

The Use And The Pharmacology Of The Drug MDMA

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Introduction

This paper describes the use and pharmacology of the drug MDMA. Some positive and negative effects of the drugs are discussed. MDMA or Methylenedioxy-methylamphetamine is a synthetic substance. (faculty.missouri.edu) MDMA is normally known as ecstasy. There are also many other substances which are included in this class of substances. Merck Chemical Company in 1912 developed this substance. Though its use in psychiatric counseling is common, its use in therapeutic is exceptionally limited. Many of the common tablets of MDMA are produced in Europe. (Simon) This drug has the property of producing weak hallucinations and acts as a stimulant for the Central Nervous System. This means that this drug can increase sensory awareness. This drug is an internationally controlled drug. MDMA is a member of the phenethylamine family and the derivative of the CNS stimulant amphetamine. There are many other homologous compounds that have largely analogous effects.



Methylenedioxy-methylamphetamine/C₁₁H₁₅NO₂

Slight central stimulation, euphoria, and increased sensory awareness can occur due to intake of MDMA. MDA or methylenedioxyamphetamine is a lower homolog of MDMA. MDMA is less hallucinogenic than MDA. MDMA has some socializing effects, and the terms entactogenic and empathogenic are used to describe these effects. MDMA is released unchanged in urine after the intake of most of the MDMA dose. Mostly, it is used orally in tablet form, but it is also inhaled, injected, or snuffed in its powder form. The latter form is used for recreational ecstasy. 1

Analysis

Many studies suggest that cognitive impairment is known to be linked with MDMA use. The toxic effects of MDMA use vary. There are many factors on which MDMA toxicity depends. One such significant factor is vulnerability to the MDMA use.

MDMA was patented two years later after its synthesis by Merck in 1912. It fell to the history annals until when Alexander Shulgin, with many other chemists of the USA, started manufacturing MDMA in 1970. MDMA was known to invoke the euphoric feelings and soon came into the streets. Safrole

precursor was used to synthesize the MDMA. Safrole is taken out from the root bark as an oily liquid obtained from the fruits of the Sassafras tree. There are many synthetic pathways to get the final molecule. MDMA ingestion after 1.5 to 3 hours reaches its increased concentrations in the blood. MDMA users feel high for a few hours. There are many receptors in the brain which release three main neurotransmitters. These neurotransmitters are noradrenaline, serotonin, and dopamine. Serotonin receptors are mostly affected by MDMA, which results in the release of the chemical. According to the chemists, MDMA is not a very complex molecule. However, there is a complicated sociological history behind its simple structure. MDMA has resulted in the despair as well as ecstasy to many of its users.

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There is another ecstasy drug named GHB that is not MDMA. Low levels of GHB have similar effects as those of alcohol. A type of coma or temporary sleep for 1-4 hours is often experienced by the users of GHB if taken in high doses. Overdose of GHB causes unconsciousness and vomiting. However, MDMA does not cause blackouts and acts as a stimulant. MDMA users may feel sublime or preternatural but not weird. The influence of the drug is controllable. Self-identity sense of the users gets enhanced due to MDMA use. The use of MDMA causes the “softening of the ego-boundaries.” Depersonalization occurs rarely. However, derealisation, to some extent, may occur due to the use of MDMA. Due to its drug features, MDMA has got the title of date-rape drug. People using MDMA enjoy being close to each other as they experience increased feelings of empathy and sense of touch.

The use of MDMA is illegal in America since 1985. It was a therapeutic drug used for patients who suffered from post-traumatic stress disorder. The healing abilities of MDMA have been discovered in many findings, unlike its toxic effects. The possibility and definite chemical and neurotoxic effects caused in humans due to this drug are declared uncertain due to its illegality. Many reports support the negative and positive effects of the drug. Most of the research conducted on MDMA use is biased. This drug is mostly sold in the black market. 20 dollars to 30 dollars is the usual cost of the pills. Misleading information about the real effects of this drug is due to the rumors. According to the tests by Dancesafe.org, 1 out of 3 MDMA pills does not contain pure MDMA as expected.

Conclusion

Methylenedioxy-methylamphetamine, or MDMA, is a drug used in psychiatric counseling. MDMA has many positive and negative effects. Though this drug is mostly considered dangerous, there exists a balance between problems and advantages associated with this drug. According to many recent researches for the treatment of post-traumatic stress disorder, MDMA could be used as a potential drug. Traditional psychotherapy combined with the drug in a clinical trial was used to treat post-traumatic stress disorder in patients who had shown treatment resistance. In a study, 19 participants were tested with the MDMA use. The results suggested that MDMA helps in improving the condition and symptoms of chronic PTSD sufferers. MDMA increases the access of subjects to their emotionally disturbing memories. Meanwhile, it also lessens the emotional response. Consequently, the practicality of the therapy session is improved overall.

References

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