



Commentary

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Addiction and Substance Abuse



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Introduction

Addiction and substance abuse is common problem affecting adolescent, teen and adult alike worldwide. It is estimated that around 10 to 15% of people in United states affected by Addiction and substance abuse at some point of time in their lives. This leads to several problems and creating distress and develop tolerance. Drug abuse is also creating serious social problems like child abuse, violence, stress and destroys families [1-5].

Abused drugs include

- Cocaine
- Methamphetamine
- Marijuana
- Anabolic steroids
- Club drugs
- Heroin
- Inhalants
- Prescription drugs, including opioids

Addiction generally develops due to repeated usage of drug or substance which impact brain. This repeated stimulus will change the structure and functionality of brain and directly affecting eating, sex and sleep pattern. It is chronic and complex disease. Drugs directly affect into the brain's communication system and affecting nerve cells normal function of sending/receiving and processing information. There are some drugs such as marijuana and heroin are having exactly similar structure like neurotransmitter, hence acting on brain receptors and sending abnormal messages and drugs like cocaine or methamphetamine release abnormally large amount of natural neurotransmitter and preventing normal recycling of brain chemicals. Such disruption disrupts normal communication pattern of brain. It's challenging for the person to stop taking abusing drug because of chronic relapsing brain disease [6-10] (Figure 1).

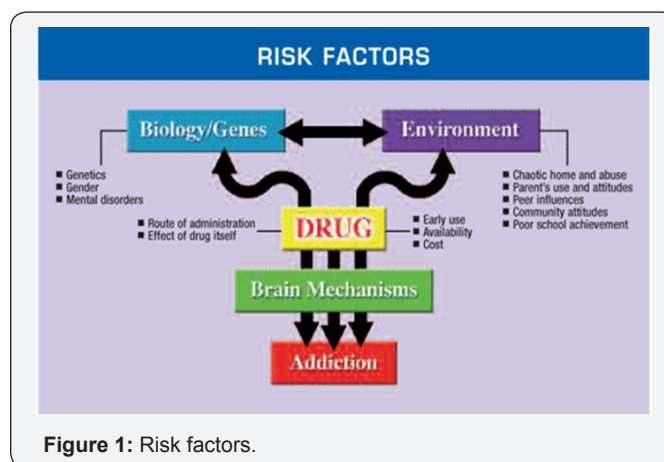


Figure 1: Risk factors.

The people with Addiction and substance abuse often have several other medical issues like abnormal blood report, cardiovascular disease, diabetes, abnormal ECG etc. Many drugs damage peripheral nervous system and long term usage also affecting function like judgment, decision making, learning, behavior [11-13].

What Causes Addiction and substance abuse?

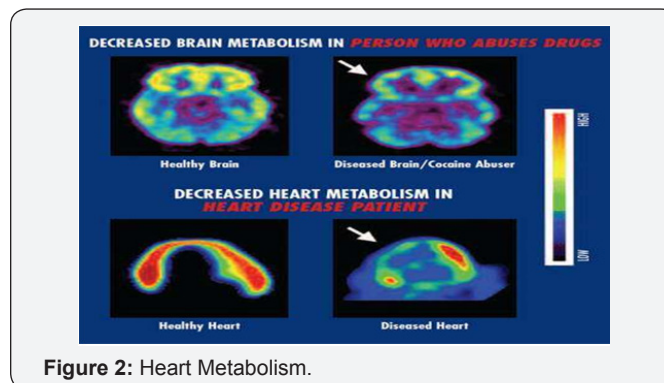


Figure 2: Heart Metabolism.

It is believed that family history and genetics play important role here. In addition there are several other factors affecting the

same (Figure 2) like

- Type of addiction / substance abuse
- Family background and support system
- Age
- Frequency of usage
- Length of drug usage time.
- Environment

Treatment options

There are several treatment options currently available to counteract this problem. Generally combination treatment is useful and help for the quick recovery.

- Yoga
- Addiction treatment Medication
- Behavioral therapy / Counselling
- Treatment approaches are dependent on drug abuse pattern and concurrent medical conditions. The tailored approach helps to achieve prompt recovery and life without abuse drugs.

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