

Psychology: drugs and abuse flashcard



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Abuse of drugs can have effects on the user even after the use of drugs has stopped. Different drugs produce different effects, depending on the user, type of drug, and severity of abuse. New research is done every day in the area of drug abuse that makes finding accurate results on the broad topic of drug abuse very difficult. From the most recent studies only can one find data that is presently accepted as correct. These numerous studies provide enough data to explain the effects of both legal and illegal drugs.

To understand how drugs work, it is necessary to understand the changes that take place in different areas of the body when drugs take effect. Found in the brain are the synapses, the interaction point of two neurons (Perrine, 1996). The synapses in the brain are often the main target of a drug, altering the perception of something at the point of perception. When a drug is taken, it attaches itself to receptors in the brain, which ! have a pattern chemically similar to the neurotransmitters that send and receive messages in the brain.

Perrine makes the analogy of a drug to receptors as a hand to a doorknob.

Because certain drugs can attach themselves to these receptors, they may become blocked, and the neurotransmitters originally being sent by the brain's neurons are forced to wander around the brain until it can find another similar receptor, possibly creating a false signal (Perrine, 1996). The physiological responses created by these false signals, sent by both the drug and the extraneous neurotransmitters are what are perceived to be the effects of the drugs. However, the effects of drugs vary greatly from person to person. Perrine states that are four main aspects to keep in mind when

considering the effects of drugs on each individual person: “(1) the individual, the particular human being, both as a unique biological organism with a possibly idiosyncratic response to a given chemical substance and as a unique personality and psychology; (2) the particular mental set of the person taking the drug, which often has a dramatic influence on its effects; (3) the setting in which a person takes a drug, which can range from a religious ceremony to a rock concert to an assisted suicide; and (4) the pharmacology of the drug itself.

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Opiates are a classification of drugs that include heroin, morphine, and opium. The name for opium is derived from the Latin word *Papaver somniferum*. It is one of the oldest drugs known to mankind, presumably being used by the Sumerians around 4,000 BC to relieve pain and help induce sleep (Perrine, 1996). Thomas De Quincey, author of *Confessions of an English Opium-Eater*, was an admitted abuser of laudanum, to the point where he took about 20.

8 grams a day. De Quincey felt that opium enhanced his mental powers, and felt that it was much better than alcohol in many regards (Perrine, 1996). This abuse in the long run, however, took its toll on De Quincey. After enough constant abuse of laudanum, opium in its freebased form, he was tortured by horrific dreams that kept him awake, causing him to eventually have to decrease the amount he used by 32 times his original daily usage. He was also never able to drop below this maintenance level of 250 drops a day or he suffered severe withdrawal symptoms (Perrine, 1996).

This is only one example of the negative effects of this opioid on the human body. Morphine, like laudanum, is derived from opium, but it is different in that it was the first alkaloid discovered, and was named after Morpheus, the Greek god of dreams (Perrine, 1996). Morphine is used in medical practice as a pain reliever, and is classified as a Schedule II drug. It is the drug of choice with most doctors whose patients suffer from pain related to heart attacks. It is much more potent in injected form than when taken orally, and must usually be administered under controlled circumstances (Perrine, 1996).

Heroin is also an opioid, and is formed by reacting morphine with one of many acetylating agents. Heroin by itself is inactive, but when it enters the brain, it is chemically changed and attaches itself to the opioid receptors in the brain (Perrine, 1996). Heroin is illegal in the United States, but is used medically in countries such as the United Kingdom, Belgium, Canada, Iceland, the Netherlands, and Switzerland. Heroin is a very addictive drug, and the most popular treatment is methadone.

Methadone is a drug that is similar to heroin, except that it takes several hours to take effect and doesn't provide the "high" that heroin does. An estimated 600,000 heroin addicts are in the United States, and only about 115,000 are enrolled in methadone maintenance programs (Recer, 1997). The addiction from the opioids is caused by: (1) the withdrawal symptoms being too much to tolerate; (2) the sense of euphoria simply feels good; and (3) it is an attempt to self-medicate an endogenous psychological or physical disorder (Perrine, 1996). One method of quitting addiction, not just to opioids, but to any drug, is the holistic way, which can include acupuncture, homeopathy, massage therapy, aromatherapy, yoga, nutrition therapy, and <https://assignbuster.com/psychology-drugs-and-abuse-flashcard/>

dozens more (Apostolides, 1996). The opioids affect the central nervous system as a depressant, which are very addictive both mentally and physically.

Alcohol affects the user in a similar manner. Depressants are some of the more commonly abused drugs, mainly alcohol because it is socially acceptable to use. Alcohol is the most abused depressant in the United States.

With alcohol being tried for the first time by this year by 773, 417 people, 101, 302 this month, and 10, 167 today (3/8/98) (NCADI, 1998). Alcohol is also the oldest of known drugs, as Perrine says, “ its use being coextensive with recorded human history”.

The use of Alcohol is part of many religions including Judaism and Christianity. The prohibition of alcohol led to the rising of the most powerful gangs in the United States. The underworld created during this time laid the foundation for other black market dealers to learn from. Alcohol has been found to have certain health benefits when used in moderation. The use of alcohol has been shown to have cardio-protective qualities (Rimm, 1996).

In the Common Cold Unit of Britain’s Medical Research Council, 391 subjects were quarantined and given nasal drops containing one of five respiratory viruses. The study showed that the likelihood of catching a cold was increased by smoking but decreased with moderate alcohol consumption (up to 4 drinks per day) (Cohen, 1993).

Despite the few possible benefits alcohol can have, the negative aspects can far outweigh the good for many people. The social responsibilities are often overlooked when the use of alcohol takes place. Groups such as Alcoholics Anonymous help abusers of alcohol learn to curtail their drinking habits. The cause of alcoholism is still ! not a cut and dry issue.

One report on the tendency to drink was an inherited trait caused by the D2 dopamine receptor which has been linked to the neural mechanisms for behavior reinforcement (Blum, 1990). Enoch Gordis, Director of the National Institute on Alcohol Abuse and Alcoholism supports the idea of a genetic link in alcoholism. He says, “ a significant fraction of vulnerability to alcoholism is inherited” (Gordis, 1996). Drinking and driving is a leading factor in automobile related deaths.

A drunk driver has a 12 time greater likelihood of being in a wreck than non-drinking drivers (Angell, 1994).

Many medical health problems, not just social problems, are caused by excessive drinking. Liver damage is one of the most common, as well as Fetal Alcohol Syndrome, increased susceptibility to cancer, and alcohol poisoning. Alcohol is mainly broken down in the small intestine, as ethanol, where it is absorbed (Perrine, 1996). There are some drugs being used for the treatment of alcoholism such as disulfiram, opioid antagonists, and even kudzu (Perrine, 1996). The most used and abused drugs are considered to be stimulants, which include nicotine, caffeine, cocaine, and amphetamines.

Nicotine is notorious for being a hard drug to quit. Even with the addictive qualities and extreme health risks involved, nicotine is used by people throughout the world even in the most remote areas (Perrine, 1996). The withdrawal symptoms from nicotine include a drop in pulse rate, drop in blood pressure, disturbance of sleep, slower reactions, tension, restlessness, depression, irritability, constipation, difficulty concentrating, and a general craving for tobacco (CESAR, 1998).

Nicotine is found primarily in tobacco, and is most commonly rolled into cigarettes for people to smoke.

This year, 558,951 people started smoking, 73,211 people started this month, and an estimated 7,348 started today (3/8/1998). Perrine makes the point that many people use alcohol only on weekends, and that even fewer use marijuana on occasion, and that even many cocaine users don't use cocaine everyday, but that can not be said about nicotine. People who use nicotine almost always use it everyday, many times a day. Studies have shown that nicotine, when looking at the chemical and social reasons, is the most addictive drug on earth (Franklin, 1990).

The nicotine itself, however, is not that dangerous by itself. The main problem arises when one looks at the carcinogens produced when tobacco leaves are smoked. The chemicals found in a cigarette are by far more detrimental to one's health than the nicotine itself. Long term use of nicotine by smoking can lead to coronary artery disease, chronic obstructive pulmonary disease (emphysema), and cancers of the mouth, throat, and lung (Perrine, 1996).

Nicotine can be ingested by other means that are not as bad as smoking tobacco; some of these methods are the nicotine patch, chewing tobacco, and betel.

Another stimulant, caffeine, is one of the most commonly overlooked drugs on the market. As it is completely legal all over the world, there is no societal argument for the intake of caffeine, even though it can be addictive and have withdrawal symptoms such as irritability, nervousness, restlessness, and headache. Caffeine comes in a variety of ways to take it, from common beverages such as soft drinks, tea, and coffee to more deliberate forms like No-Doz and Vivarin. Caffeine has been reported to produce almost awkward results when studied.

Rats have been shown to bite themselves and chew off their own feet, sometimes not stopping until they die (Peters, 1967), while women who drank coffee regularly have a 66% better chance to not be at risk of suicide than those women who did not have a regular intake of caffeine (Kawachi, 1996). Caffeine, even with some of its unusual study results, is accepted as a part of society and is a must have for many people.

Cocaine, however, another stimulant, is not welcomed with open arms. Cocaine was first used as a stimulant to fight fatigue hundreds of years ago by Indians of Bolivia, Columbia, Chile, and Peru by chewing on the leaves of the coca plant (Perrine, 1996). The first pure cocaine was created by Albert Niemann in 1860 (Perrine, 1996).

The popular soft drink Coca-Cola originally consisted of a formula which contained cocaine, which was removed around 1903 (Allen, 1994). The social

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aspects of cocaine use have been wide ranging. From the fictitious Sherlock Holmes to Sigmund Freud, many of the world's most influential and well-known people have used cocaine. Cocaine is presumed to work by blocking the dopamine receptors at the dopamine reuptake shuttles in the presynapse, which concentrates the dopamine in the synapses (Perrine, 1996).

Cocaine is metabolized by the body very quickly and only about %1 is left unchanged when excreted through the urinary track (Perrine, 1996). Cocaine does have practical medical purposes as an anesthesia, but is also a very dangerous and addictive drug.

An estimated 99, 141 people have tried cocaine in 1998, 12, 985 this month, and 1, 303 today (3/8/1998) (NCADI, 1998). Cocaine is even more addictive in its freebased form known as crack. Crack is cheaper than cocaine, and is delivered to the brain in a more concentrated manner by smoking it.

Crack is one of the most dangerous and socially unacceptable drugs in the United States. Amphetamines are similar to cocaine in that there are few withdrawal symptoms, yet an intense psychological craving the user may feel (Perrine, 1996). The main difference between cocaine and amphetamines is that the dosage level necessary is increased greatly in amphetamines, an attribute not found with cocaine. The tolerance level may be increased from a lethal 120mg for a first time user to 15, 000mg for a long-term abuser with no fatal results. Antidepressants are drugs that are often overlooked socially as being addictive or having negative consequences when not taken properly.

The newer antidepressants work at the serotonin receptor sites (Perrine, 1996).

Some examples of antidepressants are Amitriptyline, Clomipramine, Maprotilene, Doxepin, Imipramine, Amoxapine, Desipramine, Nortriptyline, Bupropion, and Alprazolam. These drugs may be used to treat mental disorders such as Obsessive-Compulsive Disorder, Trichotillomania, Seasonal Affective Disorder, and Bulimia (Perrine, 1996). Prozac is one of the more common antidepressants found in society, and like other drugs in this class must be taken by the user with caution and the side-effects monitored in order to be a safe drug. Abusers of antidepressants usually do not become addicted to the drugs beyond the psychological aspect in that the drug is commonly taken to lift one's mood, and some of the drugs must be taken in quantity over time before any effect takes place. Psychedelics are possibly the most damaging drugs to the brain, not to mention! the severe and dangerous state of a false reality induced by these drugs.

LSD, psilocybin, and mescaline are all members of this group. LSD, or lysergic acid diethylamide, was accidentally discovered by Hofmann in 1943. LSD has been used in the past for the treatment of alcoholism, psychotherapy, psychotomimesis, and for exploring mysticism (Perrine, 1996). There are no significant physiological effects from LSD, but users who experience bad "trips" run the risk of suicide (Perrine, 1996).

One phenomenon known as flashbacks is still a topic up for debate. It is not known whether or not a flashback is an actual re-experiencing of the drug state or just a vivid memory (Perrine, 1996). Psilocybin is a chemical similar

to LSD, except that it is found in “ magic” mushrooms. Mescaline is another well-known psychedelic that is found in the cactus flower, peyote.

Peyote is still legal in some areas of the United States as a religious tool used by Native Americans. Marijuana is a drug that is illegal in the United States, but it has come under much controversy recently because the benefits and risks involved when using the drug.

Marijuana has been used throughout the world for centuries by almost every culture. The active ingredient in marijuana is called THC, or tetrahydrocannabinol. Marijuana is legal in many countries around the world as it is part of various cultures and religious groups, and is slowly being proven to not be as bad as it has been made out to be. A study done in 1969 by Alfred Cancer, chief of research at the Department of Motor Vehicles in Washington State, showed that drivers under the influence of marijuana performed as well as the drug free drivers did, but the alcohol intoxicated drivers failed miserably (Perrine, 1996). Marijuana also has many legitimate medical uses such as in the treatment of glaucoma and as a pain reliever for people suffering from neurological disorders (Perrine, 1996).

Many groups that hold national recognition who support the legalization of marijuana include NORML, the National Organization for the Reform of the Marijuana Laws and DRCNet Online, the Drug reform Coordination Network which is an online internet group.

One argument of these groups and those like them is that marijuana is the only illegal drug that has never caused a single death and is far less dangerous than many over the counter medications. The lethal to effective

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dose of marijuana is 40, 000 to 1, a margin far less than any other illegal and most legal drugs. Many of the drugs explored in this paper are obviously a threat to, as well as being a part of, American culture. While new ways of drug prevention and education and rehabilitation are conceived, new, more potent drugs are being invented.

While the “ underground economy” is one of the most profitable “ organizations” in the U.

S., it is not taxable income and therefore deemed wrong in the hearts of many. In other countries where drugs such as heroin and marijuana are legal, the drug problem is less severe and the societies are able to help the addicts cope with their problem. However, it is still vitally important to remember that drugs, when taken in large doses or bought off the street and abused for non-medical purposes, can have incredible negative repercussions on both the user and the society.

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