

# Brain Injury 201: Tips for Supporting Individuals with Substance Use Disorders and Co-Occurring History of Brain Injury

Iowa's Person Centered Planning Virtual Conference

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**NASHIA**

# Brain Injury 201, today's workshop will cover:

- Brain Injury Overview
- Being Brain Injury aware is being person centered: integrating best practices, assessment and intervention
- How can providers and programs support and accommodate individuals who have a documented or probable history of brain injury
- What are recommendations for aftercare when there is a history of brain injury
- Resources for professionals

# Poll Question

Have you worked with an individual you know or suspect is living with a brain injury

Yes    No

# Purpose

**Why is it important for Professionals working with persons who misuse substances to have a working understanding of Traumatic Brain Injury (TBI)?**

- A history of TBI is often hidden individuals behavioral health challenges (mental health and addiction)
- If providers know or suspect there is a history of TBI, they can engage individuals right from the start of the relationship by providing appropriate supports and making appropriate referrals as indicated

# Purpose

*(continued)*

- Have the capacity to offer technical assistance to other providers who are not familiar with TBI and its consequences
- Be able to educate the individual and their natural supporters about what a possible history of TBI might mean and provide education and recommendations for accommodations and referrals, not only for the individual, but for their supporters as well

# TBI vs. ABI

## TBI-Defined

**TBI** is an insult to the brain caused by an external physical force, such as a: Fall, motor vehicle accident, assault, sports-related incident, or Improvised Explosive Device (IED) exposure

## ABI-Defined

**Acquired Brain Injury (ABI)** is an insult to the brain that has occurred after birth, such as: TBI, stroke, near suffocation, infections in the brain, or anoxia **and opioid overdose(s)**

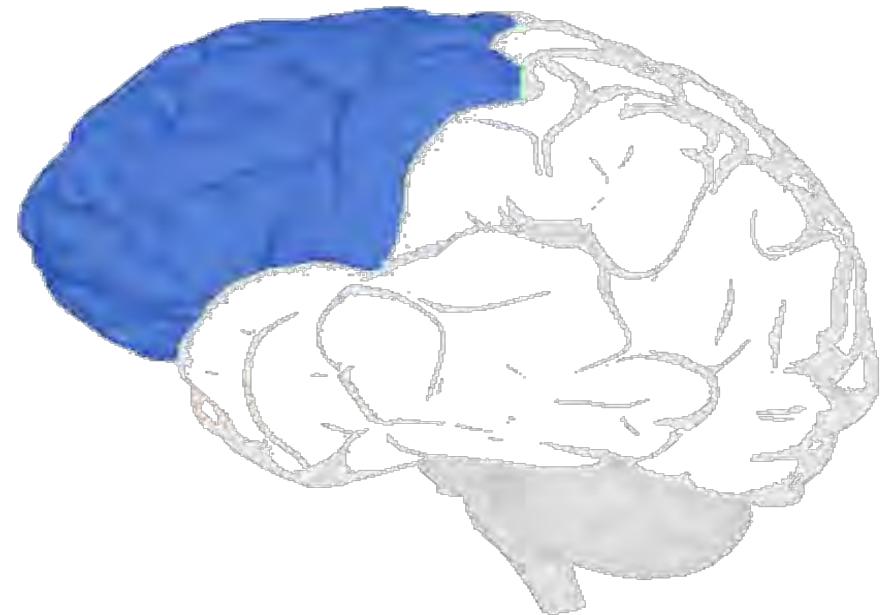
Both mechanisms of injury can result in a chronic disability that may get worse with age.

# The Frontal Lobe

**The frontal lobe** is the area of the brain responsible for our “executive skills,” or higher cognitive functions.

These include:

- Problem solving
- Spontaneity
- Memory
- Language
- Motivation
- Judgment
- Impulse control
- Social and sexual behavior



**Source:** Adapted from Dr. Mary Pepping of the University of Idaho's presentation "The Human Brain: Anatomy, Functions, and Injury"

# The Temporal Lobe

The temporal lobe plays a role in emotions and is also responsible for smelling, tasting, perception, memory, understanding music, aggressiveness, and sexual behavior.

The temporal lobe also contains the language area of the brain.



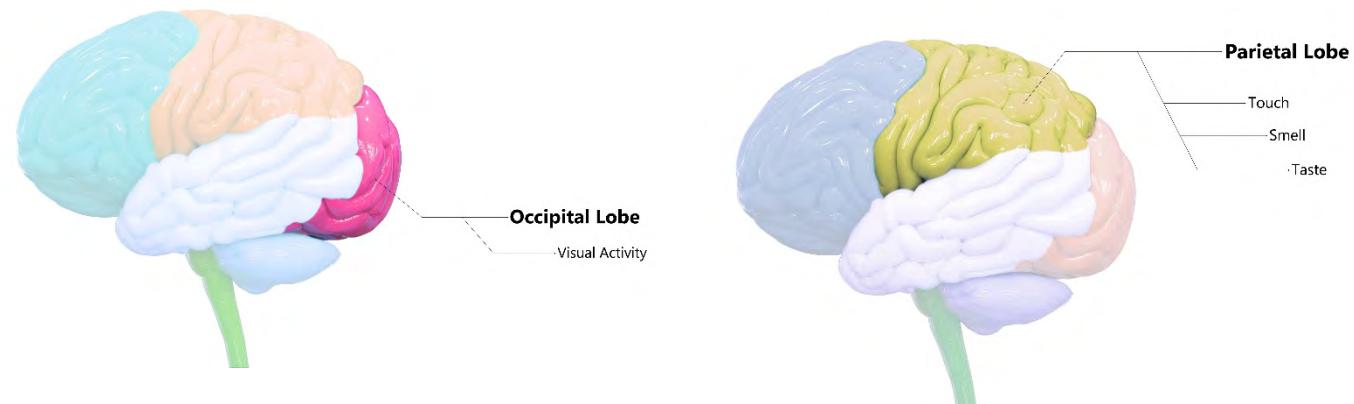
**Source:** Adapted from Dr. Mary Pepping of the University of Idaho's presentation "The Human Brain: Anatomy, Functions, and Injury"

# TBI “Fingerprints”

Our frontal lobe and the temporal lobes are key to managing behavior and emotions.

Thus, damage to these regions can contribute to mental health and/or addiction problems. Damage to these lobes is considered the **“Fingerprint of Traumatic Brain Injury.”**

There are two other lobes in the brain, the occipital and the parietal lobes.



To be clear, not every overdose causes an acquired brain injury.

When there is sufficient loss of oxygen to cause an acquired brain injury, the damage is to the same parts of the brain vulnerable to harm in the case of a traumatic brain injury

### **“Memory Loss Hitting Some Fentanyl Abusers”**

Dennis Thompson  
*Healthday*  
Jan. 29, 2018

### **“Anatomy of Addiction: How Heroin and Opioids Hijack the Brain”**

Jack Rodolico  
NPR Jan. 11, 2016

### **“Are Opioids Behind a Cluster of Unusual Amnesia Cases?”**

Sarah Zhang  
*The Atlantic*  
Jan. 30, 2017

# Substance Use and TBI

“Studies of both brain structure and function indicate that substance misuse and TBI interact in an additive way, specifically, their co-occurrence results in more impairment than either one alone.”

“Substance misuse also limits outcomes from TBI by undermining environmental supports such as familial care or access to services.”

*Source: Corrigan and Mysiw's chapter “Substance Abuse Among Persons with Traumatic Brain Injury” from Brain Injury Medicine, 2<sup>nd</sup> Edition 2012-Key Points*

# *“Opioid Use among Individuals with TBI: a Perfect Storm?”* summary of the research

- Those who misused substances before their injuries are **considerably** more likely misuse substances after injury compared with prior non-users of drugs
- It is estimated that 10-20% of individuals develop new-onset substance use post injury
- TBI often results in headaches & orthopedic injuries leading to prescriptions for opioids-**70-80% of all patients with TBI are discharged with a prescription for opioids**
- TBI Model Systems study indicated that individuals living with a history of TBI were 10x's more likely to die from accidental poisoning, with 90% related to drug overdose (67% narcotics, 14% psychostimulants, 8% alcohol)

Sources: (2020) . Adams, Rachael Sayko., Corrigan, John D., and Dams-O'Connor. J. Neurotrauma.37:211-216. <https://acl.gov/sites/default/files/news%202018-05/20180502NIDILRROpioidRFIFindings.pdf>

# **Case Review:** Quick review of an individual who died by overdose, by our hour's end, you should have some answers to the questions below

- What barriers existed for this individual?
- What underlying issues may be present here?
  - Which “hidden” factors may indicate TBI?
- What opportunities for intervention can be identified?

# Sample Case Review

Source: Laura Bartolomei-Hill

Decedent: David Hunter, 35, White, Male

Resident Jurisdiction: Baltimore City

Incident Jurisdiction: Baltimore County

Date of Death: Jan. 15, 2018

Cause of Death: Heroin and Fentanyl Intoxication

Notes from the Scene: RN at MedStar Harbor Hospital called to report this death. The subject and girlfriend were snorting heroin last night, and this morning she found the subject unresponsive. Family is at the Hospital Emergency Department. No drugs or paraphernalia found on subject, no noted trauma. Per Baltimore City Police, the subject has a long history of heroin and cocaine use. Police have no concerns of foul play.

# Sample Case Review

Source: Laura Bartolomei-Hill

Prescription Drug Monitoring Program: Prescription for 30 oxycodone written by the Emergency Department physician  
8/6/2016, 8/20/2016, 9/5/2016, 1/13/2017, 12/15/17

Hospital/Chesapeake Regional Information System for our Patients (CRISP): Motor vehicle accident in 2016, subsequent visits for pain

Law Enforcement: Assault charges (domestic), theft, and possession. Responded to two previous nonfatal overdoses (2017)

Social Services: As a child, subject of a neglect investigation, parental substance use, and domestic violence reported

Health Department: Two intakes completed, no follow-up by decedent

Detention Center: Short stays only, no long-term detentions

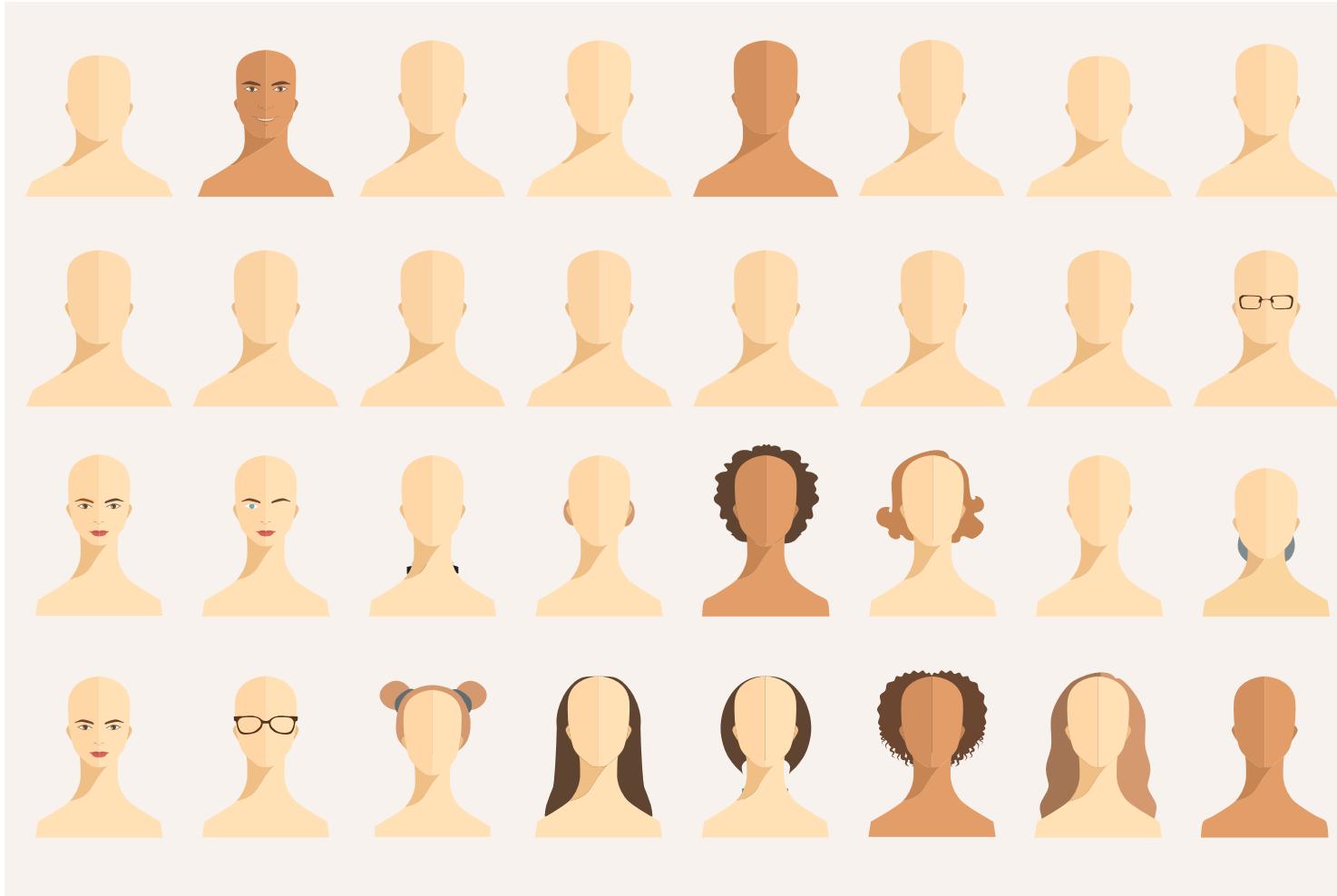
Local treatment provider: Discharged for noncompliance and conflict with other patients

# Fast Facts

- In 2013, 2.8 million Americans were treated in Emergency Departments (ED), hospitalized, or died as a result of a TBI.
- The brain reaches its adult weight of 3 pounds by the age of 12.
- The adult brain reaches cognitive maturity by the mid-20's.
- The last part of the brain to develop is the frontal lobe.

**Source:** *CDC 2017*

# Poll Question: The Frontal Lobe Develops first in males or females?



# Common Challenges After Brain Injury-Imagine How you might feel if...

- You have no trouble remembering your childhood, but you can't remember; the last paragraph of that book you are trying to read, the conversation in the grocery store with your neighbor
- The littlest thing makes so you angry you feel like screaming or throwing something (and when you are tired and frustrated, you just might)
- You know what you want to say, but you can't pull the words together, and by the time you do, the moment has passed (conversation has moved on)

# **Common Challenges After Brain Injury-Imagine How you might feel if...**

- Feel sad, depressed, irritable and/or more anxious than before the accident
- You blurt out things you never would have said before your injury
- You find yourself very, very tired, both mentally and physically
- You have been told to drink alcohol or use illicit drugs now might cause seizures, increase your risk of fall, and you have 2x the risk of have a second brain injury than someone who hasn't had a brain injury
- You are living with double vision, chronic headaches, coordination, paralysis on one side of your body

# Imagine Living with a Hidden History of Brain Injury

- Your partner is physically abusive, but you are having a hard time following through with the recommendations of the police and domestic violence center staff
- You have been diagnosed with major depression, you live with intermittent suicidal ideation/you have attempted suicide
- You keep violating the terms of your parole, frustrating yourself, your family and your parole officer
- You really want to stay sober but you can't follow what is said in group therapy/12 step meetings

# Recognizing Brain Injury

Groups who have multiple mild TBIs include:

- Athletes — especially boxers, football players, and hockey players
- Victims of intimate partner violence and childhood physical abuse
- People who use drugs
- People who are homeless
- People living with mental illness
- People who are incarcerated
- People who are/have been members of the armed forces

*Source: Adapted from John Corrigan Ph.D., Ohio Valley Center 2014*

# Recognizing Brain Injury

Greatest behavioral risk factors:

- **Violence-prone** or exposed to those who are
- **Misuse substances** or exposed to those who do
- More risk among **lower socio-economic** groups

Unpacking the why's-social and health inequities-what might be the difference in supports and outcomes for the scholar athlete who experiences multiple concussions and the young person who grew up in a household where there was physical abuse

Source: John Corrigan Ph.D., Ohio Valley Center 2014

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# Levels of Awareness

- **Intellectual Awareness:** “My memory is so bad” but can’t link that awareness to using such strategies as keeping a calendar so appointment aren’t missed
- **Emergent Awareness:** Individual is able to recognize a problem when it is actually happening “Darn it, I knew I should have taken a picture of the parking space number” (as they are wandering around the parking garage)
- **Anticipatory Awareness:** individual is able to anticipate a problem will occur and plan for the use of a particular strategy or compensation that will reduce the chances that a problem will occur, e.g. keep and refer to a calendar, take a picture of the parking space number and/or park in the same general area each time they go to the mall

# “Growing into Brain Injury”

According to a Christchurch, New Zealand study:

- Early childhood TBI, even if mild, may pre-dispose people to later having **behavioral problems and/or involvement with law enforcement**
- People with an early childhood TBI, that resulted in at least one night in hospital, were found to be **three times more** likely as young adults to have alcohol or drug dependency

Source: Corrigan 2014

# Substance Use

Persons engaged in treatment for problematic substance use, who are also living with a history of TBI tend to have:

- First used alcohol at a younger age
- A more severe substance misuse history (heavier use and more prior treatments)
- Have more co-occurring mental health problems
- Have poorer prognosis for successful treatment outcome (more so earlier the age at first TBI)

Source: (Corrigan & Mysiw, 2012), courtesy of John Corrigan Ph.D.

# Case Review: Thoughts?-put your responses in the chat

- What opportunities for intervention can be identified?
- What barriers existed for this decedent?
- What are possible recommendations to prevent future deaths?
- What underlying issues may be present here?
  - Which “hidden” factors may indicate TBI?

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Local treatment provider: Discharged for noncompliance and conflict with other patients



Name: \_\_\_\_\_

Current Age: \_\_\_\_\_

Interviewer Initials: \_\_\_\_\_

Date: \_\_\_\_\_

## Lifetime History of Traumatic Brain Injury (from the OSU TBI-ID) and other Acquired Brain Injuries

**1.** Please think about injuries you have had during your entire lifetime, especially those that affected your head or neck. It might help to remember times you went to the hospital or emergency department. Think about injuries you may have received from a car or motorcycle wreck, bicycle crash, being hit by something, falling down, being hit by someone, playing sports or an injury during military service.

- Thinking about any injuries you have had in your lifetime, were you ever knocked out or did you lose consciousness?  
 Yes  
 No (IF NO, GO TO QUESTION 2)
- What was the longest time you were knocked out or unconscious? (Choose just one; if you are not sure please make your best guess.)  
 Knocked out or lost consciousness for less than 30 minutes  
 Knocked out or lost consciousness between 30 minutes and 24 hours  
 Knocked out or lost consciousness for 24 hours or longer
- How old were you the first time you were knocked out or lost consciousness?  
\_\_\_\_\_ years old

**2.** 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)?

- Yes  
 No (IF NO, GO TO QUESTION 3)
- How old were you when these repeated injuries began?  
\_\_\_\_\_ years old
- How old were you when these repeated injuries ended?  
\_\_\_\_\_ years old

**3.** Have you ever lost consciousness from a drug overdose or being choked?

Yes

No (IF NO, GO TO QUESTION 4)

- How many times from a drug overdose?  
\_\_\_\_\_ overdose(s)
- How many times from being choked?  
\_\_\_\_\_ choked

**4.** Have you EVER been told by a doctor or other health professional that you had any of the following?

- epilepsy or seizures?
- a stroke, cerebral vascular disease or a transient ischemic attack
- a tumor of the brain
- swelling of the brain (edema)
- toxic effects or poisoning by substances
- infection like meningitis or encephalitis
- a brain bleed or hemorrhage
- child or adult maltreatment syndrome
- loss of oxygen to the brain - like from a time when you stopped breathing, had a near drowning or experienced a strangulation

### Interpreting Findings

The validity of this tool is not based on elicitation of a perfect accounting for a person's lifetime history of brain injury. Instead, it provides a means to estimate the likelihood that consequences have resulted from one's lifetime exposure.

A person may be more likely to have ongoing problems if they have any of the following:

- WORST: one moderate or severe TBI
- FIRST: TBI with loss of consciousness before age 15
- OTHER SOURCES: any TBI combined with another way their brain function has been impaired

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# Alcohol Use Screening Tools

- CAGE Questionnaire
- Brief Michigan Alcoholism Screening Test (BMAST)
- AUDIT

*These instruments are recommended for use by brain injury professionals who specialize in treating individuals who also misuse substances as they are brief and concrete, these qualities are suggested when selecting a screening tool for opioid use disorder*

# Screening Tools-Other Substances

- 12-item form of the Screener & Opioid Assessment for Patients with Pain Revised-recommended by TBI Model System Researchers for use during inpatient rehabilitation stays to help determine risk factors
- Rapid Opioid Dependence Screen (RODS) 8 brief concrete questions
- Ask about cannabis use

Validation of a Brief Measure of Opioid Dependence: The Rapid Opioid Dependence Screen (RODS) – Google Chrome

ncbi.nlm.nih.gov/pmc/articles/PMC4435561/#APP1title

Appendix

Rapid Opioid Dependence Screen (RODS)

Instructions: [Interviewer reads] The following questions are about your prior use of drugs. For each question, please indicate “yes” or “no” as it applies to your drug use during the last 12 months.

1. Have you ever taken any of the following drugs?

a. Heroin	<input type="radio"/> Yes	<input type="radio"/> No
b. Methadone	<input type="radio"/> Yes	<input type="radio"/> No
c. Buprenorphine	<input type="radio"/> Yes	<input type="radio"/> No
d. Morphine	<input type="radio"/> Yes	<input type="radio"/> No
e. MS Contin	<input type="radio"/> Yes	<input type="radio"/> No
f. Oxycontin	<input type="radio"/> Yes	<input type="radio"/> No
g. Oxycodone	<input type="radio"/> Yes	<input type="radio"/> No
e. Other opioid analgesics (e.g., Vicodin, Darvocet, etc.)	<input type="radio"/> Yes	<input type="radio"/> No

If any drug in question 1 is coded “yes”,  
proceed to questions 2 to 8.

If all drugs in question 1 are “no”,  
skip to end and code “no” for  
opioid dependent.

2. Did you ever need to use more opioids to get the same high as when you first started using opioids?  Yes  No

3. Did the idea of missing a fix (or dose) ever make you anxious or worried?  Yes  No

4. In the morning, did you ever use opioids to keep from feeling “dope sick” or did you ever feel “dope sick”?  Yes  No

5. Did you worry about your use of opioids?  Yes  No

6. Did you find it difficult to stop or not use opioids?  Yes  No

7. Did you ever need to spend a lot of time/energy on finding opioids or recovering from feeling high?  Yes  No

8. Did you ever miss important things like doctor’s appointments, family/friend activities, or other things because of opioids?  Yes  No

Scoring Instructions: Add number of “yes” responses for questions 2 to 8.  
If total is > 3, code “yes” for opioid dependent. If total is < 2, code “no” for opioid dependent.

Opioid Dependent:  Yes  No

Footnotes

Go to:

Declaration of Conflicting Interests

# Messages to Share, Substance Use Post Brain Injury

- People who use alcohol or drugs after TBI don't recover as fast as those who don't
- Any injury related problems in balance, walking or talking can be made worse by using drugs or alcohol
- People who have had a brain injury often say or do things without thinking first, a problem made worse by using alcohol or drugs
- Brain injuries cause problems with thinking, like concentration or memory, and alcohol makes these worse
- After a brain injury, alcohol and other drugs have a more powerful effect
- People who have had a brain injury are more likely to have times when they feel sad or depressed and drinking or using drugs can make these problems worse
- After a brain injury, drinking alcohol or taking drugs can increase the risk of seizure
- People who drink alcohol or use other drugs after a brain injury are more likely to have another brain injury

**Source:** adapted from Bogner and Lamb-Hart  
Ohio Valley Center

# Messages to Share

## 12 Steps Adapted for people with brain injury

- Admit that if you drink and/or use drugs your life will be out of control. Admit that the use of substances after having a TBI will make your life unmanageable
- You start to believe that someone can help you put your life in order. This someone could be God and AA/AN group, counselor, sponsors, etc.
- You decide to get help from others or God. You open yourself up
- You will make a complete list of the negative behaviors in your past and current behavior problems. You will also make a list of your positive behaviors
- Meet with someone you trust and discuss what you wrote above
- Become ready to sincerely try to change your negative behaviors

## 12 Steps of Alcoholics Anonymous (AA)

- Ask God for the strength to be a responsible person with responsible behaviors
- Make a list of people your negative behaviors have affected. Be ready to apologize or make things right with them
- Contact these people. Apologize or make things right
- Continue to check yourself and your behaviors daily. Correct negative behaviors and improve them. If you hurt another person, apologize and make corrections
- Stop and think how you are behaving several times a day. Are my behaviors positive? Am I being responsible? If not, ask for help. Reward yourself when you are able to behave in a positive and responsible fashion
- If you try to work these Steps, you will start to feel much better about yourself. Now it's your turn to help others do the same. Helping others will make you feel even better. Continue to work these Steps on a daily basis

**Source:** Peterson NHIF 1988

# **“I Got One More High Left In Me....”**

[Https://youtu.be/qAkzl6s7QI](https://youtu.be/qAkzl6s7QI) Bubbles attends a 12 Step Meeting

For individuals living with a history of brain injury, it might be difficult to imagine what to expect at a 12 Step Meeting. This scene gives a good visual and also demonstrates different stages of change, Pre-contemplation, Contemplation, Action and Maintenance

← → C 🔒 heller.brandeis.edu/ibh/pdfs/accommodating-tbi-booklet-1-14.pdf

[Search] [Star] [A] [More]

To view on-line  
go to:

<https://heller.brandeis.edu/ibh/pdfs/accommodating-tbi-booklet-1-14.pdf>

# Accommodating the Symptoms of TBI

Ohio Valley Center for Brain  
Injury Prevention and  
Rehabilitation

With contributions from Minnesota Department of  
Human Services State Operated Services

# Strategies

**Environmental and internal aides:** Creative cognitive strategies will employ both kinds of aid depending on individual need.

**Environmental strategy:** Changing or modifying the environment to support and/or compensate for a injury imposed deficit.

- Example: labeling kitchen cabinets and drawers

**Internal strategy:** The strategy is “in your head.”

- Example: “I have to work the memory muscle by counting everything, like how many times I pedal when I am on a bike”

*Source: Actor George Clooney discussing the use of internal memory strategies in The London Sunday Times 10. 23.05*

# Hidden Brain Injury

## Take 1

- Brain Injury Symptoms can be very subtle.

Watch this video of a gentleman in session with his therapist.

What do you see and hear? How might his demeanor be interpreted?

<https://youtu.be/pETaarPzTCg>

## Take 2

- How did the therapist accommodate the individual's brain injury related communication& awareness issues?

<https://youtu.be/D81TkQUAhrU>

Source: Accommodating the Symptoms of Traumatic Brain Injury <http://about-tbi.org/accommodating-tbi.html> created by the Ohio Valley Center for Brain Injury Prevention and Rehabilitation at Ohio State University (all rights reserved). <https://www.youtube.com/channel/UCJO4lOm6iMsSq08GdWO37Og>

# Accommodating Symptoms

Page 10 —  
Reflective Recommendations

***“What helps you  
with ... ?”***

- Learning new material
- Remembering assignments
- Staying on track
- Figuring out how to do new things
- Making choices that keep you healthy and safe

# Accommodating Symptoms

To enhance memory:

- Structure the environment
- Repetition of information, to promote procedural memory

# Accommodating Symptoms

- Use of a journal/calendar
- Create a daily schedule
- Learn to break tasks into small, manageable steps
- Use of a digital recorders/smart phone
- Encourage use of rest and low activity periods — naps
- Work on accepting coaching from others
- Work on generalizing strategies into new situations

# Accommodating Symptoms

- Use of a high lighter (**RED**)
- Alarms (on phone/watch) to move through the day
- Use of a template for routine tasks, on the job, at home, in the community
- Use of ear plugs to increase attention, screen out distractions (Parente and Herman 1996)
- Partitions/cubicles, at work, quiet space at home
- Model tasks such as turning on a computer and accessing email

# Accommodating Symptoms

- Use of pictures for faces/names or basic information for step-by-step procedures such as making coffee
- Use of a timer to track breaks at work, the time minimum technique, allocated time to puzzle over a problem, or vent a frustration
- Audio books and movies. Keep the subtitles for processing content in the case of memory and comprehension problems *and* increase awareness of nonverbal cues/communication

# Accommodations and Strategies in Treatment Settings

- Link individuals to certified peer specialists
- Offer graphic organizers to structure group discussions
- Offer review sessions of larger group meetings
- Use “Change Plan” and Readiness Ruler worksheets
- Prepare for slip ups-“Emergency Plan”& “Personal Emergency Plan: Lapse”
- Develop a person centered plan with the individual, the treatment team and their natural supporters (see handout)

Sources: [https://smartrecovery.org/wp-content/uploads/2017/03/Change\\_Plan\\_Worksheet-1.pdf](https://smartrecovery.org/wp-content/uploads/2017/03/Change_Plan_Worksheet-1.pdf), [http://adultmedication.com/downloads/Readiness-to-Change\\_TOOL.pdf](http://adultmedication.com/downloads/Readiness-to-Change_TOOL.pdf)

# Enhancing the Accessibility of 12-Step Meetings and other Community Recovery Groups

- Share AA literature, brochures and if literacy level appropriate, the Big Book
- Attend an open meeting with a staff person or friend/supporter
- If the person wants to share, organize thoughts ahead of time, write up some notes on their phone/index cards
- Recommend movies/TV shows that depict people attending 12 step meetings
- Collaborate with the individual to create an “introduction to my future sponsor” that reviews common cognitive and emotional sequela of TBI and makes compensatory strategies suggestions that work for the person

*Source: A Letter to Potential AA & NA Sponsor (McHenry & members of the Task Force on Chemical Dependency, NHIF 1988)*

# Environmental Strategies: supportive to individuals with histories of TBI and/or Trauma

- Staff person welcomes verbally & there are Welcome signs
- Clear directions with graphics posted
- Scratch paper and pencils at hand for notes
- Necessary forms to be filled out at first appointments are available on line or by mail
- Provide a template of a completed forms as a reference
- Area for children, toys, books, puzzles, child sized tables & chairs
- Waterfalls/fountains
- Plants
- Soothing music and smells
- Fish tanks
- Art work by inspirational messages/created by program participants
- Calming paint colors (blue/green, pink, white, violet, grey, yellow)
- Non institutional lighting
- Seating allows for personal space
- Reading & resource materials available in the waiting room
- Non caffeinated beverages/water available

*Source:* adapted from Agency Environmental Components for Trauma Informed Care

[https://www.integration.samhsa.gov/about-us/TIC\\_Environmental\\_Scan.pdf](https://www.integration.samhsa.gov/about-us/TIC_Environmental_Scan.pdf)

# If there is a History of TBI and/or Trauma-possible strategies

- Referral to specialized services/support group/12 step program
- Staff needs to be aware of the history and potential triggers and accommodate accordingly
  - Don't insist on sharing/participation right off the bat in groups
  - Allow for self determined breaks, stretches, sitting away from the group until comfortable
  - Pair new participant with a experienced participant

# Support and Aftercare for Individuals Living with Brain Injury who also Misuse Substances

“Because of the neurobehavioral effects of Brain Injury, it is essential to fortify insight, including:

1. Structured and systemic engagement of natural supports
2. Avoidance of environments that can cue relapse
3. Prolonged maintenance of supports
4. Expanded use of MAT

\* In general, there is a paucity of research on whether SUD treatment interventions that are effective for the general population show comparable efficacy for persons with TBI. This question would seem to be particularly important with regard to MAT.”

## Source Sources:

Adapted from : (2020) Adams, Rachael Sayko., Corrigan, John D., and Dams-O'Connor. *J. Neurotrauma*.37:211-216. :

# **Techniques for change: *Recommended for individuals with a history of brain injury***

- Stages of Change: The 5 Stages of Change *Prochaska and DiClemente cited by Corrigan 1999*
- Motivational Interviewing: *Based on the work of W. R. Miller, adapted by Corrigan & Colleagues*

## **At the Programmatic and Systems Levels**

- All brain injury inpatient and out patient programs need to take a detailed behavioral health history and screen for past/current use of substances, and have a working history of Stages of Change & Harm Reduction
- All behavioral health programs need to take a detailed history and screen for possible history of traumatic or acquired brain injury
- Harm Reduction Strategies: Syringe exchange, safe injection sites, Medical Assisted Treatment ***and*** brain injury informed supports and accommodations

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

# Feedback from Individuals in Recovery...

- Early treatment for those living with a substance use disorder
- Pay attention to those whose use of substances is not disclosed/unknown to brain injury professionals (who do not consistently screen for or ask about a history of substance misuse)
- Challenge of redefining new self and life doubled with both TBI and substance misuse
- Hard to know where to find support, with the TBI community or the recovery community

# Feedback from Individuals in Recovery...

“find the right 12-step program, change “persons, places and things” that trigger use, spirituality, pets.”



# Building a Plan through a Brain Injury Informed Lens

A Logic Model for building a person centered plan-accommodating history of brain injury

Source: Adapted from Grieder and Adams, 2005 See sample assessment & treatment plan in handouts



*Thank You!*

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See Handouts for Resources



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