Psychedelic Drugs and Addiction Treatment

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The use of hallucinogens has received much attention concerning their effects on an individual's well-being. Drugs such as MDMA, 3,4-Methylenedioxymethamphetamine, lysergic acid diethylamide (LSD), and psilocybin, among others, are used for both recreational and therapeutic purposes. Hallucinogens generally work by stimulating serotonin receptors. As an outcome, a chemical imbalance in the brain occurs, thereby leading to hallucinations and other effects such as euphoria. For instance, a drug such as MDMA (also known as ecstasy or molly) leads to altered sensations, a heightened degree of pleasure, energy, and empathy. While these drugs' effects could have catastrophic outcomes for users, such as increasing the likelihood of addiction, they remain considered as potential cures for mental health issues such as post-traumatic stress disorder (PTSD). However, they exist as Schedule I drugs in the United States. Essentially, the classification of Schedule I drugs holds the place for drugs with high abuse potential and no real medical benefit. They classified in this category in the early 1970s and 80s before any recent research showcasing their potential benefits. Initially, there existed nationwide popularity of the legalized use of hallucinogens; however, in 1970, the federal government listed psychedelics such as psilocybin and LSD as Schedule 1 substances under The Comprehensive Drug Abuse Prevention and Control Act. A few years later, the DEA found no medical use and a high potential of abuse for MDMA and other hallucinogens and therefore classified them as Schedule 1 drugs.

In the past few years, there has been renewed interest and effort in developing classic hallucinogens for use in the treatment of addictions and other common behavioral disorders. Lysergic acid diethylamide (LSD), a hallucinogenic drug, is being used to treat alcoholism, while psilocybin is useful in treating nicotine and alcohol dependence. This paper reviews the

advantages and disadvantages of treating addictions and other psychological disorders using LSD, psilocybin, and MDMA.

Relationship between Research Topic and Psychology

Psychedelic drugs and addiction treatment relate to psychology because they all seek to redefine the future of mental health care. Psychedelic drugs demonstrate promising results in clinical trials designed to determine their effectiveness in treating mental health problems, especially PTSD and depression. Similarly, psychology has broadened the scope of psychotherapy to accommodate contexts and other issues, including cultural factors, to improve its effectiveness in improving mental health. Moreover, the topic is related to psychology because they aim to achieve psychological flexibility to improve people's health outcomes. Psychological flexibility seeks to explain why psychedelics reduce adversities of depression and anxiety and the contribution of psychology to psychotherapy's evolution to improve the effectiveness of therapies and redefine mental health care. This relationship suggests that psychology and psychedelics complement each other to increase the effectiveness of care.

Problem Overview

Drug addiction is rising at an alarming rate, and the rate of development of psychiatric medications does not parallel. The slow pace of psychedelic drugs' development shows a link to the numerous debates and disagreement on the existing diagnostics and explanations of the possible causes of mental disorders (Schenberg, 2018). Recent studies of psychedelics as a treatment are on the rise, and although there have been mixed success rates, researchers see dramatic results from therapy that uses these drugs to treat certain mental illnesses. For instance, psychedelic-assisted psychotherapy is useful in treating drug addiction and does not have severe side effects. Many people use psychedelic drugs for recreational purposes, mostly to attain a high

during parties and other social events. Initially, revelers could use nicotine and other hard drugs such as cocaine and methamphetamine for similar purposes, which had severe implications on users' lives due to the known effects of such drugs on the brain. Incidences of anxiety and depression are frequent after using hard drugs such as nicotine and heroin to increase the feeling of pleasure (National Institute of Drug Abuse, 2019). Doctors are implementing research to test whether or not psychedelic drugs benefit individuals whose neurotransmitters do not absorb the active ingredients in SSRI's or SNRI's in the treatment of depression. In other words, a new light of hope exists for those who have not had success or relief from other FDA approved treatments, including anti-depressant medications. As a result, many patients turn to heroin, nicotine, alcohol, opiates, and other illicit drugs to relieve undesirable and untreated symptoms.

Psychedelic drugs work by acting on the neural circuits of the brain that use neurotransmitters. The effects of the drugs on a person occur in the prefrontal cortex area; the brain region is responsible for controlling mood, cognition, and perception. The drug also actively controls and interacts with hormones responsible for controlling arousal and physiological response to stress and anxiety. Psychedelic drugs such as Lysergic acid diethylamide (LSD), psilocybin, mescaline, and dimethyltryptamine short-term effects include seeing images, hearing or sound, and feeling certain types of sensations. However, they do not last for long (Schenberg, 2018). Experiences with the drugs vary from person to person based on interactions with the drug and the level of addiction or harm the addiction has caused. Other short-term effects of the drug are increasing pulsation and body temperature. Increased pulsation is due to the increased activity in the brain region. Once supplied to the brain, the drug travels to various parts of the body affecting the feeling of calmness (National Institute of Drug Abuse, 2019). Some patients with chronic symptoms of addiction can experience dizziness and lack of

sleep. In many instances, drug users experience relaxation, similar to what they would have experienced when using drugs such as nicotine or marijuana in low doses (Winkelman, 2014). The drug's ability to cause a feeling similar to using hard drugs is, and while bringing the condition under control, it has led to the increased dependence of the drug.

The Re-emergence of Hallucinogenic Research

Psychedelic drugs have emerged as the best alternative to hard drugs and are now being used to treat psychological disorders (Bogenschutz & Johnson, 2016). These drugs preserve highness feelings even after the chemicals have worn off; hence, they do not suffer from withdrawal effects. Before MDMA and Psilocybin became common as party drugs, they were effectively utilized in combination with traditional psychotherapy in the mental health field (Danforth et al., 2016). Their ability to positively change the perception of depressed and socially anxious people warrants them to be moved down the Schedule and enable smooth prescription. This is especially useful in current environments where life experiences give rise to many psychologically and emotionally overwhelmed individuals. Currently, most of the approved medication for psychotherapy treat symptoms and eventually lead to relapses. The aforementioned drugs can help alleviate the situation and provide long-lasting effects.

Despite the risks associated with the similar effects of illicit street drugs and hallucinogens, controlled experiments on the use of psychedelic drugs in addiction and psychological disorders have shown high success rates. The clinical tests provide a closely monitored setting to ensure that these drugs are used appropriately and indicate that they are beneficial and effective in reducing anxiety and depression.

Excessive use of hard drugs can sometimes lead to a dual diagnosis of addiction and post-traumatic stress disorder (PTSD). Over time, the drugs affect the brain and alter the release of

hormones and other biological components that alter the state of mind (Winkelman, 2014). It is common to feel depressed in withdrawal from drug use after an addiction since the body develops a dependence on a drug over time. Such dependence is detrimental to the individual's health; the altered states of mind could negatively affect their psychological well-being. Psychedelic drugs are known to produce a high without any severe side effects.

Lysergic Acid Diethylamide (LSD)

LSD (Lysergic acid diethylamide) is a hallucinogen mostly sold in the form of tablets or capsules, and in some instances, it is made available in liquid form. As an ingested substance, it is known to have unpredictable effects on various people. The most common result is the feeling of intense visualization and colorful sensations. A chronic user reported having experienced severe hallucinations that involved melted walls, imagined patterns, and color flashes on surfaces. The final clinical diagnosis could lead to HPPD: Hallucinogen Persisting Disorder, a condition that might last a lifetime.

LSD is a potentially useful drug for use in analytical physiotherapy conditions. Its success over the years has aroused scientists' interest in using such drugs to cure psychiatric disorders, although such uses in the field of psychiatry remain contentious (Bogenschutz & Johnson, 2016). The use of illicit substances in clinical setups is not new; the practice has been in existence for years, despite the debate on its suitability. For example, the increased use of medical marijuana and cannabis derivatives has attracted support and criticism in equal measure. Studies on the effects of psychedelic drugs such as LSD indicate that its use is associated with feelings of socialness and jovialness. These effects demonstrate the potential of these drugs in treating mental disorders (Nichols, 2016). Various mental disorders are related to or emerge from excessive use and uncontrolled dependence on hard drugs.

Psilocybin

Psilocybin is a common hallucinogen. It is a capable therapeutic substance, lowering anxiety and depression in patients. The healing ability of hallucinogens remains based on their ability to alter perception and raise new discernments, thus creating major mental schema modifications. Ketamine is also a hallucinogen that is commonly abused illegally as an illicit drug. However, research reveals that ketamine, when administered by a healthcare professional in a controlled setting, helps patients with opioid use disorder overcome depression. Many other psychedelic drugs, such as ayahuasca, Amazonian botanical brew, ibogaine, a psychoactive alkaloid, have therapeutic benefits (Morgan, McAndrew, Stevens, Nutt, & Lawn, 2017). The substances alter the brain's ability to regulate the production of serotonin. Serotonin, which plays a crucial role in sleep and depression, is an inhibitory chemical that influences body functions like appetite, arousal, and mood.

Psychedelic drugs, even when used excessively, do not result in adverse mental effects. Many studies on the use of psychedelic drugs to treat addiction indicate that even when used in excess, the drugs do not affect the user's mental and physical well-being. Dopamine, a chemical substance responsible for communicating reward and pleasure in the front part of the human brain, is not affected by an increased concentration of psychedelic drugs in the body (Bogenschutz & Johnson, 2016). Glutamate, which controls brain development, cognition, learning, and memory, is also not affected by increased concentration of the body's chemical make-up.

MDMA

Alongside LSD and psilocybin, MDMA is another drug with supporting research to have the capacity in order to treat PTSD. MDMA (methylenedioxymethamphetamine), commonly

known as ecstasy, does not possess the adverse distortions of perception associated with LSD. The drug can alter primary emotional responses by increasing a user's perception of positive emotions and slowing down psychophysiological responses to negative expressions. A first time user reported having had "good feelings" and that even the music around them changed from hard beats to very melodious tunes associated with happy experiences. There is a general sense of tolerance and happy memories associated with users without reports of hallucinations, as is the case with LSD. In continuous dosages, the sedative drug 'slows time' and induces euphoria with intense sensations of being in control.

Mithoefer et al. (2019) noted that between an active group receiving MDMA dosage and a control group, the previous experience positive outcomes in terms of reduced effects and symptoms of depression. Researchers concluded that patients exposed to MDMA-psychotherapy responded positively in terms of reducing symptoms associated with PTSD. These participants had previously responded negatively to other pharmacotherapies, as about half of these individuals had already gone through trauma-focused psychotherapies (Mithoefer et al., 2019).

Such a finding reveals the positive outcome of using MDMA-assisted psychotherapy in the treatment of PTSD. Thal and Lommen (2018) explained that in a study that used MDMA to treat PTSD, there was a 66.2% remission rate accompanied by low cases of adverse outcomes. The findings recommend using MDMA as a safe and effective drug for the treatment of chronic PTSD. While the use of MDMA in therapy has received positive reactions among scholars, a group of individuals argues against its use following its link to illegal consumption and consequent drug addiction (Barone et al., 2019). However, to counter these arguments, Thal and Lommen (2018) noted that, first, for scientific purposes, MDMA should not be confused with ecstasy despite the interchangeable use of these titles. The argument is that ecstasy contains

MDMA, among other components, which implies that it is generally complicated to control for poly-drug use, product purity and dose, and underlying and preexisting mental disorders in users (Thal & Lommen, 2018, p. 102). With such understanding, there is a need to appreciate MDMA-assisted psychotherapy's positive outcomes when treating PTSD, implying that it is useful for other mental health conditions.

The use of psychedelic drugs to treat addiction has some limitations. It has been ascertaining through clinical studies that medicines cause severe mood swings, withdrawal, and loneliness. The side effects affect the social and psychological well-being being of a patient. If not well managed, the conditions can worsen and result in depression (Nichols, 2016). Many users of psychedelic drugs lack ambition and motivation. They will likely perform poorly in their professional or academic activities. Extended psychedelic drugs can affect social bonds and alienate one from the existing society (Bogenschutz & Johnson, 2016). Anyone using psychedelic drugs needs proper social support to overcome the effects. Overall, this paper has explored the use of psychedelic drugs to treat drug addiction and psychological disorders. These drugs do not exhibit any severe side effects, and the mild effects often experienced by users last for a short period. The patients' health condition is improved gradually, and in the process, reliance on hard drugs decreases.

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