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Uncovering the Connection

The relationship between opioids and brain injury, harm reduction strategies through a Brain Injury Informed Lens

Laura Bartolomei-Hill & Anastasia Edmonston
Maryland Traumatic Brain Injury Partner Grant

Today we will Discuss:

1. The link between a history of Brain Injury and Opioids
2. Harm Reduction as it relates to individuals who have a history of brain injury and/or use drugs
3. The role stigma and racism in shaping cultural attitudes toward drug use
4. Suggested strategies and tools to engage public health and behavioral health health professionals
5. Suggested strategies and resources to support individuals

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Poll Question:

Who is with us today?

- State Brain Injury Program Administrators
- Mental Health Professionals
- Addiction Specialists
- Brain Injury Professionals
- Individuals with lived experience
- Family members
- Vocational Rehabilitation professionals
- Peer Recovery Specialists

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Overdose

- According to the CDC, nearly 72,0000 people died a drug-related death in 2019. Around 70% of these deaths involved opioids.
- Synthetic opioids, such as fentanyl, are more potent and can be less expensive to manufacture and transport.
- In 2017, 305,623 nonfatal opioid-involved overdoses were treated in U.S. Emergency Departments (EDs).

Overdose during the pandemic

Drug-related deaths were increasing before the pandemic. The pandemic has complicated the response and likely contributed to a worsening crisis. *Overdose deaths have increased by 13% so far this year over 2019.*

- Disruptions in-person treatment, NA/AA meetings, and other medical and mental health programs
- Worsening psychosocial stressors, including housing, employment, childcare, food, access to health insurance and medical care
- Social distancing means that people are alone more often and fewer people may be around to respond to an overdose
- Restricted migration/trade patterns have made the drug supply less predictable

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Nonfatal overdose as a brain injury

Individuals who sustain a brain injury from a nonfatal overdose may:

- Struggle to abstain from drugs, even when abstinence is their goal
- Have difficulty adhering to treatment program rules
- Choose to use drugs for a variety of reasons
- Should have access to resources to use drugs more safely and to treatment programs that accommodate their individual needs

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Harm Reduction

Harm reduction is a philosophy and set of practices applied to promote safety associated with culturally stigmatized behaviors, such as drug use and sex work.

Harm reduction is practiced on two levels: the **interpersonal**, where we change our routines, share suggestions, and gather and distribute tools for increasing safety, and the **institutional**, where we change policy and systems to support safety and decrease violence and marginalization.

Source: Baltimore Harm Reduction Coalition

Harm Reduction on the interpersonal level

Gather and distribute resources and supplies to increase individual safety. Examples include:

- Naloxone distribution
- Syringe service programs
- Safer sex kits
- Overdose prevention sites

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Harm Reduction on the Institutional level

Change policies and organizational practices to decrease violence and create a safer, less harmful environment. Examples include:

- Advocating for increased access to quality health care, including behavioral health, for the entire community
- Re-considering severity of punishments for individual behaviors, including drug use and sex work
- Assessing how your agency or organization may perpetuate stigma and make an action plan to change the practices and culture

Harm Reduction Organizational Analysis

- Please see handout

- A tool to be used to assess the impact of your program's policies and practices on staff and clients.

- Sample questions:
  - What are our stated and unstated goals and expectations for the clients?
  - How do policies and practices reflect the priorities of the criminal justice system, including surveillance, abstinence, and punishment?
  - Do staff team members feel like their knowledge and experience is valued?
  - What feedback are we getting on the impact of these practices?

Harm Reduction Organizational Analysis

How do we harm our clients:	Recommended organizational responses:
Over-emphasis on abstinence leads individuals to hide or downplay drug use	Incentivize progress on individual-identified goals, remove penalties for drug use
Increase sense of shame when unable to meet unrealistic expectations	Remove requirement of attending specific # of groups, encourage and recognize variety of social supports
Place expectation for change only on the internal motivation of the individual	Improve screening for brain injury and utilize accommodations and external supports
Discharge for not meeting program rules	Work with the individual to make changes to care as needed
Ignore context of racialized drug policy	Validate experiences. Advocate for those in other health care settings and with law enforcement. Make space for political advocacy.

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Why do we think what we think about drugs?

- Self-assessment: Check in with yourself.

  - What is your immediate reaction when you think about drug use or people who use drugs?
  - Do you have a different immediate reaction to different substances? Why do you think that is?
  - Do you feel like some drugs are “worse” than others? Why?

Historical Responses to Drug Use

Opium Use and Restriction - late 1800s-early 1900s

- Chinese practice of opium dens brought to US in 1850s
- 1890: US Govt imposes a tax on opium in first narcotic restriction legislation
- Mainstream newspaper stories warn of dangers of white women being “seduced” by Chinese men and their opium

Source: Opium Throughout History on PBS Frontline

- “In the late 19th century, as long as the most common kind of narcotic addict was a sick old lady, a morphine or opium user, people weren’t really interested in throwing them in jail. That was a bad problem, that was a scandal, **but it wasn’t a crime.** When the typical drug user was a young tough on a street corner, hanging out with his friends and snorting heroin, that’s a very different and less sympathetic picture of narcotic addiction.”

Source: David T. Courtwright, author of *Dark Paradise: A History of Opiate Addiction in America.*

Historical Responses to Drug Use

Harry Anslinger and the criminalization of marijuana

- Director of the Federal Bureau of Narcotics for 32 years
- Led advocacy for the Marijuana Tax Act of 1937, which effectively made marijuana illegal
- From the 1890s-1930s, Anslinger and newspaper publisher William Randolph Hearst used racism and sensationalism to campaign for marijuana criminalization. These tabloid stories frequently linked drug use by African Americans and Mexican immigrants to sexual violence against white women.
- "There are 100,000 total marijuana smokers in the US, and most are [Black people], Hispanics, Filipinos, and entertainers. Their Satanic music, jazz and swing, results from marijuana use. This marijuana causes white women to seek sexual relations with [Black people], entertainers, and others."

  - Anslinger

Historical Responses to Drug Use

- President Nixon declared a “War on Drugs” and in the 1970s, including the creation of the DEA.
- Ushered in an era of mass incarceration, mandatory minimums, and more severe sentencing.
- Although rate of drug use is similar across racial groups, Black people and Latinx people are disproportionately arrested, charged, and convicted of drug-related crimes.

How does criminalization affect health care?

- Goals and expectation are often set by the program, not by the client
- Traditional Substance Use Disorder approaches are often centered around abstinence and there are few services for people who use drugs outside of this perspective. For people in court-mandated treatment, abstinence is often mandated.
- Surveillance and monitoring through urine drug screens
- Punishment and consequences for “positive” urines
- Health care provider resentment toward people who continue to use drugs

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Implications for Brain Injury Treatment #1

- Cultural attitudes around drug use have real impact on individuals and communities in a variety of settings.
- People who use drugs often avoid coming into health care spaces (hospital, primary care) due to both practical concerns (receiving poor care, untreated withdrawal symptoms) and shame/judgment from health care providers
- Many overdose deaths are preventable
- Political will is a barrier to enacting policies that could save lives

Implications for Brain Injury Treatment #2

- The overdose crisis may increasingly bring people who use drugs/have history of involvement in the criminal justice system into brain injury services
- Recognize the barriers that criminalization of drugs may impose upon individuals engaged in your clinical programs, including access to care
- Shame and marginalization may complicate the development of a trusting therapeutic relationship

Tools for Brain Injury Providers

- Be flexible with rules, particularly around group attendance and participation. Allow for participants to take breaks as needed.
- Focus on routines and behaviors as much as on internal motivation
- Use concrete safety plans with external supports to better understand specific risk and increase safety.

What we are working towards

"And that deep and irreplaceable knowledge of my capacity for joy comes to demand from all of my life that it be lived within that knowledge that such satisfaction is possible"

- Audre Lorde

What is Overdose Fatality Review?

- Multi-agency/multi-disciplinary team assembled at the local (county/Baltimore City) level
- Operational in 23 of 24 jurisdictions
- Goal to prevent ***future*** deaths:

  Identifying missed opportunities;

  Building working relationships;

  Recommending policies, programs, laws, etc.; and

  Informing local overdose prevention strategy

Source: Brooke Holmes, MA, Maryland Department Health

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OFR Legal Authority

Health General Article, Title 5, Subtitle 9, Annotated Code of Maryland (OFR Law)

- Teams granted authority to conduct case review;
- On request of the team Chair, agencies are obligated to provide information;
- Teams may review people that have died of a drug and/or alcohol overdose, their family members, and anyone convicted of a crime that led to the death;

Source: Brooke Holmes, MA, Maryland Department Health

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OFR Legal Authority Cont'd

Health General Article, Title 5, Subtitle 9, Annotated Code of Maryland (OFR Law)

- 42 C.F.R. § 2.15 (b) allows for non-consented disclosures of patient information relating to the death of the patient pursuant to "laws … permitting inquiry into the cause of death," as does HIPAA (42 CFR section 164.512.);
- Allows patient-identifying information about a deceased patient to be disclosed to the team; and
- Establishes confidentiality expectations

Source: Brooke Holmes, MA, Maryland Department Health

Maryland's Good Samaritan Law

The Maryland Good Samaritan Law effective **October 1, 2015**, provides protection from arrest as well as prosecution for certain specific crimes and expands the charges from which people assisting in an emergency overdose situation are immune. If someone calls 911 in an effort to help during an overdose crisis, or they are experiencing an overdose, their parole and probation status will not affected, and they will now not be arrested, charged, or prosecuted for:

Possession of a controlled dangerous substance

Possession or use of drug paraphernalia

Providing alcohol to minors

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OFR Model-Team Composition

Local Health Department	Hospitals
Department of Social Services	Prevention Office
Local Law Enforcement	Juvenile Services
Emergency Medical Services	Parole and Probation
Public Education	Crisis Services
Harm Reduction	Pharmacy

Source: Brooke Holmes, MA, Maryland Department Health

Hypothetical ODFR case review through a Brain Injury Informed Lens

Often when a case is chosen for review, there isn’t a lot of information regarding the decedent's history before the team meets. However, there may be some information that the team is given in advance that can prompt questions to bring up during the ODFR meeting that might offer some clues that the individual was living with a history of brain injury

Looking for Clues

As we review this hypothetical case, please jot down in the chat, any clues that this individual was living with a history of either traumatic or acquired brain injury or injuries

Hypothetical ODFR case review through a Brain Injury Informed Lens

A 49 year old man passed was found unresponsive in his room by a housemate. The roommate initiated CPR and called 911. First responders arrived and were unable to restore breathing. The roommate told the first responders he had been drinking the night before and the roommate believed he had snorted heroin as well. Additional information about the decedent's past and recent history include a bout of meningitis at the age of 10 that required hospitalization, poor academic performance that began in middle school. Around this time his parents reported he began using alcohol and marijuanna. In high school he was involved in a car accident, the driver of the vehicle died and he was hospitalized with a serious concussion.

Hypothetical ODFR case review through a Brain Injury Informed Lens

Additional information available to the ODFRT

- Dropped out of high school
- Worked periodically as a delivery driver for local florists and pharmacies as well as a auto part company
- Maryland Case Search reveals several short term stays in the county detention center for theft, assault and battery
- On several occasions he entered outpatient treatment but left prematurely, on at least one of those occasions it was reported he had conflicts with fellow group members

Debrief

Comments and observations in the chat

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Asking Brain Injury Informed Questions

- Any health or learning related challenges before the age of 10
- Did his family and health care providers notice any changes in his academic or social functioning following his hospitalization for meningitis?
- Similarly, were any changes noted in his academic or social functioning after the car accident in high school?
- Are there any reports/records regarding specific areas of his brain that were affected in the accident?
- Did he have any pain/chronic pain following the car accident, headaches, orthopedic pain? Trouble sleeping, was he prescribed any medications
- Is there anything known about prior survived overdose(s)

Brain Injury Facts Pertinent to this case

- Bacterial Meningitis can cause an acquired brain injury (ABI) According to the Centers for Disease Control and Prevention, “Meningitis is an inflammation (swelling) of the protective membranes of the brain and spinal cord” and can cause long term academic problems, motor and visual challenges, as well as behavioral health problems such as anxiety disorders and attention deficit hyperactivity disorder (ADHD)
- Traumatic Brain Injury (TBI) is an insult to the brain caused by an external force, such as that which occurs in a motor vehicle accident

Brain Injury Facts Pertinent to this case

- If the brain is shook up enough, even without a direct blow to the head, there can be damage to the brain cells throughout the brain with the frontal lobes and temporal tips being particularly vulnerable
- What is known about opioid overdose related hypoxia (reduced oxygen to the brain) and anoxia (loss of oxygen to the brain)
- Sudden loss of oxygen to the brain has the greatest effect on parts of the brain that are high oxygen users such as the **hippocampus**, basal ganglia, and frontal region among others

Source https://heller.brandeis.edu/ibh/research/inroads/

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Brain Injury Facts Pertinent to this case

- These areas of the brain are oxygen “hogs” and are critical **to memory, learning and attending to new information, problem solving, and the ability to manage our emotions and impulses** n other words, they are responsible for our adult thinking skills The brain doesn’t reach its full maturity in men till age 25, primarily due to the fact that this is when the brain’s frontal lobes and temporal tips are fully myelinated and our executive skills are mature
- Research around Traumatic Brain Injury and Addiction suggests there are similar pathways of the brain that are impacted and that the presence of one will exacerbate the impact of the other.

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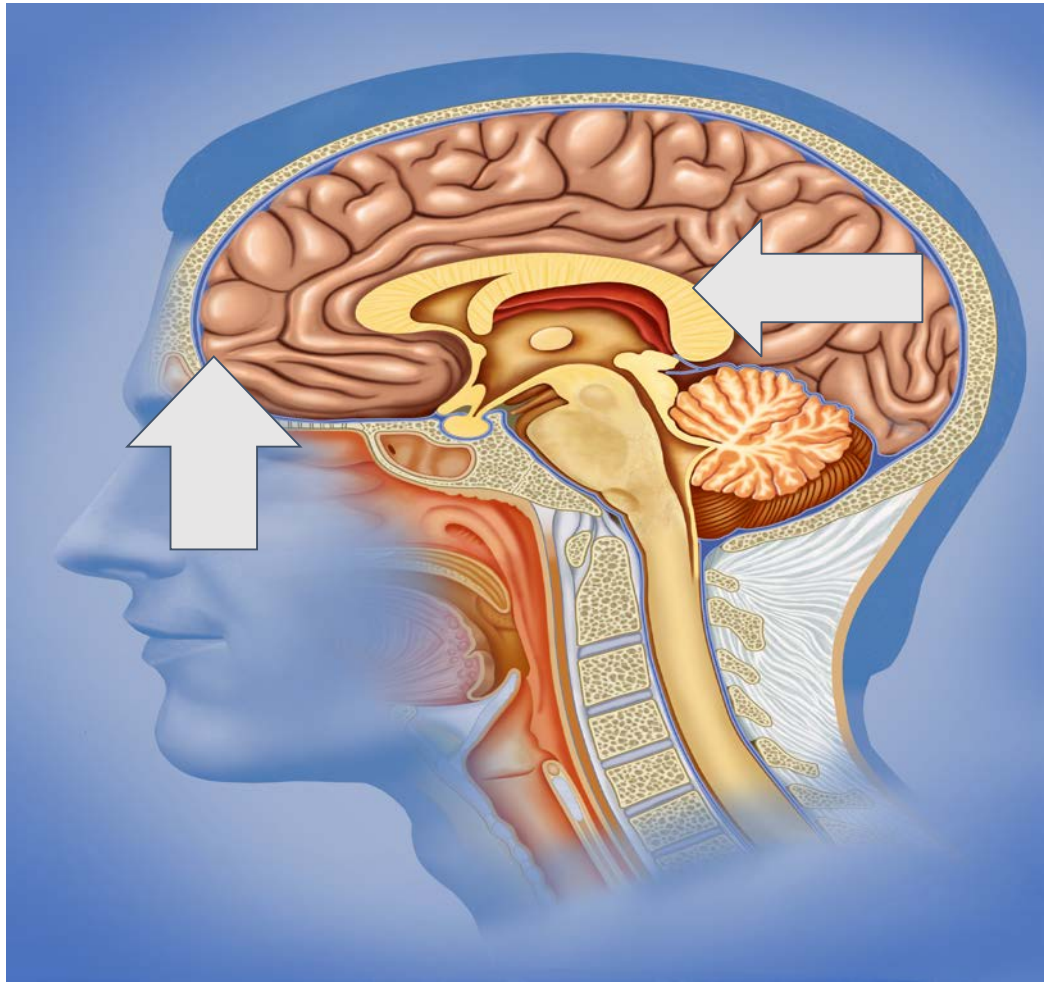
Areas of the brain related (broadly) to adult thinking



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Components of the MD ODFR Dashboard through a Brain Injury Informed Lens

Brain Injury Related Conditions	Commonly Used Medications
Seizure disorder	Dilantin, Depakote, Tegretol, Lyroca, Neurtontin,
Depression and anxiety?	Zoloft, Lexapro, Effexor,
Aggression	Inderal, BuSpar, Tegratol and Depakote
Apathy	Ritalin, Adderall
Pain	Acetaminophen, Ibuprofen, Opioids

Components of the MD ODFR Dashboard through a Brain Injury Informed Lens

Medical Services	Health Care Records
Contact with Emergency Medical System (EMS) related to fall, assault or motor vehicle accident (MVA) and for prior overdose(s)	Any hospital and emergency department admission for Traumatic Brain Injury (TBI), including concussion such as those secondary to MVA, assault and fall, and Acquired Brain Injury (ABI) such as stoke, cardiac arrest, epilepsy, carbon monoxide poisoning, drug overdose

Components of the MD ODFR Dashboard through a Brain Injury Informed Lens

Law Enforcement Records
Contact 12 months prior to death
History of driving under the influence or driving while intoxicated
History of incarceration
History of involvement in juvenile services

Components of the MD ODFR Dashboard through a Brain Injury Informed Lens

Behavioral Health
Depression
Anxiety
Social Isolation
Substance Use Disorders
Suicide Attempts
Inpatient and/or outpatient treatment
History of treatment “failure” leaving programs prior to completion or being asked to leave

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Components of the MD ODFR Dashboard through a Brain Injury Informed Lens

Family History
History of Intimate Partner Violence
Intimate Partner Violence Role

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Components of the MD ODFR Dashboard through a Brain Injury Informed Lens

Employment Status	Homelessness and Veterans Status
Individuals living with brain injury are likely to be unemployed or underemployed	The lifetime history of brain injury is higher for individuals who are homeless and/or who are veterans than the general population

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Questions or Comments?

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Resources

- "The Roads to Recovery" https://www.pbs.org/video/overdose-and-brain-injury-rbcycv/ is a half hour 2019 documentary set in New Hampshire that looks at the impact of acquired brain injury as the result of opiod overdose
- Go to the Maryland Department of Health's webpage "Before it's too Late" https://beforeitstoolate.maryland.gov/ for information, resources regarding opioids and opioid treatment. Check out the educational videos at https://beforeitstoolate.maryland.gov/public-service-announcements-psas/
- Maryland Public Television's in 2018 documentary, "Breaking Heroin's Grip: Road to Recovery" , this hour long documentary explores the impact of the opioid epidemic, profiling several Marylanders who have been affected by addiction to opioids. https://www.youtube.com/watch?v=RwwG5pGAw-A
- *Source: John Corrigan, Ohio State University*

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Resources

- Maryland Local ODFRT Case Report Guide, Appendix II
- The Traumatized Brain: A Family Guide to Understanding Mood, Memory & Behavior After Brain injury by Vani Rao MD and Sandeep Vaishnavi 2015, Johns Hopkins University Press
- Brandeis University, the Heller School for Social Policy and Management https://heller.brandeis.edu/ibh/research/inroads/
- Ohio Valley Center for Brain Injury Prevention and Rehabilitation wexnermedical.osu.edu/neurological-institute/departments-and-centers/research-centers/ohio-valley-center-for-brain-injury-prevention-and-rehabilitation/for-patients

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Thank you!!!

Anastasia Edmonston MS CRC

TBI Partner Project Coordinator

MD Behavioral Health Administration

anastasia.edmonston@maryland.gov

Laura Bartolomei-Hill LCSW-C

Project Consultant

Maryland Behavioral Health Administration

Laura.bartolomeihill1@maryland.gov

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