Cocaine-Related Disorder and the Ensuing Mental Health Conditions

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Abstract

Cocaine is currently the most abused stimulant drug in the United States. Recently, the drug has become the one most involved in emergency department visits. Cocaine is not a new drug, but it is usually considered the “caviar” of all recreational drugs. Therefore, the distinction between cocaine and other drugs is reflected in its descriptions. The drug has been described as gold dust or the yuppie drug, among others. Cocaine can be abused in different ways. The most widespread methods of using the drug include snorting, injection, and smoking. Due to poor absorption and first-pass metabolism, the drug is rarely injected into the body. Cocaine use disorder is usually associated with some detrimental effects. Various body organs are significantly affected by the use of the drug. Cocaine use disorder has been well documented in the literature. The main objective of this paper is to discuss cocaine use disorder. It will also discuss the fundamental elements of the theoretical model of the main topic. Finally, the model’s limitations and criticisms will also be discussed.

Keywords: *Cocaine, Cocaine abuse, Cocaine Use Disorder*

Introduction

Cocaine is one of the most addictive drugs in the world. It is also ranked as one of the most destructive drugs. Cocaine use disorder can be described as a condition characterized by harmful repercussions of repeated use of cocaine, the pattern of use, and sometimes the psychological effects depending on the drug. This disorder can only be diagnosed when the use of the drug becomes persistent, causing significant social or medical impairment. Cocaine, together with other amphetamine drugs, has the same intoxication and withdrawal symptoms, and therefore, they are usually in the same category under the diagnosis of stimulant use disorder.

Literature review

This review focuses on understanding the association between the abuse of cocaine and mental disorders. Grant stated that “the association between cocaine use and mental disorder is a likely

reflection of the common contributing factors and brain substrates" (Grant, 2004). One of the common factors between cocaine use and mental illness is depression. However, the primary question that remains among psychologists is the role of drug use in causing mental disorders in people with no previous psychiatric histories. Cocaine induces psychosis since it increases the concentration of dopamine in the brain. However, this does not explain why psychosis continues even after the absence of the drug in the brain.

Brooner et al. broke their research into smaller categories of mental disorders. They found that 43% of individuals with schizophrenia have some problems with substance abuse. Individuals diagnosed with schizophrenia are four times more likely to have a substance abuse disorder than people who don't (Brooner, 1997). It is believed that prolonged use of cocaine might trigger mental illness in users. Individuals who already have mental disorders probably seem to be extremely sensitive to the impact of cocaine and other drugs since they already have some brain disorders. It is important to note that there is no single accepted cause associated with any substance abuse. However, many researchers have indicated that cocaine abuse is usually a result of genetic and environmental factors.

It has long been believed that the use of cocaine runs in families. A person who has a relative with a history of cocaine use disorder is usually at higher risk of developing the same disorder than those who don't. Moreover, others have stated that if an individual has repeated exposure to cocaine, it triggers some genes that in turn alter the levels of certain chemicals in the brain known as dopamine. This is the chemical associated with the rush experienced after taking cocaine. This feeling is the one responsible for addiction. The brain structure is also another cause of cocaine abuse (Crits-Christoph, 1999). Certain structures in the brain, such as the amygdala, have been associated with cocaine craving. In a person with cocaine use disorder, this area has always displayed some differences compared to the same area in a person not abusing the drug.

The use of cocaine has shown adverse impacts on the brain's pleasure center by stopping it from responding to natural causes of pleasure. This only changes when the brain feels the presence of cocaine. In the absence of the drug, the user will not experience pleasure, hence making him feel depressed to the point of having suicidal ideations. Therefore, the individual is forced to continue taking the drug to avoid the feeling.

A survey consisting of 1,100 U.S. residents who had used cocaine during the previous 24 months was carried out by NIDA. The study showed that the risk of cocaine dependence within two years was about 5.5%. The risk of being dependent within ten years of the first use increased to 15.5%. These were the aggregate rates for all ways of using the drug, which included smoking, injecting, or snorting. Among the recent users, the rate of individual dependence was 3.5 times higher for smoking and much higher for injecting. Women had a 3.3% likelihood of becoming dependent compared to men. People who started using the drug at the age of 12 were four times more likely to be dependent compared to those who began at a higher age (Najavits, 2000).

Another study of non-deviant users in Germany by Prinzleve et al. showed a relative absence of a destructive pattern of using cocaine over a period of ten years since the first use. Therefore, this led to the conclusion that users of the drug could exercise control over their use. Some of the respondents used two major types of control: 1) restricting cocaine use to particular situations in which the effects of the drug would be positive; 2) limiting the mode of taking the drug to snorting a modest amount of cocaine below 0.5 grams per week. Those who used more than 0.5 grams returned to lower levels (Prinzleve, 2004).

The prevalence rate for adults using cocaine within the last 24 months is estimated to be about 3%. The rate for men is 4%, while that for women is 1%. The highest prevalence rates are found between 18 and 29 years of age. The lowest rates are among those aged 45 to 64 years. Regarding ethnic background, the highest rate was found among Native Americans at 8%, while African Americans recorded 4%, Hispanics 3%, and Pacific Islanders 1%.

Normally, the brain releases dopamine to respond to rewards such as a nice smell of food. It then transmits the feeling back to the cells that released it, closing off the signal between the nerve cells. Cocaine blocks the recycling of dopamine, resulting in increased build-up between the nerve cells. This increased amount of dopamine then disrupts normal communication in the brain, hence causing the cocaine high.

Cocaine users can spend a lot of money and resources to get the drug, which might result in financial catastrophe. This forces most of them to indulge in activities such as theft, drug dealing, or even prostitution to support the expensive habit of using cocaine. Acute cocaine intoxication can lead to headaches, frequent moods of paranoia, and hallucinations (Wagner, 2002). Mood swings such as depression and irritability, as well as disturbance in attention, are all common. If an individual has been using this drug for quite a long time, he or she can develop erratic behavior, social alienation, and sexual dysfunction.

Since mood disorders can increase the vulnerability to prolonged use of the drug and addiction, diagnosis and early treatment of the disorder can minimize the risk of using cocaine. Since the inverse might also be true, the early diagnosis and treatment of cocaine use disorder might also mitigate the risks of developing other mental complications, and if in any case they occur, it is recommended to employ measures that would reduce their severity. Finally, since most of the individuals who use cocaine in the country have developed psychiatric disorders, continued use of the drug has a great contribution to their increased morbidity and mortality.

Numerous remedies have been researched and tested for treating people with cocaine use disorder. There are still no FDA-approved medications for stimulant use disorder, including cocaine use disorder. Anticonvulsants such as gabapentin and topiramate are not more effective than treatment. Little evidence shows that antipsychotic drugs are also not effective for treating cocaine use disorder. Several studies have examined the efficiency of bupropion in treating cocaine dependence. However, the trials that have been conducted so far have not shown any effectiveness for this purpose.

Current clinical guidance emphasizes evidence-based behavioural treatment, while researchers continue to study possible medication options. Ibogaine has been under examination as a treatment option for cocaine use disorder. However, it cannot be used legally in the U.S. Other options that have been investigated include baclofen and acetylcysteine. Drugs such as Phenalgine have been used to cause aversion reactions when used together with cocaine.

Discussion and Limitation

The use of cocaine has caused significant psychological and social impairment. Some of the common signs include euphoria, mood changes, hypervigilance, anxiety, impaired judgment, and stereotyped behavior, among others. Stimulant effects, including euphoria and decreased blood pressure, are usually common. Depressant effects include sadness and reduced psychomotor activity and are not common but usually emerge if the use of the drug is persistent.

Withdrawal due to cocaine use is only evident if the user reduces its use after heavy and prolonged use. Some of the most common symptoms associated with prolonged use include dysphoric moods such as anxiety or anger, as well as vivid, unpleasant dreams, an increase in appetite, and insomnia. Cocaine withdrawal requires some days of rest. Moreover, depressive signs with suicidal ideas can also occur during withdrawal.

Despite the theoretical model presented above, most of the studies in the literature are cross-sectional, providing a descriptive point of view. This represents a limitation of the current review since it is challenging to review the effectiveness of the theoretical model based on such studies. This problem must be highlighted as a potential limitation of other studies because the available conclusions do not address change over time. Another possible limitation is that the research carried out in this paper used certain sensitive terms, which may have caused us to overlook important articles.

Conclusion

There is a need to have a better approach that identifies, evaluates, and eventually treats cocaine use disorder. Many remedies have been tested, but just a few have proven effective. Most of the treatments for cocaine abuse are not designed to handle mental disorders. There should be awareness about the problem so people can identify any signs and know how to approach an individual with the disorder. People with the disorder also need to be aware of the available treatments for them. There is also a need for specialized training so that counselors can be equipped with the skills to diagnose patients better. For the patient to recover successfully, physicians and psychologists should treat a client’s addiction individually and not use a common system of treatment.

Individuals with cocaine use disorder can also get assistance from their peers. These people in the

recovery process can utilize their experience to assist others toward recovery. Support from peers is an essential element in treating cocaine use disorder. Most individuals working in recovery systems as counselors and peers are central to recovery efforts.

Peers also play a fundamental role as an integral part of mutual-support groups. Such groups include Narcotics Anonymous together with 12 other programs which provide support to mitigate cocaine use disorders. Such groups provide a support network that many people can depend on in recovering from substance use disorder. These groups are usually integrated into treatment plans to provide an active community for individuals trying to transform their lives and get away from cocaine abuse as well as other drugs. It is important to note that, while mutual groups do not work for all, they are an essential element in the treatment of cocaine use disorder even if they are not considered a formal treatment.

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