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Scholars Communication

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Abstract: The main point of this paper is to address the rising statistics that represent the prevalence of mental disorders in our society. The focus is generally limited to the American public. It is stressed to seek healthy coping mechanisms to relieve mental discomfort or the side effects faced by serious mental illnesses such as major depressive disorder and bi-polar disorder, this is so that negative coping won't be used leading to healthy coping methods to combat mental pain. This is important in order to prevent a high risk for health and well-being if addiction recovery is reached. From the data given by the National Institute of Health; young adults have the highest cases or prevalence of developing mental health problems based on a self-assessment. However, this age group is also the least likely to seek professional help. Co-occurring disorders can be defined as; the mental state where a pre-existing mental health condition, usually one of a serious mental illness, is the leading factor for the contribution of another mental illness, usually one that is a comorbid substance use disorder. This means that there is a heavy correlation between two conditions. Serious mental illnesses are where the cognition of the affected person has been impaired or interfered with because of how one feels. The focus of this paper surrounds opioid addiction or medically referred to as opioid use disorder. The reason for this focus is because of how highly addictive and strong the feeling of pain relief can be after using opioids continuously.

Uncovering an Epidemic, Co-occurrence in Opioid Use Disorder

The prevalence of mental disorders among individuals in our society, diagnosed or undiagnosed, is a serious and on-going crisis and can be experienced by loved ones, friends, or acquaintances. Even if the people we come to know aren't open about what they feel behind the scenes, outside of social interaction, their experiences are not invalid. It is important to seek help because of how debilitating the side effects can be if there is no effort to counteract these feelings of loneliness and isolation. Seeking help avoids negative coping mechanisms being used in place of treatments. The focus of this paper is on the negative, short-term effects of opioid addiction.

Drug use in pre-diagnosed individuals with mental disorders is an emerging issue (SAMHSA). Opioid use disorder is a topic area of focus because of the results of the on-going opioid epidemic that arose in the late 1900's. The long-term effects of opioid use disorder have been shown to be heightened if a pre-existing mental condition is the source of motivation for someone to turn to opioids as a coping mechanism (NIDA). According to the Mayo Clinic, the drug class of opioids has caused the leading number of opioid deaths in the U.S. recorded in 2017 (Mayo Clinic). It is important to seek help so that proper and beneficial treatment can be organized based on a person's needs. Results from the 2020 National Survey on Drug Use and Health showed that 1 in 5 (52.9 million) U.S. adults have faced a mental health issue in their lifetime (NIMH). The results from the survey showed that adults aged 18–25 are the age group with the highest rates of prevalence, whether it be a severe or minor mental illness. However,

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this age group is also recorded to have the lowest rates of seeking professional help. Normalization of treatment options for all groups of people is beneficial so that people are able to overcome the issues and challenges they face. The long-term effects of opioid use disorder depend on the duration and severity of addiction, but it stems from the withdrawal of that continued substance. Since there is an abstinence from a substance the body has become accustomed to, the brain is not able to re-adjust to its original pre-addiction state. If someone does not have mental stability, it can be difficult to re-adjust and their withdrawal symptoms may feel overwhelming as there is already so much going on in their head (Pinelands Recovery).

Addiction can be defined as a single term. However, there are layers of it that apply to deeper, more specific topics. When it is seen as a broad term, it can be defined as a psychological state of being where someone finds a craving and is dependent on a substance, behavior, or activity that leaves harmful or prolonged side effects. Addiction to opioids can be seen as a concept in order to fully understand how it works. Anyone can be addicted to anything. For example, people can be addicted to a scent because of a memory that it gives off or because it triggers a sense of happiness in them. This is because of the release of hormones such as dopamine and endogenous opioids (opioids produced by the body). This is known as the body's reward system. Examples include food, a relationship, or a belonging in the person's life. The common thing between these examples is the negative response of attachment or dependence that comes out of them. An attachment to a certain food that may have been for the purpose of comfort can develop into an eating disorder, a negative relationship with food, and food image. An attachment to a relationship can result in separation anxiety, or poor self-image, meaning they feel they need to depend on this one person. Separation anxiety can also come out of an attachment to a belonging. The reason why these are negative is because of the mental state that comes out of them after prolonged exposure or use.

This is a common thing that happens in all forms of addiction. Drug addiction is when someone becomes dependent on a substance because of how their body's natural makeup is altered after the repeated use of a certain drug. Hence, the feeling is new and rewarding, and because of it, a sense of relief is felt, building a craving for the substance based on the new felt side effects from continuous use. Researchers form their conclusions on addiction based on a cycle. It is also important to know that addiction is not passed from a parent to their offspring directly, but that the individual's genetic makeup and its interaction with the environment are critical for one's vulnerability to addiction. Addiction is caused by an individual's psychological traits and the environment; someone having access to opioids comes from exposure from their parents, their community, or doctor. Synthetic opioids are often sold on the streets in different areas, primarily inner cities. This is an example of how an individual can be exposed to the substance in their community. Opioids coming from doctors are prescribed and are often directed to be used as a pain reliever after a procedure or for pain relief over a short period of time. From prescriptions, addiction can occur from misuse by not following instructions on consumption. It can also happen if another person for whom the medication was not prescribed uses it. Depending on an individual's position in life, one of the main ways someone has access to opioids is through prescription medication. In addition, according to the Mayo Clinic, opioids were the leading cause of drug overdose in 2017 (Mayo Clinic).

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The psychological shift that happens when an individual consumes opioids are caused by opioid receptors and neurotransmitters. Opioid receptors are naturally occurring proteins in the body's cells that opioids target when consumed. Opioid receptors can be thought of as a "key and lock system" where the drug is the key and is finding the specific place in the body that it goes in. The specific receptor that has to do with acute and chronic pain, the focus of most clinical opioids is the m-opioid (MOP) receptor (Oxford). Clinical used drugs like morphine, fentanyl, diamorphine, methadone, codeine act on these receptors (Oxford). Opioid receptor effects are characterized by the anatomical place it is on the body as well as the pharmacological action of the drug (Oxford). Neurotransmitters can be thought of as messengers to the brain that are trigger the receptors. Neurotransmitters also go to the body's endocrine system or in other words the bodily system that manages the functions of hormones. When opioids are consumed and relief is felt, a rush of pleasure and happiness can be felt by the user. The thing responsible for this reaction are neurotransmitters, some examples of high affinity neurotransmitters for MOP receptors are endorphins and enkephalins (Oxford). These are part of the body's reward system; when triggered, they produce a feeling of satisfaction and pleasure (NIDA). This is critical to learning about addiction because of how it is responsible for the body's learned psychological mechanisms, which leads to dependence on the feeling of the opioid consumed. These are called the body's teaching chemicals (NIDA). This diagram below shows how all these facts are conceptualized to help researchers study and build conclusions on opioid addiction. (Koob, George F.).

Binge intoxication occurs when an individual consumes a substance that exceeds the recommended amount set by health care professionals or the prescriber or when people use illicit drugs. This action stimulates an individual with reward and relief, the relief that they were hoping to receive from taking the excess amount. "Withdrawal," as a pharmacological mechanism, is felt by an individual who discontinues the use of a substance. This state can cause them to be dependent on the sensation they get with opioid use. Preoccupation with anticipation is the sensation of craving, where someone craves the feeling that a certain substance gives them. These factors go hand in hand and are the main causes of addiction. However, this is only looking at one aspect of opioid addiction: dependence and withdrawal. This is because opioid addiction is broad and has many underlying concepts.

Co-occurring disorders are when an individual previously diagnosed with a mental illness has shown effects contributing to another. This is known as comorbidity. This means that two mental illnesses are related if one is the cause of the other. Drug use in pre-diagnosed individuals with other mental health disorders is an emerging issue (SAMHSA). This shows how researchers are finding the correlation of mental illnesses to the contribution of addiction. People with pre-existing mental health conditions are more vulnerable to developing addiction disorders, but specifically with opioids, as they are recorded to be highly addictive as a result of the late 1990's and early 2000's opioid epidemic. Although most opioid substances are strictly controlled, meaning that they are illegal to possess, sell, and distribute, prescription pain relievers that are classified as opioids are frequently prescribed to patients in hospitals and other health facilities. The emerging issue of the correlation of mental illnesses to developing comorbid substance use disorders has become one of the focuses of organizations such as the NIH to research and develop conclusions surrounding drug addiction. Of the 38.4 million Americans diagnosed with a mental illness in 2017, it was estimated that 18.7% (7.2 million)

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use prescription opioids; it then goes into the numbers of prescription opioids that are distributed. We estimate that among the 38.6 million Americans with mental health disorders, 18.7% (7.2 million out of 38.6 million) use prescription opioids. Adults with mental health conditions receive 51.4% (60 million of 115 million prescriptions) of the total opioid prescriptions distributed in the United States each year. Adults with mental health disorders were significantly more likely to use opioids than adults without mental health disorders (18.7% vs 5.0%; P.001).(PubMed)

The specific pre-existing states that contribute to co-occurring disorders are serious mental illnesses. This includes conditions such as bipolar disorder, major depressive disorder, anxiety disorder, and schizophrenia. The severity of it heavily affects and interferes with people's daily lives. Serious mental health disorders are the most common psychological predisposition reasons for co-occurring disorders because of their level of prevalence and mentally invasive symptoms (SAMHSA).

It is important to understand the state of mind of individuals with serious mental health difficulties to understand what causes them to turn to opioids in the first place. Major depressive disorder will be used as an example in this instance. Common psychological states of people dealing with depression include prolonged sensations of sadness, loneliness, exclusion and hopelessness, loss of interest and energy, inconsistent sleep patterns or insomnia, agitation, worthlessness, and guilt (Mayoclinic). What is common when one feels these negative sensations is that they feel a need to relieve themselves of their mental pain. Finding either positive coping mechanisms like therapy or talking to someone like a trusted person of authority such as a family member or a religious leader, or a more negative one, like drug use, negative self-talk, bursts of aggression and destruction, intentional unbalanced eating habits, and bodily harm. The use of opioids is a negative coping mechanism because of how continuous use leads to addiction, making death more of a possibility for the user or maintaining a healthy lifestyle difficult. The long-term effects of opioid use disorder have been shown to be heightened if a pre-existing mental condition is the source of motivation for someone who turns to opioids as a coping mechanism (NIDA). Proper treatment is important to prevent negative forms of coping. Options for those seeking help and being given by professionals include It is so important to seek the right kind of help based on one's individual needs so that proper treatment can be provided. With a simple Google search, the commonality of major depressive disorder is shown to be very high, with more than 3 million cases per year (Mayoclinic). As a result, the risk of co-occurring disorders is quite high. reason why someone may turn to opioids is because of how this class of drugs are considered pain relievers. One may seek to use them, hoping to relieve mental pain. Statistics from HHS.gov show that "in 2019, an estimated 10.1 million people aged 12 or older misused opioids in the past year." Specifically, 9.7 million people misused prescription pain relievers, and 745,000 people used heroin (HHS). As shown by statistics provided by the NIDA, young adults aren't the most susceptible age group to developing an opioid use disorder, but they are the most affected age group by mental illnesses (NIDA). Young adults, specifically individuals aged 18–25, have the most cases of revolving mental disorders yet are the least likely group to seek professional help (NIDA). Young adults should be monitored because the long-term symptoms of addiction can be very taxing on the ability to return to a normal lifestyle. Those who are young have so much potential in life because of how much of their lives they still have to live; if they do not die of overdose or are

able to overcome addiction, they will most likely spend the rest of their lives in agony or regret, feeling the long-term effects of their addiction.

An extension of "what causes addiction?" The main correlation researchers use to build conclusions on their research into the cause of drug addiction is craving and dependence. Craving primarily surrounds the positive effects of drug addiction, meaning it is a positive psychological drug reinforcer, and dependence surrounds the negative side effects of drug addiction. Dependence and actions surrounding withdrawal are the focus of this paper. It is important for one to know that these are different aspects that are connected. This learning mechanism stems from the drug-related cues that are given off by the use of a drug. This conditions the brain. The psychological aspect or connection to the exposure of internal and external drug-related cues is the feeling of craving. This leads to continued drug use and also contributes to relapse in those individuals who are drug abstinent.

Medications administered to treat opioid use disorder include buprenorphine-naloxone, which is typically used for patients over the age of 16, and its purpose is to maintain abstinence from other opioids. Methadone is typically administered to patients under the care of a program physician. This can be thought of as medicinal therapy performed by specialized physicians. Both buprenorphine and methadone are opioid drugs that reduce withdrawal and craving. Naltrexone is administered with the purpose of blocking opioid receptors. These neurotransmitters contribute to the feeling of satisfaction and cravings (NIDA). It is important to follow the doctor's directions on prescription medications. In terms of therapeutic treatment for adolescents, multisystemic therapy (MST) focuses on the external factors that contribute to addiction, such as their environment (school/community), peer pressure, and so on. Brief strategic family therapy (BSFT) targets family interactions. Multidimensional family therapy (MDFT) focuses on relationships with their families and communities (NIDA). Therefore, pharmacological and nonpharmacological treatments are available for substance use disorder.

These options may also help people before their mental state worsens. With serious illnesses, it can become difficult to continue daily tasks. Depending on the person, medicine and psychotherapy can be useful to overcome difficult tasks and stay consistent with treatment in case of relapse, as it can be hard to start over after a cycle breaks. Learn about your disorder and how it affects you, practice self-care and pace yourself with the tasks you juggle on a daily basis. Reach out to loved ones, to maintain social connection, to talk to others, and for support and help (Pinelands Recovery).

The prevalence of pre-existing mental health disorders in recorded patients diagnosed with opioid use disorder has been shown to be substantial. From this data provided by Pubmed, NIDA, and SAMHSA, it can be determined that individuals with a mental illness usually look to methods of coping such as drug use. Individuals with illnesses such as Post Traumatic Stress Disorder, depression, and anxiety are more susceptible to developing substance use disorders than individuals with no pre-existing mental health history. It is important to learn about these discrepancies because of how opioids are not a treatment method. It can distract a person from their current mental state by altering their mind, but it does not make it go away as drug use is not a useful treatment option. Instead, they become more susceptible to the worsening long-term and short-term side effects of addiction and worsen their pre-diagnosed conditions. It is

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understandable for some people who go through intense levels of pain over a long period of time. However, the source of people having access to opioids comes from this alone. For example, someone may go through a long-induced procedure that requires a long recovery period. During this period spent recovering, someone may feel isolated. Depression may be a side effect felt by this person as it is in human nature to be sociable and physically active. Having access to tramadol or oxycodone, someone may turn to these drugs hoping to relieve their mental stress. Since these are acute pain relievers and not antidepressants, they don't take away the mental pain faced by this person; they only temporarily relieve the pain.

Opioids alter the natural state of the brain because of how opioid drugs, endogenous opioids, and opioid receptors trigger a brain response. Internal and environmental cues that a person becomes conditioned to also contribute to addiction perpetuation and relapse in those who are abstinent. This is why it is so important to seek the right help. Recovery is specific and requires professional help and the right medication. Addiction is frequently comorbid with other mental illnesses, so it is important to seek help so that people with mental illnesses will be less prone to negative coping mechanisms that can lead to worsening of their pre-existing mental health. This is stressed because, realistically, anyone can become addicted if they are exposed to drugs of addiction such as opioids.

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