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How Prison Systems Can Better Aid People with Substance Use Disorders

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Abstract

A large percentage of prisoners in the United States are suffering from a Substance Use Disorder (SUD), but many prisons across the country lack the proper resources to rehabilitate those with drug addictions. Incarcerated people with SUD face many dangerous and sometimes deadly consequences after release. My thesis addresses key associated questions: What role do prisons play in helping prisoners with SUD? And, how can they aid this population more effectively? When considering the breadth of such issues, I examine the sociohistorical context of drug policy in the U.S. to inform my analysis of the criminalization of substances, the greater impact of the War on Drugs, and the current opioid epidemic facing the country. Once I analyze the history of policy and attitudes towards drugs, I consider the psychology of addiction in order to evaluate evidence-based treatments and currently available services/practices for SUD. Lastly, in my thesis, I examine the greater policy implications and possibilities in the United States to promote more consensus regarding the responsibility prison systems have to the population struggling with addiction.

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Introduction

In middle school, I distinctly remember a commercial campaign about meth broadcasted on my TV while I watched cartoons. “Meth. Not even once.” Billboards around my town with the slogan and the commercials stung in my head. One specific commercial was of a girl in the shower who looks down to see blood washing down the drain. When she turns around, she sees herself curled in the corner of the bathtub, bleeding. “Meth. Not even once” flashed across the screen. As a scared adolescent, I didn’t even know what meth was but knew it couldn’t be good if it left you bleeding in the bathtub. So I looked it up. I learned it was a drug that was incredibly addictive and made people pick at their skin because it felt like there were bugs crawling under it. I wondered how in the world a drug could make someone think that. And with that, my fascination with substances and how they work in the brain began.

This fascination further unfolded during my first year of college at College of the Holy Cross. In the fall, I enrolled in a biology class for my common area requirement – biology of addiction. Since middle school, I had learned what the internet could provide me about drugs, with knowledge ranging from documentaries to YouTube videos to magazine articles. But the thought of this class fascinated me. During that semester, I learned about how drugs biologically activate the brain, the networks they affect, and the neurochemistry behind addiction. On the first and last day, the professor asked us all the same question: Is addiction a choice, a disease, or self-medication? By the last day of class, my perception about what addiction was had shifted from primarily a self-medication model to mostly the disease model, but the class taught me the complexities in not only defining addiction but addressing it in our public health system.

That summer, I interned at a small non-profit called the Chris Atwood Foundation that promoted harm reduction techniques and drug education to the community. I packed opioid

overdose reversal kits that were filled with Narcan (also known as Naloxone), instructions on how to safely give Narcan, and recovery resource information cards to hand out to the community. I became certified to teach courses on how to reverse overdoses, and taught numerous classes to community members. I compiled data about drug law reforms in the state of Virginia and contacted state representatives about their potential support on bills. My summer at this non-profit showed me what grassroot change looked like and that efforts of all sizes can impact the community.

To further my interest, I volunteered through Holy Cross's Donelan Office of Community Based Learning at the Hector Reyes House in Worcester which is a recovery home for Spanish-speaking men. I conducted and led group sessions in Spanish once a week where the residents and I would talk about food, home, religion, work, and their recovery. I was intimidated at first by the language barrier and the sense that I couldn't help these people in the way they needed, but after a semester of volunteer work, I connected with these men on personal levels in a different language. It was fascinating to hear about their upbringings, how they got to Worcester and, if they were willing to speak on it, how they became addicted to drugs and their experiences using them. I truly saw the cracks in the system right before my eyes as they had been failed time and time again by a society that should have supported them.

Since then, I've taken more classes about psychopathology and, during the COVID-19 pandemic, I waitressed at a restaurant where I met multiple people in recovery. While we worked, I had numerous conversations with them. We talked about my interest in this field, their experiences in and out of the criminal justice system, and their difficulty staying clean at times. We also talked about how hard it was for them to find work and housing and what we think

needs to change to better help people like them. It's during those times that I decided I wanted to write a thesis on this topic.

Over the last four years, college has completely shaped how I view addiction and why I see it as one of the biggest obstacles to our country's public health and criminal justice system. An estimated 65% of prisoners in the US have an active Substance Use Disorder and, because of this, are at higher risk of death after release from prison (NIDA, 2020). Not only is substance use and its associated risks relevant in terms of social justice efforts towards prison reform, but these problems also ask the question of how our prison systems provide for those with a Substance Use Disorder (SUD) and what can our government do about this issue. While SUD is considered a disease by national governmental and medical associations, it is not necessarily treated as such, especially among those who have been incarcerated. I wanted to learn how people suffering from SUD can receive the help they need to recover when our prison systems are so flawed at rehabilitating their prisoners. In my thesis, I dive into these questions, their historical origins, the lived experiences of those incarcerated and in recovery, and possible solutions that can be implemented to address this growing public health issue.

Chapter 1: Etiology

The Beginning of Drug Criminalization

Substance use in the United States has a complex and lengthy history dating back to morphine in the 19th century as a result of the growing opium use in the eastern hemisphere during this period (Courtwright, 2002). The 20th century brought America's first drug laws into existence with legislation like William Harrison's Narcotic Tax Act of 1914 and the 18th amendment prohibiting the sale and distribution of alcohol in the States. The 1920's and 30's brought along America's drug "czar," Harry Jacob Anslinger who headed an antinarcotic regime as the director of the Federal Bureau of Narcotics. Historian David Courtwright notes that Anslinger's approach to the narcotics problem facing the US at the time was based around enforcing harsh punishment for drug users and sellers, while targeting the international trade system, making it harder for drugs to get into the country and even harder to obtain drugs once they were there (1992). Despite his restrictive legislative pushes in his over 30 years as Director of the Bureau of Narcotics, drugs were still finding their way on American soil, causing concern amongst citizens. American drug policy between the 30's and 60's had two main aims: "the quashing of legal maintenance and the suppression of illicit narcotic transactions through vigorous police enforcement" (Courwright, 1992, p. 29). Courtwright also points out that the following decades have been characterized by an abandonment of the first aim of legal maintenance of and an emphasis on the second aim of police enforcement. Consequently, the 1970's brought about a growing population of narcotic users, including a number of American soldiers fighting in Vietnam, resulting in President Richard Nixon's directed focus on this issue.

Nixon's presidency represents a shift in federal jurisdiction over America's drug problem. Firstly, Nixon issued the Federal Comprehensive Drug Abuse Prevention and Control Act of

1970, more commonly known as the Controlled Substances Act, that became effective in May of 1971. The Controlled Substances Act categorized substances, legal and illegal, into five schedules based on their medicinal use and potential for addiction. The act became a way for the government not only to regulate substances but also enforce such regulations with the creation of the Drug Enforcement Administration (DEA) in 1973. Yet, with this increase in restriction and regulation on the federal side, Nixon also emphasized the need to rehabilitate those with addictions. In a 1971 speech to Congress, Nixon told them that, "Enforcement must be coupled with a rational approach to the reclamation of the drug user himself...We must rehabilitate the drug user if we are to eliminate drug abuse and all the antisocial activities that flow from drug abuse" (Nixon, 1971, https://www.presidency.ucsb.edu/node/240245). He asked Congress for more funds to increase enforcement measures, but also rehabilitation efforts, setting aside more federal money for the "demand" side of the drug problem (education, treatment, and prevention) rather than the "supply" side (law enforcement and interdiction) (Nixon, 1971; Lopez, 2016). In this same speech, Nixon declared the establishment of the Special Action Office of Drug Abuse Prevention (SAODAP) which had the large task of "overall responsibility for drug treatment and rehabilitation, as well as prevention, education, training, and research programs" (Courtwright, 1992, p. 29). SAODAP was led by Dr. Jerome Jaffe who tried to expand America's understanding of rehabilitation through the use of methadone, a less addictive opioid, but due to the skepticism of public opinion and bureaucratic obstacles, the program did not have much success in the 70's. During all of this, Nixon had also declared a formal "War on Drugs" by asserting drug abuse as America's "public enemy number one" in another 1971 speech (Courtwright, 1992).

In the early 1970's, Nixon's administration amped up federal restrictions on drugs, federal funding for rehabilitation, but also brought greater attention to a growing problem that began long before the 70's. The problem of drug abuse in the US was clearly not new, just revisited through policy and public attention. Yet, some key unique factors in the 70's brought America's attention to the drug problem, and their implications were vast. One of these factors was the Vietnam War. It is estimated that around 10-15% of enlisted soldiers were using heroin, but the real number is likely much higher due to lack of reporting (Shuster, 1971). The main causes of such staggering numbers appeared to be for a few reasons: the stressful combat environment resulting in a desire to self-medicate, changing opinions around drugs in the US, and the availability of these drugs at a low cost to soldiers (Stanton, 1976). Further, newspapers and media outlets began paying more attention to this growing problem, especially as soldiers were returning home from the war.

One TIME Magazine article published in June of 1971 documents this growing problem, adding G.I. 's to the list of existing populations already affected by the spread of heroin addiction. The article drew attention to programs like the unofficially termed "Operation Golden Flow" that required soldiers to be drug tested through urine samples upon returning to the US and questioned if the funds provided by Congress for prevention programs were adequate. However, the article also stigmatized drug users as violent crime causers stating that, "Some authorities believe that if 75% of them supported their habit by committing crimes the cost to the country would exceed $8 billion yearly. With the return of the addicted veterans, the cost of heroin in dollars, in violence and more subtly in broken lives and suffering, becomes even harder to reckon" (The New Public Enemy No. 1, 1971, p. 24). Comments like these, that are widely publicized in popular media and so damaging to public opinion, paired with Nixon's assertion

that this issue was America's public enemy number one, contributed to the fear of drugs, the stigmatization of users, and therefore overall villainization.

The villainization of substances and their users directly relates to the increasing criminalization of drugs in America at the time. Stigmatization of people addicted to substances can be traced back to decades before the Nixon era, but the rhetoric remained consistent. The 20's and 30's represented a growing negative attitude towards people who used substances, signifying that, "There was still a powerful, visceral fear of narcotic addicts and all they stood for. It was the social and moral connotations of narcotic addiction that mattered, not just the mental and physical effects of the drugs themselves" (Courtwright, 1992, p. 12). Due to the illegality of many substances, as well as their consequent impact on the user and those around them, public opinion began to stigmatize users, creating a frowned upon deviant subculture. Courtwright notes that these subgroups often evoke legislative responses, resulting in laws that are "symbolic in that they define and reiterate majority norms; they are also instrumental to the extent that they employ the police power of the state to restrict or eliminate the objectionable behavior." Social perceptions were catalysts for legislative action which has broader and lasting implications.

Not only was drug use deliberately associated with criminality, but public perception facilitated by the government and media sources began to associate drug use with minority groups, linking the three together in a pattern that persists today. One particularly damning quote that connects race and drugs with crime was said by John Ehrlichman, who was Counsel and Assistant to the President for Domestic Affairs under President Richard Nixon. In a 1994 interview with Harper's Magazine's Dan Baum, Ehrlichman uttered the shocking statement that: "The Nixon campaign in 1968, and the Nixon White House after that, had two enemies: the

antiwar left and black people. You understand what I'm saying? We knew we couldn't make it illegal to be either against the war or black, but by getting the public to associate the hippies with marijuana and blacks with heroin, and then criminalizing both heavily, we could disrupt those communities. We could arrest their leaders, raid their homes, break up their meetings, and vilify them night after night on the evening news. Did we know we were lying about the drugs? Of course we did" (Baum et al., 2016, https://harpers.org/archive/2016/04/legalize-it-all/). It is highly troubling quote coming from a man who worked closely with the Nixon administration on domestic policies, and while there are questions about its validity, it holds an undeniable truth that minorities, and black people specifically, bore the brunt of Nixon's War on Drugs which will be discussed further in the following section (Lopez, 2016).

Dating back over a century, the U.S. government and people have struggled with the emergence of substance use, and has acted through political measures that have had widespread implications mostly impacting minority communities. Although Nixon coined the "War on Drugs," the legislative reform against substances and the stigmatization of drugs and their users was nothing new. However, the Nixon era represented a massive shift in how the War on Drugs is viewed by the public as the media emphasized drug use in Vietnam as well as an overall negative shift in public opinion around substances. A link between the villainization of substances and minority populations appears, as these communities were not only hit hard by the presence of illicit substances in their neighborhoods, but harder by law enforcement in the years following Nixon's presidency. Nixon's presidency sets the stage for future administrations in terms of the pure governmental control given to respond to America's drug problem with the creation of agencies and laws. In addition, the connections to drugs and minority communities becomes significantly more apparent while that of a response of treatment and care become

significantly less. Chronologically following the 1970's, the 1980's brings about a continuation of a rhetoric that villainizes substances and their users which will be discussed in Section 2.

Mass Incarceration and the War on Drugs

By coining the phrase "The War on Drugs" and asserting drug abuse as America's public enemy number one, Richard Nixon jump started what actually became a war against the people who use drugs. As I described in the first section, decades of governmental action focused on combating the emergence of substances in the U.S., but the Vietnam War and veteran use of heroin as well as the public's association between substances and minority communities prompted governmental actions like the Controlled Substances Act which set the stage for the following administrations. Under President Ronald Reagan, the 1980's were marked by a shift to conservatism as the administration promoted American family values, issued tax cuts, and promoted the economy. Yet, one area of interest where the Reagan administration became particularly involved was the growing issue of substance use, over which they asserted significant federal dominance. The Reagan administration's establishment of the War on Drugs greatly impacted minority communities by criminalizing them by incarcerating people of color at high rates (Alexander, 2010). Furthermore, the media relayed the message to the public that drugs were a moral shortcoming, thus creating an America where not only drugs were criminalized, but where their users were heavily stigmatized and villainized (Reinarman & Levine, 2004).

Nixon set the foundation and the precedent for future presidents in terms of dealing with the War on Drugs. While he may have set aside more federal funds for rehabilitation purposes, that precedent was not followed by the following administrations, thus turning the issue of drugs into one that is primarily criminalized rather than medicalized (Lopez, 2016). Further, the

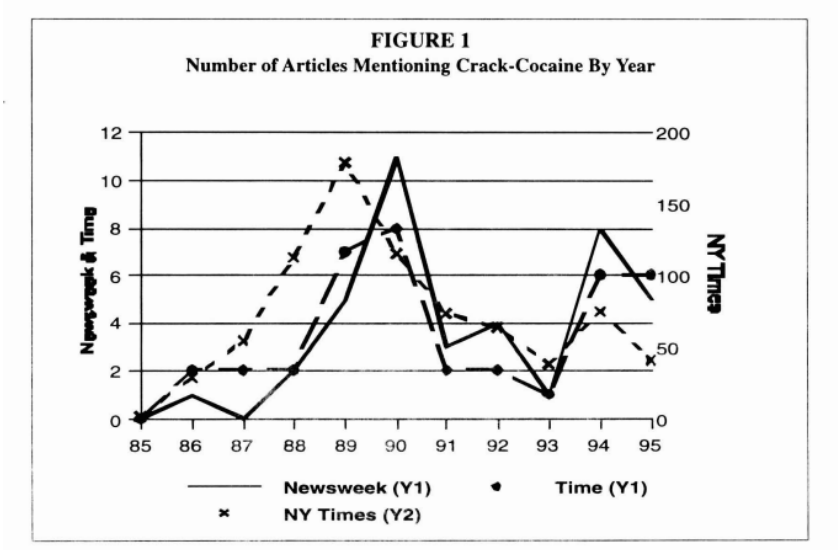
stigmatization of drug users in the 60's and 70's only carried over into the 80's, especially with the emergence of crack cocaine. Along with that came a disproportionately affected population of Black people. The 1980's under the Reagan administration not only resulted in policies targeting minority populations and a massive shift of incarceration, but it also represented a shift in public opinion as the media significantly shaped the perception of the crack epidemic to one of terror and marginalization which I will discuss in more detail below.

While the Nixon administration may have been responsible for coining the infamous "War on Drugs," it was the Reagan administration that implemented many of the policies that resulted in mass incarceration for drug crimes. In 1980, there were around 50,000 nonviolent drug offenses compared to a stagering 400,000 in 1997 (Sweet, 2020). Such numbers are a result of a few policies put in place by the Reagan administration in the 80's, the first being the Comprehensive Crime and Control Act of 1984. Not only did it establish procedures for civil asset forfeitures, but also established federal minimum sentences for drug related crimes (Comprehensive Crime and Control Act, 1984). According to Stephen S. Trott, Assistant Attorney General of the U.S. Department of Justice's Criminal Division, this act "contains the most significant changes in the federal criminal justice system ever enacted at one time;" and it achieved just what it aimed to do – incarcerate more people for drug related crimes (Trott, 1985, p. 795). A Los Angeles Times writer noted in 1984 that the Comprehensive Crime and Control Act led to a 32% increase in the number of prisoners being held in federal prisons, which goes to show the strength this law had on criminal justice reform at the time (Ostrow, 1986). While this law was a launchpad for Reagan's shift towards mass incarceration, he also signed the 1986 Anti-Drug Abuse Act that specifically targeted drugs as reason for incarceration, thus further villainizing and criminalizing substances and their users.

The most notable aspect of the Anti-Drug Abuse Act was the establishment of federally mandated minimum sentences for various drug offenses. For example, the penalty for having five grams of crack was an automatic five year sentence, while the same penalty was applied to the possession of 500 grams of powder cocaine (Vagins & McCurdy, 2006). This aspect of the law, that is, the mandatory minimum sentences, has faced criticism because of its seemingly racially motivated connotations and implications as Black people were more likely to be convicted of crack cocaine offenses and white people were more likely to be convicted of powder cocaine offenses (Vagins & McCurdy, 2006). For example, as an ACLU article states, "the sentencing disparities punishing crack cocaine offenses more harshly than powder cocaine offenses unjustly and disproportionately penalize African American defendants for drug trafficking comparable to that of white defendants" (Vagins & McCurdy, 2006, p. i). The larger effects of Reagan's Anti-Drug Abuse Act were specifically targeting and impacting minority communities by sending Black people to prison and failing to address the inequities in the law. Overall, these Reagan era acts asserted federal dominance over the War on Drugs and pushed an agenda of incarceration, especially among minority communities. In order for this to be successful, public approval was a necessary step in convincing them of the urgency of the crack epidemic, which was accomplished primarily by the media (Alexander, 2010).

The media serves as an important link between the government and the people because according to Hartman & Golub (1999), "it is the collective perception of a problem within the general population that often drives government actions, not necessarily the actual problem itself" (p. 423). In their article about the print media's social construction of the crack epidemic, these researchers comprehensively examined all news articles about crack cocaine mentioned in the *New York Times, Newsweek,* and *Time* from 1985 through 1995 and found that the media

played a large role in portraying the crack epidemic as a panic despite later evidence against it. Furthermore, the media constructed a rhetoric that the crack epidemic was an issue only associated with poor people of color which not only was misleading, but it also diverted attention away from other crucial issues that faced that population during these years.



As seen in Figure 1 from their study, the sheer number of times these media sources mention crack cocaine should be enough to signify its relevance in the 1980's and give reason to believe there was significant media influence on public opinion. Figure 1 specifically shows a surge between '85 and '89 which responds firstly to the Reagan administration's emphasis on the topic from '85 to '88, but secondarily, the peak refers to the particular increase in reporting on crack cocaine around the time of George H. W. Bush's election year (Shachar et al., 2020). Yet it is their further reasoning that the media perpetuated this panic through myths without dispelling them significantly over time that emcompasses the media's role as important, and not always accurate, sources of public opinion (Hartman & Golub, 1999).

The widespread nature and maintenance of myths about crack cocaine by the media, in particular the myths that crack was a new drug, crack was instantly addictive, and crack caused

violence, were damaging to public opinion. Reinarman & Levine (2004) point out that crack was not a new drug considering that the chemical composition was the same between crack and powder cocaine, however crack cocaine was new in that it was smokeable (and thus produces a quicker high) and was a "marketing innovation" as it was sold at significantly lower prices. Further, newspapers like *Newsweek* and TV networks were quick to advertise crack cocaine and its strongly addictive nature, describing it as a "plague;" however, a survey given out by the National Institute on Drug Abuse found that fewer than 5% of 18-29 year olds in the U.S. in 2001 even tried crack cocaine during their lifetime, many fewer became addicted (Reinarman & Levine, 2004). One of the most damaging myths to not only the implementation of harsher law enforcement efforts but also to social perception of crack cocaine was the notion that crack caused violence and crime. In 1988, Goldstein and his colleagues (1989) worked with the New York Police Department to investigate the extent of drug-related homicides in the city and found that there were three categories of such crimes: *psychopharmacological*, the ways in which drug ingestion produces violent effects, *economic compulsive*, how economic crimes to fund drug use results in violence, and *systemic*, relating to drug market distribution (for example, homicides as a result of disputes between rival dealers). They discovered that of 414 New York City's homicides, only 7.5% were psychopharmacological, or actually as a result of the drug itself. Instead, a staggering 74.3% of the total homicides were categorized as systemic, which supports a more complex view of the impact of the crack epidemic in the 1980's rather than as a direct result of crack cocaine itself (Goldstein et al., 1989).

The media's tactics to spread fear by attributing the crack epidemic to myths glosses over the system root of the problem and ignores how vulnerable populations are affected (Hartman & Golub, 1999). The government was also responsible for maintaining the narrow minded view

that crack cocaine was the issue to be focused on, as seen in the Reagan administration's massive War on Drugs rather than addressing the root of more systemic problems occuring in the U.S. During this time, marginalized communities were already facing severe poverty and police surveillance, and this misplaced focus on the War on Drugs meant these systemic problems were not addressed. As Elizabeth Hinton explains in her book *From the War on Poverty to the War on Crime* (2016), "With federal social programs focused on arresting drug users and dealers and patrolling the nation's borders, the Reagan administration proceeded to eliminate half a million families from welfare rolls, 1 million Americans from food stamps, and 2.6 million children from school lunch programs" (p. 314). These cuts exemplify how the Reagan administration was not necessarily concerned with addressing the systemic problems associated with the War on Drugs – they were much more concerned with arresting people off the streets and extending sentences to keep them from going back. The themes of inequality and lack of governmental care are ones that keep appearing when considering the issues of drug abuse and are ones to which we will continually return.

The message sent by the government and media was clear – drugs were dangerous and bad. Through additional examples such as First Lady Nancy Reagan's "Just Say No" campaign, or commercials displaying a fried egg as a brain on drugs, the media asserted that drugs were a moral shortcoming, a choice that one makes, rather than a result of societal shortcomings (Willis, 2019). Pairing this campaign with an administration with an agenda to fight the War on Drugs with incarceration and larger police force created a lethal combination of not only the stigmatization of drugs and their users, but the criminalization of them as well. Policies like the Comprehensive Crime Control Act and the Anti-Drug Abuse Acts shaped the 1980's through federal dominance over the War on Drugs as well as the incarceration of people by the thousand,

more specifically people of color. As Hinton (2016) points out, the War on Drugs expanded the Black and Latino prison population fivefold from 1965 to 1988 while also noting that "At just under 30 percent of the national population combined, two thirds of these inmates today are African American and Latino" (p. 310). Looking at the American drug use and prison system today, Black people comprise 15% of the country's drug users, yet make up 37% of those arrested for drug violations, 59% of those convicted, and 74% of those that are sentenced to prison for a drug offense (Vagins & McCurdy, 2006). In her book (2010), Michelle Alexander argues that the mass incarceration of Black people was a deliberate tactic to gain social control over a race of people, creating a new racial caste system that stigmatizes and socially denotes Black people. Considering that if current trends continue, one in every three young Black men will serve time in prison, which leads us to seriously evaluate the system that is currently in place and the injustice it serves to Black people in America. Race, class, and gender are inseparable social issues from the conversation about the effects of the War on Drugs, and it's crucial to understand how these factors have influenced the climate around these topics and what is necessary to address such historical disparities.

The Opioid Epidemic

The War on Drugs continued to rage through the 1990's and early 2000's under the presidential administrations of George H. W. Bush, Bill Clinton, and George W. Bush in terms of political action against substances and those who use substances. The Obama administration marked an interesting shift in terms of the drug war in that he, as well as the public, began to recognize its ineffectiveness at curbing America's drug problem. Solely locking up users for small amounts of drugs did not keep them off the streets, and instead flooded the prison systems with people who had committed non-violent drug crimes. With legislation like the Fair

Sentencing Act of 2010, the Reagan-era discrepancy between penalties of crack-cocaine and cocaine was minimized (but not eliminated), however the US government was still actively involved in locking up those that use and sell drugs (Willis, 2019). The 21st century brought about its own problems that are closely intertwined with the issues talked about in the first two sections; a new drug epidemic has occupied the government and media's attention. Even today, America is still facing this epidemic – one of prescription medicine and its misuse.

While the government focused its time and efforts into the war on illicit drugs in the 90's, pharmacists and medicine corporations were creating a world without pain. With the emergence of new drugs like OxyContin in 1996, the 90's saw a shift to more aggressive pain management standards that resulted in an increase in total opioid prescriptions filled from 107 million in 1992 to 274 million in 2012 (Dave, Deza, & Horn, 2021). Although pain medication like opioids are important in the medical field in order to mitigate the burden of pain, their use obviously comes with risks and consequences, which may manifest themselves in Substance Use Disorders as well as the use of these drugs for non-medical purposes. Dave, Deza, and Horn (2021) note that "Overdose deaths from opioid analgesics have increased seven-fold since 1999, with economic costs of the opioid epidemic exceeding $500 billion annually" (p. 809). Further, the opioid epidemic facing America primarily consists of non-prescription opioid overdoses and deaths (heroin and fentanyl) and according to Jones (2013), a staggering four out of five new heroin users started by misusing prescription drugs.

As I will discuss below, the opioid epidemic in the U.S. currently has resulted in significant economic effects as well as claimed hundreds of thousands of lives – but the American government and the American media have dealt with this drug epidemic in a very different way compared to the 60's and 80's. Furthermore, the impact the opioid epidemic has

had on the prison system looks very different from the impact of crack cocaine, especially in terms of prevention, treatment, and recidivism rates. Based on my research, I believe that the opioid epidemic represents a growing change in attitude towards drugs and their users as seen through policy implemented against this epidemic as well as how the media portrays it, thus categorizing addiction as a disease rather than a choice and calling for change in how the system treats those suffering from addiction. While this is a strong step in the right direction, it is important to ask why this epidemic looks different from the War on Drugs attitude that devoured the majority of the 20th century, but also addressing the next steps in terms of the system's responsibility for aiding those trying to get out of it.

One of the most significant reasons why the opioid epidemic looks different from the crack epidemic is the classification and understanding of addiction as a disease rather than a choice (Santoro & Santoro, 2018). As mentioned in the previous section, media efforts in the 1980's were responsible for spreading harmful myths to the American public about crack-cocaine and its wider effects, thus shaping public policy and public opinion on drugs and those that use them. The government dealt with the crack-epidemic as a criminal justice problem which can be seen in the governmental response of incarceration for drug crimes. Reagan allocated significantly less funds towards treatment and rehabilitation, and focused his efforts on punishing primarily people of color for using and possessing crack-cocaine (Lopez, 2016). Although people were struggling with the disease of addiction, the governmental response was to send them to prisons to serve time for their crime.

In contrast to the criminal justice approach, the governmental response to the opioid epidemic has been mostly that of a public health crisis. Part of the reason behind this shift was the National Institute of Drug Abuse (NIDA) funding and promotion of research that supported

addiction as a neurobiological disease in the 1990's (Santoro & Santoro, 2018). The classification of addiction as a disease represents a change from the 1980's perception of addiction as choice or moral lapse. As Santoro and Santoro (2018) put it, classifying addiction as a disease "was intended to reduce the stigma associated with substance use and abuse disorders as it broke the association with morality, instead refocusing the central problem on biochemical aberrations of the individual" (p. 2). While a perspective based on scientific evidence is crucial in an understanding of addiction, it is a complex disease that involves the evaluation of the environmental risk factors which will be further discussed in Chapter 2.

In addition, the governmental response to combat the opioid epidemic has been based more in public health, especially in comparison with the War on Drugs. As Shachar et al. (2020) note, due to the troubling increase in overdose deaths from opioids, the White House declared the opioid epidemic a public health emergency by urging control on prescription medication as well as calling for access to substance-use treatment facilities, and further Congress allocated funds specifically for treating addiction as a public health issue with the 21st Century Cures Act in 2016. State governments have also played a large role in addressing the opioid epidemic as a public health issue through different legal actions. For example, the New York State Department of Health (2021) mentions on their website (https://www.health.ny.gov/community/opioid_epidemic/) the many steps their state government is taking to combat the opioid epidemic including, "Providing resources to assist communities in combating the opioid epidemic at the local level" and, "Developing training for health care providers on addiction, pain management and treatment." In terms of legislation to combat the opioid epidemic, 45 states and the District of Columbia have an overdose Good Samaritan law which "provide limited criminal immunity to individuals who request assistance during an

overdose" (p. 1), which can direct individuals into medical assistance rather than into the criminal system (Hamilton et al., 2021). Thus, federal and state governments have taken measures to combat the opioid epidemic by using public health strategies rather than criminal justice strategies that were primarily used to combat the crack cocaine epidemic.

With the assertion by medical professionals that addiction is a disease and by the government that the opioid epidemic was a public health issue, the media began to catch on and even question this shift in relation to the crack epidemic of the 80's. One of the suspected answers to this question primarily regarded race, considering that until more recently, the crack epidemic disproportionately affected Black and Latino communities while the opioid epidemic has mostly affected white people. Shachar et al. (2020) address this hypothesis by analyzing media sources from 1989-99 that focused on the crack epidemic and the same media sources from 2016-17 that had to do with the opioid epidemic. Their findings are fascinating and alarming as they discovered evidence to support that the media primarily used medical and health based terminology to talk about the opioid epidemic and used criminal justice and law

Table 2 Top Words in the 2016–17 Opioid Sample (Unigram, Bigram, and Trigram)

Rank	Word	Frequency
1	health	10652
2	drug	8987
3	opioid	6955
4	people	6045
5	care	5817
6	trump	4580
7	drugs	4364
8	public	3975
9	law	3713
10	abuse	3625

Rank	Word	Word	Frequency
1	health	care	3444
2	substance	abuse	1846
3	public	health	1832
4	opioid	crisis	1227
5	law	enforcement	1143
6	presidential	candidates	1066
7	health	departments	945
8	opioid	epidemic	883
9	white	house	836
10	donald	trump	753

Rank	Word	Word	Word	Frequency
1	affordable	care	act	560
2	health	care	reform	454
3	public	health	administration	443
4	controlled	substances	crime	442
5	health	care	policy	365
6	health	care	professionals	359
7	substance	abuse	treatment	352
8	health	care	law	334
9	special	investigative	forces	246
10	drug	enforcement	administration	237

Note: Language related to health and medicine flagged in light gray.

Table 1 Top Words in the 1988–89 Crack Cocaine Sample (Unigram, Bigram, and Trigram)

Rank	Word	Frequency
1	drug	4650
2	cocaine	2584
3	police	2226
4	drugs	1924
5	crack	1764
6	people	1388
7	abuse	892
8	law	889
9	enforcement	841
10	crime	828

Rank	Word	Word	Frequency
1	law	enforcement	468
2	substance	abuse	406
3	substances	crime	369
4	controlled	substances	352
5	crack	cocaine	349
6	drug	trafficking	306
7	drug	dealers	263
8	drug	abuse	248
9	illegal	drugs	200
10	drug	policy	171

Rank	Word	Word	Word	Frequency
1	controlled	substances	crime	343
2	drug	enforcement	administration	113
3	special	investigative	forces	83
4	law	enforcement	officials	69
5	law	courts	tribunals	54
6	substance	abuse	treatment	43
7	students	student	life	39
8	national	football	league	38
9	substance	abuse	facilities	38
10	regional	local	governments	33

Note: Language related to criminal justice flagged in dark gray.

enforcement terminology when speaking about the crack epidemic. As seen in the tables below, using unigram, bigram, and trigram categorization techniques, the majority of top words used in the media to discuss crack cocaine primarily had to do with criminal justice (e.g. police, law, enforcement) while the media primarily used health and medicine language in the opioid sample (health, care, reform) (Schachar et al., 2020).

In their analysis, they give reason to this media shift through the perfect combination of the framing of substance use as a public health problem that occured in the 90's and the perception that most opioid users are white (Schacher et al., 2020). Viewing these epidemics through opposing lenses in consideration of the presence of a racial bias this strongly has severe implications. In terms of public policy approaches towards these epidemics, "A criminalization model of substance use reinforced by racial bias can contribute to the high rates of incarceration of people of color, especially African Americans. By contrast, a medicalization model of substance use promotes more effective public health interventions" (Shacher et al., 2020, p. 234). Shacher et al. 's (2020) study and analysis of the comparison between media representation of the crack and opioid epidemics demonstrates a clear shift in narrative of one as an issue of criminal justice and the other of public health.

The shift from criminalization to public health has broader implications, especially regarding treatment. When considering addiction as a disease and an issue of public health, it must be treated as such and the response must be that of biological and psychological treatment, care, and support to those suffering from addiction. However, this isn't necessarily the reality. While the government seems to have a significant shift in response in terms of recognizing the opioid epidemic as one that requires a public health approach, many people that have fallen victim to this epidemic are incarcerated and sent to prisons where they lack substantial access to

treatment for their addiction. Currently, it is estimated that around one half of all America's incarcerated prisoners (including some that were not sentenced for drug related crimes) currently meet the criteria for a substance use disorder or dependence (Chandlar, Fletcher, & Volkow, 2009). This number is especially striking when considering that 80-85% of prisoners who could benefit from drug abuse treatment do not receive it, which is unfortunate given the unique position prison systems are in to treat those struggling with addiction (Chandlar et al., 2009). Chapter 2 will aim at addressing this opportunity to look at where our current system can treat those with SUD, as it has potential to save lives and keep people not only from reentering into the prison system but also from relapsing once released.

The opioid epidemic still continues today, especially in light of the COVID-19 pandemic. In 2020 alone, there were an estimated 93,331 deaths from overdose, many of which involved illicit opioids like heroin or fentanyl (Ahmad, Rossen, & Sutton, 2021). In the 12 month period ending in April 2021, 100,306 opioid overdose deaths were reported (CDC, 2021) While the U.S. has made progress in recognizing the opioid epidemic as a public health problem, it is still partially being addressed as a criminal justice one considering that the possession of such substances can land one in jail, and those who suffer from addictions are not receiving proper care within the prison systems. Yet there has been a substantial shift in public perception of the opioid epidemic which came about as a result of a few factors, especially when looked at in comparison to the War on Drugs in the 1980's. Not only were medical institutions categorizing addiction as a neurobiological disease, but the media primarily focused on describing the opioid epidemic using health related terms rather than criminal justice terms. Further, the population most affected by this drug epidemic is white, which raises skepticism especially when comparing governmental response to the crack epidemic 20 years prior. While the official War on Drugs

may have ended in the mid 2000's, the criminalization and stigmatization of substances and their users still continues today, and the following chapters will aim at addressing our current system's approach to solving this problem as well as evaluating ways other countries and systems have addressed the issue of substance use among incarcerated people.

Chapter 2: Addiction and Crime

Introduction

In Chapter 2, the primary focus is the relationship between drugs and crime and its relevance and impact in our prison systems. After learning about the historical context of the development of different drug epidemics and the legislative approaches aimed at solving them, this chapter shifts to look at the problem from a more individual lens in a way that can help us better understand why people use drugs and why they commit crimes. By using a biopsychosocial model to explain the two phenomena of addiction and crime, we can begin to uncover their commonalities in origin and where individuals' needs are not being met in multiple spheres and aspects of their lives. Identifying these needs is crucial in understanding what treatments and changes need to be made in order to better serve this disadvantaged population. Further, this chapter will not only address the biology of addiction and its importance in understanding the many impacts it can have on the whole person, but it will also examine our current prison system's responsibility to rehabilitate and treat incarcerated people's SUD.

As a part of my thesis, I decided I wanted to take a closer look at addiction and incarceration by interviewing individuals who are in recovery from addiction and who have been previously incarcerated. Hearing their voices is crucial in helping not only me and my readers to better understand the impact of this problem, but also to shine light on a population that has been consistently underserved by our society. Using a snowball sampling method, I conducted four interviews over the phone with men ages 21 through 55 where I asked them questions regarding their past substance use and experiences with incarceration. I have used surnames when speaking about these individuals out of respect for their confidentiality and I will be referring to them as Sam, William, James, and Matt. I feel there is no better way to begin to understand why people

use substances and why they commit crime than by asking them and hearing their stories. While studies are incredibly useful in providing evidence, they can never stand in place of lived experience. My goal is to integrate what I learned during my interviews with scientific studies and research so that my readers and I can begin to piece together a holistic view of addiction and incarceration and the greater implications it has on human life in our society.

Relationship Between Drugs and Crime

As we learned from Chapter 1, crime and substances are undeniably linked in the US and have been since the beginning of the 20th century. When looking at the statistics around this relationship, we find that drug users are seven to eight times more likely to offend than non-drug users and further, that incarcerated individuals in the US are seven times more likely than the general population to have a substance use disorder (de Andrade, 2018). Diving deeper into the link between the two, we begin to ask ourselves a chicken and egg type of question – do drugs cause crime or does crime breed drug use? The link between the two many times is bi-directional and can oftentimes be best understood on an individual level.

To begin to unpack that question a bit I'll first address the first hypothesis that drugs cause crime. As we know, many drugs are illegal in the US and are classified in schedules based on their potential for abuse and their medical purposes. Just possessing some substances can land one in jail, but this is not what I mean by saying that drugs cause crime. Let's return to the Goldstein et al. model that I introduced in the first chapter of what some call the "drug-crime" nexus where he suggests that three types of crime occur as a result of drug use (Goldstein et al., 1989). The first is *economic-compulsive* which refers to the idea that users cannot support their drug use through legitimate means so they turn to crime for money. Offenses here usually fall under the category of theft, burglary, robbery, etc. The second type is *psychopharmacological*

which refers to the effects drugs cause on the mind that can cause someone to act violently and/or disinhibited. Examples of offenses in this category would be Drunk in Public, Aggravated Assault, etc. The last is *systemic* which was my primary focus in the second section of Chapter 1 and it refers to the relationship between crime and drugs as a system of distribution and use. It includes drug markets, gang violence, and crime as a result of this system of distribution. What Goldstein and his colleagues fail to consider as part of their systemic view are the systemic issues associated with poverty, including having few supportive institutions, weak family systems, and other social and environmental factors that would lead substance users to further problems. These factors are discussed more below.

During my interviews, I asked about the participants' arrest history and their relationship to substances when they began violating the law. None of them mentioned trouble with the law until after they began using substances and they all recounted similar trajectories of drug use and crime involvement. Overall, most of the crimes they committed would fall under the *economic-compulsive* category with 3 out of 4 of the interviewees using similar terminology like "stealing to support my (drug) habit." All 4 of the interviewees also seemed to be involved in some sort of crime in the *psychopharmacological* category as well as Sam was arrested on a Drunk in Public charge and Matt mentioned being "noticeably messed up" in front of his probation officers which led him into deeper trouble. None of interviewees mentioned being arrested for crimes that fall within the *systemic* category, but that in no way discredits the category considering my small sample size.

Yet as I have mentioned, the relationship between drugs and crime often is bi-directional as crime can often precede the use of drugs for many individuals. Building on this broadened systemic perspective, de Andrade (2018) cites a third direction in this relationship that "crime

and drug use spring from a set of common causes and then act to continue and intensify each other" (p. 4). After conducting interviews with people heavily involved in both spheres of drugs and crime, I believe this statement to hold truth. I will address this more in the coming sections, but these individuals seemed to only become more engrossed in their addiction as their criminal record grew while simultaneously growing their criminal record as a result of their addiction.

Understanding Addiction

In order for us to better understand the holistic effects addiction can have on the person, I found it important to have a background in the biology of addiction. Using information provided by the National Institute on Drug Addiction (NIDA), I've provided a brief overview of how drugs work in the brain and the greater effects they can have on one's behavior. Further, understanding the neurobiology behind addiction can provide readers with scientific evidence that the stigma around drugs being a choice is oftentimes misinformed because of the ways that drugs neurochemically alter the brain. Understanding addiction on this level also directs us towards ways to treat addiction, specifically in the biomedical field.

As described in "Drugs and the Brain" (NIDA, 2022) brain cells, or neurons, are organized into circuits and networks that communicate by sending electrical signals to other neurons in the brain. Different circuits are responsible for performing different functions. In order to send messages, a neuron releases neurotransmitters into the synapse, or gap, between it and the next neuron. The neurotransmitters act as a key to unlock the receptors of the receiving neuron which causes changes in the receiving cell. Drugs impact the communication between cells through neurotransmitters and different drugs affect the cells in different ways. While some have chemical structures similar to a natural neurotransmitter that activate neurons, others can

cause neurons to release substantial amounts of natural neurotransmitters. Both methods significantly disrupt the normal communication between neurons in an abnormal way.

As the NIDA explains, one neurotransmitter of importance regarding drug addiction is dopamine. While yes, dopamine can produce pleasurable sensations, it is primarily seen as a reinforcement tool, getting one to repeat pleasurable activities. Activities such as eating, sex, and socializing are things the brain considers pleasurable, and therefore reinforces us to continue to repeat them in order to increase the odds of pleasure. Reward circuits in the brain (like the basal ganglia) are activated when a person does something pleasurable, and dopamine is transmitted throughout the circuit, reinforcing the activity and ultimately resulting in habit formation. Because drugs produce such large amounts of dopamine, the brain connects drugs and pleasure, while also connecting all the external cues linked to the experience of the drug. As the NIDA put it "Large surges of dopamine 'teach' the brain to seek drugs at the expense of other, healthier goals and activities" (https://nida.nih.gov/publications/drugs-brains-behavior-science-addiction/drugs-brain). Drugs work as the ultimate reward, and they affect multiple parts of the brain including areas associated with judgment and decision making, fear and anxiety, as well as planning and self-control. Judgment, decision making, planning, and self-control are all functions of the prefrontal cortex, which is the last area of the brain to mature, making adolescents particularly vulnerable (Steinberg, 2014).

All of this is important to note because as I mentioned, once the neurobiological underpinnings of addiction are understood, the utter complexities of the link between crime and addiction are brought to light in a way that can only be seen under the surface. For example, it can be a quick response to stigmatize drug users because of their inability to stop despite the

harm it causes them. However, it's necessary to take the biology of the reward circuit into consideration because in the brain of someone with a substance use disorder, not only is the reward of drugs higher than any other stimulus around them, but their neurochemistry can be substantially altered to depend on the substance to which they are addicted. Understanding the biology of addiction can help give reason to the behaviors of individuals with SUDs, which in turn can hopefully begin the process of destigmatizing the individual suffering from addiction and the disease itself. Understanding addiction from a medical or biological perspective and as a disease can also help us to see how failure to do so can lead to not treating an individual's addiction in the proper ways.

The Biopsychosocial Model of Addiction

The biopsychosocial model of addiction aims to combine genetic/biological, psychological, and social factors that contribute to substance use as they are all crucial in assessing prevention and treatment measures. In contrast with the biomedical model that primarily emphasizes biochemistry/genetics as the cause of addiction, the biopsychosocial model accepts and uses evidence that supports the notion that substance use disorders are produced by not only biological and genetic factors, but also one's cognitive, social, and environmental factors. Yet, the science of addiction is complex and still developing as researchers have yet to answer the questions of why some people become addicted to substances and others do not. The biopsychosocial model aims to provide evidence for an answer by analyzing multiple risk factors in one's life while also providing implications for recovery models. By looking into these three areas, the biological factors, the psychological factors, and the social factors of addiction, we can begin to conceptualize addiction as a complex and ecologically ingrained issue rather than just focusing on one of these areas.

In order to understand this model and further dive into the question of why people become addicted, the first step is to understand the biological factors and genetic contributions to substance use disorders. Studies have shown that substance use disorders are to some extent heritable, with ranges from 40-90% (Skewes & Gonzalez, 2013). While alcohol seems to be the substance with the greatest levels of heritability, genetic predispositions do not necessarily influence the substance to which one becomes addicted, but instead it is associated with a general higher likelihood of addictive behavior (Skewes & Gonzalez, 2013). A study by Elam et al. (2021) examined the previously studied genetic link between polygenic risk score (PRS) and aggression in adolescence and its relevance in the diagnosis of SUD later in life. They found that genetic predisposition for aggression (as seen through PRS's) and greater substance use offending in emerging adulthood were directly associated with a greater risk for SUD diagnosis as an adult (Elam et al., 2021). Studies like Elam et al. demonstrate that substance use, to some extent, has a genetic basis and biologically impacts the individual that uses substances. However strong the genetic link for SUD may be, it does not account for the entirety of addiction as many people who develop SUD have no genetic risks associated with substances. Therefore, it is important to address psychosocial models of addiction as they have the potential to add context and environmental impact on the issue of substance use.

There are many psychological and social risk factors that could make one more prone to using substances like risks in childhood, comorbidity with other psychological abnormalities, and personality characteristics like delinquency. As Skewes and Gonzalez (2013) note, many studies have examined risk factors in childhood that may result in the development of substance use in adulthood and among the risks are instances of abuse in childhood as well as deviant behaviors such as rebellion or association with deviant peer groups. Adolescent substance use is

an area of particular concern and interest especially considering that individuals who begin using substances during this vulnerable period are significantly more likely to develop SUD compared to those who did not use substances during adolescence (McCabe et al., 2022). The adolescent brain is heavily social and the dopamine centers perceive social rewards, such as peer gratification, similarly to rewards like food and sex (Steinberg, 2014). This means that when placed in social situations with their peers, adolescents are particularly motivated to pursue behaviors that will gratify and impress those around them in order to fit in, which can have potentially devastating effects when drugs are involved. Further, adolescents with certain personality profiles may be at higher risk for SUD. For example, those with high sensation seeking and low harm avoidance or those with difficult temperaments (e.g. high activity level, low task orientation, social withdrawal) in childhood are predictors of later substance use. Temperament, a psychological factor, can even have impacts on social groups, a social factor, as deviant adolescents are more likely to seek out peer groups with similar characteristics, putting them further at risk of developing SUD (Skewes & Gonzalez, 2013).

In terms of social factors that put one more at risk of addiction, families and peers are two groups that have strong influence on an individual. Using Social Learning Theory, which emphasizes the impact of modeling on behavior, children who observe their parents modeling substance use are more likely to use substances themselves (Simons et al., 2015). Parental attitudes around substance use can also pose a risk factor as parents with positive attitudes around substances are more likely to have children that use substances. Yet, parents are such influential factors in an adolescent's life and can serve as protective factors against substance use when they demonstrate appropriate parental monitoring and proper discipline (Simons et al., 2015). One's environment plays a large role in the development of SUD, and even something as

simple as the availability of substances in one's environment can make adolescents more likely to use them. Social factors like low socioeconomic status are also risk factors for SUD which has broad implications on how to go about treating such a multifaceted problem that seems to be rooted in every aspect of life. This will be addressed in the following sections.

The Biopsychosocial Model of Crime

In the way that addiction can be considered using a biopsychosocial model, so can crime. By looking at both of these subjects through this lens, we can begin to understand why people become addicted to drugs and why people commit crimes, which ultimately leads us to finding the common ground they share. Understanding this common ground is crucial to helping discover the unmet needs of these populations and what the policy implications may be in order to address these needs.

Similar to the biomedical model of understanding addiction, researchers have worked to uncover biological underpinnings that could make one more susceptible to committing crime and considered how these underpinnings interact with one's psychology and social surroundings. As pointed out by de Ruigh et al. (2021), primarily when looking at crime and its roots, the focus is on antisocial behavior and delinquency. They identified subgroups of juvenile offenders using the biopsychosocial model in order to predict risk of reoffending. Because antisocial behavior is often a characteristic associated with crime, researchers reviewed and looked into biological risks associated with that behavior. From previous research as cited by de Ruigh et al. (2021), biomarkers of antisocial behavior include heart rate, cortisol levels, and testosterone levels. All three features served as significant variables in the prediction of juvenile reoffending but were particularly crucial in defining particularly vulnerable subgroups when paired with significant psychosocial risks.

While de Ruigh et al. (2021) shows support for the biomedical model of understanding crime, it emphasizes the importance of the biopsychosocial model as the predictive rate of reoffending was most significant when all variables were considered together. The psychosocial risks examined in the study included psychopathic traits, externalizing behaviors, and environmental factors like coming from a disadvantageous neighborhood or having criminal friends. Researchers discovered that juveniles with the most likelihood of reoffending often had relatively positive environmental circumstances, but high interpersonal psychopathic traits and externalizing behaviors. It is a finding that emphasizes individual differences, therefore it does not diminish the important effect that environmental circumstances can have on the likelihood of committing crime.

A number of theories have been proposed to explain the connection between psychosocial risks and externalizing behaviors (Simons et al., 2016). De Ruigh et al. (2021) notes that their findings on the subgroup most at risk of reoffending were supported by the "social push" hypothesis that posits that the behavior of antisocial children who lack social factors that push them further towards antisocial behavior is explained best by the neurobiological underpinnings that make them more susceptible to antisocial behavior. At the same time, Simons et al. (2016) demonstrates the importance of Social Control theory, which emphasizes the importance of an adolescent's bonds to conventional social institutions like family. Because the primary influence on adolescents' behavior is parents, family serves as a crucial environmental factor when considering how youth make decisions and what values they adopt. When an adolescent's environmental factors like ones' family exhibits poor parental management, it may inhibit the internalization of social norms that could steer adolescents away from risky or antisocial behaviors (Simons et al., 2016). Both of these theories, along with Social

Learning Theory mentioned earlier, aim to explain the commonalities between problem behavior and outcomes, which brings us back to the idea that crime and drug use are rooted in a common set of causes that act upon each other to intensify the other.

Unmet Needs

This common set of causes is where we discover the unmet needs of adolescents at risk of developing substance use disorders and committing crime, but further they shine light on where improvements can be made in order to benefit a disadvantaged population. From my interviews and from my research on these topics, key examples of unmet needs within this population are overall lack of social support, of bonding to conventional norms like school, and of resources to keep one from returning to substances.

The lack of social support has been previously mentioned as a risk factor for both addiction and crime and can be particularly damaging for adolescents as their brains rely heavily on social gratification to reinforce behavior. I saw this exemplified in my interviews on numerous occasions. All of the interviewees I spoke with emphasized the general lack of positive peer influences during a time of heavy drug experimentation. However, the best example of this lack of social support was in my interview with James due to the fact that a large chunk of his adolescence was spent in a juvenile detention center. He began using substances at age 13 and from ages 15 to 18 he reoffended 11 times. Having spent such crucial years of his life in a juvenile detention center, he felt that he couldn't connect the same way with his family, which serves as an important social support system for an adolescent struggling with not only a substance use problem but also a reinstitutionalization problem. Without a strong base in social support, key developmental tasks like desiring and achieving socially responsible behavior and properly achieving emotional independence of parents and other adults are not being

accomplished by the adolescent, which even further disadvantages them in the long run by damaging their ability to maintain and rely on a social support system (Havighurst, 1952). Spending such a large portion of his adolescent years in juvenile detention seemed to be significantly damaging to the relationships he was able to form with his family but also with his peers considering that the majority of his friends in juvenile detention were also using substances like him. In this example, a proper social support system in the family could have been largely beneficial for James as it could have served as a protective factor against reoffending and further substance use (Wills & Cleary, 1996).

The unmet need of a lack of bonding to conventional norms was also seen in my interviews as well as supported by research. As supported by research, especially in theories such as that of Social Control, bonds to conventional norms are important in the development of the adolescent as they can serve as protective factors against risky behaviors (Simons et al., 2016). For the individuals I interviewed, there was a consensus among them of the overall lack of bonds to such conventions. School didn't seem to take priority, family ties for some were strained, and only Sam mentioned having come from a religious background. The lack of participation in education is one aspect I found across all the interviews with only Sam attending college during his young adulthood and subsequently having to drop out because of his substance use and criminal record. Wills, Vaccaro, and McNamara (1992) emphasize academic competence and school as a buffering effect against substance use in adolescence, and a lack of bonding to such a steadfast convention like school can be damaging to an adolescent. Additionally, Hawkins, Catalano & Miller (1992) point out that academic (i.e. intelligence) failure, school failure, and low commitment to school are all risk factors in adolescence that are associated with drug use. Not only do schools provide adolescents with an education that can set them up for future

successes, but schools are a social playground of experiences with adults outside of the family and peer group relations. Most but not all of the interviewees completed high school, but it is not necessarily the completion of high school that matters in this case – instead it's the way that a young person can connect and bond with a convention that makes them feel a part of their society and community, which I felt the interviewees did not possess in their academic experiences.

The last unmet need that connected across my interviews was the recovery resources provided to keep the individuals away from substances and into recovery. One quote by William I feel completely exemplifies this unmet need was when he told me that he "knew how to stop but didn't know how to not start." It seems as if jails and prison systems did a perfectly fine job of stopping the individual from using while incarcerated, but without proper recovery tools or resources post release, each interviewee expressed to me an irresistible urge and inevitable return to substances. For all of these individuals, it seemed to be a revolving door of serving time, getting released, committing crime and using substances, and returning to jail or prison. When asked about the recovery resources that were provided to them while incarcerated, Sam mentioned a few group therapy meetings, James spoke about a helpful mentor he was given in a juvenile detention center, and Matt mentioned court mandated drug testing while on probation. Yet overall, the consensus was that there were not many resources provided for people with SUDs, and especially if the individual was not incarcerated for drug-related crimes. Through these interviews, I discovered the harsh reality that one of the largest unmet needs among this population was simply the access to resources and opportunities for recovery during and immediately after incarceration. To reiterate what William said, it wasn't necessarily the stopping of drug use that was difficult (although it was). Instead, it was the not starting that caused the

individuals trouble once they were given the opportunity to use again upon release. With proper resources within the prison systems, the "not starting" aspect could potentially diminish reoffending, overdosing, and recidivism, which leads us to asking what those resources may be.

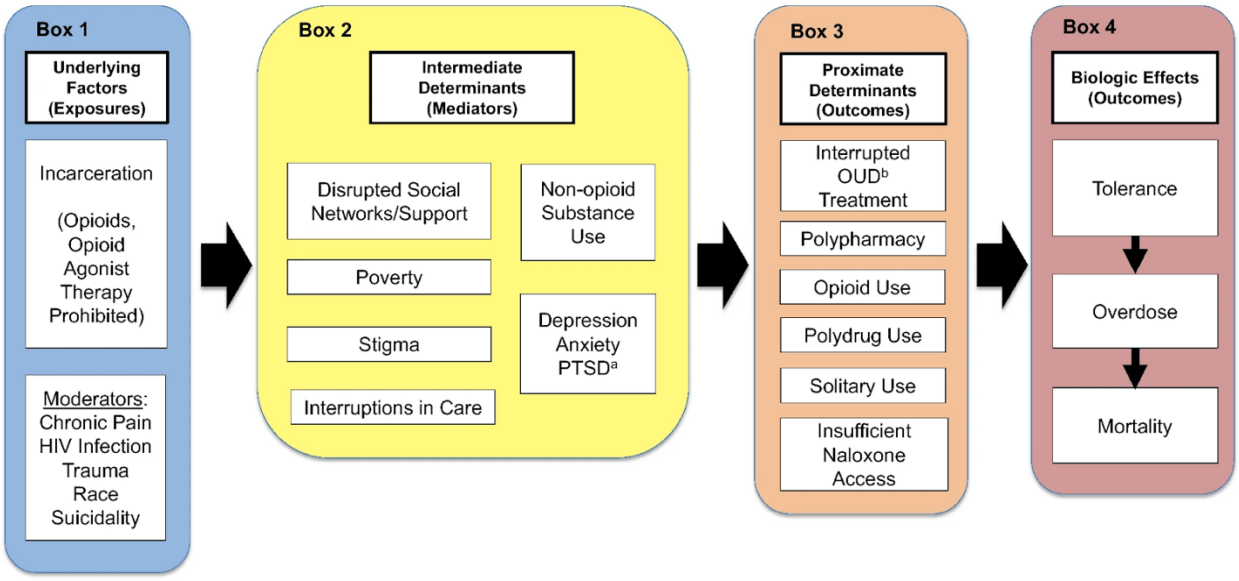
Rehabilitation in Prison

As seen in Chapter 1, the "tough on crime" policies put in place in the 80's and 90's significantly impacted the nature of prison care compared to the 70's. Under Nixon, the administration set aside more funds for rehabilitation efforts rather than incarceration efforts, yet that number quickly and significantly shifted under Reagan (Lopez, 2016). There are four main goals of prison: retribution, deterrence, incapacitation, and rehabilitation, and the "law and order" cries tend to prioritize the retribution and incapacitation categories. Yet it would seem that the final pillar is often ignored, especially when it comes to rehabilitating incarcerated individuals with SUD which is alarming considering that 53% of federal prisoners are incarcerated on drug-related charges (Wakeman & Rich, 2015). Not only is rehabilitating prisoners suffering from addiction a responsibility of prisons, but it has consequences when not achieved. Adding up health care, productivity loss, crime, incarceration, and drug enforcement, the estimated societal cost of untreated drug and alcohol use is 366 billion dollars per year which comes as a significant financial burden on our society (Wakeman & Rich, 2015). The lack of rehabilitation impacts the prisoner as well as their society, so it is important that prisons are provided with the necessary resources to make that happen.

It is important to note that prisons have a distinct responsibility to provide adequate care to incarcerated individuals as supported by the Supreme Court. In 1976, the Supreme Court ruled in *Estelle vs. Gamble* that lack of adequate healthcare to those incarcerated was cruel and unusual punishment, therefore requiring correctional facilities to provide the community

standard of care (Allen et al., 2010). A case like this sets a legislative and federal precedent that should hold correctional facilities accountable for the health and wellbeing of their prisoners while simultaneously prioritizing the goal of rehabilitation rather than just punishment. However, this isn't necessarily being provided in our current system especially when taking individuals suffering from SUD into consideration. One way we see the inadequacies in rehabilitation is through overdose rates and recidivism rates after release.

The current leading cause of death among people released from prison is post-release opioid related overdose (Joudrey et al., 2019). Between 2000 and 2014, drug overdose deaths increased at a rate of 137% and opioid specific related overdose rates increased 200% (Joudrey et al., 2019). Similar to the ways in which I have laid out a biopsychosocial model to understand addiction and crime, Joudrey et al. (2019) lays out the framework for the Post-Release Opioid-Related Overdose Risk Model which assesses the many biological, social, and environmental risk factors that contribute to this significant rate of overdoses in people released from jail or prison.



a Post-traumatic stress disorder
b Opioid use disorder

I find this model to be particularly helpful because it takes into consideration the numerous spheres of influence that act upon incarcerated individuals with SUD and the risk factors they face associated with overdose post-release. Because my thesis covers some of the mediating factors, I would like to dive further into the biological effect focused on in the model. Once individuals begin using opioids, they build up a tolerance through repeated use and higher dosage to obtain the same euphoric effects. Yet, any abstinence from the substance can cause a quick drop in tolerance, meaning that if individuals stop using while incarcerated then after release, begin using the same amount as before the period of abstinence, they are much more likely to overdose. Therefore, previously incarcerated individuals are at a higher risk of overdose considering their drop in tolerance while incarcerated. As I will discuss later, access to medically assisted treatment (MAT) can prevent this from happening and lower opioid-overdose mortality rates after release (Joudrey et al., 2019). The Opioid-Related Overdose Risk Model makes clear where the risks for this population exist and provides information as to what can be improved to minimize such factors.

The interviews I conducted provided a personal lens into seeing the faulty rehabilitation process, which includes experiences of recidivism and overdose. Another way rehabilitation is not being achieved can be seen in my interviews. In terms of recidivism, I asked each of my interviewees about their arrest history and their insights into why they kept returning to jail or prison after release. Each of them had unique experiences after release, but some similarities stood out to me like how they fell back into the same crowd, or didn't have help for housing or job assistance, leading them right back into their old habits of using and committing crime. When I asked James this question, he talked about the requirements he was expected to meet while on probation and how he felt they were unrealistic and set for failure. Matt relayed a

similar story to me when talking about a color-coded system while in court ordered probation where each person was assigned a color based on their subjective level of risk and were called by color to be randomly drug tested. He recounted how he couldn't manage to stay clean despite his random drug tests, but with 7 years of time over his head, he chose to check himself into a treatment facility to decrease the amount of time he would have to serve. While he talked to me about how he completed the program and passed multiple drug tests, he was really doing it to get his probation officer "off his back" and relapsed not too long after once he started working at a bar. Sam also spoke about how jail forced him to get clean, but every time he left, he picked up using where he left off and ended up right back from where he came. Out of the four individuals I interviewed, only Matt spoke to me about his overdose which happened while he was on felony probation. Thankfully, he was revived with Narcan, but it goes to show the higher risk of overdose people just released from prison face when they relapse.

The interviewees each shared with me similar stories of feeling underserved by the jails and prisons in which they were incarcerated, especially considering that some of the few resources provided to help with addiction were only given to individuals brought in on drug charges. James who spent a majority of his adolescent years in juvenile detention centers received no support or treatment for his addiction, stating that, "In juvie, addiction problems didn't seem to be an issue to them" despite the fact that many of his peers in juvenile detention centers with him were struggling with addiction with no resources to "help us understand what was going on." In the early 90's, William recounted his time in a men's penitentiary for drug related charges and how the only treatment that was offered to them was one Narcotics Anonymous meeting per week. He went on to say that, "To not offer [treatment programs] is not humane" and himself advocated for a wider implementation of 12-step and other educational

programs to address not only the substance use problem, but the mental health and trauma underpinnings of one's life. Both (Matt and James mentioned detox services that were offered to inmates suffering from opioid withdrawal, but they each emphasized the importance of pairing detox with a psychological service as well as a social support system to optimize recovery. Solutions like these will be further discussed in Chapter 3.

In terms of what services are readily available and already in use by incarcerated individuals, it is difficult to make overarching generalizations considering that many programs vary by state and also differ depending on whether it is a jail or a prison. In 2009, only 5% of prisons and 34% of jails were offering detoxification services and only between 1-2% of prisoners were receiving medical treatment for their SUD (Wakeman & Rich, 2015).

Through these statistics and an analysis of what is currently available to incarcerated individuals to help them recover from SUD, it is clear that they are not receiving adequate care. If prisons are legally obligated to rehabilitate their prisoners, something must change in the system to address the lack of recovery resources available to them. While there has been change in more recent years to incorporate more evidence-based treatments in prisons and increase prisoner's access to group therapy and other models of therapy, there is nothing (that I could find in my research) that is universally available to prisoners who have SUD. However, not only are their recovery needs not being addressed, the needs that could have potentially led them into the system in the first place are being ignored as well, leading us to understand that this problem goes past the present. Addressing the needs of these individuals requires a deep analysis and understanding of their unmet needs in childhood, adolescence, and adulthood that disproportionately disadvantage them and make them more susceptible to using drugs and committing crime. Yes, it is crucial we address the needs of prisoners while they are in prisons –

we do this by assessing evidence-based recovery resources available to them and the ways in which they can be more widely implemented.

Yet the other component of this is how we can minimize these individual's susceptibility to a SUD and incarceration through an analysis of their environment and looking at ways in which we can enhance aspects like a social support system or bonding to conventions as resilience factors. Thus, it's important we view treatment holistically. To really treat a person for an addiction or change their criminal behavior, the whole person must be taken into consideration – biologically, psychologically, and socially – as that is how recovery can really be achieved. It is a model that does not prioritize ease as it forces us to address the individual needs of this population, however when these individuals are viewed holistically, not only is the hope that they will benefit, but also that society will benefit. In Chapter 3, I will discuss two fields of thought around solving the puzzle of recovery and addressing how each can work to address these unmet needs. This discussion is obviously not exhaustive. With a problem at both the systemic and individual levels, it is almost impossible to assert one field of thought that will solve all of the problems, but at least here, I hope to begin this discussion as I believe any steps in this direction are good ones.

Chapter 3: Assessment of Solutions

Introduction

In this final chapter, I want to propose possible solutions to the historically grounded and socially complicated problems of addiction and crime. Chapter 2 made clear the cracks in the system, and Chapter 3 aims to address how to better fix them. The two solutions proposed are those within the criminal justice system and harm reduction. Such solutions are generally opposed to each other considering that the criminal justice system prioritizes punishment and harm reduction which prioritizes the individual's needs, but in order to discuss how to better aid this population, resolutions can be found in both fields of thought (Chandler et al. 2009). Both solutions are evidence-based approaches that have already resulted in public policy responses, but by diving into elements of each solution, an answer to how prison systems can better aid people with SUD begins to be revealed. Yet large issues like stigma and flaws in our criminal justice system still exist, and while it's difficult to enact solutions for such significant sociohistocial issues, it's crucial to address them as progress can still be made.

Criminal Justice Solutions

If we want to address the question of how prison systems can better aid people with SUD, the answer will come in the form of assessing possible solutions that can be directly implemented in our prisons. These solutions can come in many forms – some already exist, many can be improved upon, and some would need to be introduced into the systems. If implemented properly in the criminal justice system, these strategies could not only help people recover from addiction, but also lower recidivism rates as well as criminal behavior. I will be assessing 3 solutions that can be implemented in the criminal justice system that are evidence-based and cost-effective and what I believe to be viable solutions. The first solution is

Medication-Assisted Treatment (MAT), like the use of methadone in prisons to help those suffering from Opioid Use Disorder. The second is drug court, an alternative to incarceration and a court mandated treatment program. The third is community-based therapy which can include self-help programs like Narcotics and Alcoholics Anonymous and programs that emphasize a continuation of care.

To begin, MAT is used to treat SUD and is the use of medication in combination with therapeutic services aimed at helping an individual recover from addiction and prevent overdose. Common medications used in MAT are methadone and buprenorphine. Both are opioids that work on the same receptors as heroin and other opioids, yet these medications block the euphoric effects associated with other opioids while also preventing withdrawal symptoms. According to Substance Abuse and Mental Health Services Administration (SAMHSA, 2021), clinical evidence supports MAT's effectiveness in treating addiction, and its treatment approach has been shown to increase retention in recovery, improve patient survival, decrease illicit opioid use and other criminal activity, increase employment among patients, and improve birth outcomes for pregnant women with SUD.

In terms of implementing MAT in incarcerated populations, Gordon et al. (2008) conducted a randomized controlled trial examining the effectiveness of methadone treatment initiated prior to or right after release at 6 months post-release in a Baltimore prison. Out of the four subgroups – counseling only, counseling + passive referral to treatment after release, counseling + transfer to methadone post release, and counseling + methadone while in prison – counseling + methadone participants were significantly more likely to be retained in treatment and significantly less likely to have a positive drug test. Further, counseling + methadone participants self-reported significantly less criminal activity and days using heroin, signaling that

this intervention technique can be successful in helping incarcerated individuals who enter the prison systems with heroin addictions increase treatment entry and reduce heroin use 6 months after release. Another study by Brinkley-Rubinstein et al. (2018) also looked into the effectiveness of methadone maintenance treatment (MMT) in incarcerated populations, and specifically at methadone continuation versus forced withdrawal when incarcerated. Their findings at 12 months post-release demonstrated that those receiving MMT during incarceration were more likely to engage in treatment after being released compared to individuals with SUD who did not receive MMT. These individuals also reported less heroin use and lower rates of overdose after release. Both of these studies provide support for the implementation of MAT/MMT prior to release paired with community treatment after release as effective ways to lower overdose rates after release as well as keep individuals in treatment and reduce heroin use.

In my interviews, only Matt reported any sort of MAT. After relapsing twice in one weekend, his doctor prescribed him suboxone, another form of MAT, and Matt gave himself a goal to stay on it for 6 months. However, he spoke to me about a faulty relationship with his prescriber who pushed him to stay on it for longer than Matt felt comfortable. With his therapist, they decided to send him to an addiction medicine doctor who works to get people off suboxone, and within 3 weeks, Matt had stopped. When I asked Matt about this experience and the role he believes MAT should play in treatment, he remained an advocate for it despite his less than perfect experience. “If used in the right manner, I think it can be a great recovery tool, but for some it can be a lifetime bandaid. To me, suboxone is not a cure; counseling and suboxone can be.” Matt now works as residential aid in a treatment center for people with addiction where he himself is responsible for managing medicine for residents. With that in mind, his quote follows

the research on MAT as it is most effective when paired with counseling and community integration after release from prison.

The second solution within the criminal justice system that can work to help incarcerated individuals with SUD recover is drug court. According to the U.S. Department of Health and Human Services (2018), drug courts are an alternative to incarceration that have the goal of helping participants recover from SUD with an aim of reducing future criminal activity. HHS states that "drug courts reduce the burden and costs of repeatedly processing low‑level, non‑violent offenders through the nation's courts, jails, and prisons while providing offenders an opportunity to receive treatment and education" (https://www.hhs.gov/opioids/treatment/drug-courts/index.html#:%7E:text=As%20an%20)which ideally addresses the main problems that the U.S. is facing when it comes to its relationship with substances and incarceration. The first drug court was created in 1989, likely as a response to the growing number of drug offenders entering into the prison system, and as of 2021, there are more than 3,500 in existence (Chandler et al., 2009; Office of Justice Programs, 2022). Drug courts are a cost effective strategy that can produce significant savings per client ranging from $3,000 to $13,000 reflected in reduced prison costs, reduced victimization, and reduced recidivism and court proceedings (Commonwealth of Massachusetts, 2021). Drug courts provide nonviolent drug offenders with an individualized level of care while also connecting them to community-based resources in order to address their needs. Upon successful graduation, participants have the potential for a reduced or eliminated jail sentence and ultimately attempt to treat the issue of SUD holistically and individually (Sheeran, Knoche, & Freiburger, 2021).

The effectiveness of drug courts is debated, but the general consensus is that drug court completion levels are overall higher than other criminal justice interventions, such as probation

(Sheeran et al, 2021). However, Mitchell et al. (2012) notes that the weakest evaluations of drug courts come from the most methodologically rigorous studies. In their own study however, they did find a mean effect of over 150 drug courts to reduce recidivism by 12%, from 50% to 38%. This variation in effectiveness can lead one to ask what makes a drug court effective and who can benefit most from its programming. An evaluation of the Milwaukee County Adult Drug Treatment Court (MCADTC) in Wisconsin by Sheeran, Knoche, and Freiburger (2021) found that factors like age at intake, race and ethnicity, primary drug of choice, prior convictions, and the use of custody sanctions were all significantly associated with an individual's likeliness of graduating drug court. To go more into detail here, they found that older participants were more likely to graduate, along with an interaction between race and drug of choice pointing to non-Hispanic whites who use heroin to be most likely to graduate. Some of this has to do with the programming, but some ultimately has to do with the judges and staff that work alongside them.

The punishment, reward, and everything in between is supplied by the drug court judge, and the court staff, defense attorneys, and others ideally work alongside the individual to serve as a therapeutic team (Perritano, 2020). When the level of care is individualized, conducting meta-analysis studies is difficult because each drug court varies so significantly from the next. Some courts might be extremely effective at lowering recidivism and having high graduation rates, but in my research, I've found it difficult to decipher whether the reasons for this success are the actual drug court itself as a national program or if the successes function more at a court-by-court basis.

When personally trying to understand the, at times, ineffectiveness of drug court and overall wide range of graduation rates, I think about the interviews I conducted and the

interviewees' perception of court mandated treatment like drug court. While none of these men were ever specifically drug court participants, at one time or another, they were under court-mandated probation with a parole officer who was in charge of their drug tests, following up with their treatment and job plans, etc. When I asked about Matt's experience with his parole officer, he expressed to me how some parole officers were harsher than others, some more lenient, but it seemed like none were ever the driving force when it came to recovery. I asked him what clicked for him when it came to treatment and what factors brought him to recovery and he responded, "It boiled down to am I willing?" For James, it was the birth of his son, and for Sam it was the need for a bed that only treatment was able to provide. Sam said to me "It isn't about how you get to treatment, it's how you leave," and while I find his quote to be a powerful testament to the importance of treatment, I do think the ways in which one is directed to treatment are crucial in how we address recovery in and out of the prison system. For these men, it wasn't the recovery resources (or lack thereof) provided to them that triaged them into recovery – instead, it was either their willingness and readiness to enter into recovery or out of necessity. Those are elements that can't be forced, provided, or created by policy and structural change, and it's crucial to address when we consider how to help people recover from drug addiction.

The last solution that can be implemented within our criminal justice system to better aid people with SUD is community-based treatment programs. These programs include a variety of approaches – some are in place of incarceration, some help incarcerated people reintegrate into the community, and some are implemented within prisons. One of the most common forms of community-based treatment are therapeutic communities (TCs) which are long-term residential treatment programs for people with SUD (NIDA, 2020). TCs were originally created out of the

self-help movement, fostering many of the same guiding principles as Alcoholics/Narcotics Anonymous. TCs use a recovery oriented model that focuses on the whole person and lifestyle changes rather than just promoting abstinence, which involves a change in behavior, obtaining a greater sense of social responsibility, and helping their peers in their own recovery process. Within prisons, TCs serve the incarcerated population with SUD by offering counseling with an emphasis on Cognitive Behavioral Therapy (CBT), group therapy, and community reintegration programming. The NIH cites that TCs in prisons have the most success when inmates participate in long term programming, during the transition between incarceration and community re-entry, and continuing care after release from incarceration (NIDA, 2020). For example, one study by Pendergast et al. (2004) found that 5 years post release, recidivism rates were about 7% lower in the randomly assigned TC group compared to the control group but the individuals who participated in aftercare programs showed lower rates of reincarnation and higher rates of employment after release. In contrast, Grommon, Davidson, and Bynum (2013) analyzed multimodal community-based reentry programs and found that despite their intense, individualized programming, relapse and recidivism rates increased and there was no evidence to support its effectiveness. Overall, research has shown support for TCs effectiveness, but the duration of programming, the time of treatment implementation, and the continuation of care post-release were all significant factors in its effectiveness (NIH, 2020).

Overall, implementing change within the criminal justice system has shown to be a challenge, yet it's clear that punishment alone is ineffective. Chandler, Fletcher, and Volkow (2009) note that this challenge sprouts from the collaboration of two disparate cultures: "the criminal justice system organized to punish the offender and protect society and the drug abuse treatment systems organized to help the addicted individual" (p. 188). That being said, prisons

still have a responsibility to rehabilitate the individuals who enter into the system, which applies to incarcerated individuals with SUD. As I have mentioned before, treating individuals with SUD involves their own commitment to treatment, and feeling forced or overly-supervised within treatment programming could be damaging to the recovery process. The implementation of more evidence-based approaches and further research into effective programming could greatly benefit the population of incarcerated individuals with SUD.

Further, when addressing the issues of crime and addiction through a biopsychosocial lens, solutions proposed within the criminal justice framework can be successfully implemented and integrated to target all of the model's components. For example, it is likely that effective and successful drug courts are working at a biological level by providing medical care when needed, the psychological level by offering therapeutic support, and the social level with community integration and support. All of the treatment methods I have proposed should take the biopsychosocial model into consideration when evaluating how to treat individuals with SUD because rehabilitation becomes a more holistic and thus a more humanistic solution.

Harm Reduction

The second solution I wanted to look at is that of harm-reduction techniques to be implemented as public health initiatives to lower rates of substance use and overdose deaths. Harm reduction programs and public health policies are aimed at reducing the social and physical harms associated with using drugs. As Hunt et al. (2003) lays out, harm reduction distinguishes a variety of harms – health, social, and economic – at the individual, community, and societal levels, explaining the breadth of strategies involved.

The Canadian Centre on Substance Abuse (CCSA) offers some guiding principles that harm reduction should follow, the first being pragmatism. Harm reduction does not aim to stop

all drug use as this seems unrealistic, yet it also acknowledges that there are risks associated with using drugs that must be minimized. I find the emphasis on pragmatism crucial in addressing the issue of drug addiction as it considers the lived experience of users. Approaching the issue of drug addiction with a 'war on drugs' mindset of terminating all drug use is simply unlikely due to its widespread commonality in the human experience. From a biological perspective, drugs do provide users with a euphoric experience, but can also have high potential for abuse, which is why a pragmatic approach is helpful. Harm reduction takes into account an understanding of substances and an acknowledgment of the potential harms they carry as well as the features that make them attractive. The CCSA also emphasizes that harm reduction has humanistic values which I believe are crucial in actually helping people. (Hunt et al., 2003). No moral judgment should be made to support or condemn drug use, and instead, harm reduction emphasizes that human rights and dignity should be respected. Although stigma has been ingrained in our perception of drug users for decades, it's important to "unlearn" this notion to morally judge those who use drugs. I've found my conversations with individuals in recovery central to my appreciation of this necessity. Drugs are mind-altering substances that have the ability to make individuals act out of character, so instead of casting judgment their way, it's important we recognize their human dignity. In doing so, our perceptions on addressing their needs can change – similarly to the ways in which mine did when I first started learning about this topic.

MAT is a common harm reduction technique that, as mentioned before, is being implemented more in our current system. MAT is so important because it does look at drug addiction as a biopsychosocial development and while specifically targeting the biological side of the model, MAT emphasizes the conjunction of psychological therapy and social support while approaching addiction with a humanistic perspective. The first intervention I'd like to

discuss in more detail is syringe exchange services (SEPs), also known as syringe service programs (SSPs) or needle exchange programs (NEPs). According to the CDC, SEPs are community-based programs that provide access to clean and sterile syringes, facilitate a safe disposal of used syringes, and link individuals to important services like SUD treatment, screening for STDs, education about safe consumption and overdose prevention, and Naloxone distribution (CDC, 2019). One of the main goals of SSPs is to minimize bloodborne diseases like HIV and Hepatitis B that spread as a result of individuals sharing syringes. In terms of reducing that harm associated with using drugs, research evidence supports the effectiveness of SSPs. In an international review of SSPs, Wodak, and Cooney (2006) found that SSPs are substantially effective in lowering rates of HIV among drug users as well as serve as cost-effective and safe solutions to reduce the harm of injecting drugs. In addition, Hagan et al. (2000) found evidence that new users of SSPs were five times more likely to enter into treatment than those who did not use SSPs, signifying not only that SSPs have significant public health benefits of minimizing the transmission of bloodborne illnesses, but are also an effective way to link community members who use substances to treatment services and reduce overall use.

One of the obstacles to providing access to more SSPs in communities across America are the myths associated with their implementation. Some of these myths include the idea that SSPs increase drug use frequency and prevalence and increase the amount of drug paraphernalia on the street. However, Hunt et al. (2003) cites a multitude of articles that do not support these claims and after investigation, these claims have been judged unfounded. In addition, the CDC emphasizes the cost-effectiveness of SSP as the estimated lifetime cost of treating one individual with HIV exceeds $450,000 and U.S. hospitalizations related to substance use infections cost

over $700 million each year (CDC, 2019). SSPs are effective in reducing transmitted diseases through syringes and directing individuals to treatment resources in order to help them recover.

Another harm reduction technique that can reduce the risk of overdose that is associated with using opioids is the distribution of naloxone. As explained by the NIDA (2020), Naloxone is an opioid receptor antagonist, meaning that it binds to opioid receptors, kicking off the opioid and blocking its effects. Giving naloxone to someone who has overdosed is a rapid reversal of the effects of opioid drugs and can save the life of an individual who has overdosed by restoring his/her respiration to normal. An important thing to note about naloxone is that anyone can save a life with naloxone – family, friends, and bystanders. The widespread distribution among those who use substances as well as their community members is a crucial step in lowering overdose rates and keeping people alive. There is no evidence to support any significant adverse effects of naloxone, and although it only works to reverse an opioid overdose, it is safe and causes no harm if no opioids are present (NIDA, 2020).

The NIDA cites multiple studies that support the effectiveness of naloxone distribution programs. The first is a study by Walley et al. (2013) that found these programs effective in reducing opioid overdose deaths by 11% without increasing opioid use. Another study by McClellan et al. (2018) found statistical models that 21% of opioid overdose deaths could be prevented with higher rates of naloxone distribution among emergency personnel and laypersons, with a heavy emphasis on the distribution to more laypersons. Lastly, in states that enacted naloxone access laws, opioid overdose deaths decreased by an average of 14% (Townsend, 2020). What I find most impactful about the impact of the widespread distribution of naloxone is its effectiveness in keeping individuals alive. While naloxone may not be responsible for treating an individual's SUD, the use of it in the case of overdose is what keeps people alive in order to

hopefully direct them towards recovery. An individual who has died of an overdose cannot recover, and while overdose rates are a national problem, these are family members, friends, and community members that are dying when proper intervention techniques are not implemented.

When assessing the implementation of harm reduction policies in the US, it's important to understand why these solutions are effective and how they can help people with SUD. Because of their humanistic and pragmatic values, harm reduction techniques aren't focused on forcing people to stop using drugs – instead they accept that drugs are addictive substances and just stopping without relapses isn't likely. Therefore, the solutions proposed by harm reduction techniques focus on treating the person rather than the addiction. The goal and hope is that the individuals who use harm reduction techniques will be directed towards recovery and in turn remain out of the criminal justice system and within society. But treating the person means meeting them where they are in their recovery process, and not forcing recovery when they may not be ready for it. Harm reduction may not treat the addiction directly, but it does directly affect the person who uses substances to ideally treat their addiction indirectly.

What's Missing

Although I've analyzed a wide variety of solutions and their effectiveness in reducing drug use, recidivism rates, and overdose, it's important to understand that there is no one solution that will address the entire problem. I'd first like to go back to the takeaways from my interviews and literature review on this population's unmet needs and discuss if the solutions listed above can work to meet these needs, and if not, what else can be done. Firstly, social support plays a crucial role in the development of the adolescent and without the proper support provided by peer groups and family, they are more at risk of externalizing behaviors like substance use and

delinquency (Wills & Cleary, 1996). The solution here lies more in a prevention technique rather than an intervention technique like in the criminal justice system or through harm reduction.

Providing the proper social support to an adolescent looks like setting good examples, parental guidance like setting limits and restrictions when needed, and monitoring an adolescent's behavior and actions (Steinberg, 2014). But outside of adolescence, the community can provide social support to help reintegrate an individual back into society. Considering that upon release, recently incarcerated individuals are sent right back into their same communities with the same social system, it can sometimes result in recidivism or overdose, which pose as large threats to solving this problem. Thus, implementing a proper support network of people to help these individuals reintegrate through peer-support groups, a job network, supportive family members, and positive role models are all ways in which this need no longer has to go unmet.

The second unmet need of bonding to conventions can also be addressed through both prevention and intervention. In terms of prevention, the focus should be on schools and education. School is a crucial convention where adolescents can find much value later on in their lives and fostering a healthy relationship with school is critical to an adolescent's development (Hawkins, Catalano, & Miller (1992). For adolescents already experimenting with substances in their school years, schools have a responsibility to their students to provide them with resources and guidance. How to recognize problem behaviors should be taught widespread and proper intervention techniques should be implemented when necessary. As I've mentioned, school can also provide individuals with a network of jobs and opportunities, so it's important that the solution to this unmet need addresses the many positive elements that it can provide. In terms of intervention, it is still important for people with SUD to bond to conventional institutions. For example, having a job is a convention that can prove to be helpful to an individual after release

from prison. Access to proper education and career-oriented resources should be more widely provided amongst the incarcerated population. On that note, previously incarcerated individuals are at a significant disadvantage when it comes to finding jobs. Many job applications ask about previous felonies and the stigma around incarceration can severely impact these individuals' access to jobs. While these are more structural issues, they all file into why recently incarcerated individuals are at such a disadvantage in our system.

The third unmet need to be addressed is that of resources. While resources is a broad term to describe what is (or isn't) provided to incarcerated individuals to help them recover from SUD, it's essential to discuss how they can be better implemented to serve this population. Many of the solutions discussed above are ways in which more resources can be provided to better aid incarcerated people with SUD and there are a multitude more that I do not have time in my thesis to address. These resources come in many forms and can be implemented in a variety of ways. For example, MAT is a harm reduction resource that can be implemented in the criminal justice system as an evidence-based treatment shown to be effective in helping people recover from SUD. It's a resource that I believe should be more widely implemented across more correctional facilities. Other resources include (but are not limited to) more widespread access to affordable housing, harm reduction resources like overdose prevention and reversal education, more help reintegrating into the community with finding jobs, and psychological aid while incarcerated.

While these prevention and reactive resources can better aid this population, proactive resources can also be investigated, especially when considering the biopsychosocial models of addiction and crime. If adolescence is an age of particular interest when it comes to the introduction to substances and criminal behavior, we must hone in on this age group with support to keep them out of these situations. For example, it's important that families, schools, and

community mentors can recognize problem behavior and intervention techniques. Using Bronfenbrenner's Ecological Systems Theory, individuals are placed in the middle of their own system, and everything around them has influence on their lives (Bronfenbrenner, 2005). Family, friends, school, sports, religion, culture, and more all have their own spheres of influence on an adolescent's life, and if adolescents are in need of more resources to combat addiction and crime, each of these spheres of influence plays a part in their development and thus their wellbeing.

There are still pieces that play into the intersection of crime and addiction, one of the most pressing being the stigma associated with these fields. Incarcerated individuals with SUD are a highly stigmatized and discriminated against group, and it's been growing for decades, as learned in Chapter 1. Stigma can stand as a huge obstacle for people with SUD when it comes to getting treatment, and such high levels of stigma can often be associated with internalizing stigma and poor psychological functioning (NIDH, 2022; Joudrey et al., 2019). It's especially crucial that health professionals recognize the harm of stigma and aim to eliminate it considering their role in an individual's treatment process. Further, multiple persons (e.g., caregivers, officers, prison staff) interacting with incarcerated individuals with SUD have responsibilities to decrease stigma and this can be done by using person first and evidence-based language (NIDH, 2022).

Additionally, the bigger question to be addressed is that of decriminalization. If alternatives to incarceration have been supported by evidence and have demonstrated cost-effectiveness, then a reevaluation of our criminal justice system should take place. The decriminalization of substances could decrease criminal justice exposure and decrease stigma, which could finally be a step towards ending the putative War on Drugs (Joudrey et al., 2019). While this would require governmental and social support, America is already seeing steps towards the decriminalization of marijuana, so hopefully if such a push proves to be successful,

more legislative and social changes around decriminalization of other substances would follow. Answering the question of how prison systems can better aid people with SUD is complicated, and it will require a combination of evidence-based approaches, governmental efforts, and societal involvement. But there are ways this population can be better helped, within and outside of the prison system. Some of these solutions involve prevention techniques that target adolescents and some involve intervention strategies for those already impacted. Regardless of the strategy, it's critical to address the issue of addiction holistically and prioritize the needs of the individual, as such an approach not only helps individuals recover, but it changes what it means to recover.

Conclusion

After a year of researching how prison systems can better aid people with SUD, I've found the solution to be quite complicated. Similarly to any sort of treatment, whether it be psychological, biological, or both, no one solution can work for everyone. Especially when it comes to addiction, treatment looks different to every individual, but it's crucial we take this individual level into consideration when asserting what needs to change. That's why I believe providing a larger quantity of treatment and higher quality of treatment in prison systems is how people suffering from addiction can be better aided. For example, after an initial screening upon entry into the criminal justice system, MAT should be offered (and not forced) to those suffering from an opioid addiction. Further, there should be a systematic review of drug courts and their programming to uncover which courts have the most success in terms of recovery and recidivism and why. Once we can look at those exemplary courts and why they stand out, the federal government should assert a higher level of jurisdiction over them to provide more consistent care and treatment to these prisoners. In terms of providing resources, incarcerated individuals should be provided with a wider variety of assistance when it comes to finding jobs after release, more direction towards housing after release, and help building a network to assist with recovery and rehabilitation.

As I've established, prison systems not only have a responsibility to rehabilitate their prisoners but are also at a unique position to provide treatment to those who enter into the systems with a preexisting SUD. However, this responsibility does not fall solely on prison systems. While they could play a potentially integral part in the recovery process and also help to lower overdose and recidivism rates after release, systemic change should simultaneously be implemented to further aid these individuals outside of the prison system. That's where harm

reduction comes in. After working for a non-profit that was responsible for the implementation of many harm reduction techniques in the community, I saw firsthand its effects. While harm reduction may seem like a small-scale change, it's an important change that saves lives and should be supported and made more widely available. Legislation regarding naloxone distribution, SSPs, and many other programs should be heavily considered if this country wants to end the opioid epidemic. Even further than that, legislation regarding substances should be reconsidered in light of the damages produced by the War on Drugs and mass incarceration's impact on our prison system and minority populations.

Overall, I believe stigma serves as one of the biggest obstacles to implementing the necessary change we need in our system. As discussed in the first chapter, stigma has been growing for decades, and this isn't easy to overcome. I believe one of the most helpful ways to overcome this stigma, however, is education. Rewriting the past is hard, but once the public begins to see that it's not as simple as "say no to drugs" and consider addiction to be the brain-altering disease that it is, public health around the topic will hopefully shift with the public. Not only is generic education about drugs, addiction, and its consequences important, but education about the experiences of those addicted and incarcerated is crucial in addressing stigma. The conversations I've had with previously incarcerated individuals who suffered from SUD were what began to shift my perspective to one of acceptance rather than judgment. They're human beings and should be treated with dignity regardless of whether they choose to use substances or not. Learning about their lived experiences, hardships, and successes humanized the issue of drug addiction for me, and I found it so important in reducing my own stigma.

Devastatingly, people are dying every day as a result of our country's inaction towards and reluctance to appropriately address the drug epidemic in the United States. As I have already articulated, the solution is not simple and involves many aspects of our lives – changes in our prison systems, changes in our legislation, changes in our own perceptions. To really address such an issue, we must implement more evidence-based approaches for addiction recovery while also looking introspectively to shift the way we see addiction and those who suffer from it.

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