Inhibition/impulsivity Impaired attention Delayed processing speed Receptive language Expressive language Initiation Reasoning Mental flexibility Emotional/behavioral	Screening for brain injury is an important step to building self-awareness.
Antisocial companions	Association with antisocial others, isolation from pro-social others	Loss of prosocial relationships	Impaired social pragmatics Receptive language Expressive language Initiation Reasoning Emotional/behavioral	Implement a psychoeducational curriculum to increase self-awareness and teach pro-social skills.
Antisocial cognitions	Identification with antisocial others, negative attitudes toward the law and justice system, the belief that crime will yield rewards, rationalizes crime		Inhibition/impulsivity Mental flexibility	Cognitive behavioral therapy (CBT)
Antisocial personality pattern	Impulsive, adventurous, pleasure-seeking, generalized trouble in multiple settings, callous disregard for others, lack of empathy, anger problems	TBI causes structural behavioral control issues; TBI is associated with impulsivity, aggression, behavior issues, and negative emotions; agitation is common after TBI	Inhibition/impulsivity Short-term memory loss Impaired sensory motor skills Receptive language Expressive language Mental flexibility Emotional/behavioral	• Use modeling, structured learning, and reinforcement to teach and reinforce the use of pro-social, nonabusive replacement behaviors. • Emphasize emotional regulation and mindfulness skills. • Use community resources and broker for services. • Use structured, cognitive-behavioral interventions.

25 https://static1.squarespace.com/static/5eb2bae2bb8af12ca7ab9f12/t/63a4c5c69a67c063d8b67435/1671742919132/Criminogenic+Needs+and+BI+crosswalk+12.15.22.pdf

Criminogenic Need	Indicators	Brain Injury Impacts	Brain Injury Impairments	Target for Intervention
Dysfunctional family/ marriage	Poor communication, significant conflict (parent-child or spouse-spouse), involvement with antisocial others, lack of appropriate behavioral expectations and rules	Loss of relationships, including marital	Inhibition/impulsivity Impaired social pragmatics Receptive language Expressive language Mental flexibility Emotional/behavioral	Individuals with brain injury can benefit from a cognitive behavioral approach to therapy to reduce conflict, build positive relationships and build pro-social relationships.
Substance use struggles	Continued use despite significant life disruptions, increased tolerance to drugs/alcohol, increased use over time, inability to stop use	TBI increases the risk for behavioral health disorders; TBI is associated with higher rates of alcohol and other drug (AOD) use; intoxication or overdose can contribute to a TBI or cause an ABI; early life TBI predisposes to AOD; those hospitalized with TBI before age 6 are 3 times more likely to be diagnosed with AOD; those hospitalized with TBI between ages 16 and 21 are 3 times more likely to be diagnosed with drug dependence	Inhibition/impulsivity Sensory motor (numbing to stimuli) Behavioral/emotional Specific drugs used/ abused can contribute to different impairments (i.e., amphetamines can cause attention-related issues, etc.)	Reduce substance use, reduce the personal and interpersonal supports for substance-oriented behavior, and enhance alternatives to substance use. Note that substance use treatment must accommodate the neurocognitive deficits to ensure success.
Differing learning styles and inconsistent employment	Low levels of performance and involvement, low levels of rewards and satisfaction	Loss of employment; difficulties in educational settings; unstable employment post-injury	Inhibition/impulsivity Short-term memory loss Impaired sensory motor skills Receptive language Expressive language Initiation Reasoning Mental flexibility Emotional/behavioral	Helping the individual understand their deficits and providing strategies for compensation will lead to enhanced performance, involvement, rewards, and satisfaction. Connect to school and vocational supports.
Lack of pro-social leisure/ recreation	Low levels of involvement and satisfaction	Difficulty engaging in leisure activities	Short-term memory loss Impaired sensory motor skills Receptive language Expressive language Initiation Reasoning Mental flexibility Emotional/behavioral	Conduct a leisure/ recreation inventory to help individuals identify what activities they can be involved in following a TBI.

To ensure that the courts are responsive to the needs and able to support justice-involved individuals with brain injury, a best practice is to implement a screening, support, and referral protocol.

Screening for Lifetime History of Brain Injury and Brain Injury–Related Challenges

A report on TBI in prisons and jails from the CDC recommends increased health screenings, evaluations, and treatment for inmates. In addition, TBI experts and some prison officials have suggested routine screening of jail and prison inmates to identify a history of brain injury, screening inmates with brain injury for possible alcohol and/or substance use and appropriate treatment for these co-occurring conditions, and additional evaluations to identify specific brain injury-related problems and determine how they should be managed.[26]

The first step in this process is identifying those with a history of brain injury. However, screening for lifetime history alone does not help with understanding the neurocognitive challenges the person may be experiencing, if any. Therefore, a secondary screen or assessment for impairment is an important addition to the protocol.

Note: These protocols for screening for brain injury and impairment are not meant to be diagnostic. The tools provided are designed to be administered by professionals without expertise in brain injury.

Screening for History of Brain Injury

There is a misconception that a person who has sustained a brain injury will have been seen by a medical doctor and subsequently had the injury diagnosed. Contrary to this, evidence suggests that approximately 42 percent of people who indicated that they had incurred a brain injury as defined by the CDC did not seek medical attention.[27] There are many reasons that an individual might not seek care following a brain injury, including a lack of medical insurance. There may also be a lack of understanding of the significance of a concussion/mild brain injury. Mild brain injury is classified at the time of the injury. When someone experiences a mild brain injury, they may or may not lose consciousness, but they will have experienced a change in their mental status. If a person has one uncomplicated mild injury (meaning no brain bleed or hematoma), they will likely resolve to a preinjury baseline of functioning. However, those who experience multiple mild brain injuries (through sports, military combat, or domestic violence, for example) may have lifelong altering effects. Additionally, premorbid conditions such as substance use and mental illness can result in poorer outcomes for individuals who have sustained brain injury. Because of these factors, and given the high prevalence of brain injury among those who are justice involved, it is important that courts consider screening for lifetime history of brain injury.

Lifetime and Recent History Screening Methods

Currently, some justice settings are asking a question or two at the time of intake. Screening measures that use only one or two questions to determine whether a brain injury has occurred have been found to miss milder and more remote histories of brain injury. For this reason, researchers have developed screening measures that provide the individual with a clear set of cues to help them think back on their own history and provide responses that indicate when the injury happened and how severe it was. Although self-reporting is not ideal, it can reasonably estimate an individual's exposure to brain injury over their lifetime. An experienced interviewer may be able to complete this screening in just a few minutes for an uncomplicated history or in up to 15 minutes if there is a substantial history of brain injury. It is vital to use trauma-informed approaches in this interview. It may be the first time the individual understands that they have a history of brain injury. Learning about a brain injury can be concerning. The interviewer must help the individual understand that there are strategies to compensate for the brain injury.

The Ohio Valley Center for Brain Injury Prevention and Rehabilitation has developed a brief screening tool for nonexperts to identify patients needing support because of a history of brain injury. This tool, the Ohio State University TBI Identification Method (OSU TBI-ID), is the most widely used screening tool, typically requiring 5 to 7 minutes to complete.

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26 CDC, *TBI in Prisons and Jails: An Unrecognized Problem*

27 Lon Setnik and Jeffrey J. Bazarian, "The characteristics of patients who do not seek medical treatment for traumatic brain injury," *Brain Injury,* Vol. 21, No. 1 (2007), pp. 1–9. https://doi.org/10.1080/02699050601111419

The tool uses a set of specific cues to help interviewees remember their lifetime history of brain injury. It is recommended because it is reliable for eliciting TBI history and includes guidelines for interpreting the findings. Additionally, the time it takes to conduct the OSU TBI-ID is not onerous, and the tool is free, so there is no additional cost to the court. The person administering the OSU TBI-ID does not need to be a behavioral health clinician. Anyone on the court team can administer this tool. Finally, free training to administer the OSU TBI-ID is available online at the OSU TBI-ID website.

The screening method includes detailed questions listing possible ways that an injury may occur. The interviewer/clinician notes each possible injury and the age at which it occurred. Once all injuries are listed, the interviewer returns to each injury and asks a series of questions to determine the severity of the injury. Often several blows to the head occur over a relatively short period of time. For example, a young athlete might have had a number of hard hits while playing football. Someone living with an abusive partner may report a period of time when they sustained blows to their head. In that case, the client is asked to talk about the worst of the injuries they sustained, and the period of frequent injury is noted on the form.

The OSU TBI-ID has been modified to include questions related to nontraumatic brain injury mechanisms such as anoxia. Including questions related to non-TBI could be an important consideration for justice-involved individuals with brain injury, given the significant prevalence of drug overdose and the number of women who have experienced domestic violence.

For children and youth, Colorado State University's Life Outcomes After Brain Injury Research Program developed the Brain Check Survey to screen for brain injury in children aged 5 to 21. This tool is a brief screen that is intended to be completed by a parent or guardian on behalf of the youth.

The Brain Check Survey is a screening tool used to establish a credible history of brain injury, which in turn triggers a more thorough evaluation of difficulties encountered by students in the classroom. Like the OSU TBI-ID, the Brain Check Survey asks questions about potential exposure to brain injury. Unlike the OSU TBI-ID, this survey also asks the parent/guardian to indicate and rank any challenges the youth is experiencing. These rankings then produce a score that can be used to determine whether it is important to consider further assessment.

Veteran-Specific Head Trauma Considerations

In addition to the OSU TBU-ID and Brain Check Survey, a third screening tool was created specifically for use with service members and veterans. The Defense and Veterans Brain Injury Center's (DVBIC) TBI Screening Tool, also called the Brief Traumatic Brain Injury Screen (BTBIS) can be used to identify service members who may need further evaluation for mild traumatic brain injury. It is a three-question screening tool.

Active, reserve, and national guard service members are at greater risk for incurring a TBI compared to those who have not served in the armed forces. This should come as no surprise, because serving in the military can be an inherently dangerous profession. In addition to combat, service members might sustain a head injury while conducting routine operational activities, while on leave or off-duty, or during training.

The OSU TBI-ID, the Brain Check Survey, and the DVBIC TBI Screening Tool are designed to be implemented by a variety of professionals, including those who are not specifically trained in working with brain injury, such as probation officers, teachers, parents, guardians, counselors, social workers, and treatment court coordinators. It is important to consider conducting the screen as soon as possible so that the necessary adjustments and accommodations can be made.

Understanding that a person has had exposure to brain injury is the first step. The next step is to answer the "now what?" question. Once a person screens positive for brain injury, it is important to then understand what their associated deficits are so that the appropriate accommodations and supports can be provided. This is also important for the individual so that they can begin to better understand what they need to be successful.

Photo courtesy of the U.S. Department of Defense. The appearance of U.S. Department of Defense (DoD) visual information does not imply or constitute DoD endorsement.

Lifetime and Recent History Screening Tools

- Ohio State University TBI Identification Method: https://wexnermedical.osu.edu/neurological-institute/neuroscience-research-institute/research-centers/ohio-valley-center-for-brain-injury-prevention-and-rehabilitation/osu-tbi-id
- Brain Check Survey: https://www.chhs.colostate.edu/ot/research/life-outcomes-after-brain-injury-research-program/
- DVBIC TBI Screening Tool: https://www.mirecc.va.gov/docs/visn6/5_TBI_3_Question_Screening_Tool.pdf

Screening for Brain Injury–Related Challenges

Once an individual screens positive for brain injury, it is essential to follow up with a screen for brain injury-related challenges that the person may be experiencing. Screening for challenges will provide the court with a person-centered approach to identifying what accommodations and supports the individual requires.

Neuropsychological evaluation is considered the gold standard for assessment of brain injury-related challenges. With that said, it is often not feasible, in terms of both time and financial resources, to conduct such an evaluation on everyone who screens positive for a lifetime history of brain injury. Neuropsychological evaluation should be reserved for those who most need this level of assessment. It is recommended only after other options, including self-reporting and neuropsychological/neurocognitive screens, have failed to yield the result needed to make change.

Self-Reporting

Self-reporting, while clearly the most cost- and time-effective option, has shortcomings. Specifically, individuals with brain injury are not typically the best self-reporters. They can over- or under-identify impairment. This can be because the brain injury has caused a lack of ability to self-assess. Additionally, criminal justice settings express concerns that individuals may under-report symptoms for fear of appearing vulnerable or over-report because they perceive that they will obtain privileges by doing so. That said, self-reporting can still offer insight as to how well the individual understands their impairment and how ready they are for change. In this way, self-reporting lends itself to a person-centered and trauma-informed framework.

Self-reporting is a good option, especially when resources are not available to implement a neuropsychological screening battery. Both self-reporting and neuropsychological screening are good steps prior to referral for a full neuropsychological evaluation. MINDSOURCE Brain Injury Network has developed a questionnaire for self-reporting symptoms that is implemented when a person screens positive for brain injury. This tool is completed by the individual, and then criminal justice personnel input the person's answers into an online portal. Once done, the criminal justice personnel receive a set of customized tip sheets with strategies that they can share with the justice-involved individual. It is important to note that this tool was developed based on literature but has not yet been validated.

There are other self-reporting tools designed to gain an understanding of an individual's perception of impairment. These tools have predominantly been used in a non-justice-involved population with brain injury and may not be as relevant for incarcerated people. They could be considered for those under community supervision, such as probation. Two of these tools are the PROMIS SF_v2.0_Ability to Participate scale and the Quality of Life After Brain Injury (QOLIBRI) questionnaire.

The National Association of State Head Injury Administrators (NASHIA) has developed the Online Brain Injury Screening and Support System (OBISSS). OBISSS incorporates the OSU TBI-ID and a self-report brain injury symptoms questionnaire to create an online, easy-to-administer tool that identifies a history of brain injury and related challenges and provides both the individual and the provider with customized strategies to address the identified challenges.

Self-Reporting Tools

- MINDSOURCE Self-Report of Impairment Tools: These resources can be found at the NASHIA website, in the supporting materials for the Criminal & Juvenile Justice Best Practice Guide for State Brain Injury Programs. The materials include examples of state protocols and training materials:
- https://www.nashia.org/cj-best-practice-guide-attachments-resources-copy
- PROMIS SF_v2.0_Ability to Participate scale: https://www.sralab.org/rehabilitation-measures/promis-ability-participate-social-roles-and-activities
- Quality of Life after Brain Injury (QOLIBRI): https://www.sralab.org/rehabilitation-measures/quality-life-after-brain-injury
- Online Brain Injury Screening and Support System (OBISSS): https://www.nashia.org/obisssprogram

Neuropsychological Screening

Treatment courts can partner with their community treatment providers to conduct neuropsychological screening when it is indicated. As reported in the *Criminal and Juvenile Justice Best Practice Guide for State Brain Injury Programs*,[28] according to a 2014 Working Group on Screening and Assessment, a collaboration of the American Psychological Association's Board of Professional Affairs and the Committee for the Advancement of Professional Practice of the American Psychological Association, screening tests (a) can be used for the early identification of individuals at potentially high risk for a specific condition or disorder; (b) can indicate a need for further evaluation or preliminary intervention; (c) are generally brief and narrow in scope; (d) may be administered as part of a routine clinical visit; (e) may be used to monitor treatment progress, outcome, or change in symptoms over time; (f) may be administered by clinicians, support staff with appropriate training, or an electronic device (such as a computer), or may be self-administered; (g) can be used by support staff who follow an established protocol for scoring with a preestablished cut-off score and guidelines for individuals with positive scores; and (h) are neither definitively diagnostic nor a conclusive indication of a specific condition or disorder.[29]

Neuropsychological screening is a good tool to use when criminal justice personnel need a more in-depth understanding of the cognitive impairments an individual is experiencing. Once these deficits are identified, targeted interventions can be applied. Additionally, appropriate screening can lead to eligibility for brain injury-specific resources in some states. A variety of screening batteries can be implemented. The qualifications required to implement neuropsychological screening varies depending on the battery/tools being administered.

NASHIA collaborated with Dr. Kim Gorgens of the University of Denver to develop an on-demand, online course designed to train community-based mental health providers in how to conduct neuropsychological screening. This three-hour, three-part course is designed for masters-level professionals who are interested in learning about the use of neuropsychological screening batteries for clinical practice. The course is geared toward community providers, behavioral health workers, social workers, vocational rehabilitation counselors, community rehabilitation provider staff, addictions professionals, etc.

For providers who are supporting youth, the Colorado Department of Education has developed a comprehensive matrix based on the building blocks of brain development. This matrix can be used as a guide to determine appropriate assessments for children and youth.

Neuropsychological Screening Resources

- NASHIA neuropsychological screening training course: https://www.nashia.org/np-modules#!form/Neuropsych
- Colorado Department of Education, Building Blocks of Brain Development: https://cokidswithbraininjury.com/educators-andprofessionals/brain-injury-matrix-guide/

28 National Association of State Head Injury Administrators, *Criminal and Juvenile Justice Best Practice Guide for State Brain Injury Programs* (2020). https://www.nashia.org/cj-best-practice-guide-attachments-resources-copy

29 Tresa M. Roebuck-Spencer, Tannahill Glen, Antonio E. Puente, Robert L. Denney, Ronald M. Ruff, Gayle Hostetter, and Kevin J. Bianchini, "Cognitive screening tests versus comprehensive neuropsychological test batteries: A National Academy of Neuropsychology Education Paper," *Archives of Clinical Neuropsychology*, Vol. 32, No. 4 (2017), pp. 491– 498. https://doi.org/10.1093/arclin/acx021

Accommodations for Brain Injury

One of the main reasons to screen for a history of brain injury impairment in a treatment court setting is to guide targeted interventions to improve outcomes for justice-involved individuals. It is important to ensure that the modifications and accommodations being recommended are feasible within the context of the criminal justice setting where the protocol is being implemented. It is also important to keep them contextually relevant and easy to employ.

Finding ways to accommodate individuals with brain injury can be intimidating for those without expertise in this area. Remember, however, that this is not about treating the brain injury, it is about compensating for the deficits related to a person's injury and teaching the individual compensatory strategies. Although these strategies are specific to supporting individuals with brain injury, they can also help support individuals with behavioral health conditions, as the challenges experienced by these two groups can overlap.

Resources for Criminal Justice and Mental Health Personnel

- MINDSOURCE Brain Injury Network has developed guidebooks for criminal justice and mental health personnel and individualized tip sheets for individuals with brain injury. There are separate guidebooks and tip sheets for adults and juveniles, and all are available in both English and Spanish.
  - *Cognitive Strategies for Criminal Justice Professionals:* https://static1.squarespace.com/static/5eb2bae2bb8af12ca7ab9f12/t/5f66c8e7902e0625b91eb71f/1600571625059/STRATE_2.PDF
  - Tools and tips for criminal justice and juvenile justice: https://www.nashia.org/cj-best-practice-guide-attachments-resources-copy
- The Brain Injury Alliance of Colorado has handouts outlining basic strategies to consider:
  - *Brain Injury & Criminal Justice* tip card for professionals: https://static1.squarespace.com/static/5eb2bae2bb8af12ca7ab9f12/t/5f66b3a16875941e58d29ede/1600566177843/Criminal+Justice+%26+Brain+Injury+Pamphlet.pdf
  - *Incarceration & Brain Injury* tip card for survivors experiencing incarceration: https://static1.squarespace.com/static/5eb2bae2bb8af12ca7ab9f12/t/5f66b3dad45f307089a41229/1600566235060/Incarceration+%26+Brain+Injury+Pamphlet.pdf
- The Model Systems Knowledge Translation Center has videos and fact sheets that could be useful:
  - Living with Traumatic Brain Injury webpage: https://msktc.org/tbi
- A booklet developed for service providers by the Ohio Valley Center for Brain Injury Prevention and Rehabilitation, with contributions from the Minnesota Department of Human Services, tells how to recognize symptoms of TBI, incorporate compensatory strategies into their practice, and increase the odds of treatment success.
  - *Accommodating the Symptoms of Brain Injury:* https://heller.brandeis.edu/ibh/pdfs/accommodating-tbi-booklet-1-14.pdf
- The Ohio Brain Injury Program has also developed an accompanying training that can be accessed at https://osumedicine.catalog.instructure.com/browse/tbi/courses/accommodating-the-effects-of-traumatic-brain-injury
- The Rehabilitation Hospital of Indiana has developed an extensive catalog of fact sheets that can be useful to share with criminal justice personnel.
  - Catalog of Available Fact Sheets on Brain Injury: https://resourcefacilitationrtc.com/fact-sheet-catalog

Resources for Community Treatment Providers

Often community behavioral health providers do not receive training specific to brain injury. Treating an individual with a brain injury can be challenging and frustrating when a provider does not have the knowledge and tools to know how to adjust treatment to ensure success. Additionally, providers often feel they are not equipped to address brain injury. In fact, providers do have the ability to treat people with brain injury. They just need to provide the treatment within the context of a brain injury.

The following resources can assist providers in understanding how to adjust their treatment approaches to accommodate for brain injury. Additionally, all of the resources listed above can be helpful to treatment providers.

- The Mountain Plains Addiction Technology Transfer Center, the Mid-America Addiction Technology Transfer Center, and NASHIA have collaborated to develop a toolkit that merges the content on TBI and substance use disorders to expand the capacity to address both issues in treatment.
    - Toolkit: *Traumatic Brain Injury and Substance Use Disorders: Making the Connections:* https://www.nashia.org/resources-list/sudtoolkit

An accompanying workbook, *Client Workbook: Substance Use and Brain Injury,* also available at the link above, was created for people with are living with the effects of a brain injury and are wondering how their substance use may be affecting them.

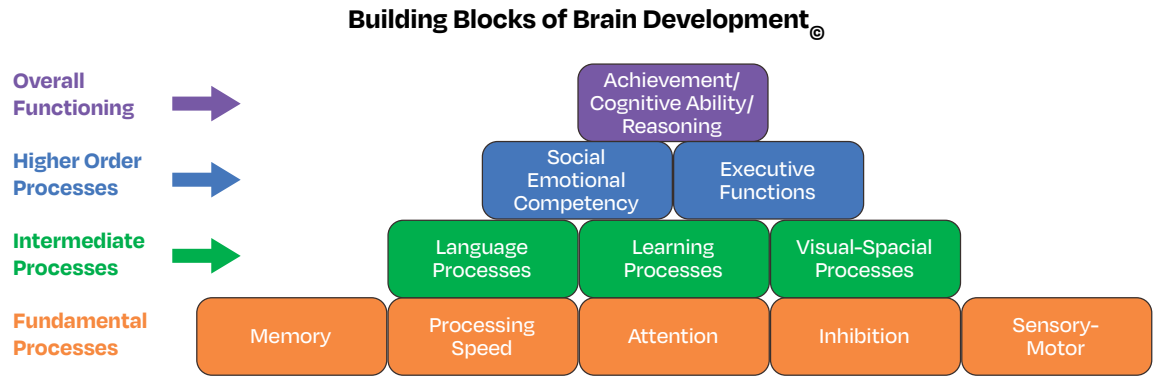
- The same partners have produced a tip card for providers that includes a brief overview of brain injury, symptoms, screening, and the intersection of brain injury and substance use.
    - Tip card: *What Providers Need to Know: Behavioral Health and Brain Injury:* https://www.nashia.org/resources-list/sudtoolkit
- A U.S. Substance Abuse and Mental Health Services Administration (SAMHSA) Advisory gives comprehensive information on treating patients with brain injury.
    - *SAMHSA Advisory: Treating Patients with TBI:* https://www.nashia.org/resources-list/53c403b0le6fp0alm5nfytlx5fcpk9-xhsrg-f7bf6
- The Administration for Community Living (ACL) TBI Technical Assistance and Resource Center has produced a behavioral health guide highlighting considerations and best practices for the diagnosis and treatment of mental health disorders in people with TBI. The guide also includes challenges related to brain injury and provides recommendations and strategies for clinical intervention.
    - *Behavioral Health Guide: Considerations for Best Practices for Children, Youth, and Adults with TBI:* https://www.nashia.org/resources-list/olia67paxy7sg1u4fr3tzqpezuvdto-knjxh-5j6np-y2429

Skill vs. Will

The sequalae from brain injury can lead to deficits that the court and treatment team can misinterpret as a lack of motivation or an oppositional attitude, when in fact the behavior could be related to a skill deficit as a result of the brain injury. It is important for the court and treatment staff to be able to determine whether the justice-involved individual is not complying because of a skill deficit or because of willful behavior. If the underlying cause is a skill deficit, the court should work with the justice-involved individual to develop compensatory strategies so that they can master the needed skill.

Whether deficits are identified through self-reporting or through a neuropsychological screen, understanding what the person's challenges are is the first step when considering skill versus will. The Colorado Department of Education has developed a framework that helps to conceptualize this. This framework is referred to as the Building Blocks of Brain Development. It was created to explore the brain processes most commonly impacted following brain injury. The Building Blocks of Brain Development graphic below represents the hierarchy of brain development and functioning. While the framework was developed for children and youth, it is applicable to all ages.

Figure 1. Building Blocks of Brain Development
(Source: Colorado Department of Education, Brain Injury in Children and Youth: A Manual for Educators,[30] page 20)



Colorado Department of Education
https://cokidswithbraininjury.com/educators-and-professionals/brain-injury-matrix-guide/

The Hierarchy of Neurocognitive Functioning © - created by Peter Thompson, Ph.D. 2013, adapted from the works by Miller 2007; Reitan and Wolfson 2004; Hale and Fiorello 2004. The Building Blocks of Brain Development © - further adapted by the CO Brain Injury Steering Committee, 2016.

The bottom row of the building blocks consists of the fundamental processes critical to all learning and behavior. The processes at this level are the most sensitive to being affected by a brain injury. In the next row, the intermediate processes build on the skills associated with the fundamental processes to develop more complex capabilities. The blocks in the third row from the bottom, the higher-order processes, rely on the lower rows to solidify and fully develop these higher-level skills so that they are available for later use. And finally, the processes at the top row of the building blocks, overall functioning, allow an individual to operate in a variety of environments and be a productive citizen. They are wholly dependent on the three preceding levels. A brain injury may cause disruptions or gaps in one or more of these building blocks that can impact behavior, ability to learn, and ultimately, overall achievement.

Once a deficit is identified, as in the illustration below, compensatory strategies can be implemented to help shore up the building blocks.

Figure 2. Disruption in building blocks caused by brain injury
(Source: Colorado Department of Education, Brain Injury in Children and Youth: A Manual for Educators,[31] page 21)

https://cokidswithbraininjury.com/educators-and-professionals/brain-injury-matrix-guide/

30 https://www.cde.state.co.us/cdesped/tbi_manual_braininjury

31 https://www.cde.state.co.us/cdesped/tbi_manual_braininjury

When thinking about the function of a behavior, we are trained to consider two possibilities: either the person is trying to get away with something or they are trying to get something. However, if we think about it in terms of a skill deficit, we can look for ways to compensate for the deficit, as described in the table below.

Table 3. Strategies to assist with functional behavior
(adapted from the work of Dr. Karen McAvoy)

Behavior	Deficit	Strategy
Doesn't feel rules are fair and expresses feelings inappropriately	Expressive/pragmatic language	Teach appropriate ways to express verbal discontent.
Is off task while reviewing expectations	Attention	Make sure you have their attention before reviewing expectations.
Can't remember expectations	Memory	Write out steps and provide reminders.
Doesn't read visual cues	Visual-spatial	Provide direct communication and do not rely on facial or nonverbal cues.
Doesn't understand expectations	Receptive language	Review expectations in visual and multimodal fashion.
Lacks problem-solving skills	Executive dysfunction	Provide the client with options rather than expecting them to be self-driven. Cognitive behavioral therapy skills can be helpful.

Not everyone will respond to a strategy in the same way. Therefore, it is important to involve the person when identifying a strategy. For example, if someone uses a smartphone to track all of their appointments, that will be a good option for developing memory strategies. However, if someone is better with a paper-and-pencil calendar, that will be the best option for them. It is also important to understand that it takes time and practice for strategies to work. The individual may fail a few times before they learn the strategies. Additionally, even after someone has mastered a strategy, there may be events that can make it hard for the individual to implement the strategy. Examples include medication changes, headaches, stressors such as relationships, and finances.

If, after mastering a skill and demonstrating that they can implement it, the person chooses not to use the skill, the court and provider team can consider consequences. However, implementing penalties when an individual does not have the skill and compensatory strategies necessary to comply with the conditions placed on them will be counterproductive for the individual and to achieving the goals of the court.

The steps for successful behavior interventions are:

1. Identify whether there is an underlying deficit.
2. If there is, identify compensatory strategies to address the deficit.
3. Practice this strategy across settings.

Brain Injury Referral

There is evidence to show that service coordination/resource facilitation, and specifically neuro-resource facilitation (NRF), can lead to improved outcomes and a decrease in recidivism rates for justice-involved individuals with brain injury, which ultimately leads to cost savings for the state. NRF is a method of identifying brain injury needs and assisting people in applying for the services they need. It has been shown to increase both community participation and employment among individuals with brain injuries.[32]

Additionally, preliminary research has shown that identifying brain injury and connecting individuals to resources resulted in decreased recidivism and increased productive activity such as employment, education, volunteerism, etc.[33] NRF can be an additional support to consider for the justice-involved individual when these services are available. Some states may not have a robust service coordination/NRF system of supports, but they may provide information and resources, which can be helpful as well.

Referral to NRF is most effective when there is a direct connection from the court team to the NRF program and the person is still engaged with the court. If referral is made only when the person is being released from the system, there is a good chance that they will not follow through with services and the NRF service provider will not be able to locate the individual. When a referral is made prior to release, the community agency can establish a relationship with the individual and begin to build a community-based support network, which will lead to greater follow-through and reduce the likelihood that the individual's needs will be left unaddressed.

Almost every state has a designated lead state agency on brain injury. These programs can be housed in a variety of agencies, but regardless of where they sit, their goal is to develop the infrastructure within their state to support individuals with brain injury and their families. These programs can be a good place to start to find resources related to brain injury. Additionally, they can be a good resource for training related to brain injury for the courts and provider partners. A directory of these state programs can be found at https://www.nashia.org/state-program-directory.

In addition to the designated state brain injury programs, most states also have community-based advocacy and support programs such as brain injury alliances or associations that administer support programs such as information and referral, NRF, support groups, classes, and workshops, etc. for individuals with brain injury and their families. These advocacy organizations can be found at the following links:

- United States Brain Injury Alliance: https://usbia.org/about/
- Brain Injury Association of America: Find BIA in Your State: https://www.biausa.org/find-bia

32 Lance E. Trexler, Laura C. Trexler, James F. Malec, Daniel Klyce, and Devan Parrott, "Prospective randomized controlled trial of resource facilitation on community participation and vocational outcome following brain injury," *Journal of Head Trauma Rehabilitation*, Vol. 25, No. 6 (2010), pp. 440–446. https://doi.org/10.1097/HTR.0b013e3181d41139

33 Drew Nagele, Monica Vaccaro, M. J. Schmidt, & Daniel Keating, "Brain injury in an offender population: Implications for reentry and community transition," *Journal of Offender Rehabilitation*, Vol. 57, No. 8 (2018), pp. 562–585. https://doi.org/10.1080/10509674.2018.1549178

Summary

As expressed in the beginning of this toolkit, the prevalence of brain injury is extremely high within criminal and juvenile justice settings. The likelihood that a given treatment court will have one or more individuals with brain injury in its caseload is high. A key takeaway from this guide is to remember that, as court teams and community behavioral health clinicians, you are not expected to diagnose brain injury, but there is value in screening for a history of brain injury through self-reporting. Understanding that a person has a history of brain injury and knowing the challenges they are facing related to their injury will allow you to adjust your support and provide compensatory strategies. Additionally, you are not expected to treat the brain injury. The hope is that with the tools provided you can adjust how you are providing support with a brain injury-informed lens. Treatment courts can increase successful outcomes by training court and provider teams on the fundamentals of brain injury and implementing a screening, support, and referral protocol as outlined in this guide. Additionally, understanding your state's community-based brain injury resources and making referrals when indicated will help ensure that the success that the justice-involved individual experiences while engaged in your treatment court is sustained long beyond release from supervision.

National Resources for Education About Brain Injury

- National Association of State Head Injury Administrators (NASHIA): https://www.nashia.org/

  Serving as the leading source of information and education for state employees who support public brain injury programs, NASHIA provides information on national trends, best practices, and state contacts to federal agencies, state and national associations, and TBI stakeholders across the country. NASHIA also provides technical assistance to state governments and their partners. As such, NASHIA can be a resource to treatment courts by providing training on brain injury and/or providing technical assistance to develop and implement a brain injury screening, support, and referral protocol for justice-involved individuals with brain injury.
- Brain Injury Association of America: https://www.biausa.org
- United States Brain Injury Alliance: https://www.usbia.org
- Traumatic Brain Injury Model Systems Knowledge Translation Center: https://www.msktc.org
- BrainLine: https://www.brainline.org/

Treatment Court Institute

Impaired Driving Solutions

Justice for Vets

Center for Advancing Justice

All Rise is the leading training, membership, and advocacy organization for advancing justice system responses to individuals with substance use and mental health disorders. All Rise impacts every stage of the justice system, from first contact with law enforcement to corrections and reentry, and works with public health leaders to improve treatment outcomes for justice-involved individuals. Through its four divisions—the **Treatment Court Institute, Impaired Driving Solutions, Justice for Vets,** and the **Center for Advancing Justice**—All Rise provides training and technical assistance at the local and national level, advocates for federal and state funding, and collaborates with public and private entities. All Rise works in every U.S. state and territory and in countries throughout the world.

Founded as the National Association of Drug Court Professionals (NADCP) in 1994, All Rise has been at the forefront of justice system transformation for nearly three decades. As the leader of the treatment court movement, All Rise helps prove that a combination of evidence-based treatment and accountability is the most effective justice system response to individuals with substance use and mental health disorders. All Rise has trained over 800,000 public health and public safety professionals, and the number of treatment courts in the United States has grown to more than 4,000, helping more than 1.5 million people access treatment.

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