

PSYCHOTROPIC DRUGS – I

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Drugs are chemicals which affect us physically as well as mentally. In this article, we talk of drugs (both natural and artificial) which modify mental activity in human beings. These are commonly called psychotropic drugs.

Addiction to such drugs means a compulsion on the part of the user to continue the use of drugs. Habituation is the desire to do so.

Drug-taking is an age-old practice almost in every society. But in this article, our chief concern is the weakness among young people and students for the addictive drugs.

Here, we shall try to acquaint ourselves with the various natural and synthetic drugs, and then, with the nature and extent of drug use, the social basis of drug dependency and the contemporary youth culture *vis-a-vis* drug taking.

Contemporary drug use is somehow related to the loss of faith in reason and emphasis on emotion. Such qualities like self-control, planning and patience are grossly devalued. Past and future have become meaningless to many; the reason for living is sought within present experience, here and now. The motivational patterns behind drug addiction, however, vary from drug to drug and person to person. It is not enough to know that our young friends become drug addicts. Perhaps it is more important to know why they become so. Weakness towards psychotropic drugs is neither born in a social vacuum nor can it be explained in terms of a group or individual viewed in isolation from the rest of the society.

Potential addicts in the society outnumber the actual addicts. It is the opportunity, social and family set-up, friends and companions, mental make-up and personal proneness that convert one to a drug addict. Addiction may frequently develop from simple adolescent curiosity. Thus, there may be a wide variety of background stories that lead people to drugs. There is often a particular type of dependence in a particular society. Barbiturate dependence, for instance, is rather common among the urban youth. The supply may be available from a variety of sources— through under-the-counter sale to stealing from hospitals or through forged prescriptions.

Much of amphetamine abuse is also very common. Many young men start with drugs to get what they call a “kick” and to earn a temporary relief from routine life. Others start taking drugs to keep awake at night during or before examinations. By and large, to immature minds, drug-taking has become a part of new enlightenment. Willingly or out of ignorance, they remain blind to the knowledge of real dangers

involved. Excitement and adventure, delinquency, peer group pressure, seeking of hallucination or curiosity play their roles. Those who find solace in drugs to avoid personal frustrations and depressions find in drugs a means to release tension. One may get initiated through friends who describe how good it makes them feel. Inspired by friends and peer groups, a school goer starts with drugs and gets a sense of graduation to be a part of the 'in crowd'. Some think that the drugs would take them to another world where "the doors of perception" are open and their capabilities to appreciate aesthetic experience are heightened. Some drug-takers like to believe that drugs lead them to intellectual enlightenment and creativity. Occasional pill-taking and cannabis smoking are gradually becoming common for young people. Many of them want, through drugs, a relief or change in mood or feeling.

Any survey of drug-addicts in our country would show that the latter have had problems and difficulties which they were not able to face. A lot of beginners, however, start on their own just to know how many 'pills' to take to get the 'desired' effect. Friends, classmates, the students' own 'society' exert pressure on them to participate in what they are doing. This is a general picture in every country, every society and community. One must keep up with the others at any cost. If an individual wants to be 'fit' for a group, and the group takes pills, or smokes hashish or marijuana, the individual has to give in to the majority.

An analysis of the problem of drug addiction leads us to the conclusions that:

- (a) drug dependence is increasing throughout the world;
- (b) forms of dependence show variation with cultures;
- (c) with every form of increase, there is an increase in lawlessness, violence and crime;
- (d) the disease is preponderant among youth.

Primary natural products

Before we deal with the common, commercially available drugs, we have here a summary of primary natural products and some of their immediate derivatives.

Opium has been extracted from the poppy plant, *Papaver somniferum* for hundreds of years. Opium was prepared by the Sumerians 5,000 years before Christ. The plant is cultivated in India, Persia, Turkey, China and South-East Asia. Opium is prepared from unripe capsules of poppy plant. The milky juice is dried to a dark brown cake before it is used. Once, China had been the proverbial victim of opium addiction.

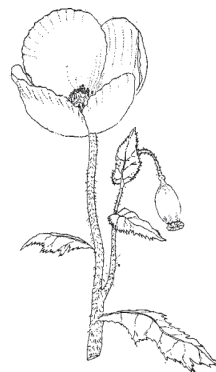


Fig. 1: Opium Poppy

Opium is both eaten and smoked. The poppy capsules are soaked in water and the water is subsequently taken as a beverage. Raw opium is taken orally. This is consumed mostly by poor and labouring class. Consumption is relatively high in Assam, Orissa, Punjab, West Bengal and Madhya Pradesh.

Morphine is the main alkaloid derived from opium and is taken in the form of injection. This was a wide abuse once; presently, it has been effectively

replaced by Heroin which is derived from it synthetically.

Heroin is the most dangerous drug among the narcotics (i.e., drugs which depress the activities of the brain and the central nervous system). Codeine is another derivative of opium. Certain codeine-containing tablets induce slight dependence and are widely used in many countries.

The immediate response to opium is reduced respiratory and cardio-vascular activity, constriction of the pupils, reduction in visual acuity and, in some cases, nausea and vomiting. Toxic overdose of opium may lead to respiratory arrest and death.

The versatile hemp plant *Cannabis indica* is called *bhang* or *ganja* in India, *khif* in Algeria and Morocco, *takroui* in Tunis, *hashish* or *kahif* in Lebanon and *marihuana* (marijuana) in other parts of the world. The word 'hashish' owes its origin to the name of an eleventh century Persian



Fig. 2: *Cannabis indica*

brotherhood—*hashshashin*. Addicted to hashish, the members of this secret society tortured and murdered their religious rivals. The word *assassin* also comes from the same source.

Use of cannabis drugs is widespread throughout India, Pakistan, North Africa and the Americas. In this country, *bhang* (or *siddhi* or *patti* or *sabji*), *ganja* and *charas* are obtained from the hemp plant. They differ from each other in methods of preparation and types of plants or plant parts

used for preparation. Dried leaves and flower shoots of male and female plants make *bhang*. *Ganja* is obtained from the flowering or fruiting tops of hemp plant. *Charas* (or *hashish*) is chiefly the resinous matter collected from the leaves and flowering tops of female plants. Marijuana is derived from the top of *Cannabis sativa*, a closely related species. The effects of *hashish*, however, are more potent than those of marijuana. Both of them are smoked. Amongst the student community, most of the cannabis products are smoked in the form of cigarettes. The tobacco content of the cigarette is usually taken out and in its place is put the cannabis product.

Our knowledge of the psychological and physiological effects of hemp drugs is rather incomplete. Marijuana is possibly not addictive but it can cause severe psychosis. In naïve subjects, cognitive functioning obviously decreases. Often marijuana addiction is the first step towards heroin addiction.

Smoking of hemp plants causes simple psychomotor dysfunction. Immediately after smoking, there is an increase in frequency of urination, dilated pupils and an increase in blood sugar level. Unlike the opium (or cocaine) addicts who seek solitude, the cannabis users enjoy the company of others.

Cocaine is derived from the leaves of the coca plant, *Erythroxylon coca*. (It has no connection with the source of cocoa.) The plant does not grow in India; it grows abundantly in Peru, Bolivia, Columbia and Java. Cocaine has gained popularity because of its anaesthetic and euphoric effects. Chewing of coca leaves is an old practice in the Latin American countries. It relieves fatigue and mental depression at lower doses. As a stimulant,

it induces talkativeness and feelings of increased energy. Other common feelings are sleeplessness, complete loss of appetite and hallucinations. Prolonged use of cocaine causes impairment of mental function.

The comparatively recent habit of taking cocaine with heroin has been widely popular as the HC habit. However, the use of cocaine alone is fast disappearing. Stimulating effects of amphetamines, which are far more easily available, are more preferred. Misused cocaine may cause convulsion or even death due to cardio-vascular or respiratory failure.

Khat is obtained from an Ethiopian plant, *Catha edulis*, a common shrub of north-east Africa. The plant is also grown in Karnataka and Maharashtra. Fresh or dried leaves are either chewed or taken in



Fig. 3: Coca plant

the form of infusion. It is a strong stimulant that reduces hunger and, on prolonged use, numbs the intellectual faculties.

The peyote (or peyotl) cactus *Lophophora williamsii* grows wild in Mexico and Texas where people have chewed the roots of the plant since olden days. This is also taken in an infusion- "peyote tea", as they call it. Peyote contains an alkaloid called mescaline, the effects of which have been described by Aldous Huxley in his *The Doors of Perception*. Mescaline is sold in the underground market in powdered or liquid form and is usually taken orally. A strong hallucinogen, mescaline is a potent substitute for LSD.

Psilocybin is derived from a Mexican mushroom, and like mescaline, it has been used by the Mexican Indians for hundreds of years. Properties of the drug are very similar to those of mescaline or LSD.

In the French Equatorial Africa, people chew the root of the shrub *Tabernanthe iboga*. The active chemical ibogaine has psychedelic effects.

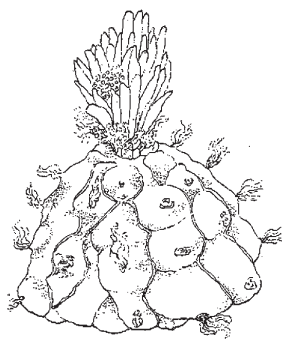


Fig. 4: Peyote cactus