

From Irrelevant Utilisation to Excessive Dependence

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Abstract- The information relates to the use of substances that are harmful to one's social, physical, mental, and emotional well-being, such as alcohol, opioids, tobacco, and some addictive medications like baclofen. This will have a complete impact on health. If used recreationally and developed into a habit of reliance. Substance misuse should be managed in its early stages since it cannot be stopped once it has developed into a habit. It can be challenging to stop using drugs if one has become habituated to doing so, and occasionally it can result in potentially fatal situations. When prescribed, some medications, such as opioids and non-opioid medications should be taken. However, longer periods of time should not be spent consuming them. And shouldn't be stopped abruptly. Tapering the doses will help to progressively discontinue the consumption. In the event that consumption is abruptly stopped, coma or death may result. Substance abuse may influence vital organs over time, changing typical vital values over time. Because of reliance, each organ in the body will sustain harm through a variety of means.

Index Terms-substances, addiction, habit, fatal, abrupt, substance abuse.

I. INTRODUCTION

Treatment for teenagers differs from treatment for adults based on their age and the amount or duration of substance dependence. Adolescents may be exposed to alcohol and drugs for a shorter period of time than adults due to their fear about using them. Teens have less time to experience deterioration in functioning and the principal impacts of alcohol and drug use. The diagnosis of substance withdrawal and dependency is presented in two manual criteria: the diagnostic and statistical manual of mental diseases.

DSM-III-R: American psychiatric association 1987

DSM-IV: American psychiatric association 1994.

The observed addictive behaviors are eating problems, compulsive gambling, and sexual obsessions. This suggests a compulsive nature in participating in these activities. Studies have found parallels in the beginning and maintenance mechanisms of distinct addictive behaviors, emphasizing commonality across addiction types. Individuals respond differently to acute doses and withdrawal from substances like nicotine, alcohol, opioids, and caffeine. Observing how people react to various substances.

Sudden withdrawal of substance abuse will affect vital organs as

- Brain- long term damage caused by alcohol, opioids, cocaine, marijuana
- Liver- liver failure caused by synthetic drugs, acetaminophen
- Heart- cardiac failure, arrhythmias, endocarditis caused by methamphetamine, cocaine

- Lung - pneumonia, bronchitis, chronic lung condition caused by tobacco, marijuana
- Kidney- dehydration, electrolyte imbalance, hypertension, hypertension induced kidney failure caused due to alcohol
- Immune system - suppressed immune response, increased risk of infection and vulnerability caused due to IV drugs, opioids, alcohol
- Reproductive system – hormonal imbalances, reduced fertility caused due to alcohol and stimulants.

II. ADDICTION, WITHDRAWAL AND WITHDRAWAL SYMPTOMS

Addiction

Dependency is another term for addiction. Where a person experiences serenity and pleasure while using narcotics such as alcohol, nicotine, opiates, and so forth. In this instance, the person may acquire physical addiction, psychological addiction, or both.

Withdrawal

The process of gradually reducing consumption and discontinuing the use of addictive substances.

Withdrawal Symptoms

The symptoms occurred as a result of an addictive substance withdrawal. These symptoms may have an impact on physical and psychological health, depending on age and length of intake. The symptoms are different from person to person. Common withdrawal symptoms include irritability, mood changes, aches, pains, insomnia, sadness, anxiety, cravings,

hallucinations, nausea, runny nose, and so on. Severe symptoms may include feeling unwell, tremors, confusion, and paranoia.

The study's major goal is to investigate similarities and variations in withdrawal responses to various substances such as alcohol, nicotine, opioids, and so on. Effects of substance misuse and withdrawal.

Consequences of Substance Abuse and Withdrawal Alcohol

Alcohol intake may not pose a risk to some extent, but excessive drinking can lead to liver cirrhosis and, in some cases, accidents, suicidal ideation, and cerebrovascular difficulties. Physical and mental behavior may be affected, and typical laboratory values will be altered. Some major signs and symptoms are tremors, myalgia, weight loss, disorientation, endocrine gland abnormalities, spider angiomas, Dupuytren's contracture, periorbital oedema, heme positive stools, transaminitis, anemia, delayed prothrombin time, gait disruption, nystagmus, and delirium tremens

The pathophysiology of alcohol withdrawal is described in fig.1.1.

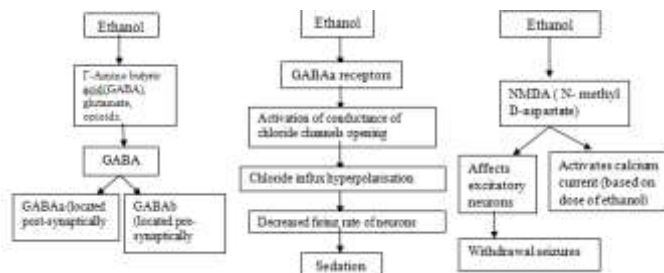


Fig. 1: In the following figure the action of ethanol in different sites is represented.

Using naltrexone, an adjuvant medication, can help reduce alcohol cravings during the withdrawal phase.

Tremor is the most prevalent withdrawal symptom observed in the majority of patients. It is not visible from the outside, but they are trembling inwardly as a result of an overactive central nervous system. These symptoms, such as nausea, vomiting, tachycardia, and hypertension, may worsen as the autonomic impact increases.

Hallucinations are another common symptom observed in approximately 80% of patients 7 to 8 hours after their last drink, which may lead to self-harm.

Seizures are another indication of withdrawal, and they can be tonic-clonic. It is known as "rum fits". This occurs within 7-48 hours of drinking, but most commonly between 12 and 24 hours.

The most serious symptoms include delirium tremens, which is a medical emergency. The symptoms appear 48 to 74 hours after taking alcohol and may continue 1 to 2 weeks. Confusion and disorientation are the most prevalent consequences of delirium tremens.

Opioids

Opioids are a type of analgesic that causes pain relief by producing euphoria as its primary impact. Abuse of two sorts

Illicit Drug Usag2. Usage of Prescribed Drugs

Illicit drug use refers to the use of illegal opioids like marijuana and heroin.

Insomnia, irritability, anorexia, anxiety, sadness, myalgia, restlessness, nausea, vomiting, and coldness are some of the withdrawal symptoms of illicit drugs.

Prescription drug usage refers to the use of prescription medications without a prescription or the prolonged use of prescription drugs with a prescription. The drugs in this category include morphine, fentanyl, codeine, oxycodone, meperidine, hydromorphone, and others.

Prescription drug withdrawal symptoms progress through many levels.

- **Early Stage:** The majority of addicted individuals feel anxiety, irritability, myalgia, perspiration, and exhaustion within 6 to 30 hours of ceasing usage.
- **Later Stages:** the most common symptoms include drug cravings, mania, exhaustion, insomnia, vomiting, goose bumps, cold fevers, dilated pupils, photophobia, irritability, anorexia, altered blood pressure, heart rate, respiratory rate, and eye tearing..

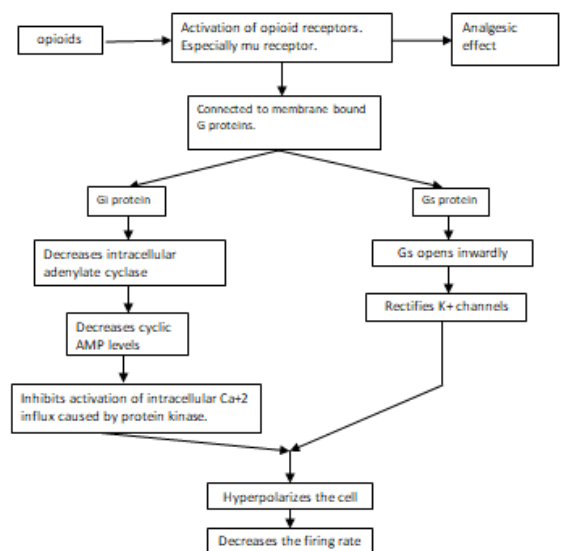


Fig.2.. The above figure shows the action of opioids in different proteins

In terms of total withdrawal time, the first several weeks may be challenging, and some of them may eventually subside. Some of the symptoms, such as sleeplessness, mania, and exhaustion, can linger for several months.

Baclofen

Because it is a derivative of GABA, baclofen has a structural similarity to it. Baclofen's mechanism of action is GABA_B agonist.

Baclofen is used to treat medical illnesses such as multiple sclerosis, spinal cord injuries, and spinal cord diseases that cause muscle stiffness or tightness.

GABA_B receptor activation inhibits inhibitory neurotransmitters in both the spinal cord and the brain.

Seizures are a common Baclofen overdose and withdrawal symptom. Benzodiazepines can help manage it.

The baclofen withdrawal syndrome appears within 12 to 72 hours of discontinuing baclofen use, with symptoms such as hallucinations, sleeplessness, agitation, psychosis, disorientation, delusions, and seizures .

If baclofen is provided within 24 to 72 hours of discontinuing it, symptoms may worsen.

Nicotine

Tobacco is consumed in the form of snuff, ghutka, khaini, cigarette, and betel leaf. It is a highly addictive sort of drug. Nicotine withdrawal symptoms fall into three groups. Affective symptoms include cravings, mania, sleeplessness, and mood changes. Tremors, weight gain, increased appetite, and a lower heart rate are some of the somatic signs.

Cognitive problems include amnesia and difficulty concentrating.

Counselling and medicines such as bupropion and varenicline may help reduce cravings.

III. CONCLUSION

As previously stated, it is preferable to avoid the addictive chemical and do not even consume it for recreational purposes. Consumption may have an impact on social, emotional, physical, and personal well-being. It can induce a variety of problems, including cognitive disorders and, most notably, seizures during the withdrawal phase. We cannot break the habit of using such substances once we have been accustomed to them. and the withdrawal symptoms are too difficult to feel, and if habituated after withdrawal, it may be life-threatening.

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