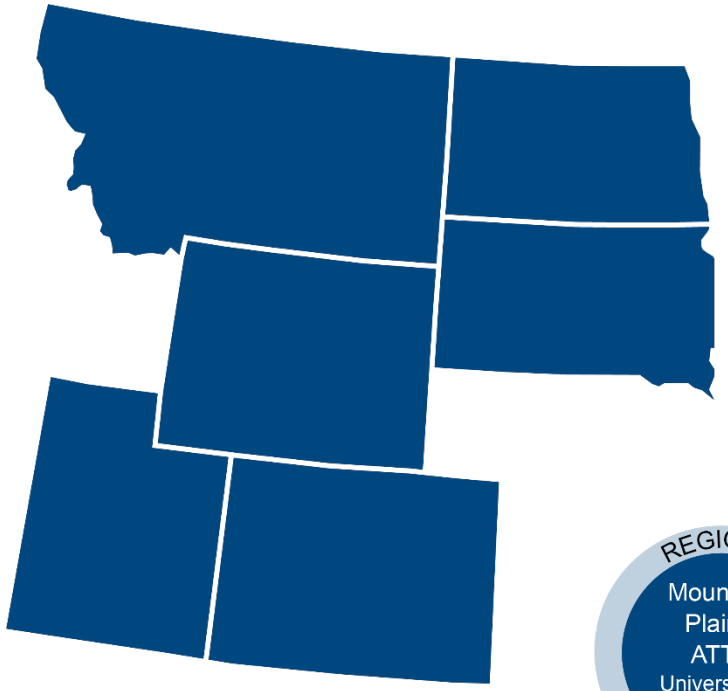
The Mountain Plains Addiction Technology Transfer Center

The Mountain Plains ATTC accelerates the adoption and implementation of evidence-based and promising addiction treatments and recovery-oriented practices and services; Heightens the awareness, knowledge, and skills of the workforce that addresses the needs of people with substance use or other behavioral health disorders; and fosters regional and national alliances among culturally diverse practitioners, researchers, policy makers, funders, and the recovery community



REGION 8
Mountain Plains ATTC
University of North Dakota

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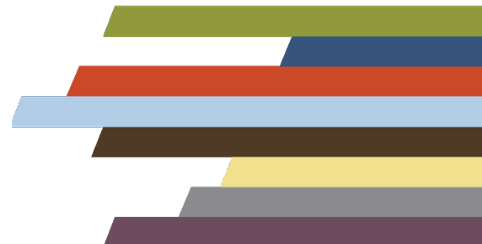
At the time of this presentation, Elinore F. McCance-Katz, served as SAMHSA Assistant Secretary. The opinions expressed herein are the views of Judy L. Dettmer and do not reflect the official position of the Department of Health and Human Services (DHHS), SAMHSA. No official support or endorsement of DHHS, SAMHSA, for the opinions described in this document is intended or should be inferred.



Mountain Plains ATTC (HHS Region 8)

ATTC Addiction Technology Transfer Center Network

Funded by Substance Abuse and Mental Health Services Administration

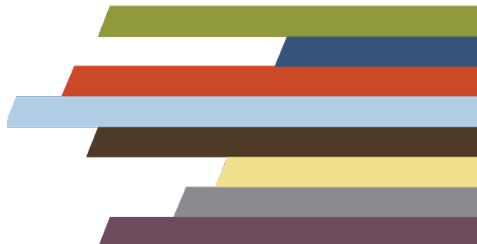
Brain Injury and Substance Use Disorders: Implications for Justice-Involved Populations

Judy L. Dettmer

SAMHSA

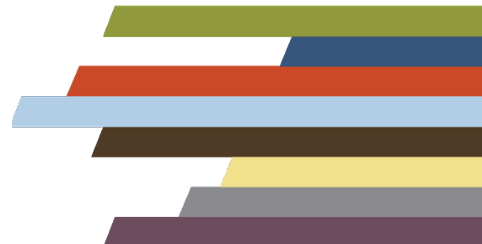
Substance Abuse and Mental Health Services Administration

NASHIA



Learning Objectives

1. Gain an understanding of the prevalence of brain injury in the criminal justice system
2. Learn about the co-occurrence of brain injury, addiction and mental health
3. Learn about best practices for screening for brain injury and impairment
4. Gain an understanding of how to support justice involved individuals with brain injury



Acquired Brain Injury:

An Acquired Brain Injury (ABI) covers ALL injuries to the brain that:

- occur after birth
- not heredity
- not congenital
- not degenerative

Includes:

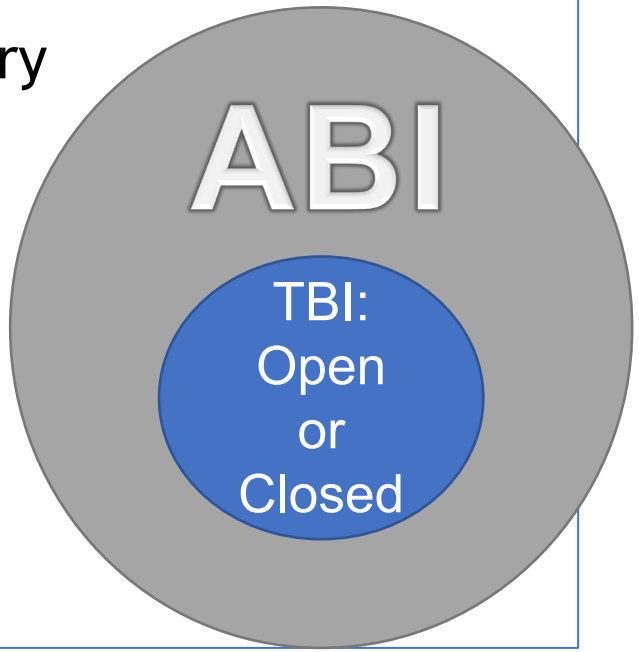
- non-traumatic
- traumatic

Regardless of the cause of the brain injury, consequences of brain injury may be similar and the interventions may be the same.

Brain Injury Association of America

A Traumatic Brain Injury, TBI" is a particular type of acquired brain injury; it is the result of an external blow to the head. A TBI can result in either an:

- open head injury
- closed head injury



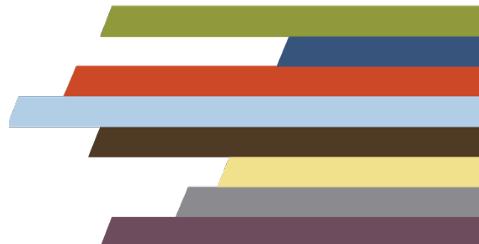
Symptoms = Functional

Physical:
- Headache
- Dizziness
- Nausea
- Light Sensitivity
- Noise Sensitivity

Cognitive:
- Difficulty concentrating
- Difficulty remembering
- Slow Processing Speed
- Cognitive Fogginess

Emotional:
- More emotional
- Sad
- Anxious
- Angry

Sleep:
- Fatigue
- Drowsiness
- Sleeping too much
- Can’t fall or maintain sleep



SUA & TBI

- *Why would TBI be associated with substance abuse disorders?*

  - Intoxication causes TBI
  - Early life TBI predispose to substance abuse
  - Structural damage from TBI changes behavioral control

Brain Injury & Substance Use Abuse

Natural History of TBI to Age 25 from the Christchurch Birth Cohort

(McKinlay et al., 2008)

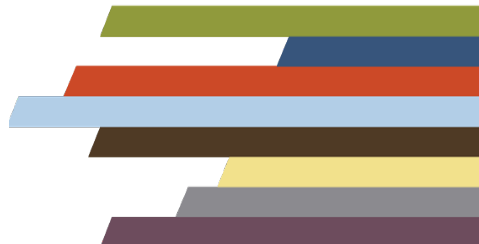
By age 25:

– Those hospitalized with 1st TBI before age 6,
3 times more likely to have a diagnosis of either alcohol or drug dependence

– Those hospitalized with 1st TBI 16-21,
3 times more likely to be diagnosed with drug dependence

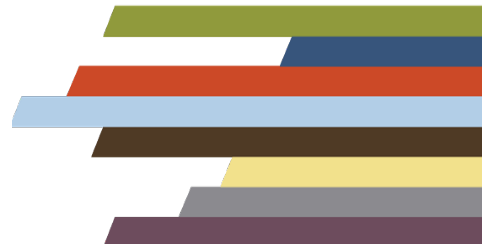
TBI & Criminal Justice: Prevalence

- 64% of local jail inmates, 56% of state prisoners, & 45% of federal prisoners have symptoms of serious mental illness (https://www.nami.org/Press-Media/Press-Releases/2006/Department-of-Justice-Study-Mental-Illness-of-Pris)
- A meta-analytic review found the prevalence of TBI in the offender population to be 60.25% (Shiroma, Ferguson, & Pickelsimer, 2010) vs. 8.5% general population report a history of TBI (Wald, Helgeson, & Langlois, 2008)
- A meta-analysis found that approximately 30% of juvenile offenders have sustained a previous brain injury (Vaughn, Salas-Wright, Delisi, & Perron, 2014)



TBI & Criminal Justice: Prevalence

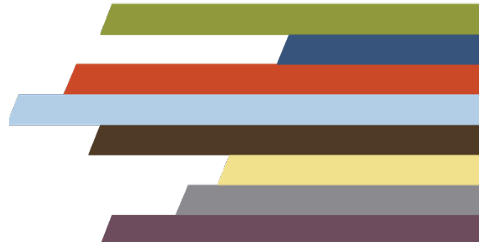
- Criminal behavior appears to increase after TBI (Farrer & Hedges, 2011; Brooks et al., 1986; Fazel et al., 2011; McIsaac et al., 2016; Timonen et al., 2002; Elbogen et al., 2015) *Relationship of TBI to offense was stronger the more severe the brain injury*
- Rate of TBI is 3 to 8 times higher among juvenile offenders (Hughes et al., 2015)
- Half of youth offenders have a history of loss of consciousness, with repeat injuries being very common (Davies et al., 2012; Kaba et al., 2013)



Negative Outcomes & TBI

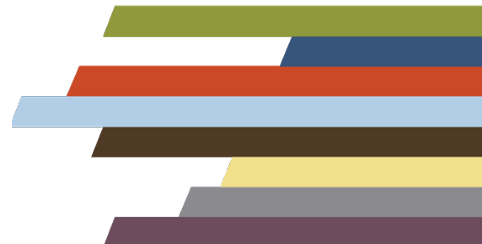
- Increased utilization of services while incarcerated (health and psychological)
- Lower treatment completion rates and higher rates of disciplinary incidents
- Lower ability to maintain rule-abiding behavior during incarceration
- More prior incarcerations
- Higher rates of recidivism (Piccolino & Solberg, 2014)
- Criminal behavior can increase after TBI (especially severe TBI)

  (Farrer & Hedges, 2011; Brooks et al., 1986; Fazel et al., 2011; McIsaac et al., 2016; Timonen et al., 2002; Elbogen et al., 2015)

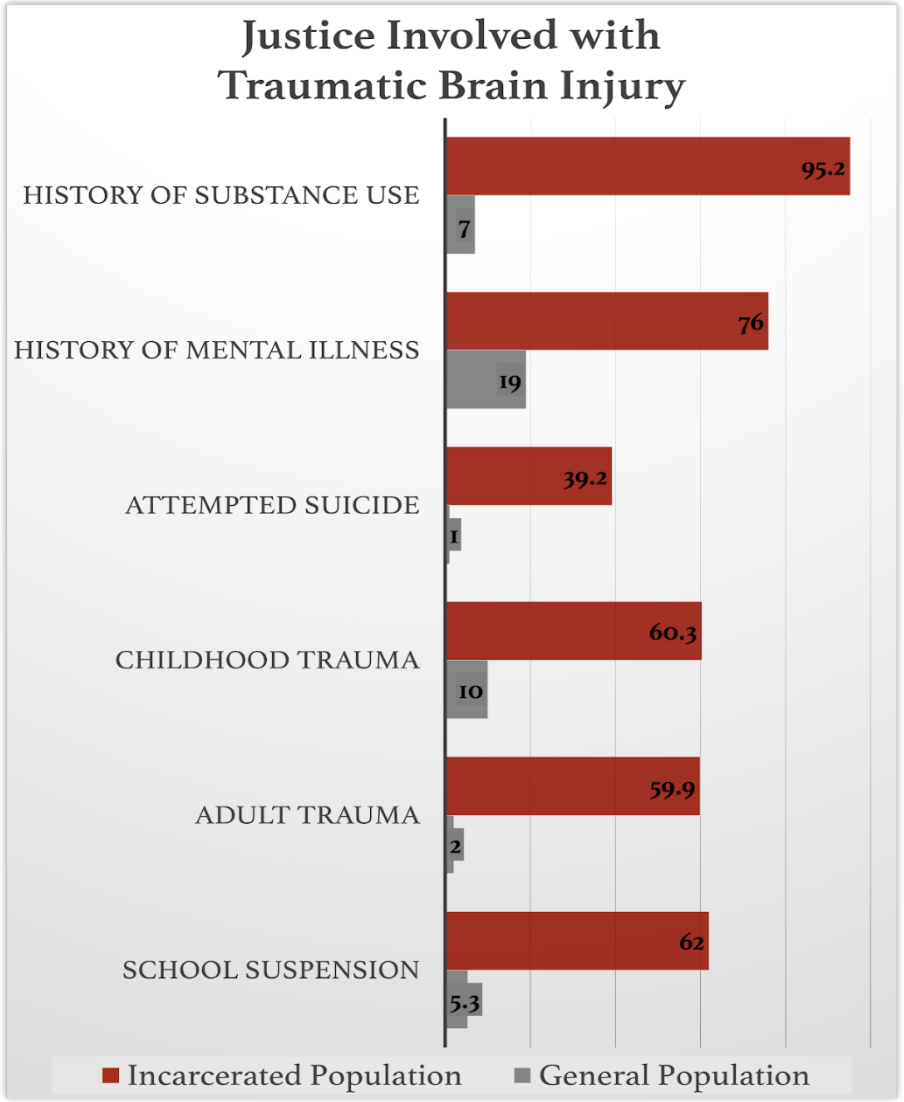


Negative Outcomes & TBI

- Severe depression and anxiety
- Problematic anger
- Suicidal ideation and/or attempts
- Risk to personnel

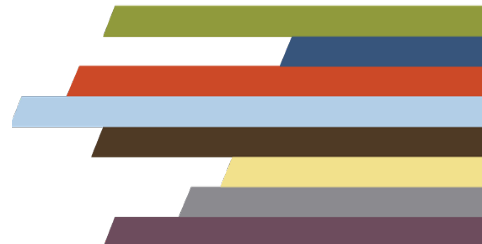


Psycho-Social Vulnerabilities

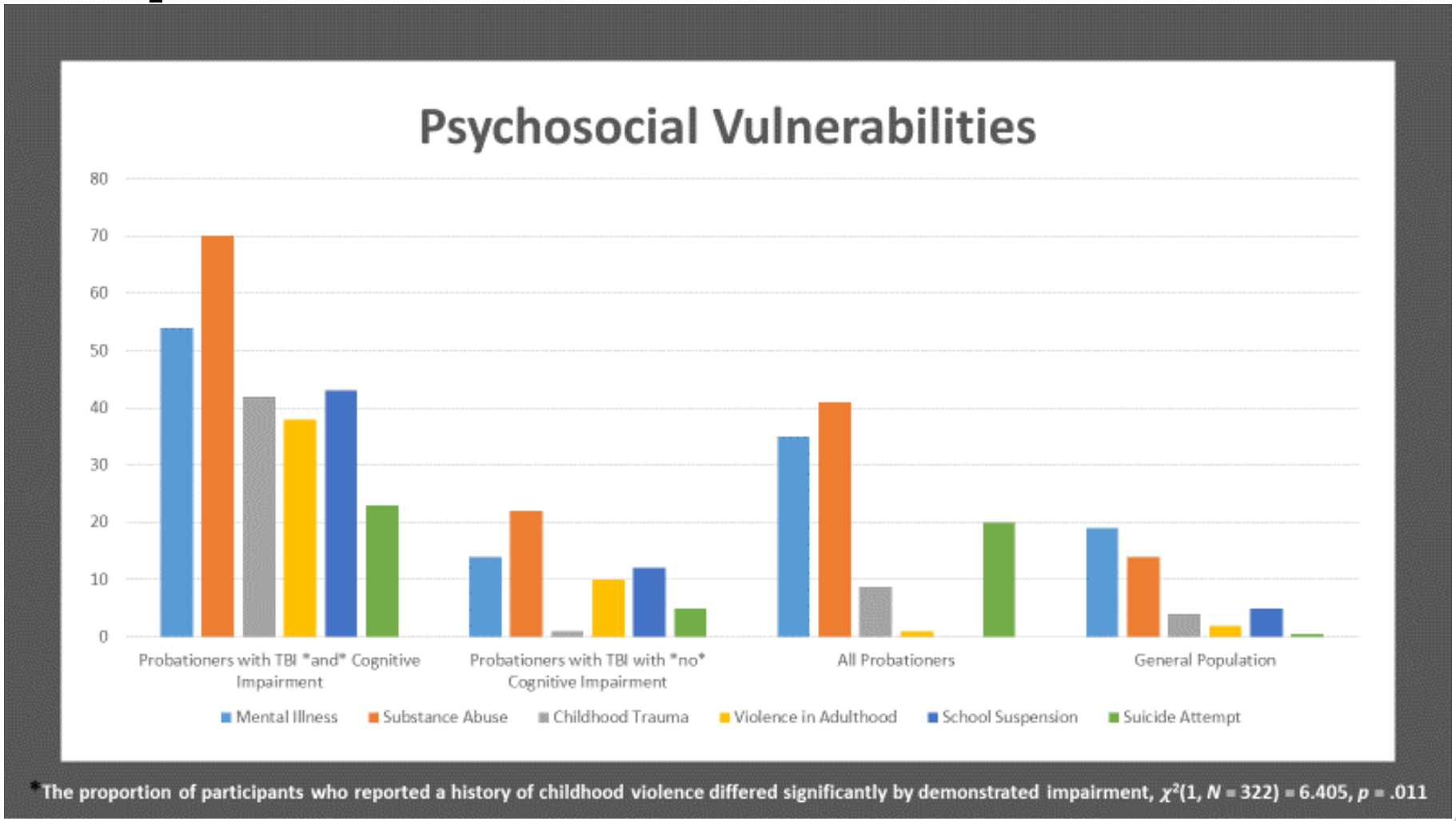


Psycho-Social Vulnerabilities

Childhood Violence	Adult Victimization	Suicide Attempts	School suspension	Substance Abuse	Mental Health
• 60% cohort • 10% general population	• 62% cohort • 2% general population	• 39% at least one attempt cohort • 4% thoughts, 1% plan in general population	• 54% cohort • 26% men; 15% women general population	• 93% history of abuse / misuse cohort • 7% general population	• 75% at least one diagnosis in cohort • 19% general population

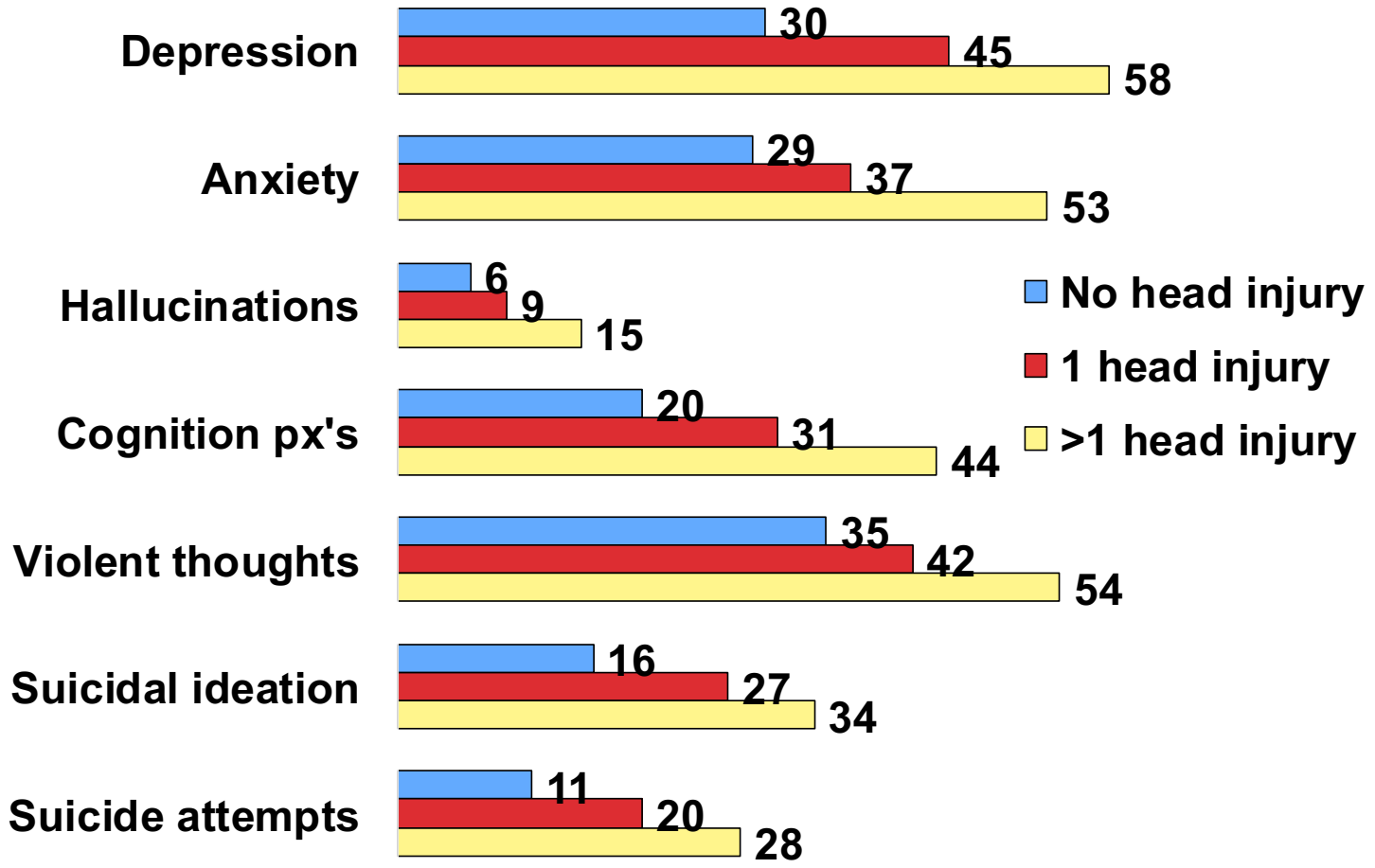


Comparative Data, Colorado



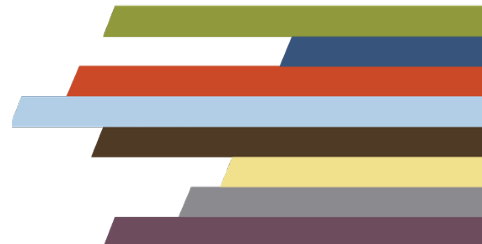
*The proportion of participants who reported a history of childhood violence differed significantly by demonstrated impairment, $\chi^2(1, N = 322) = 6.405, p = .011$

Problems Worsen with Each Injury



Big Problem, Doable Solutions

- Treat the deficit not the brain injury: activities can be adapted for cognitive deficits
- Be knowledgeable about supports and services individuals with brain injury may be eligible: state brain injury programs/brain injury alliances/associations
- Deploy higher risk protocols



Best Practice Screening, Support, & Referral Protocol

- Screen for lifetime history of brain injury
- Screen for cognitive impairment
- Build capacity of criminal justice personnel
- Psycho-education for inmate/probationer
- Referral for community-based resource navigation/self management

Screening for lifetime history of TBI

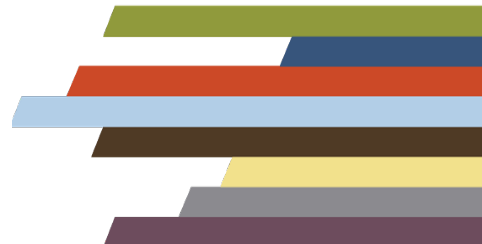
Importance of Screening for TBI

One study found that 42% of persons who indicated they had incurred a TBI as defined by the CDC did not seek medical attention

- *(Corrigan & Bogner, 2007)*

- Brain injury increases risk for problem behaviors *(Williams, Mewse, Tonks, Mills, Burgess & Cordan, 2010)*

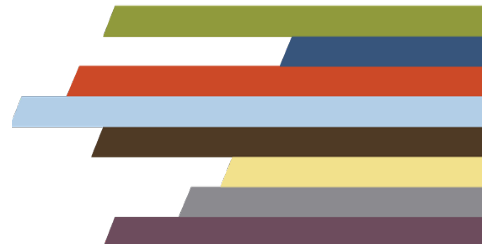
- Clients may be eligible for community-based supports/services



Importance of Screening for TBI

Service interventions, including counseling, can be adapted for neurocognitive deficits. Examples:

- Minimize environmental distractions
- Educational therapies (e.g. CBT, DBT) should emphasize pacing, provide frequent opportunities for clients to respond, generate feedback, and provide reinforcement to maintain client engagement
- Written material/handouts where possible
- Repetition of key points
- Non-electronic devices might include checklists, pictures or icons, photograph cues, post-it-notes, calendars, planners, and journals
- Therapies should be introduced with a simple rationale



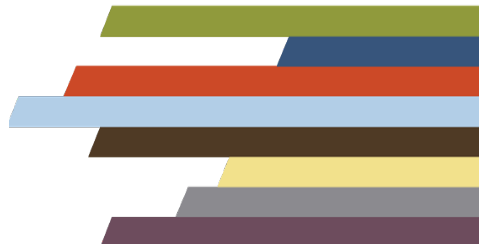
Screening Tools

1. Ohio State Traumatic Brain Injury Identification Method (OSU TBI-ID) (Ages 13 plus)

https://wexnermedical.osu.edu/neurological-institute/departments-and-centers/research-centers/ohio-valley-center-for-brain-injury-prevention-and-rehabilitation/for-professionals/screening-for-tbi

2. Brain Check Survey

(School aged children/youth)
https://www.chhs.colostate.edu/ot/research/life-outcomes-after-brain-injury-research-program/



Importance of Screening for TBI Impairment

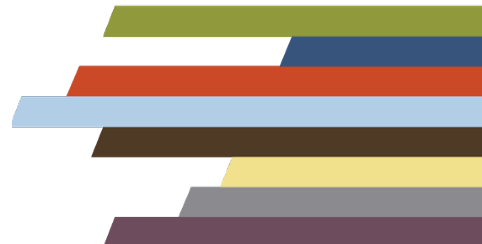
Not all possible episodes of brain injury result in cognitive impairment

Certain episode characteristics are associated with a greater likelihood of long-lasting effects

Neurocognitive testing can be used to look at the likely effects of brain injury

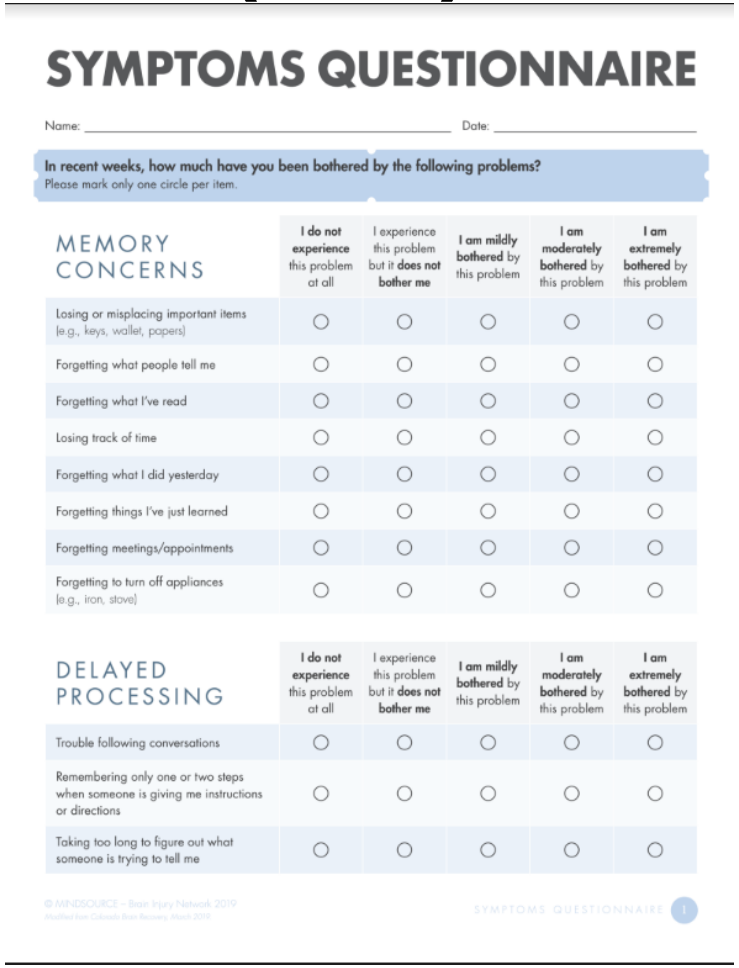
Screening for Impairment

- OSU TBI-ID does not screen for impairment
- Important to understand deficit areas so that appropriate accommodations and strategies can be implemented
- Variety of ways to screen for impairment:
  - Symptoms Questionnaire
  - Neuropsychological Screen
  - Neuropsychological Evaluation



Symptoms Questionnaire (CO)

- Useful for individuals with a lifetime history of brain injury
- Self-report
- Results in customized set of client tip sheets and guidance for professionals



SYMPTOMS QUESTIONNAIRE

Name: _____ Date: _____

In recent weeks, how much have you been bothered by the following problems?
Please mark only one circle per item.

MEMORY CONCERNS	I do not experience this problem at all	I experience this problem but it does not bother me	I am mildly bothered by this problem	I am moderately bothered by this problem	I am extremely bothered by this problem
Losing or misplacing important items (e.g., keys, wallet, papers)	○	○	○	○	○
Forgetting what people tell me	○	○	○	○	○
Forgetting what I've read	○	○	○	○	○
Losing track of time	○	○	○	○	○
Forgetting what I did yesterday	○	○	○	○	○
Forgetting things I've just learned	○	○	○	○	○
Forgetting meetings/appointments	○	○	○	○	○
Forgetting to turn off appliances (e.g., iron, stove)	○	○	○	○	○

DELAYED PROCESSING	I do not experience this problem at all	I experience this problem but it does not bother me	I am mildly bothered by this problem	I am moderately bothered by this problem	I am extremely bothered by this problem
Trouble following conversations	○	○	○	○	○
Remembering only one or two steps when someone is giving me instructions or directions	○	○	○	○	○
Taking too long to figure out what someone is trying to tell me	○	○	○	○	○

Plain Language Tip Sheets for Clients

Organization Problems

Organization is the ability to use your time, energy or resources in a helpful way to finish goals or tasks. People who have a hard time with organization notice they have problems keeping a schedule, prioritizing, starting tasks, switching from one activity to another, or keeping up with time-sensitive tasks (for example, paying bills, completing paperwork, etc.). Using and practicing the following tips can be helpful:

1. To help master your schedule, you can use a notebook, planner, or digital calendar and reminder app on your phone or watch. Review weekly and monthly schedules frequently.
2. If you have trouble prioritizing duties, use a system of organization. For example, highlight important events, bill due dates, and other deadlines.
3. If you have a hard time remembering important activities or appointments, set up a routine by asking that your regular appointments be scheduled on the same day and at the same time when possible.
4. To help yourself switch between tasks, set a timer or use a watch to alert yourself when to wrap up what you're doing, and when to get ready for your next task.[2]
5. If you have a hard time finishing projects on time or correctly, break them down into smaller, simple tasks and cross off each step as it is completed.
6. Poor sleep can add to organizational problems. You can review the attached sleep to help improve sleep habits.

Compiled by H. Allo, D. Daugherty, & H. Schuveiller March 11, 2019

Inhibition Problems/Impulsivity

Impulsivity is when you find it hard to think before you act or say something. You might notice yourself cutting someone off before they finish talking or doing the first thing that comes to mind. You may also find it hard to control your emotions and show them in a way that others will understand. Even though these behaviors are not on purpose, it can be frustrating if you find yourself getting in trouble for your actions. Using and practicing the following suggestions can be helpful:

1. Stop → Think → Act! When you notice yourself acting on the first thing that pops into your mind, STOP and count to 3 while you think about the possible outcomes of what you are about to do before you do it.

2. Breathing techniques can help you relax when you are feeling out-of-control. A simple exercise that you can do is focus on your breathing for 60 seconds. Breathe in through your nose, hold your breath for 6 seconds, and then breathe out through your mouth.
3. Wait until others have finished talking before sharing your thought. If you find yourself disrupting conversations, try silently repeating the question(s) to yourself before offering an answer. This can help you avoid cutting others off when they are speaking.
4. If you find it hard to stay focused in any setting, physical or mental breaks can help. For example, try going for a short walk to take a break and refocus.
5. When working with others in a group setting, bring a notepad with you to write down your thoughts as they pop into your head. This can help avoid any interruptions that may have been caused by speaking out of turn.
6. Write down step-by-step instructions or create a checklist to help yourself complete tasks or instructions.
7. Poor sleep can contribute to impulsivity. You can review the attached sleep checklist to help promote better sleep habits.

Compiled by E. Halbert, K. Janicke, & T. Morgan March 11, 2019

Attention Problems

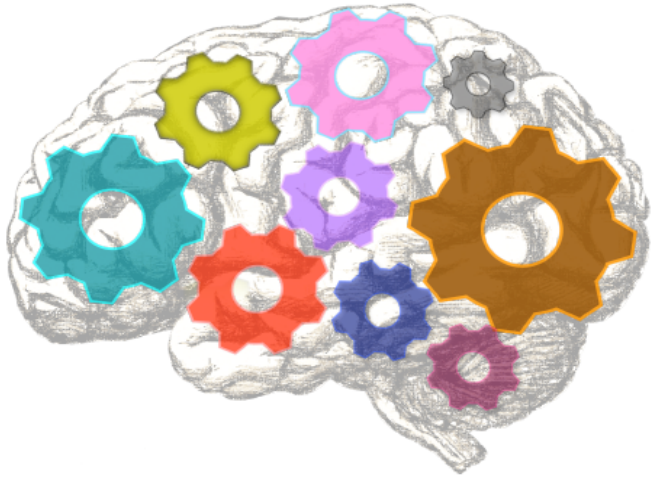
There are different kinds of attention. One kind allows you to think about one thing for a short period of time, another type helps you ignore distractions and another type allows you to shift your attention from one thing to another. People with attention problems have a hard time staying focused during meetings, may get off-topic during conversations, and may have trouble remembering important details. Having trouble finishing tasks, especially when it is noisy or you are distracted, is a common problem. Using and practicing the following suggestions can be helpful:

1. Recording information can be helpful. To help you remember important details, you can take notes or record voice messages after important meetings.
2. To help you complete tasks, break them into small steps, create a list and work on only one step at a time.
3. Distracting places can make these problems worse (for example, spaces that are noisy, full of clutter, have busy views, or frequent interruptions). As much as possible, work in quiet, non-distracting places.
4. When possible, wear earphones to drown out excess noise.
5. To help you remember meetings or important dates, use the calendar or reminders on your phone/watch/computer or use a regular paper planner or calendar.
6. During important meetings, take a minute to repeat or summarize important points to help you remember.
7. Attention can get worse as the day goes on. When possible, try to schedule important appointments earlier in the day.
8. Attention can get worse if you don't sleep well. Using the attached sleep guide to help you practice better sleep habits.

Compiled by N. Amundson, M. Aud, & Q. Kais March 11, 2019

Additional Tip Sheets for Clients

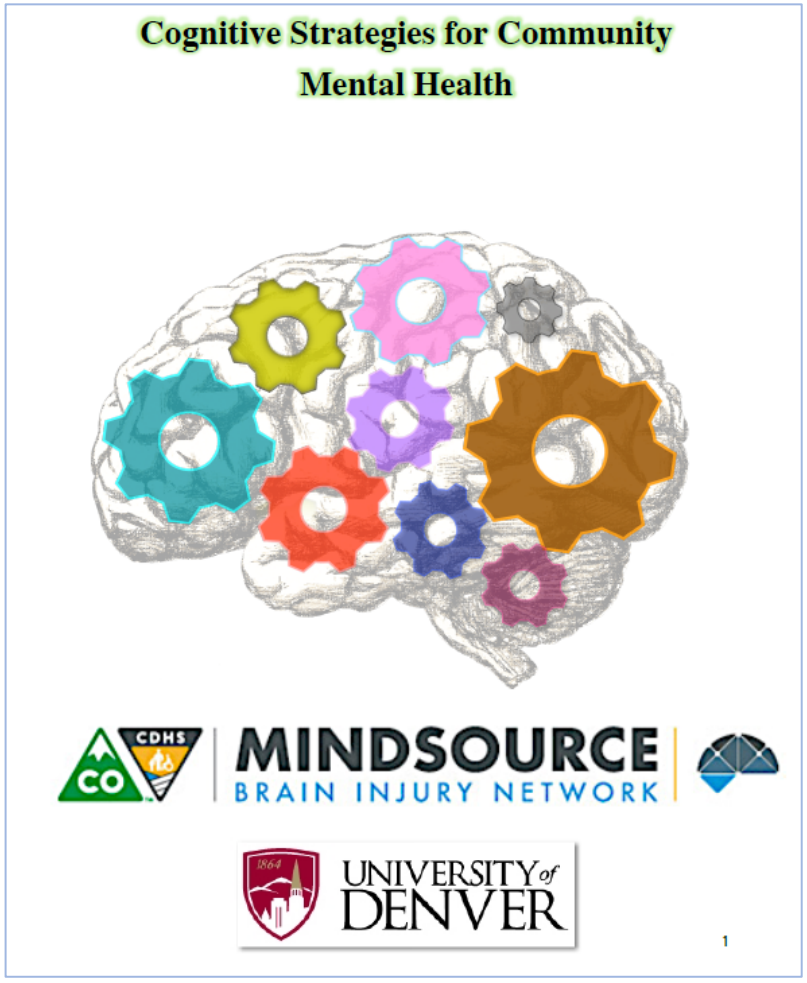
- Memory
- Delayed Processing
- Physical and Sensorimotor
- Language
- Mental Inflexibility
- Emotional Dysregulation
- Sleep



MINDSOURCE BRAIN INJURY NETWORK

UNIVERSITY of DENVER

Strategies Guidebook for Community Professionals



- Memory Problems
- Delayed Processing
- Attention Problems
- Inhibition Problems/Impulsivity
- Physical and Sensorimotor Problems
- Language Problems
- Organization Problems
- Mental Inflexibility
- Emotional Dysregulation
- Appendix – Sleep

Achieving Healing through Education, Accountability, and Determination (AHEAD)

- Group psycho-educational curriculum
- Can be used individually
- TBI-focused, but relevant for other populations as well

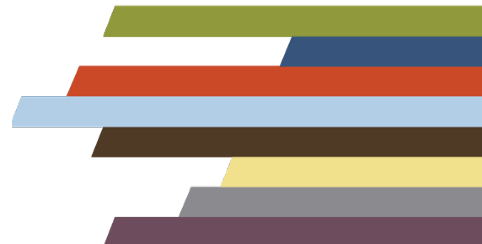
Seven Modules:

1. *Understanding TBI/Symptom Recognition*
2. *Memory Skills/Goal Setting*
3. *Emotional Regulation*
4. *Communication Mastery*
5. *TBI and Anger*
6. *Stopping & Thinking*
7. *Grief*

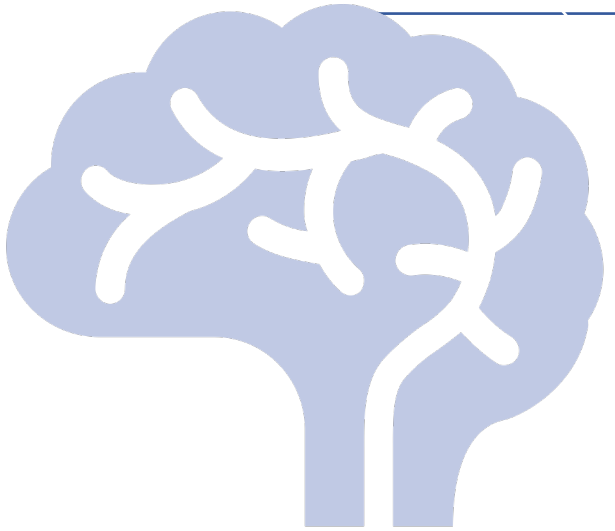
https://mindsourcecolorado.org/ahead/

Neuro-cognitive Screening

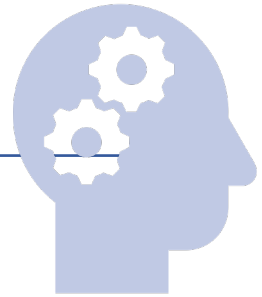
- Different states/programs use different screening measures
- Automated Neuropsychological Assessment Metric, Core Battery
- Neuropsychological Assessment Battery Screening Module
- Repeatable Battery for the Assessment of Neurological Status
- Trail Making Test A&B
- Category Test



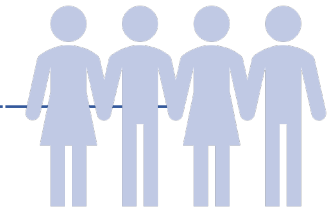
Framework for Support



We are NOT treating the brain injury, we ARE treating the behavioral health concern in the context of brain injury:



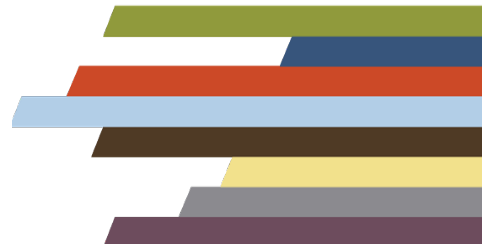
Demystifies brain injury for non-brain injury professionals



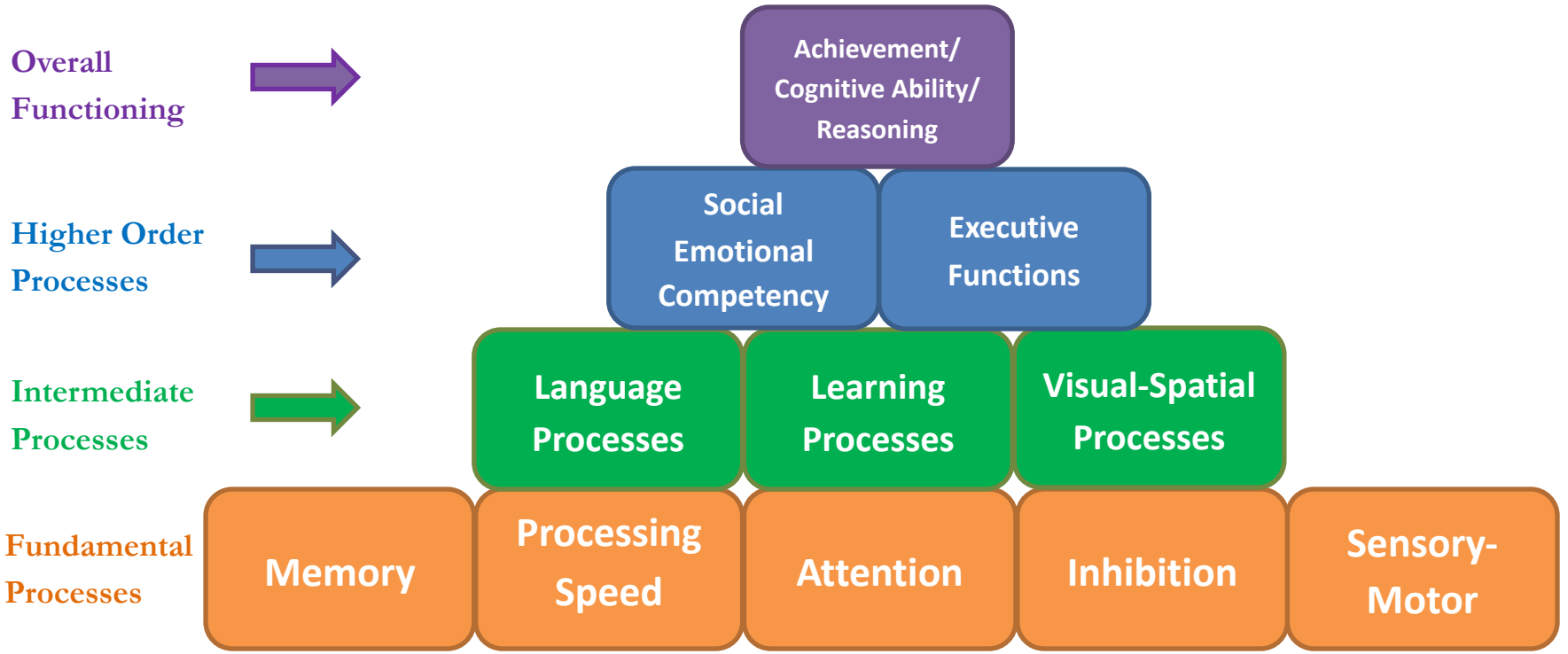
Empowers individuals with brain injury and families to advocate for appropriate supports

Framework

Build	Build capacity of the behavioral health system so providers can:
Ensure	Ensure policies do not inadvertently exclude those with brain injury
Screen	Screen for and recognize brain injury
Screen	Screen for the affects of brain injury
Provide	Provide basic accommodations and modifications to ensure treatment is more successful
Provide	Provide referral to appropriate brain injury related resources



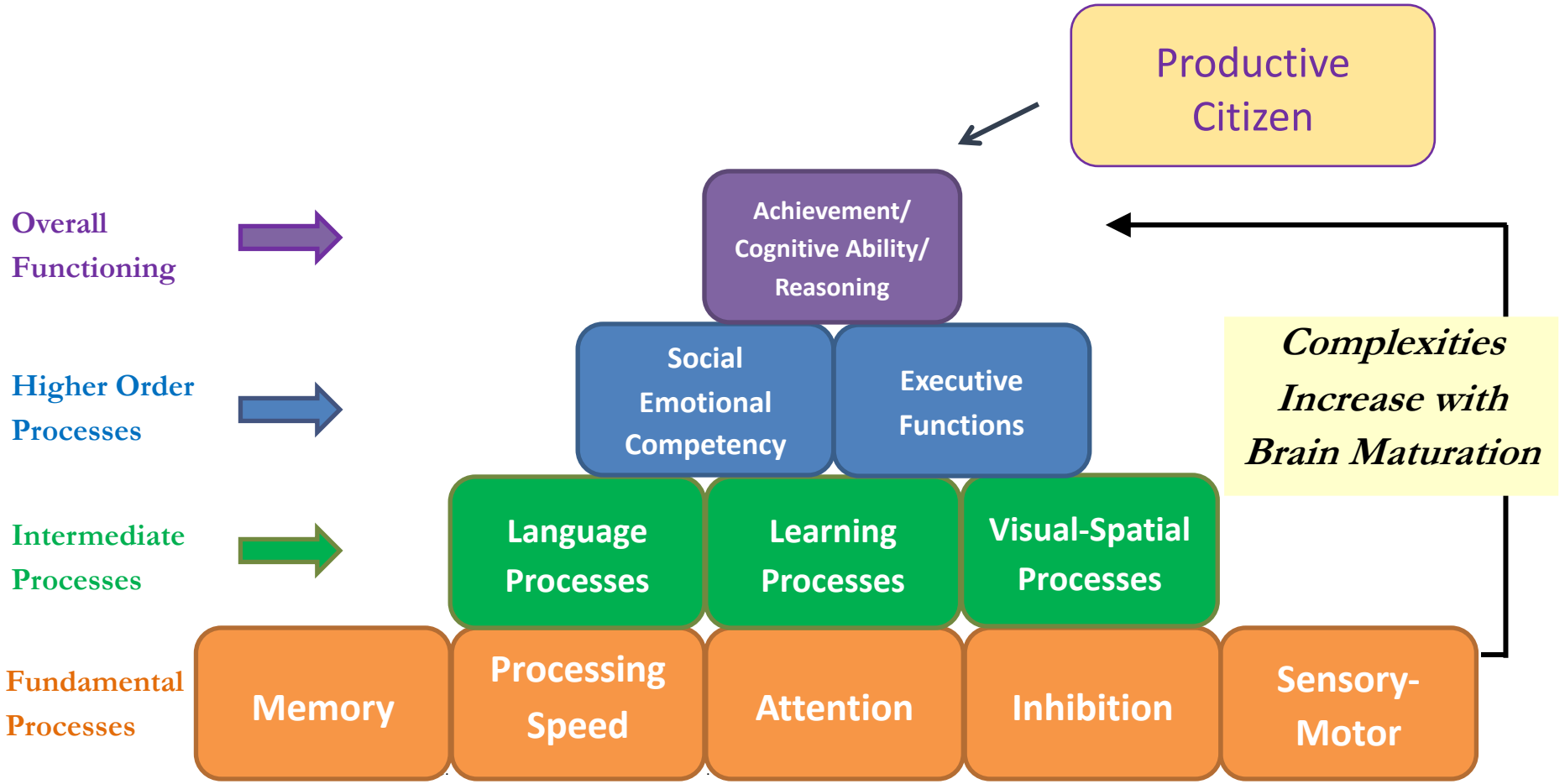
Building Blocks of Brain Development©



The Hierarchy of Neurocognitive Functioning © - created by Peter Thompson, Ph.D. 2013, adapted from the works of 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.

Building Blocks of Brain Development©



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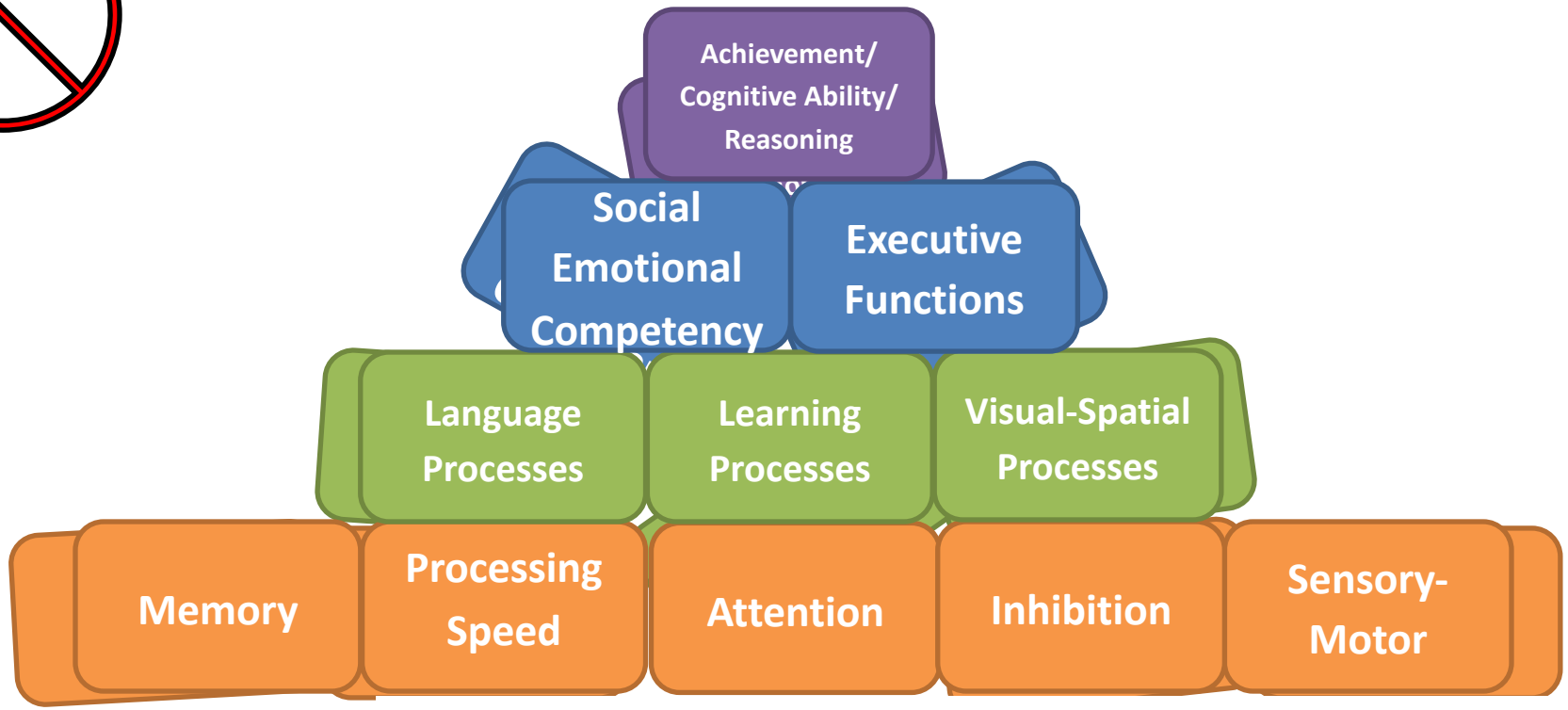

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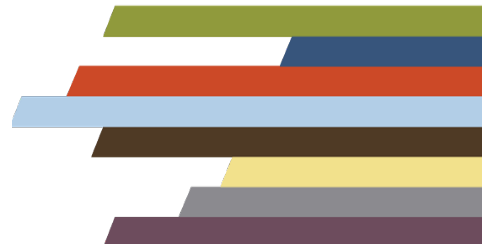
Skill Vs. Will

If think they have the skill but choose to not use it, likely to think punishment

If think they don’t have the skill, less likely to think punishment, more likely to think of teaching the skill

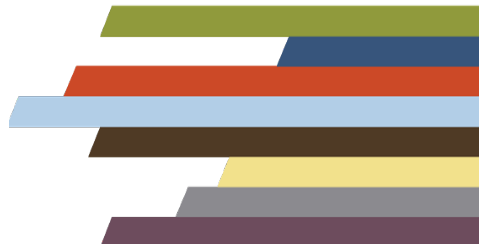
Resource Facilitation

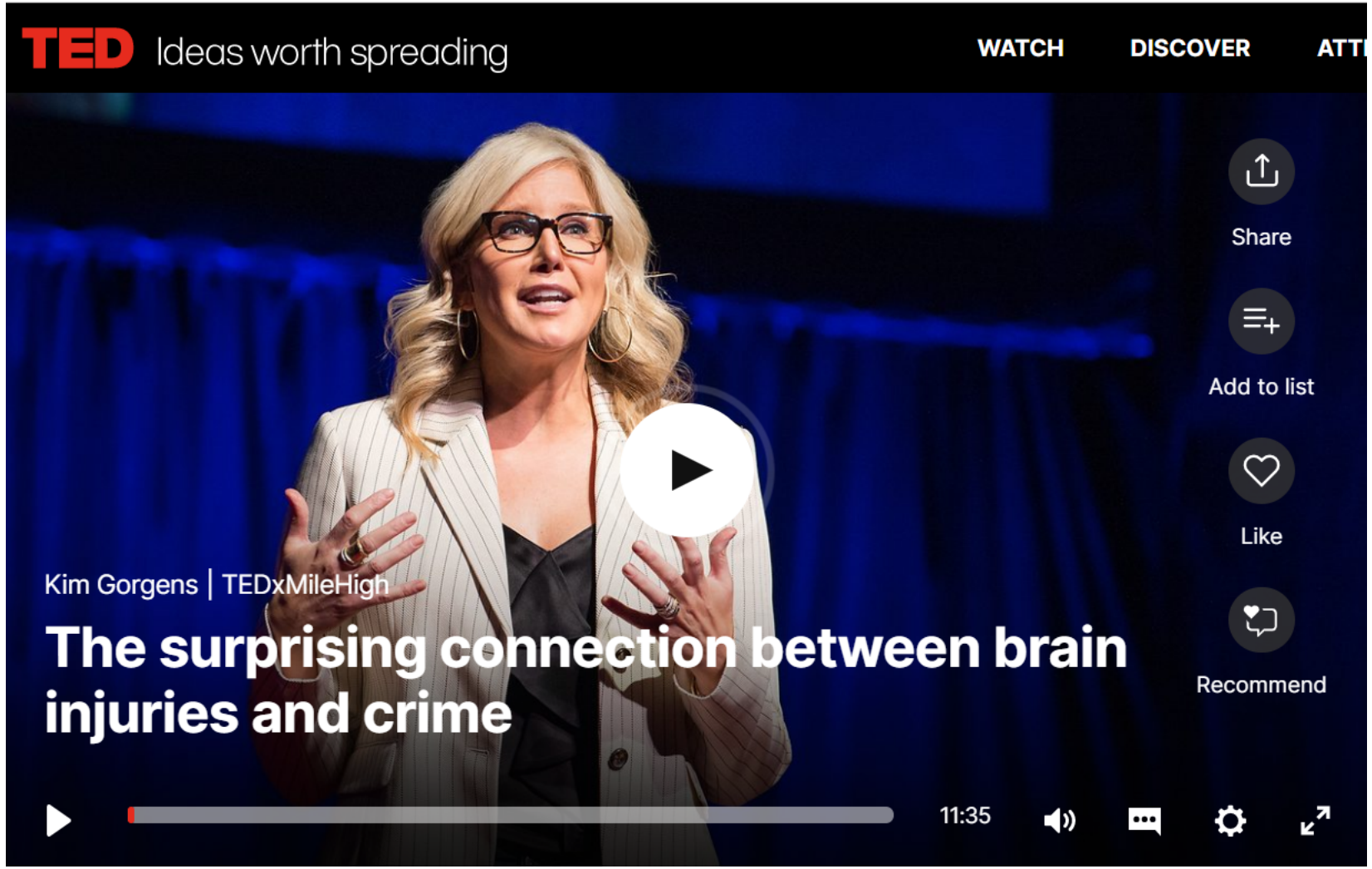
- Continuing to connect people to resources – this is not always completed by release date
- Assisting someone to find a volunteer job (helps to stay out of trouble until connected with other services)
- Assisting someone with medical management (getting to appointments, keeping info straight, sometimes life-threatening conditions)
- Connecting individuals for sobriety resources
- Crisis management
- Working with parole on other referrals (workforce development, housing referrals)
- Coordinating and managing issues in halfway houses



Reducing Recidivism

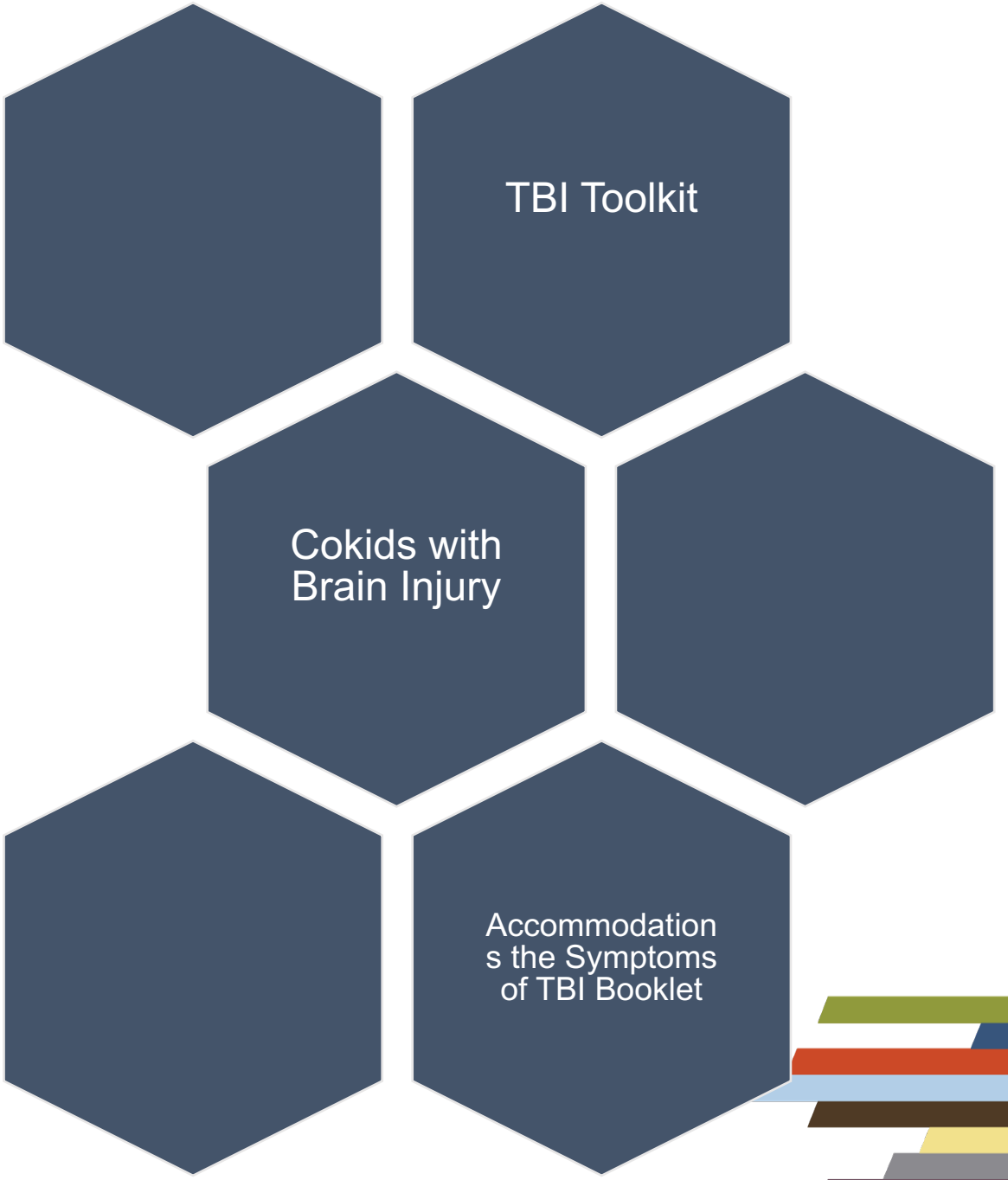
- Ahlers and colleagues (2018) reported that participating inmates with a reported TBI history were 4.22 times more likely to have experienced trauma and 3.52 times more likely to have a mental illness diagnosis relative to incarcerated persons without TBI
- Case management appeared to confer a protective benefit and prevent escalation of needs although 70% of people referred for case management failed to make a connection
- Six months after release, 56.8% of participating individuals with a history of TBI were receiving community treatment, 27.8% of these individuals were not in treatment, and 3.4% reported that they had completed treatment
- Receiving case management services and participating in jail-based behavioral health service program reduced recidivism to rates comparable to those without TBI





Kim Gorgens, Ph.D., ABPP
Neuropsychologist
Clinical Professor and Director of Continuing Education, Graduate School of Professional Psychology, University of Denver

Helpful Tools



TBI Toolkit

http://www.mirecc.va.gov/visn19/tbi_toolkit/

Free Online Toolkit

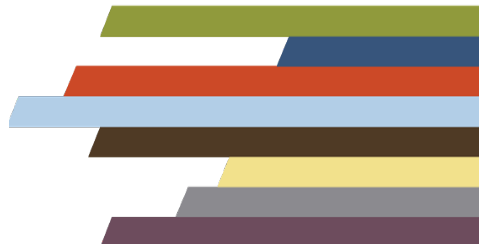
MIRECC
VISN 19 ROCKY MOUNTAIN NETWORK

Developed by researchers at the Department of Veterans Affairs, this toolkit is designed to assist providers in identifying TBI and associated co-occurring problems and determining potential need for further evaluation and/or mental health treatment modification.

Click here to access the toolkit. Click here and open the "Training Resources" menu for valuable slides from the initial training on this toolkit.

The goal is to offer providers working with clients who have a history TBI and mental health symptoms the following:

- Background information/Education
- Screening and Assessment Tools
- Interventions and Treatment Modification Suggestions
- Additional resources



Accommodating the Symptoms of TBI

http://ohiovalley.org/informationeducation/accommodatingtbi/

Presented by:

Ohio Valley Center for Brain Injury Prevention and Rehabilitation

With contributions from Minnesota Department of Human Services State Operated Services

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Additional Resources

Traumatic Brain Injury Model Systems Knowledge Translation Center:

https://msktc.org/tbi

https://msktc.org/lib/docs/Factsheets/TBI_Emotional_Problems_and_TBI.pdf

https://msktc.org/lib/docs/Factsheets/TBI_Depression_and_TBI.pdf

Additional Resource

- Brandies, Heller School, Institute for Behavioral Health:

https://heller.brandeis.edu/ibh/research/inroads/publications-products.html

Brainline:

https://www.brainline.org/

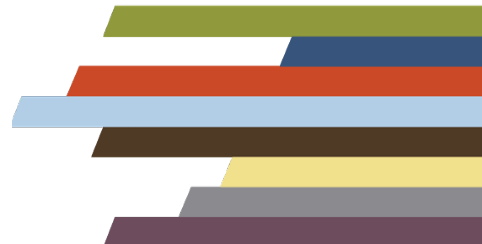
Ohio Valley Center for Brain Injury Prevention and Rehabilitation:

https://wexnermedical.osu.edu/neurological-institute/departments-and-centers/research-centers/ohio-valley-center-for-brain-injury-prevention-and-rehabilitation

Criminal and Juvenile Justice Best Practice Guide

- With support from the ACL TBI Program's Criminal and Juvenile Justice Workgroup, NASHIA developed this best practice guide for state brain injury programs related to brain injury and criminal and juvenile justice.

- https://www.nashia.org/resources-list/ultvlaoicnk14l0k1f0prgqvhlt04f-z45t9



NASHIA: Leading Practices Academy (LPA) on Criminal & Juvenile Justice & Brain Injury

LPA Provides:

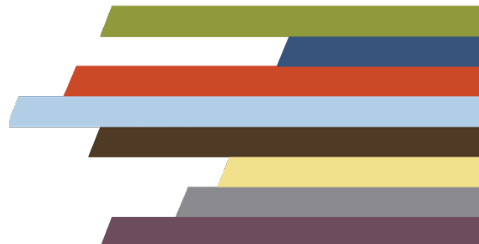
Direct state technical assistance and consultation (approximately 15 hours per year per State)

- Assessment
- Creation of Work Plan & Goals w/ Focus on Outcomes and Sustainability

TA/Consultation to Achieve Goals

- Six Academy Meetings per Year
- Peer-to-peer support
- Online HUB w/ resources and online community forums
- Participation by all Academy Members in Annual Summit (travel costs not included)

https://www.nashia.org/lpa-cjj



NASHIA

Questions?

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