



Drug Abuse and Drug Addiction

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Abstract.

Drug addiction has an impact on behavior and the brain. It affects the patient's body, mind, and nerve system in a variety of ways. To generate consciousness, a psychologically active drug is used. This may involve altering the user's thoughts, feelings, and emotions. An intoxicated effect is produced when the body is exposed to psychologically active drugs. Some of the individuals may use medications for recreational purposes or as prescribed by doctors. Many people who start using drugs eventually become physically and emotionally dependent on them without developing an addiction. Therefore, the reasons behind drug abuse differ widely, based on the specific person and the severity of their addiction. The reason a person becomes addicted to drugs and the changes that occur in the brain when a person develops a drug addiction are the sources of the psychological repercussions of drug addiction. Many people first turn to drugs as a coping mechanism for pain or stress. One result of drug addiction is the development of a vicious cycle in which the user feels compelled to use the drug anytime they experience stress or discomfort. One psychological consequence of drug addiction is the development of a "craving" for the drug. Many medicinal plants are used to treat addiction.

Introduction

Addiction to drugs has an impact on behavior and the brain. It affects the patients' body, mind, and nerve system in a variety of ways. Addiction can result from a variety of drug kinds, including cocaine, heroin, meth, opium, marijuana, and painkillers. Worldwide, drug misuse is seen as a serious threat to public and societal health. 185 million addicts exist worldwide as of right now. With 600,000 drug abusers who take drugs sometimes and 1,200,000 permanent users, the data show that herbal Medicine has a lengthy history of treating illnesses and Most people tend to employ such medicine. The brain and behavior are both impacted by drug addiction. Substance use disorder, another name for drug addiction, is a brain and behavioural illness that makes it difficult for a person to control their use of drugs or medications, whether they are legal or not. Drugs also include substances like nicotine, alcohol, and marijuana. When you have an addiction, you might keep using the drug even though it hurts you. Depending on the affected individuals and disease stage, different approaches may be taken when using them. Scientists are working on creating molecule-sized, customized picoparticles that can carry medications straight to your body's sick cells. To treat this illness, antibiotics are also employed. There are two main categories of oral modified drug delivery systems. Dosage forms with one unit and dosage forms with several units. Improvements in disease treatment and overall quality of life have been made possible by the pharmaceutical industry's innovations and progress. Hydrophilic polysaccharides include gums and mucilage. No one should smoke for health reasons. A drug is any substance that absorbed by the body and alter the normal bodily functions. Any substance that can be absorbed through the skin via a patch is considered a drug (apart from foods that offer nutritional support). Causes a transient bodily change that is frequently psychological in nature, whether it is dissolved under the tongue.

Sign of drug abuse and addiction:-

Once a medication is no longer necessary for a health issue, you continue to take it. You can take more before experiencing an effect, and you need more and more of a substance to get the same effects (referred to as “tolerance”). After the drug wears off, you feel weird. You might be sweaty, depressed, queasy, and queasy to the point of nausea, along with headaches. Moreover, you might not be hungry or be fatigued. You may even experience confusion, seizures, or fever in extreme situations.

Despite your best efforts, you are unable to abstain from drug use. It’s causing negative things to happen in your life, such as conflicts with friends, family, coworkers, or the law, but you’re still using it. Much of your time is consumed by thoughts of the drug: where to find more, when to take it, and whether it will make you feel better or worse. Giving yourself boundaries is difficult for you.

Even though you promise yourself you’ll only use “so much,” you might find yourself using twice as much because you can’t stop. Activities that once piqued your interest have become unimportant. Your ability to perform daily tasks, such as working or cooking, has started to suffer. When high, you operate heavy machinery or engage in other risky behavior, such as driving. You purchase narcotics with cash that you steal or borrow. You conceal from other people your drug use and its effects on you.

Coworkers, teachers, friends, and family members are difficult for you to get along with. More often than not, they gripe about your behavior or personal development. In comparison to the past, you either sleep too little or too much. Alternately, you either eat significantly less or much more than before.

You have a distinct appearance. There could be blood in your nose, eyes, or mouth, bad breath, trembling or shaking, weight gain or loss, or all of the above. With your new group of pals, you go to different locations and do drugs together. You receive prescriptions for the same medication or issue from multiple doctors. To find drugs to take, you search through other people’s medicine cabinets. Alcohol or other drugs are taken along with prescription medications.



Causes:-

While some people can use prescription and recreational drugs without developing an addiction, many drug users develop both an emotional and physical dependence on them. The reasons behind drug abuse can differ significantly based on the individual and the severity of their addiction. An individual's susceptibility to addiction is influenced by their genetics, social environment, and physical and mental health. Addiction to drugs is caused by innumerable additional factors as well. When someone develops a drug addiction, they typically require support and assistance from professionals in order to kick the habit. An addict can address the problems that precipitated their drug abuse by having a better understanding of the underlying causes of their addiction. For certain people,

Effects of drug addiction (physical and mental):-

•Mental effect:

The reasons why a person becomes addicted to drugs and the brain changes that occur when a person develops a drug addiction are the sources of the psychological effects of drug addiction. Many people first turn to drugs as a coping mechanism for their pain or stress. One consequence of drug addiction is the development of a vicious cycle in which the user feels compelled to take a drug anytime they experience stress or pain. One psychological consequence of drug addiction that leads to a "craving" for the drug is this. One result of drug addiction is craving, which is the addict's total focus on getting and using the drug. Believing oneself incapable of coping with life or functioning without drugs is one of the psychological effects of addiction that contributes to cravings.

Excessive mood swings, melancholy, anxiety, paranoia, aggression, decreased enjoyment in daily life, exacerbation of mental illness, hallucinations, confusion, and other psychological consequences of drug addiction. An inclination to take more and more of the drug due to a psychological tolerance to its effects, as well as a desire to participate in risky behavior.



•Physical effect

Drug addiction can have varying physical effects on the body, but all systems are usually affected. In the brain, drug addiction has some of its main physical side effects. An addiction to drugs alters both the brain's and the body's pleasure perception.

Dopamine and serotonin are repeatedly released into the brain when a drug is used, which is why drug addiction has these effects. After using drugs, the brain becomes accustomed to these highs and starts to rely on them. Not only do drug abusers' babies exhibit physical symptoms of their addiction, but mortality rates also reflect this effect. One consequence of drug addiction is the potential lifetime cognitive impairment in offspring of drug-using mothers. In terms of mortality, the

consequences of drug addiction account for one in every four deaths. The following are additional physical effects of drug addiction: heart rate irregularities, heart attack, contraction of HIV, hepatitis, and other illnesses, respiratory issues like lung cancer, emphysema, and breathing problems, nausea, vomiting, diarrhea, constipation, and damage to the kidneys and liver,

Stroke, brain injury, seizures, alterations in body temperature, eating habits, and sleeping schedule.



Symptoms:-

1. Feeling as though you must take the medication frequently, like once a day or more
2. Feeling strong drug cravings that consume all other thoughts
3. As time goes on, requiring more medication to achieve the same result
4. Consuming more of the medication than you intended to over an extended period of time
5. Ensuring you have an adequate supply of the medication
6. Purchasing narcotics with money you can't afford
7. Skipping work and other commitments, or reducing social and recreational activities due to drug use
8. Sticking with the drug even though you know it's making things difficult for you or harming your body or mind
9. Taking on actions you wouldn't normally take in order to obtain the drug, like stealing
10. Operating a vehicle or engaging in other hazardous tasks while under the influence of a drug
11. Investing a significant amount of time obtaining the drug, taking it, or recuperating from its effects
12. Failing to give up the drug despite your best efforts
13. Having withdrawal symptoms when you try to cut back on the medication

Step to overcoming drug abuse and addiction:-

Addiction to drugs is not a reflection of weakness or a flaw in character, and conquering the addiction requires more than willpower. The brain can alter as a result of abusing illegal or some prescription drugs, leading to strong cravings and a compulsion to use that makes quitting seem unachievable. However, no matter how bad things appear to be or how many times you've tried and failed in the past, recovery is always possible. Change is always possible with the correct care and assistance.

For a great deal of individuals battling addiction, admitting you have a problem and choosing to change is the hardest step on the road to recovery. If you're addicted to a prescription drug, it's normal to be unsure of your readiness for recovery or

your ability to stop using it. You might also be worried about finding a different way to treat a medical condition. You should feel conflicted. Making the commitment to sobriety requires making numerous changes, such as:

How you handle pressure.

Whom do you let into your life?

What you do when you're not working.

Your self-perception.

The drugs you take, both prescription and over-the-counter.

Even if you are aware of the problems your drug of choice is causing in your life, it is also normal to feel conflicted about quitting. You can overcome your addiction and take back control of your life by committing to change, even though recovery takes time, motivation, and support.

Types of drug treatment programs.

•**comprehensive inpatient care.** This is a brief clinical intervention for individuals who require assistance with the symptoms of withdrawal from drugs after developing a physiological dependence on them.

•**residential care.** Living in a facility and receiving intense treatment while separated from family, friends, coworkers, and addiction triggers is known as residential treatment. Typically, residential therapy lasts anywhere from a few weeks to several months.

•**Day treatment/Partial hospitalization programs (PHP)** Partial hospitalization is for people who require ongoing medical monitoring but wish to still live at home and have a stable living environment. These treatment programs usually meet at a treatment center for at least 20 hours a week, but you return home at the end of each day.

•**programs for intensive outpatients (OP).** IOPs don't require you to live in a treatment facility, just like PHPs. They are different from PHPs in that you can fit their treatments around your job and school schedule because they only need nine to nineteen hours of care per week.

•**counseling.** Group or one-on-one therapy sessions can be helpful in examining the causes of your addiction, identifying triggers, and creating coping mechanisms.

Seek assistance in your recovery from addiction.

•**Rely on your close friends and relatives.** In order to recover, having the support of friends and family is very beneficial. If you've let your loved ones down in the past and are reluctant to reach out to them, you might want to look into family therapy or relationship counseling.

•**Create a clean social network.** You might need to establish some new relationships if drugs were the main focus of your previous social life. Having sober friends who will aid in your recovery is crucial. Consider enrolling in a course, becoming a volunteer, joining a civic or religious organization, or going to local events.

•**Think about relocating to a sober living facility.** While undergoing drug addiction treatment, sober living homes offer a secure and encouraging environment for residence. If you don't live in a drug-free or stable home, they are a good alternative.

•**Give priority to your meetings.** Sign up for and consistently attend meetings of a 12-step recovery support group, such as Narcotics Anonymous (NA). It can be very healing to spend time with people who truly understand what you're going through. You can also gain from the group members' shared experiences and discover what other people have done to maintain sobriety.

Coping with drug cravings

- Get involved in a distracting activity
- Discuss it.
- Put your ideas to the test and modify them.
- Encourage surfing.

Build a meaningful drug-free life

- Take up a new hobby or revive an old one.
- Take in a pet
- Take some time to enjoy the outdoors.
- Appreciate the arts
- Participate in your local community.





Herbal Medicines and the Treatment of Addiction:-

Ginseng extract:-

Ginseng extract inhibits the opioids' analgesic effects in a non-opioid dependent way. Moreover, it inhibits morphine tolerance and dependence. While psychological stress remained unaffected, ginseng extract reduced tolerance to and dependence on morphine and removed the suppressive effect of co-exposure to footshock stress on the development of morphine tolerance. Another way that ginseng extract worked was by preventing behavior from becoming sensitized to drugs like cocaine, methamphetamine, and morphine. Furthermore, it prevented the recurrent phenomenon of the effects of cocaine and methamphetamine from occurring,



which was the reemergence of the sensitized state at the time of re-administration of the drugs even after a 30-day break in drug administration.

Peganum harmala:-

Peganum harmala is classified as an inhibitor of monoamine oxidase and an antagonist of serotonin. It has harmaline, an alkaloid, in it. It helps get rid of some of the symptoms associated with withdrawal. It functions by affecting the brain stem's autonomic nervous system, limbic system, and opioid circuits and receptors. A study discovered that taking oral peganum harmala powder lowers the frequency of withdrawal symptoms.



CONCLUSION:

Drug addiction has an impact on behavior and the brain. It also has complex effects on the body, psyche, and opioid nervous system of the patients. A psychoactive substance alters the user's perceptions, feelings, and emotions in order to bring about consciousness for pleasure. A psychoactive drug produces an intoxicating effect when it enters the user's body. While some people can use prescription and recreational drugs without developing an addiction, many drug users develop both physical and psychological dependence on them. Depending on the individual and the severity of their addiction, there are many different reasons why people abuse drugs. Depending on the individual and the severity of their addiction, there are many different reasons why people abuse drugs. The reason a person becomes addicted to drugs and the changes that occur in the brain when a person develops a drug addiction are the sources of the psychological effects of drug addiction. Many people first turn to drugs as a coping mechanism for stress or pain. One side effect of drug addiction is the development of a vicious cycle in which the user feels compelled to take the drug whenever they experience stress or pain. One psychological consequence of drug addiction is the development of a "craving" for the drug. Ginseng extract, passion flower, *Caulis Sinomenii*, *Camellia sinensis*, *Nigella satvia*, *Peganum harmala*, chamomile, *Datura*, *Berberis*, *Valeriana*, *Asafetida*, and L-Tetrahydropalmatine (I-THP) are a few of the medicinal plants used to treat addiction.

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