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Abstract

Addiction is a major concern around the globe as it affects millions of people. Additionally, substance abuse affects not only the addict but also their families, their communities, and everyone around them, meaning that it affects which makes addressing the problem essential. This paper outlines the substance abuse in Maryland, United States of America. Maryland has one of the worst drug epidemics in the United States. Since 1999, the state of Maryland has consistently had a death rate higher than the national average. An opioid epidemic was declared in 2017 in the he United States of America and 2,282 of the people who died from drug and alcohol abuse in the nation was from Maryland. Those deaths included people who died as a result of drug accidents caused by drug overdose. The number of heroin addictions in Maryland have consistently increased since the 1990s while the rate of alcohol addiction has decreased. To meet the needs of these populations, various programs and services have been developed and implemented in order to treat and manage substance use disorders.

Keywords: *Substance Abuse, Maryland, United States of America.*

Substance Abuse in Maryland

Addiction is a crucial problem affecting millions of people around the world. Substance abuse impacts the addict as well as, their families and others around them. The statistics on substance abuse addiction show that if an individual struggles with addiction, or knows someone who does, they are definitely not alone. Substantial progress has been made in the lowering of substance abuse rates in the US. However, the use of mind and behavior altering substances is still a major health problem for most individuals, families, and communities across the nation. Approximately

22 million people were struggling with drug and alcohol addiction in 2005 (Lo, Yeung, & Tam, 2020). Substance abuse has been associated with several destructive social conditions such as financial problems, productivity loss, family problems, domestic violence, crime and child abuse. Additionally, the social and legal responses to addiction make the problem of substance abuse a highly complex health issue. Substance abuse addiction is a costly problem, the costs accrued by health and crime related costs and lost productivity surpasses \$600 billion every year.

Maryland has one of the worst drug epidemics in the United States. Since 1999, the state of Maryland has consistently had a death rate higher than the national average. Former President Trump declared an opioid epidemic in 2017 in the country and 2,282 of the people who died from drug and alcohol abuse in the nation was from Maryland (Latkin et al., 2017). Those deaths included people who died as a result of drug accidents caused by drug overdose. According to the most recent survey provided by The National Survey on Drug Use and Health (NSDUH), approximately 8 percent of Maryland residents stated that they had used illicit drugs the previous month. Moreover, 3.2 percent of the residents reported to have used illicit drugs other than Marijuana in the past month. Many Maryland residents who were admitted to rehab programs were addicted to one or more substances including alcohol, cocaine, marijuana, heroin, and opioid drugs (Dezman et al., 2020). While all of these illicit drugs pose a major problem for Maryland and its residents, the most problematic drug in the region is heroin. Baltimore's seaport acts as an international gateway for drug traffickers, which is largely contributes to the drug problem in the state.

The number of heroin addictions in Maryland have consistently increased since the 1990s while the rate of alcohol addiction has decreased. In 2010 alone, more than 11,200 patients were admitted to alcohol addiction programs. In 2010, more than 61,377 people were admitted to Maryland drug and alcohol treatment programs. 67.8 percent of those who sought out treatment were male and 32.2 percent were female according to government reports. In 2018, almost 90 percent of all drug overdoses, a total of 2087 deaths in Maryland were as a result of opioids (Latkin et al., 2018). The number of deaths that involved opioids and heroine declined later in 2018 leading to 576 and 356 deaths respectively. The opioid crisis in Maryland was also contributed to by opioid prescriptions as Maryland medical providers wrote 45.1 opioid prescriptions for every 100 people (Latkin *et al.*, 2018).

Background

Substance abuse refers to a pattern of the harmful use of any substance for the purpose of altering behavior. Substances include alcohol, other legal or illicit drugs, and some substances not be considered drugs. Abuse can occur when individuals use substances in ways they were not intended, recommended, or using more of a drug than is prescribed (Hale et al., 2020). However, it is possible for people to have substances and not be addicted to them or have a substance use disorder. Substance use becomes harmful substance abuse if it crosses the line to become repeated use resulting in impairment such as:

- Risky use
- Disabilities
- Social issues

- Failure to meet responsibilities
- Impaired control
- Health issues

Behaviors such as drinking so much that one has frequent hangovers, smoking enough cannabis that friends distance themselves, or using enough drugs that one misses work or school may be characterized as substance abuse (Hale et al., 2020).

Signs and Symptoms

There are a number of physical and behavioral signs and symptoms observed with substance abuse. While having some of the symptoms is not necessarily a clear way of determining drug abuse, it is essential to look for any major changes in a person's personality, physical appearance, or attitude and behavior.

Physical signs

- Extreme hyperactivity such as talking excessively
- Major changes in eating habits; increased or decreased appetite
- Changed sleeping habits, waking at unusual times, or inability to sleep
- Needle marks on lower arms, legs, or bottom of feet
- Nausea, vomiting, or increased sweating
- Rubbing nose frequently
- Deteriorated hygiene and physical health
- Irregular heartbeat
- Shakes of hands, feet or head or tremors (Lipari & Van Horn, 2017).

Behavioral Signs

- Chronic dishonesty
- Difficulty in paying attention and forgetfulness
- Car accidents
- Paranoia
- Moodiness, nervousness, or irritability
- Drops in grades or reduced work performance
- Lack of motivation, self-esteem, and energy.
- Missing prescription pills
- Suspicious or secretive behavior
- Excessive unavailability or need for privacy
- Possession of drug paraphernalia
- Stealing or increased expenses (Lipari & Van Horn, 2017).

Prevalence of Substance Abuse

Abuse of illegal drugs is a significant problem in every part of the world. Approximately 5.4 percent of the world's population was using illegal drugs in 2018 (McHugh et al., 2018). The

epidemic particularly affects the United States, and the “War on Drugs” has been a major problem for the nation.

- The National Survey on Drug Use and Health (NSDUH) reported that 19.7 million American adults (12 years old and older) were suffering from substance addiction in 2017. Moreover, more than 74 percent of the adults who battled with substance abuse also struggled with alcohol abuse.
- Approximately 38 percent of adults who battled with illegal drug abuse, and 1 of every eight adults suffering from both alcohol and drug abuse at the same time (Pardo & Reuter, 2018).
- 8.5 million American adults who suffered from drug addiction also had a mental health disorder.

Risk Factors

Some people are at a higher risk of abusing and getting addicted to drugs. Some of the risk factors associated with drug addiction include:

- Gender- Although statistics show that women have a higher progression in terms of addictive disorders, men have a higher probability of becoming addicted to substances.
- Family history- Research has revealed that genetics may play a notable role in people’s predisposition to drug addiction (Lipari & Van Horn, 2017). This means that if people in one’s parents, there is a high likelihood they may also get addicted.
- Mental disorders- Suffering from mental health disorders such as depression, post-traumatic stress disorder (PTSD), or anxiety can increase people’s susceptibility to addiction. These disorders sometimes result in using substances to cope (Nam et al., 2017).

Substance Abuse Monitoring and Surveillance

In the United States, four major data sets monitor drug use trends and cross-sectional patterns. The Monitoring the Future (MTF) surveys students in school, and the National Household Survey of Drug Abuse (NHSDA) surveys the residential adults who are not institutionalized (Pardo & Reuter, 2018). The basis for the two surveys is the probability of samples of known populations. Therefore, this data can be useful in drawing conventional statistics inferences on the surveys of a particular population. The other datasets measure the events of substance abuse rather than focusing on persons. The Arrestee Drug Abuse Monitoring (ADAM) surveys all arrestees who are booked, and the Drug Abuse Warning Network (DAWN) uses information attained from a patient’s suspected of drug abuse in emergency rooms and cases in coroner’s offices. These data systems are used in criminal justice and public health systems due to their event-based surveys and their operational nature.

All four major surveys monitor drug use in the United States by collecting data from respondents and the range of illegal drugs they use. Researchers ask respondents very specific questions on

their use of alcohol, marijuana, tobacco, heroin, cocaine, hallucinogens, inhalants, and nonmedical psychotherapeutics. The surveys also gather data on different types of data such as the respondents' insurance, demographics, illegal activities, health status, geographical location, and perceptions. The NHSDA provides an annual self-report provides a multistage sample of the annual probability of the number of drug users, their characteristics, and the patterns of abuse. The MTF refers to an annual study where students from both public and private universities in the US take part in a multistage random selection procedure. It evaluates how widespread substance abuse is and helps identify the substance abuse trends in schools. The ADAM captures the information of arrested persons who are in holding in booking facilities (Taxman & Mun, 2018). Criminals are at very high risk for drug abuse and are a population of much concern for researchers and the government. The DAWN gathers all the data regarding episodes in emergency departments in hospitals that medical professionals rule to be a result of legal or illegal drugs.

Every state has requirements for all designated individuals to report incidents of substance abuse, especially when there are children involved. Eighteen of the fifty states have legal requirements that citizens must respect any cases of suspected substance abuse. Some states have mandatory reporting statutes for staff, especially staff who have state licenses such as therapists, nurses, and social workers. If a professional fails to report substance abuse or cases of substance abuse and it results in injury to anyone, it may result in criminal charges, a civil suit, or revocation of the license (Nam et al., 2017). Individuals and professionals who are mandated to reports suspicion of drug abuse are immune from any liability that may come from reporting in good faith if the report is later found to be erroneous or goes unsubstantiated. Some states require employers who employ staff who are mandated reported to provide them with clear written information on the state reporting requirements.

However, if a person stops using substances and seeks treatment to quit or stay away from abuse, mandatory reporters are not required to report it. The duty to report does not hold for events that took place long before an individual seeks treatment. Even if substance abuse by a parent resulted in child abuse or neglect many years before, it is not mandatory to report because the child is in no imminent danger. However, if the person who abused a client still has custody or access to children, employers must report the allegations to Child Protection Services.

Populations Most Affected by Substance Abuse

Substance Abuse and Mental Health Services Administration reported that some of the specific populations that are at heightened risk of becoming addicted, and that would benefit from a specialized intervention or care that are fitted for their unique needs include:

- The homeless- Substance abuse can be a result as well as a cause of homelessness. People dealing with homelessness have to prioritize finding food and shelter; therefore, finding drug treatment can be a challenge (McHugh et al., 2018). The U.S. Conference of Mayor's stated that 28 percent of all cities stated that increased substance abuse services are one of the important parts of effectively dealing with homelessness.
- Women- Women are at a higher risk of suffering from homelessness, low self-esteem, mental health problems, and fall into criminal activities as a result of substance abuse.

This means that women require more specialized treatment centers that focus on women's issues and provide gender-sensitive services (Lipari & Van Horn, 2017).

- Young adults or teens- Young people are very vulnerable to substance addiction as they use drugs as a form of testing boundaries and experimenting (Pardo & Reuter, 2018).
- Trauma survivors- Those who suffer from traumatic events, for example, rape, violence, death of a loved one, or natural disasters, may end up with negative physiological responses. They may turn to drugs as a way of coping with the high level of stress they experience as a result of trauma.

Some estimated annual costs of the most common types of drugs include:

- Alcohol abuse cost the nation \$249 billion. Binge drinking adds up to \$191 billion of all costs to society brought on by excessive alcohol consumption. Seventy-seven percent of the costs are associated with lost productivity making up most of the costs of alcohol abuse and addiction, 11 percent from binge drinking, and 5 percent from expenses accrued from alcohol-relating accidents (Lo, Yeung & Tam, 2020).
- Illegal drug abuse costs the U.S. an overall \$193 billion, with and an estimated \$ 11 billion of this costs result from direct health care costs from illicit drug use.
- Prescription opioids accrue approximately \$78.5 billion. Direct healthcare costs make up an estimated \$ 26 billion.
- Tobacco makes up \$300 billion of the total costs of drug abuse. The economic cost of smoking is made up of at least \$170 billion from direct medical costs for adults, while the cost of decreased productivity is a result of the effects of exposure to secondhand smoke and death (McHugh et al., 2018).

The costs of substance abuse to the nation go far beyond the financial costs. Other costs to society include:

- Death as a result of overdose
- Effects to unborn children
- Increased spread of Hepatitis C and HIV/AIDs
- Domestic abuse, unemployment, crime, homelessness, and crime (McHugh et al., 2018).

Diagnosing Substance Abuse

Addictive disorders are grouped as substance use disorders by the DSM-V. The first step in substance abuse diagnosis is an acknowledgment of the condition by either someone with the condition or someone close to them. The person suffering from substance abuse must want help as commitment to treatment is essential to obtaining long-lasting effects. The doctor asks about patterns to identify if a person fits the criteria for addiction. Physicians also assess the physical damage caused by the disorder. In order to fit into the criteria for drug abuse, an individual must show two or more signs of addiction in the past 12 months (Khammatova & Mizonova, 2018). People who fit into most of the criteria are said to have severe substance use disorder. The physician can then refer to the individual for specialized care.

Current National Standards for Screening and Prevention

Screening includes asking questions in order to determine if a more thorough evaluation is necessary for a particular problem or disorder. Screening refers to the process of determining the presence of a certain problem. The outcome of screening questions is normally yes or no (Bernstein & D'Onofrio, 2017).

Some of the available substance abuse screenings include:

- DAST: Drug Abuse Screening Test, which only assesses alcohol or tobacco use over the past 12 months.
- COWS: Clinical Opiate Withdrawal Scale used by clinicians to rate common signs of withdrawal from opiates, and these symptoms are monitored over time.
- SOWS: Subjective Opiate Withdrawal Scale that includes patients in the assessment of their withdrawal symptoms.
- The Amphetamine Withdrawal Scale is used when a person only has an amphetamine abuse issue.
- OOWS: Objective Opiate Withdrawal Scale is an objective measure of the severity of opiate withdrawal symptoms (Bernstein & D'Onofrio, 2017).

Evaluating DAST

Sensitivity and specificity: The sensitivity of DAST or its positive predictive value is high as it can range from 81 to 96 percent, while its specificity or negative predictive value ranges from 71 to 94 percent. The DAST screening test can cost an average of \$17. Additionally, DAST can only be used to test drug abuse in adults as it includes a self-report interviewee that children cannot adequately answer.

A person must demonstrate that two of the DSM-V criteria in order to receive the substance abuse disorder. These include:

- Attempting or stating a wish to moderate their substance intake without taking steps to decrease consumption.
- Consuming larger amounts of a substance than intended or for longer than the planned amount of time.
- Spending a lot of time trying to acquire, use or recover from using a substance.
- Constant cravings for a substance or expressing a strong desire for it.
- Failure to fulfill familial, educational, and professional duties.
- Using a substance despite the emotional, personal, and emotional problems caused by abusing the substance.
- Failure to take part in passions, social activities and pastimes resulting from substance abuse.
- Using substances in spite of being knowledgeable on the physical and psychological disadvantages of abusing the substances

- Higher tolerance meaning that an individual has to consume larger and larger amounts of substances in order to become intoxicated.
- Consuming substances in situations or places where they may suffer from physical injury.
- Withdrawal symptoms or physical responses as a result of foregoing the substance. While the symptoms may vary from one substance to another, they may include shaking, sweating, and nausea (Salakhova et al., 2018).

Addressing Substance Abuse

There are a variety of effective programs and services that can be used to identify, treat and manage substance abuse issues and substance use disorders. Research has shown that early intervention is the most effective method of addressing substance abuse problems as the process helps people deal with the issue before it progresses, and it becomes more difficult to stop abusing substances (Alderks, 2017). This means that it is important to screen for substance misuse in all general health care institutions in order to detect emerging problems and implement early implementation.

As services for addressing substance abuse have increased and strategies have been implemented in mainstream health care, substance abuse problems have greatly decreased. The care provided in healthcare institutions now includes behavioral therapies, effective, evidence-based medications, and other supportive services. However, several impediments have limited the spread of these services, such as lack of training, shortages in the workforce, and lack of resources (Thylstrup et al., 2017). After I complete my schooling, I will implement several interventions to reduce substance misuse, including:

- Early intervention to address mild disorders before they become severe and help in the prevention of more deaths as a result of substance abuse.
- Individualized substance use disorder treatments designed to improve the health and function of people suffering from substance abuse disorders. The care will include behavioral therapies and medications (Alderks, 2017).
- Harm reduction interventions and treatment engagement that help individuals who have a substance misuse problem but are not yet ready to accept treatment for their problems. These interventions engage these people in treatments and help in risk and harm reduction

Evaluation Measures

The measures that will be put in place to measure the performance of the strategies implemented. A variety of outcome measures will be used, including:

Demographic information which focus on describing participants' background information which can be important in the identification of disparities within the target populations. Some of the populations include:

- A. Age
- B. Income level
- C. Insurance status
- D. Educational attainment
- E. Race and ethnicity (Alderks, 2017).

Process measures that focus on the methods through which services are provided including:

- A. Number of coalition meeting held
- B. Number of patients receiving services
- C. Number of staff trained
- D. Number of patients in the program
- E. Number of attendees at program events
- F. Duration spent in the treatments and services
- G. Number of successful referrals to other services (Sherba et al., 2018).

Conclusion

Addiction is a major concern around the globe as it affects millions of people. Additionally, substance abuse affects not only the addict but also their families, their communities, and everyone around them, meaning that it affects which makes addressing the problem essential. Moreover, researchers have found a correlation between substance abuse and a number of destructive social conditions, including productivity loss, domestic violence, financial problems, and crime. Substance abuse is a complex health issue as it is difficult to diagnose and treat long-term. The costs of substance abuse in decreased productivity and crime-related costs also make substance abuse an urgent concern. Maryland is one of the states that have been hit the hardest by the drug epidemic in the United States. When Former President Trump declared an opioid epidemic in the nation in 2017, approximately 2300 of the people who had lost their lives from drug and alcohol abuse were from Maryland. Substance abuse is difficult to diagnose as it includes the use of substances in ways that were not intended, recommended, or using more of a drug than is prescribed which can be difficult to determine. However, there are several behavioral and physical signs and symptoms that are observed with substance abuse that physicians can look for to diagnose substance abuse. Some individuals are at a higher risk of suffering from substance abuse as a result of a variety of factors and therefore require more specialized interventions are a result of their unique needs. To meet the needs of these populations, various programs and services have been developed and implemented in order to treat and manage substance use disorders.

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