



Supporting Survivors of Brain Injury in a Criminal Justice Setting

Liam Donevan, CBIS
Pronouns: He/Him/His
Program Manager – Criminal Justice System
Liam@BIAColorado.org
303.562.3298



BIAColorado.org • (303) 355-9969

1



Objectives

- Overview of brain injury in the criminal justice system
- Risk-Need-Responsivity and brain injury
- Colorado brain injury protocol

© 2021 Brain Injury Alliance of Colorado

2

Scope of Problem in Context

- Recent meta-analytic review found the prevalence of TBI in the justice involved population to be **60.25%** (*Shiroma, Ferguson, & Pickelsimer, 2010*) compared to 8.5% in the general population (*glois, 2008*).
- One meta-analysis found that approximately **30%** of individuals in the juvenile justice system have sustained a previous brain injury (*Vaughn, Salas-Wright, Delisi, & Perron, 2014*).
- In contrast to the general population, **women** are more likely to have a TBI, and the leading cause of TBI in the justice involved population is **assaults**

© 2021 Brain Injury Alliance of Colorado

3

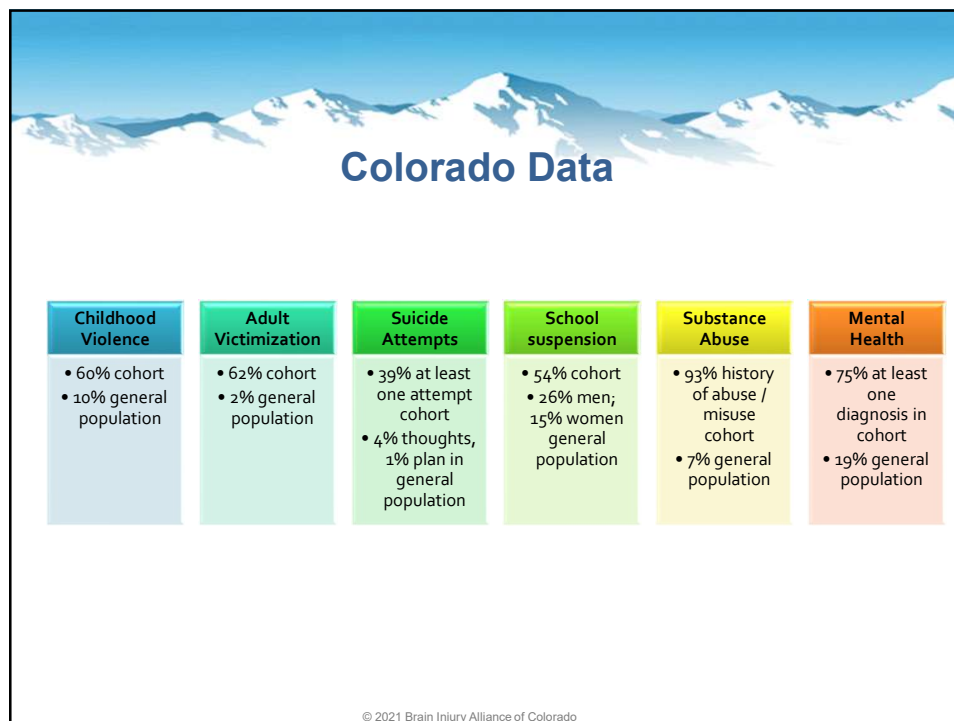
Criminal Justice Entity	Total OSU Screened	Positive Screens	Percent Positive
Arapahoe County Probation	51	28	54.9%
Boulder County Jail (JBBS & JET Units)	369	215	58.2%
Denver County Jail (RISE unit)	1352	360	26.6%
Denver County Jail (Transition Unit)	732	449	61.3%
Larimer County Jail	480	287	59.7%
Adams County Probation (female offender)	31	30	96.7%
Adams County Probation (Veterans)	111	47	42.3%
Adams County Probation (sex offenders)	69	28	40.5%
Denver Drug Court	686	299	43.5%
Denver Juvenile Probation	445	82	18.4%
Jefferson County Recovery Court	81	49	60.4%
Total	4,407	1,854	42%

© 2021 Brain Injury Alliance of Colorado

4

Criminal Justice Entity	Total Neuropsych Screens	Positive Screens	Percent Positive
Arapahoe County Probation	47	37	78.7%
Boulder County Jail	107	89	83.2%
Denver County Jail (RISE unit)	191	133	69.6%
Denver County Jail (Transition Unit)	208	153	73.6%
Larimer County Jail	95	58	61.1%
Adams County Probation (female offender)	13	9	69.2%
Adams County Probation (Veterans)	62	46	74.2%
Adams County Probation (sex offenders)	17	14	82.4%
Denver Drug Court	104	78	75%
Denver Juvenile Probation	16	8	50%
Jefferson County Juvenile Probation	3	2	66.7%
Jefferson County Recovery Court	28	21	75%
Total	891	648	72.7%

5



6

What we know about BI and justice-involved populations

- ✓ Trauma hx
- ✓ 50% higher recidivism rate
- ✓ Longer sentences (Horn & Lutz, 2016)
- ✓ Lower treatment completion rates
- ✓ higher rates of disciplinary incidents
- ✓ Increased risk substance abuse
- ✓ Increased risk of mental illness
- ✓ 45% of homeless population

© 2021 Brain Injury Alliance of Colorado

7

Risk-Need-Responsivity and Brain Injury




Image from Taxman, Pattavina, Byrne, and Durso's "The Empirical Basis for the RNR Model with an Updated RNR Conceptual Framework" chapter in Simulation Strategies to Reduce Recidivism (2013)

© 2021 Brain Injury Alliance of Colorado

8




Big Four

- Low Self Control**
 - Age at first arrest | Number of prior offenses | Rule violations on supervision
- Anti-Social Temperament**
 - Impulsive, adventurous, pleasure-seeking | Generalized trouble in multiple settings | Aggressive, callous disregard for others, anger problems | Lack of empathy
- Anti-Social Cognitions**
 - Identifies with other offenders | Negative attitude towards justice system | Belief that crime yields rewards | Rationalizes crime
- Anti-Social Companions**
 - Association with other anti-social peers | Isolation from pro-social peers

Anderson, D. A. & Bonta, J. (2010). Psychology of Criminal Conduct, 8th ed., 58-59.
The Garry Group. "Chronicity: Need Preferred Response Guidelines."
Cathy, Mark (2015). "Coaching Project: Effective Case Management."
National Institute of Corrections Thinking for a Change; Glick, B. & Gibbs, J. C. (2011). "Why Social Skills That Can Be Used in Aftercare Lessons."

© 2021 Brain Injury Alliance of Colorado

9



Next Four

- Family / Marital**
 - Poor communication | Significant conflict (parent-child or parent-spouse) | Lack of expectations and rules
- Employment / Education**
 - Low level of performance and involvement | Low levels of reward and satisfaction
- Pro-Social Recreation**
 - Low levels of involvement and satisfaction
- Substance Abuse**
 - Continued use despite life disruptions | Increased tolerance and / or use | Inability to stop using


© 2021 Brain Injury Alliance of Colorado

10

Risk and Brain Injury

(Piccolino & Solberg, 2014):

- 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 (50% higher than those with no reported TBI)
- Higher levels of alcohol and drug use preceding their current incarceration



© 2021 Brain Injury Alliance of Colorado

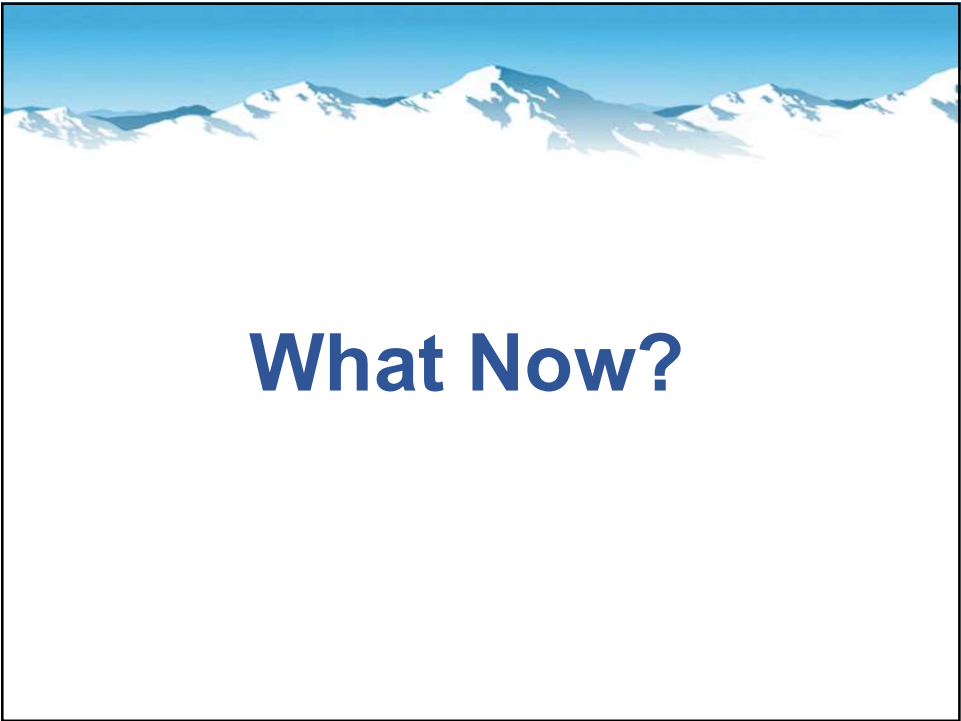
11

Need and Brain Injury

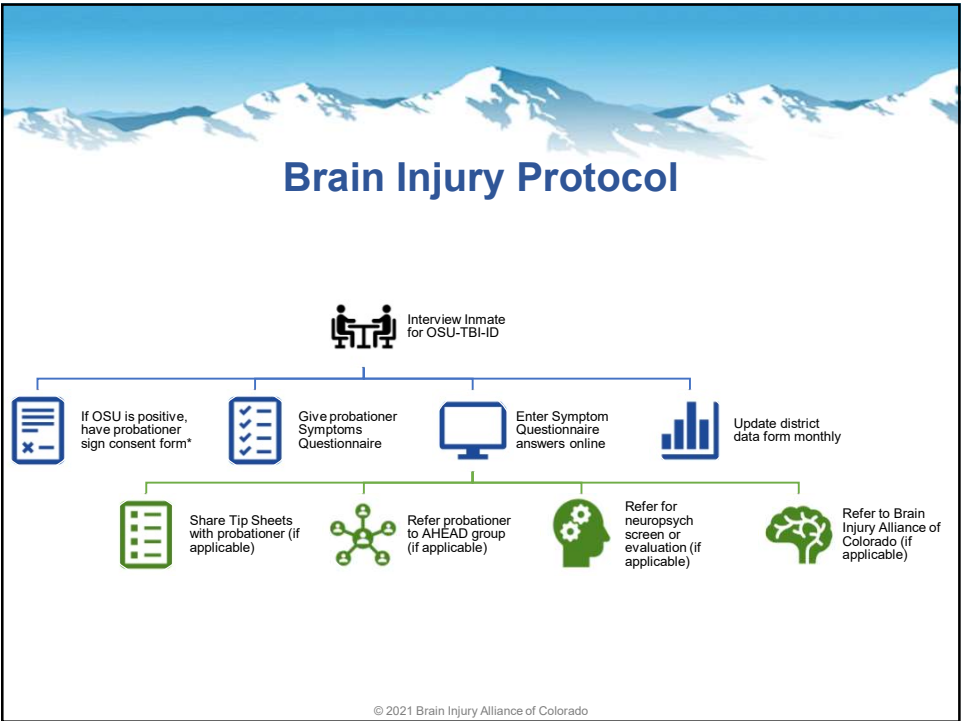
- Agitation after traumatic brain injury (TBI) is the most frequently observed behavioral problem (Sandel & Mysiw, 1996; Weir, Doig, Fleming, Wiemers, & Zemljic, 2006)
- Injury to the frontal lobes can affect the area of the brain that normally controls our impulses.
 - This inability to control urges can lead to impulsive and often inappropriate social behavior
- Individuals with brain injury report **loss of relationships**, including friendships, **is one of the most devastating effects of brain injury** (www.brainline.org)
- Studies have shown up to a **66% unstable employment** or unemployment rate following brain injury (Kreutzer, Marwitz, Walker, Sander, Sherer, Bogner, Fraser, & Bushnik, 2003)
- In a study of persons 3 to 5 years after complicated mild to severe TBI, **60% had at least some difficulty performing leisure activities** (Wise, E.K. et al. 2010)

© 2021 Brain Injury Alliance of Colorado

12



13



14

Name: _____ DOB: _____ Interviewer Initials: _____ Date: _____ ML _____ Booking #: _____

Ohio State University TBI Identification Method — Interview Form

Step 1

Ask questions 1-5 below. Record the cause of each reported injury and any details provided spontaneously in the chart at the bottom of this page. You do not need to ask further about loss of consciousness or other injury details during this step.

I am going to ask you about injuries to your head or neck that you may have had anytime in your life.

- In your lifetime, have you ever been hospitalized or treated in an emergency room following an injury to your head or neck? Think about any childhood injuries you remember or were told about.
☐ No ☐ Yes—Record cause in chart
- In your lifetime, have you ever injured your head or neck in a car accident or from crashing some other moving vehicle like a bicycle, motorcycle or ATV?
☐ No ☐ Yes—Record cause in chart
- In your lifetime, have you ever injured your head or neck in a fall or from being hit by something (for example, falling from a bike or horse, rollerblading, falling on ice, being hit by a rock)? Have you ever injured your head or neck playing sports or on the playground?
☐ No ☐ Yes—Record cause in chart
- In your lifetime, have you ever injured your head or neck in a fight, from being hit by someone, or from being shaken violently? Have you ever been shot in the head?
☐ No ☐ Yes—Record cause in chart
- In your lifetime, have you ever been nearby when an explosion or a blast occurred? If you served in the military, think about any combat- or training-related incidents.
☐ No ☐ Yes—Record cause in chart

Interviewer instruction: If the answers to any of the above questions are "yes," go to Step 2. If the answers to all of the above questions are "no," then proceed to Step 3.

Step 2

Interviewer instruction: If the answer is "yes" to any of the questions in Step 1 ask the following additional questions about each reported injury and add details to the chart below.

Were you knocked out or did you lose consciousness (LOC)?

If yes, how long?

If no, were you dazed or did you have a gap in your memory from the injury?

How old were you?

Step 3

Interviewer instruction: Ask the following questions to help identify a history that may include multiple mild TBIs and complete the chart below.

Have you ever had a period of time in which you experienced multiple, repeated impacts to your head (e.g. history of abuse, contact sports, military duty)?

If yes, what was the typical or usual effect—were you knocked out (Loss of Consciousness - LOC)?

If no, were you dazed or did you have a gap in your memory from the injury?

What was the most severe effect from one of the times you had an impact to the head?

How old were you when these repeated injuries began? Ended?

Step 1	Step 2					Step 3		Age	
Cause	Loss of consciousness (LOC)/knocked out					Dazed/Mem Gap	Yes	No	
	No LOC	< 30 min	30 min-24 hrs	> 24 hrs					
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

If more injuries with LOC: How many? _____ Longest knocked out? _____ How many ≥ 30 mins? _____ Youngest age? _____

Step 3	Typical Effect		Most Severe Effect				Age	
Cause of repeated injury	Dazed/ memory gap, no LOC	LOC	Dazed/ memory gap, no LOC	LOC < 30 min	LOC 30 min - 24 hrs	LOC > 24 hrs	Began	Ended
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

Adapted with permission from the Ohio State University TBI Identification Method (Carignan, J.D., Bogen, J.A. (2007). Initial reliability and validity of the OSU TBI Identification Method. J Head Trauma Rehabil, 22(6):318-329. © Reserved 2007, The Ohio Valley Center for Brain Injury Prevention and Rehabilitation

15

SYMPTOMS QUESTIONNAIRE

Name: _____ Date: _____

In recent weeks, how much have you been bothered by the following problems?

Please mark only one circle per item.

SECTION 1	N/A I don't have this problem at all	I have this problem but it never bothers me	I am slightly bothered by this problem	I am very bothered by this problem	I am extremely bothered by this problem
I lose or misplacing important items (keys, wallet, papers)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I forget what people tell me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I forget what I've read	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I lose track of time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I forget what I did yesterday	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I forget things I've just learned	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I forget meetings/appointments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

© 2021 Brain Injury Alliance of Colorado

16

Symptoms Questionnaire

<https://mindsourcencolorado.org/adult-symptom-questionnaire/>

MINDSOURCE
BRAIN INJURY NETWORK

ABOUT - RESOURCES - NEWS - GRANTS - CONTACT

ADULT SYMPTOM QUESTIONNAIRE

Adult Symptom Questionnaire
Please use the paper copy provided to you by your client to complete the form below. Once this form is completed, scores will be calculated, and you will receive an email with follow-up strategies and interventions to be used for addressing areas of concern. This information will be emailed to you by MINDSOURCE - Brain Injury Network.

Unique Case ID or Client Identifier

Date

Name of Person Completing this Form on Behalf of the Client

First Last

Email of Person Completing this Form on Behalf of the Client *

© 2021 Brain Injury Alliance of Colorado

17

Strategies Guidebook

Cognitive Strategies for Criminal Justice Professionals




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

© 2021 Brain Injury Alliance of Colorado

18

A.H.E.A.D

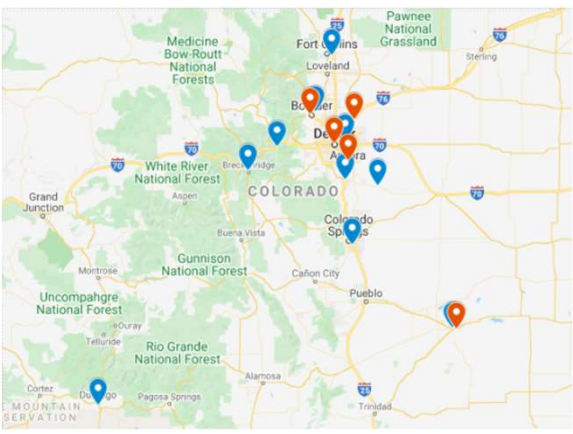
<https://mindsourcecolorado.org/ahead/>



© 2021 Brain Injury Alliance of Colorado


19

Partners



© 2021 Brain Injury Alliance of Colorado


20



Challenges & Lessons Learned

- Massive systems are slow to change
- Red tape
- Information silos
- Us vs. them mentalities
- Resource availability
- State level connections


21



Thank you for your time!

Questions? Comments? Feedback?

Liam Donevan, CBIS
Program Manager – Criminal Justice System
liam@biacolorado.org
303.562.3298



© 2021 Brain Injury Alliance of Colorado

22