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Treating Addiction as a Crime Is a Crime

Addiction is perhaps the most pervasive issue driving crime in the United States and in West Virginia. Most criminal defense attorneys have become virtual addictionologists in order to keep up with the drug use information their clients relate during the legal interview. This newsletter reviews the current research on addiction which frames it as a brain disease, and considers the recent substance use-related laws passed this session by the West Virginia legislature.

The research and statistics included can be used in plea negotiations and at sentencing. Defense attorneys are in a unique position with the Court to advocate for sentencing alternatives based on the science of addiction. The challenge for criminal defense attorneys is to take the scientific information of addiction as a brain disease and present it to the judiciary in a compelling and accurate way to help sway judicial opinions of defendants' actions.

A note about nomenclature: 'addict,' 'abuser,' and 'person with a substance use disorder' are used interchangeably, however the latter phrasing is considered acceptable language when discussing substance use and abuse. Using the term addict or abuser has resulted in harsher treatment and ideologies of punishment for persons called abusers instead of persons with a substance use disorder.

Legislating a Brain Disease

In November 2016, then-Surgeon General Vivek Murthy, through the U.S. Department of Health and Human Services, published a first-ever Surgeon General's Report on Alcohol, Drugs, and Health. For the first time, a government agency took the stance that addiction is a brain disease and needs to be treated as a medical condition rather than a moral issue or character flaw. Dr. Murthy specifically stated that "addiction is a chronic disease of the brain and it's one that we have to treat the way we would any other chronic illness: with skill, with compassion and with urgency."

Dr. Murthy's training and discipline combine to form a natural affinity to recommend the disease approach to addiction. Not dissimilarly, legislators use their lawmaking experience and resources to answer their constituents in an effort to address the drug problems in their communities through the creation of new laws.

Changes made in law to address the drug epidemic have ebbed and flowed for decades. Starting with President Reagan's War on Drugs and extending to President Clinton's Violent Crime Control and Law Enforcement Act, the approach to tightening the laws for drug offenders has been bipartisan and an attempt to fix the problem.

The power to shape law has provided many legislators a formidable tool in the fight against addiction. Criminal defense attorneys have been tasked with wielding their own tools to respond to substance use disorder legislation, and have had some positive outcomes by emphasizing a defendant is a user (not a dealer) or is in need of treatment (such as through Drug Court or an alternative sentence). At this juncture, in the wake of the Surgeon General's Report, criminal defense attorneys can further advocate within the criminal justice system by promoting a change in basic assumptions of addiction as moral failing to addiction as brain disease.

Nationwide, one of every five non-violent offenders across the country is locked-up for drug possession. In West Virginia, statewide opinion holds that approximately 85% of all criminal defendants suffer from a substance use disorder. The cost to provide community

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treatment for an addicted person is almost always less expensive than incarceration. Research shows that for every dollar spent on treatment, "the future cost burden to the government can be reduced by $12 or more in reduced drug-related crime, criminal justice expenses and health care costs." The average daily incarceration cost in West Virginia's Division of Correction is $75.85 per inmate per day; in contrast, many non-medical residential addiction treatment programs in West Virginia (such as at Recovery Point of WV) cost approximately $25.00 per client per day. The treatment averages are a third of incarceration costs. Without question, it is cheaper to treat than to incarcerate.

West Virginia's 2017 legislative session saw five bills signed by the Governor which directly relate to new or increased criminal penalties for substance users (HB 2083, HB 2329, HB 2579, SB 219, and SB 220). Other substance use laws signed by Governor Justice promote treatment and emphasize recovery efforts.

In effect as of July 7, 2017, new penalties for injecting an individual with drugs causing their overdose (SB 220) and for distributing Fentanyl (an opioid more powerful than heroin; HB 2329) will create felony convictions and incarceration sentences. A bipartisan effort in the United States Congress is looking at similar actions related to enhanced penalties for Fentanyl distribution.

From a criminal justice perspective, these new penalties may contribute to jail and prison overcrowding rather than serving as a deterrent for drug-addicted offenders.[1] The new horizon for substance use disorders and the criminal justice system is to promote treatment over serving time.

NAMSDL

Legislation surrounding substance use policy in West Virginia and across the country is certainly constituent driven, but many of the laws and policies are based on past conceptions of morality rather than current approaches of pragmatism or scientific findings. To see where West Virginia compares with other states on criminal justice and drug reform policy (and to look at national trends and recommendations on drug laws), the National Alliance for Model State Drug Laws (NAMSDL) lists a summary of laws and policies related to prevention and leveraging offenders into treatment.

Perhaps with the creation of the State Office of Drug Control Policy, West Virginia may move towards being a forerunner in the prevention and treatment of substance use issues. The recent installation of a billboard (by the DEA) on I-77/I-79 in Charleston implores West Virginians to "Wake Up" and address addiction, and communities across the state are working to address the addiction issue in a neighborly, grassroots manner. Martinsburg established the position of community recovery services coordinator and there are at least nine needle exchange sites across the state, from Wheeling to Huntington.

Disease of the Brain

Addiction has a long way to go to be embraced as a brain disease. The National Institute on Drug Abuse acknowledges that people "mistakenly think that those who use drugs lack moral principles or willpower" and can stop whenever they want. Read the comments section in any online news report where parents overdosed with a child in the car. At least one entry will recommend the addicted parents receive the death penalty.

Addicted persons do act inconceivably, but it is precisely because of their brain – and not their lack of morality – that they behave in this manner.

The science behind addiction focuses on three key areas of the brain: the extended amygdala, the basal ganglia, and the prefrontal cortex. These areas are also involved in trauma and the drive for food and sex. These areas function collaboratively to ensure the survival of the species by turning the drive for food, drugs, sex, or [escape from] trauma into goals for survival. The way addictive substances change these areas of the brain is the focus of the following explanation.

The basal ganglia flows into the nucleus accumbens (responsible for reward and reinforcement) and is responsible for motivation, reward, and learning. In

[1] Taking a counter perspective, Fordham Law Professor John Pfaff in his book Locked In: The True Causes of Mass Incarceration and How to Achieve Real Reform takes issue with the presumption there is a causal relationship between substance use and incarceration rates.

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persons with substance use disorders, the desire to keep using substances, the desire to use more, the good feelings that come from using, and the learned behavior of addiction occurs in the basal ganglia and is reinforced by the nucleus accumbens.

The extended amygdala is responsible for processing emotions, fight or flight responses, and negative emotions like anxiety, irritability, and unease. In persons with substance use disorders, emotion regulation (managing moods, interacting with others) and the negative feelings of withdrawing or craving the substance are formed and processed in the extended amygdala and work with the prefrontal cortex to tell the brain to get/take more substance to not feel poorly and provide temporary relief.

Finally, the prefrontal cortex is responsible for the executive or supervisory functions in the brain. In a typical person, the prefrontal cortex is responsible for stopping bad or dangerous behaviors. It is responsible for decision making and typically keeps us safe. In persons with substance use disorders, however, the prefrontal cortex is hijacked and the rewards sought by the basal ganglia instruct the prefrontal cortex to "go" rather than "stop." In most persons with substance use disorders, the prefrontal cortex works in conjunction with the basal ganglia and extended amygdala to motivate the person to get the reward (drugs) to feel relief without thinking about consequences of use.

Volkow, Koob, and McLellan used research to determine that "Many genetic, environmental, and social factors contribute to…a person's unique susceptibility to using drugs initially, sustaining drug use, and undergoing the progressive changes in the brain that characterize addiction." Therefore, while the initial use of substances is a choice for some, that choice is influenced by peers, emotions, and environmental factors for others. This explains why some people seek out the effects of certain substances over others. For persons dealing with trauma, depression, poverty, and a general purposelessness, they are more likely to seek a substance that numbs them emotionally, such as an opioid. For others who are trying to keep up with their work pace or life's responsibilities, they are more likely to seek a stimulant that speeds them up or offers a rush such as cocaine or amphetamines. The emotional-environmental factors are clear markers for the kinds of substances a person [initially] chooses to use.

Once the initial choice to use has been made, the brain's functions take over in response to the substance. Initial substance use stimulates the brain and communicates to the brain what the substance will do. Ongoing use teaches the brain that repeated behavior will result in reward, so the brain systematically expects the reward offered by substances and organizes around the anticipation of the reward.

Chronic use changes the message the substance sends to the brain because the substance changes the function and operations of the brain. By the time a person becomes addicted, the basal ganglia, extended amygdala, and prefrontal cortex direct the brain to seek reward, not feel bad, and take more drugs for physical and psychological relief. The biological brain functions are altered by the presence (or absence) of drugs, and it is for this reason that addiction is a brain disease.

Simplistically, when a person with a substance use disorder states that he or she is motivated to do something like meet with his or her attorney, this is a true intention. Prior to the appointment if the client uses a drug, then the presence of the drug reminds the brain that the reward lies in the drug. The drug becomes the most important activity for the client and the well-intentioned client misses the appointment. The drug hijacks the brain and the person is only motivated to get more of the drug. (This can explain why well-intending substance using clients miss so many appointments).

The changes in the prefrontal cortex that disregard safety in favor of motivation to get more of the drug (at whatever cost) also explains many of our substance abusing clients' behaviors.

Unfortunately, while research on the impaired functioning of the prefrontal cortex exists and sounds promising for diminished capacity and criminal responsibility claims, it has not formally been adopted in the law. These brain-based explanations remain useful to help us understand our clients better. This information can also be used to zealously advocate for clients by promoting the new model of addiction-as-disease when encountering the judiciary.

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More Than Getting Sober

The science and shifting evolution of addiction (from morality to brain disease) is important because while the legislature sets sentencing guidelines, the prosecutors and judges still have discretion at sentencing. This discretion is lost if the judge condemns your client's behavior as immoral. Attorneys are tasked with humanizing their clients while creating for the judiciary an informed picture of the plights of their clients. The science of addiction is not a legal turn of phrase or a sympathetic gimmick: it is critical information to assert when considering defense themes, in plea negotiations, and at sentencing.

For every time a judge or prosecutor says your client is reckless and unthinking, there is science that explains why the client's behavior is unthinking. Addiction changes the prefrontal cortex and disallows the client to use ingrained judgment, instead operating out of impulse. The addiction runs deeper than a momentary lapse in reason; it is an ongoing brain disease that can take up to 24 months to resolve in chronic users who stop all substances of abuse.

The science of addiction runs counter to the legal standard of voluntary intoxication. It is an initial choice to use that first time, but continued use is based on brain changes over which the client has no control (even in sobriety, the client cannot will his or her brain back to normal functioning). Neurobiological changes in the brain explain repeat offenders who offend while under the influence of substances, only to return to substance use and offending after an incarceration sentence.

Abstinence-only without treatment does not restructure the brain. In fact, research shows that incarceration-forced abstinence places ex-offenders at greater risk for overdose within the first two weeks of release from incarceration. The reason is the forced-abstinence has altered the body's tolerance to the drug but the brain remains motivated towards reward-fulfillment. The newly-released offender uses the same (or even a smaller) amount of substance that was used prior to incarceration (driven by the brain's motivation), and this amount is often a deadly amount for the body to ingest based on the change in tolerance during forced-abstinence. Incarceration without treatment and absent of aftercare only places a hold on the substance use disordered individual and places that person at greater risk of overdose and death upon release.

The Morality of MAT

Abstinence-based treatment is highly advocated and accepted in West Virginia, not only in the community at large but also within the criminal justice population. Many probation officers and some treatment courts in the state advocate for recovery abstinence over medication assisted therapy, or MAT. The belief is that persons participating in MAT are swapping one addiction for another. Even some addicted persons seeking recovery claim they want to be able to get sober on their own, without the assistance of medication. This sentiment was recently reinforced by Health and Human Services Secretary Tom Price on his visit to West Virginia where he advocated faith-based programs over MAT, stating, "If we're just substituting one opioid for another, we're not moving the dial much."

The research does not support these sentiments. To the contrary, scientific research supports the efficacy of MAT over only behavioral therapy. MAT's function of reducing cravings or eliminating the 'high' from the substance can reduce the risk of relapse and overdose death.

More than methadone, MAT includes a variety of pharmaceuticals to address alcohol and drug cravings, ranging from Naltrexone to Buprenorphine (Suboxone) to Acamprosate (Campral). Vivitrol, the brand name for extended-release Naltrexone, is even made available in some West Virginia prisons prior to inmates' release. Research supports that inmates who have access to MAT prior to release are less likely to relapse and less likely to engage in criminal activity post-release. Research also indicates that MAT is under-utilized within the criminal justice population, an unfortunate fact that runs counter to its effectiveness with this population. When used correctly (in correct doses, for the correct duration), research shows that MAT can reduce or eliminate drug use and associated criminality. Science and clinical efficacy, coupled with dispelling of some myths, is the key to helping MAT become more widespread.

For attorneys interested in making the MAT argument for improved client recovery, the Legal Action Center has put together a MAT Advocacy Toolkit in an

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attempt to destigmatize MAT. The Toolkit includes information, advocacy arguments, and sample letters for probation, judges, and child welfare workers to help them become educated about MAT. Instead of accepting the criminal justice approach to abstinence-based treatment, attorneys can point to research and science that support a client's participation in medication assisted therapy for the recovery of the client and the safety of the community.

Policy and Politics

Each year, the legislature considers new bills to enhance and increase criminal justice penalties for substance use. These bills attempt to quell the drug problem but run counter to the science of addiction or the budget issues surrounding incarceration of non-violent offenders. Addiction treatment is more cost-effective, lasting, and beneficial than incarceration.

Approaches to criminal justice and drug offender responses ebb and flow with each change in administration. The current Presidential Administration brings a new dynamic to the burgeoning policy shift on substance abuse laws and incarceration. Attorney General Jeff Sessions recently issued a memo to prosecutors telling them to enforce the law with drug offenders by requiring mandatory minimums be enforced, noting prosecutors must seek specific exceptions for any departures. Sessions' memo and public speeches have contradicted some law enforcement sentiment, public policy, and the previous efforts at criminal justice reform initiated by the Obama administration. It is too soon to tell if this prosecutorial stance will have any lasting policy change on national conviction and incarceration rates.

Legal Standard

The legal standard continues to categorize substance use as a willful and voluntary act. Overwhelming research exists that supports the science of addiction as a brain disease. This research does not excuse personal irresponsibility but provides an explanation for the actions of those with a substance use disorder. This explanation can be used towards mitigation for the defendant as well as advocacy in alternative sentencing.

Relying on the science of brain addiction promotes the understanding that the client in the courtroom has a disease that can and should be treated, just like any other medical disease from diabetes to hypertension. It is imperative that criminal defense attorneys advocate for their clients based on the disease model of addiction and focus on the long-term cost-effectiveness that comes from judges granting an alternative sentence.

Epilogue

The United States spends more on healthcare than any other country in the world, yet ranks 27th in life expectancy – largely due to alcohol and drug misuse and suicides. Substance use costs more than $400 billion annually in crime, health, and lost productivity. By contrast, the annual costs associated with diabetes are $245 billion.

Senator Manchin and others have noted that if we do not make changes, we will lose an entire generation to the disease of addiction. Drug poisoning (overdose) deaths kill more West Virginians than homicide and firearms deaths combined, and nearly as many people die from drug overdoses in the state as die from diabetes.

The United States also incarcerates more people than any other country in the world. Having a substance use disorder is not treated like having diabetes; it is treated more like committing homicide. The legislature and judges create or have structures that promote toughness on crime, but public health advocates encourage prevention, treatment, and education to promote recovery and ensure public safety. As Dr. Murthy stated, "Despite decades of expense and effort focused on a criminal justice–based model for addressing substance use-related problems, substance misuse remains a national public health crisis that continues to rob the United States of its most valuable asset: its people."

Many people who go into prison addicted come out addicted. The incarceration setting only helps to temporarily reduce the triggers or access to use; it does not change the brain disease of addiction.

For such a pervasive societal problem, the clear majority of people needing treatment for addiction do not receive it. In West Virginia, 11% of persons with an alcohol use disorder and 13% of persons with a drug use disorder receive treatment in the community (compared to 10% nationwide). Based on national figures, only 10% of prison inmates receive substance use disorder treatment.

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There is a significant financial incentive to divert criminal justice defendants into addiction treatment. Research numbers reflect that if even 10% of the prison population were to receive community-based substance abuse treatment, society would save $8.5 billion in lifetime societal net-savings and $4.8 billion in criminal justice savings.

West Virginia has a variety of community-based treatment options ranging from outpatient treatment, to inpatient treatment beds, to peer-support, and sober living residences. West Virginia also has prisons. While there are valid complaints about not enough treatment options or bed availability for addicted persons, there are also too few prison beds "with 1,228 inmates housed in regional jails around the state awaiting availability of bed space in the prisons."

Interviewed for a recent New Yorker article, a mother recalls testifying against the drug dealer who supplied her son, Jason (Jase) his final and lethal dose of heroin, "From that point on I have felt terrible about [testifying]. The guy got ten years. And in some sense his life was saved, because he would have ended up the same as Jase. But when I look at him I know he'd just done the same things Jason did. I mean, who knows who Jase sold to? Who knows who lived or died because he sold to them?" Whether viewed as a brain disease or a moral dilemma or simply as a parent struggling with the way a child has become addicted, this is not an easy issue and offers few satisfying solutions.

With the close of another legislative session and prisons again overcrowding, the advocacy for treatment over incarceration lies with the defense attorney to help make some sense of these crimes. Promoting the new paradigm of the science of addiction to the judiciary and the public can be a catalyst for change. Cost-savings associated with diverting defendants into treatment is clear, and new opportunities for community-based treatment are on the horizon.

The war on drugs is not yet over but a public health approach promoted through legal advocacy can help win the battle. Two-thirds of the American public supports treatment over incarceration for persons with a substance use disorder; it is now a matter of making sure the judiciary is informed about the science to leverage that same support.

For more information on this and any mitigation topic, please contact Stephanne Thornton, Criminal Justice Specialist, at the Public Defender Corporation Resource Center (304) 558-3905
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Resources:

Surgeon General Report on Alcohol, Drugs, and Health
https://addiction.surgeongeneral.gov/

National Alliance for Model State Drug Laws
http://www.namsdl.org/

National Institute on Drug Abuse, research articles on substances of abuse
https://www.drugabuse.gov/publications/finder/t/162/research-reports

Article, "Lifetime Benefits and Costs of Diverting Substance-Abusing Offenders from State Prison."
http://cad.sagepub.com/content/early/2012/10/15/0011128712461904

Publication, "Shoveling Up II: The Impact of Substance Abuse on Federal, State and Local Budgets."
https://www.centeronaddiction.org/addiction-research/reports/shoveling-ii-impact-substance-abuse-federal-state-and-local-budgets

Publication, National Institute on Drug Abuse, Principles of Drug Abuse Treatment for Criminal Justice Populations – a Research-Based Guide
https://www.drugabuse.gov/publications/principles-drug-abuse-treatment-criminal-justice-populations/principles

Publication, Jiang R, Lee I, Lee TA, Pickard AS (2017) The societal cost of heroin use disorder in the United States. PLoS ONE 12(5): e0177323.
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0177323

A reference chart follows that summarizes some of the long-term effects of substance use and provides a detection range for drug testing. Information is sourced from the National Institute on Drug Abuse and Uppers, Downers, All Arounders (6th Ed.).

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Substance[i]	Long-term Effects of Substance Use	Duration in System for a Drug Test*
Alcohol	Can cause blackouts where the person is awake but does not recall their actions (including actions related to dangerous activities such as driving, vandalism, or sex). Effects decision-making, problem-solving, remembering, and learning. Can cause "wet brain" (Wernicke-Korsakoff Syndrome) which can present as severe confusion, problems with learning, memory, and reasoning. Withdrawal can cause seizures in some people.	½ to 1 day (when testing for EtG; up to 5 days or longer for other kinds of testing for alcohol metabolites).
Marijuana	Can cause hallucinations. Can cause the person to be forgetful especially of information just learned or cause difficulty in focusing. Conflicting studies on long-term effects, but some studies have shown long-term marijuana use impacts a broad range of executive functions such as memory, learning, and impulse control compared to people who do not use. Other studies show cognitive functioning impairments (memory, processing, recall). IQ point loss and verbal abilities have also shown to be effected by long-term marijuana use started at a young age.	Single use: 1-3 days; Daily use: 10-15 days; Heavy use: 1-2 months.
Prescription Pain Relievers (opioids) and Benzodiazepines	Prescription opioids can activate or slow down a person (depending on how their body processes the drug). Benzodiazepines can slow down the person and can cause blackouts where the person is awake but does not recall their actions. For opioids and benzodiazepines, overdose is possible because of slowed heart and breathing rate risking hypoxic injury (brain damage from overdose). Withdrawal is psychologically distressing (and medically dangerous if withdrawing from benzodiazepines) and can be linked with erratic behavior to obtain more drugs/alleviate the negative effects of withdrawal.	2-4 days for most opioids; 5-7 days for Suboxone; 2-3 days for methadone, limited use. 40 hours up to 7 days for most benzodiazepines.
Heroin	Similar to opioids in that it slows down a person's heart and breathing rate and this can lead to coma, overdose, and death. Hypoxic injuries (including brain damage) from overdoses are possible. Infections from injection sites may also lead to endocarditis (a heart infection and a possible consequence of any injected drug use) and death. Decrease in white matter of the brain which can result in problems with decision-making abilities, the ability to regulate behavior, and responses to stressful situations	2-4 days.
Prescription Stimulants (e.g. ADHD meds)	Can cause persons to be forgetful, unfocused, inattentive, moving from task to task without completing any task. Can cause heart failure. Can cause brain damage ranging from psychosis to violent/aggressive behavior to memory loss to mood swings. Persons can be forgetful, paranoid, or anxious. Can have a decreased response/reaction time and increased learning curve.	2-4 days.
Cocaine & Methamphetamines	Can cause irreversible damage to the brain. A recent study even showed higher incidence of Parkinson's disease among past users of methamphetamines; cocaine can also cause	2-3 days for cocaine; 2-4 days for methamphetamine.

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	Parkinson's and other movement disorders. Changes in brain structure and function; can cause brain bleeds. Deficits in thinking and motor skills, increased distractibility, memory loss, aggressive or violent behavior, and mood disturbances may also be present.	

*These detection ranges are averages for dipstick urine tests and ranges vary by person, body composition, duration of substance use, and amount of substance taken as well as kind of testing. Most "send off tests" such as GC/MS, LC/MS, or LC/MS/MS and hair tests can detect metabolites of the substance use for a week or even weeks after use.

[i] Information sourced from Inaba, D., & Cohen, W. E. (2007). *Uppers, downers, all arounders: Physical and mental effects of psychoactive drugs, 6th Edition*. Medford, OR: CNS Productions, and from the National Institute on Drug Abuse, https://www.drugabuse.gov/publications/finder/t/162/research-reports.

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