Drug Testing At Music Festivals

MDMA (Methylenedioxymethamphetamine) is a psychoactive drug that is mainly used recreationally. The effects begin within 30-45 minutes when taken orally and can last from 3 to up to 6 hours (National Institute of Drug Abuse, 2017). A neurotransmitter is a chemical message that can affect various physical and psychological functions such as heart rate, sleep, appetite, mood, and fear. Neurotransmitters are released when an electrical signal reaches the axon terminal and then the molecules of the neurotransmitter are released across the synaptic gap (the separation between one neuron and another) they then attach to the receptors on the adjacent neuron, triggering an electrical impulse in the adjacent cell (Simply Psychology, 2017). MDMA consumption impacts this process by blocking the synaptic terminal's ability to reuptake the neurotransmitter, causing increased levels of the chemical and increasing its activity by enhancing the release of them (Science Education, 2019). The main neurotransmitters effected are serotonin, dopamine and norepinephrine. Serotonin helps regulate mood and social behaviour, appetite, sleep, memory, appetite, pain and other behaviours. (National Institute on Drug Abuse, 2017) Dopamine boosts mood, motivation, attention, and helps regulate movement, learning, and emotional responses (Psychology Today, 2019). The elevated mood that MDMA causes is due to the excess release of serotonin and dopamine. Norepinephrine is released from the sympathetic nervous system in response to stress and its release affects other organs of the body. (Science Direct, 2018). PET imaging has shown that one low-dosage of MDMA increased cerebral blood in the frontal and occipital cortex, temporal lobe and cerebellum and decreased cerebral blood flow in the motor cortex, amygdala and thalamus. (Drug Abuse, 2017).

Some short-term effects of MDMA consumption include dilated pupils, tingling sensations, jaw clenching and teeth grinding, increased body temperature, increased heart rate, sweating and blurred vision, chattiness, muscle spasms, high levels of euphoria and false sense of confidence and energy (Very Well Mind, 2019). MDMA can disrupt the brain's ability to regulate body temperature. If the user is in a hot environment or engaging in intense physical activity such as large amounts of dancing, it can cause hyperthermia. The person can also become dehydrated and develop great thirst. These effects are because of the effect MDMA has on the hypothalamus (National Institute of Drug Abuse, 2017). The hypothalamus is small in size; however, it plays a crucial role in the regulation of the body's internal environment. Damage to this important structure of the brain can cause inability to maintain a constant body temperature, issues with a regular sleep and waking cycle and uncontrollable anger (Lovering, 2019).

A major long-term effect of MDMA is damage to certain parts of the brain. The extent of this damage depends on how chronic the person's consumption is, the type of MDMA, other drugs taken in addition, dose taken and genetics (Healthline, 2019). Researchers at University of Liverpool have found that the serotonin nerve pathway is predominately affected by the drug. Serotonin is synthesized, stored, and released by specific neurons in this pathway. They found that MDMA users displayed a significant decrease of serotonin transportation in the brain, which can affect the appropriate regulation of emotional responses to certain situations (University of Liverpool, 2016).

Due to the large amounts of serotonin released during a high it causes the brain to become

exhausted of this neurotransmitter and contributes to the negative mood that people often experience for several days after consumption. Regular use of MDMA for several days (binge use) can cause depression, anxiety and irritability (Science Daily, 2000).

Several public health organisations and members of the federal parliament are in support of pill testing at music festivals in Australia. Arguments in favour include pill testing being shown to change the black market because substances publicly identified to be dangerous have left the market, pill testing changes behaviour because negative results would stop a number of people from consuming drugs and would cause them to warn their friends and visiting a pill testing booth can allow people to gain information and support about drugs. (Parliament of Australia, 2018). Some people also believe that because of the number of deaths at music festivals due to drugs, there is a ‘moral obligation’ for the government to provide good governance and protect these people from harmful substances (The Conversation, 2016).

On the other hand, the main arguments against pill testing are that on-site tests are uncapable to accurately detect all harmful substances, by permitting pill testing there can be a contradictory messages sent about the risks related to the use and possession of controlled substances, people can be given a false sense of security about drug use and it encourages people to take drugs. Tim Mander who is deputy leader of the Queensland Liberal National Party says that, ‘We have to remember that these substances are illegal and they’re illegal for a reason. One pill can kill, and we need to educate our young people that you don't need to be on drugs to have a good time at a concert.’

There are a number of potential social factors that can contribute to adolescents consuming MDMA at festivals. One of the most common is peer pressure from friends, which is doing something you wouldn’t normally do or wouldn’t like to do just because you want to be accepted by a people or a person (Reach Out, 2019). Peer pressure can influence a person’s decision to take drugs and at music festivals MDMA is very common. There can also be family and environmental factors involved, for example people who live in a ‘disadvantaged’ environment with high risk and low protective factors, have a higher risk of drug use. Furthermore, if a person has an unhappy and unstable family life they could be more inclined to take MDMA, particularly if family members take drugs. Experimentation and risk taking is another factor, some people are more drawn to taking risks and may use them to for a sense of release and thrill. Some people try MDMA at music festivals for the first time as an ‘experiment’ because they are curious and/or they’re friends are taking it. People may want to see how the drug affects them and talk about their experience with their friends after to relate with them (Drug and Alcohol Information and Support, 2019).

My opinion is that pill testing at music festivals should not be available because it gives people a false sense of security about drug use and encourages adolescents to take drugs. I think there should be an alternative to a pill testing both and have an ‘educational booth’ that provides information about the risks of taking drugs and support/counselling for young people who are having issues with drug use.