

## Current Trends in Drug Addiction

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### Introduction

The W.H.O. Expert Committee on Drug dependence has defined 'drug' as any substance which, when taken into the living organism, modifies one or more of its functions. Of the various drugs, most important are those on which a person becomes dependent through repeated use. This is confined to the drugs which bring about changes in mood and behaviour.

### Extent of the problem

Since the end of World War II, abuse of drugs like marijuana, L. S. D., and hashish has become a world wide problem especially amongst the youth of affluent nations like U. S. A., U. K., Sweden, and Japan. In America, drug abuse is now the leading cause of deaths for the age group 15-35. Crime statistics in the U.S.A. have revealed that drug addicts cause 50% of the crimes in the cities and 25% of the crimes in the entire country. In a sample survey in 1970 carried out amongst University youths and students in the U. S. A., it was found that 70% were users of drugs mainly marijuana. The Committee appointed by the U.S. House of Representatives to study the drug abuse in the Armed Forces, found that as many as 20% U. S. Servicemen in Vietnam took marijuana

and 10% were addicted to hard narcotics like heroin. It was also found that a large majority of addicts amongst Armed Forces were already used to taking drugs before joining the services. In U. K., the situation is no better. 500,000 new drug addicts are reported every year. The drug addiction in that country is responsible for 24,000 deaths in a year. In India, no reliable figures are available. However, according to one report, 5% of Delhi school boys and 30% of college students have smoked hashish at least once in their lives.

A Seminar was held at Vigyan Bhavan, New Delhi, in July 1972 on 'Drug Abuse by Youth'. Poverty, affluence, boredom, fun, fashion, experimentation etc., were among the factors brought out by various speakers in this conference. In a recent seminar held on 6th December, 1972, under the auspices of I.C.M.R. and W.H.O., it was stated that in a study of 60 young habitual cannabis addicts at Chandigarh, 40 preferred to take bhang and charas in groups. Majority of them took it as a curiosity or 'to go with the crowd'. A survey of 728 adults of semi-urban community showed that 2.75% were regular users of bhang and 4.12% regularly smoked ganja or charas.

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### Incidence in the Armed Forces

The drug problem in the Armed Forces will naturally depend upon the prevalence of the drug abuse in the school and college youth population from which the recruits to the Armed Forces are drawn. Since the malady of drug abuse is spreading amongst our school and college boys, we in the Armed Forces, will have to be vigilant and careful with special attention to the youth cadets, recruits and new arrivals in a unit. Fortunately the problem at present is a minor one.

### Drugs Commonly Used and Their Harmful Effects

Most of the habit forming drugs in use fall under the following four groups, viz, Narcotics, Sedatives, Stimulants and Hallucinogens.

(a) *Narcotic group* - (Opium, Morphine, Heroin and Pethidine). These drugs can have both euphoriant and sedative effects, giving relief from pain and anxiety or relief from excessive passivity. They can stimulate as well as depress the central nervous system depending upon the dose. Their effect is through the enzymes involved in neurohumoral transmission of stimuli in the nerve cells. Narcotics come as close as being a 'Panacea', than any other drug yet found. Physical dependence and tolerance to these drugs develop very early. Sexual incapacitation and emotional impairment are common symptoms of prolonged use of these drugs. The withdrawal symptoms range from anxiety, restlessness, perspiration, nausea,

vomiting, cramps and in some cases shock and death.

(b) *Sedative group*— These drugs depress the central nervous system by reducing the O<sub>2</sub> consumption of the nerve cells. They also act by blocking the sensory pathways to the reticular formation. In this group are included various barbiturates and so called 'tranquillisers'. They enjoy increased popularity as a means of coping with the present hectic way of life. These drugs are commonly used to relieve anxiety. With all these drugs, psychic and physical dependence develops very soon. The symptoms of chronic intoxication with these drugs are similar to alcohol intoxication, i.e., lack of motor coordination, impairment of mental functions and occasional toxic psychosis. Tolerance, however, does not develop as rapidly as with narcotics. The withdrawal symptoms are characterised by anxiety, tremors, weakness, distortion of visual perception, insomnia, some times epileptic convulsion (as seen in alcohol withdrawal).

(c) *Stimulant drugs* - These drugs act as central nervous system stimulants. The exact mechanism of their action is, however, not properly understood. Commonly used drugs in this group are amphetamines, methylphenidate and phammétrazine, cocaine, various preparations of cannabis (bhang, charas, ganja, hashish etc.). These drugs produce mood elevation and sense of heightened awareness. Psychic dependence with these drugs

develops early, but tolerance is relatively slow to develop. There is no abstinence syndrome but exhaustion and depression are frequently seen following cessation of intoxication. In India, the use of bhang (taken orally) is prevalent in certain parts and is not considered illegal. The availability of ganja is controlled but the use of charas is proscribed by the Government.

- (d) *Drugs of hallucinogen type* — These drugs act on the central nervous system by sensitizing the reticular system to sensory stimulations. The symptoms produced are hallucinations, delusions, disturbances in thinking and changes in mood—symptoms resembling schizophrenia. Commonly used drugs in this group are Lysergide (L.S.D.), Mescaline, Psilocybin and DMT. These are usually synthesised from certain types of Fungi, Mushrooms and Cacti. These substances are largely used by those who have more than usual interest in artistic and intellectual pursuits and by others for 'kick' (changes in sensory perception, development of hallucinations and obtaining "mystical insight"). Psychic dependence develops by the repeated use of these drugs. There is, however, no physical dependence. Tolerance develops rapidly and is marked. Experiments and case histories show that L.S.D. can cause chromosomal damage which may result in mental or physical abnormalities in the off spring.

#### Effects of Drugs on Sexual Power

Considerable misunderstanding exists amongst laymen that drugs like marijuana,

hashish and L.S.D. act as aphrodisiacs. The experience of medical profession has, however, shown that these drugs extinguish sexual desire and the ability to perform sexually. Sexual incapacitation is one of the important adverse effects of these drugs. There is loss of sexual interest; and capacity for sexual performance is greatly reduced. Prolonged use of these drugs may lead to impotency.

#### Habit Forming Effects of Drugs

Some individuals after repeated use of the drugs feel that drug is necessary to maintain an optimal state of well being; such individuals are said to have developed psychological dependence. On the other hand, physical dependence is produced with some of these drugs (Narcotics and Sedatives) which necessitates the continued administration of the drug to prevent the appearance of withdrawal symptoms.

#### Symptoms of Drug Addiction

The individual who starts taking these drugs withdraws more and more from the family and from society. He cannot concentrate and his work suffers. The changes in the behaviour manifest gradually with regular use of the drug. There may be hostility and marked apathy and objectionable behaviour at the place of work. He gets hallucinations and may suffer from fits of depression. After a while, the habitual user becomes so apathetic that he does not care of what any body else thinks about him. He may come home with suffused eyes, stumbling gait and slurring speech.

Although most of these drugs are excreted in the urine, the detection is not easy.

The detection of addicts, therefore, has to be based on history taken by interrogating the person, his friends or relations. The following are the usual symptoms pointing to drug addiction :

- (i) Muscular incoordination.
- (ii) Impairment of memory and perception.
- (iii) Inability to concentrate.
- (iv) Emotional instability (tendency to cry without provocation).
- (v) Sleep disturbance.
- (vi) Loss of weight.
- (vii) Increase in smoking habit.
- (viii) Sexual incapacitation.
- (ix) Paranoid and schizophrenic symptoms in some cases.

#### Prevention of Drug Abuse

Prevention of drug abuse in the Armed Forces is mainly a question of man management. It is an idle, bored, neglected and frustrated person of low morale who falls a victim to the drug abuse. Therefore, the Squadron, Flight and all Unit Commanders should keep in touch with the personnel working under them and take interest in their welfare and family problems. Special attention should be paid to cadets, recruits and new arrivals on the station. The following preventive measures are recommended for the prevention and control of drug abuse :

- (a) *Health Education* - Health Education Programme explaining the harmful and habit forming effects of drugs should be organised in the form of lectures by the Medical Officers. The disastrous effects on the physical and mental health and sexual incapacitation should be high-lighted.
- (b) *Improvement of Living Conditions and Recreational Facilities* — Congenial living and messing facilities are very important towards the maintenance of morale of personnel. Games, hobbies and recreational facilities should be provided at all stations. All personnel including aircrew, airmen, cadets and recruits should be kept absorbed in gainful pursuits.
- (c) *Pre-flight Medical Check up of Aircrew* - Abuse of habit forming drugs can produce disastrous results in the case of aircrew. Pre-flight medical checks are essential at all Flying Stations to detect signs of anxiety, tension, illness and fatigue amongst aircrew. Only those found fit, should be cleared for flying by the Flight Commanders. It should, however, be noted that occasional use of drugs in small quantities in the evening is not detectable in the morning. Only the drug addicts can be detected by visual checks. Squadron Medical Officers, Flight Commanders and Unit Commanders should keep a close watch on the aircrew so that they are able to detect even slight changes in their mental and psychological behaviour.
- (d) *Suppression of Drugs Smuggling* - Close liaison should be maintained between

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the local civil and military police to check sale of drugs to service personnel. Those found in possession of drugs, should be given exemplary punishment. All suspicious localities in the neighbourhood should be placed out of bounds and adequately policed.

Cases of drug addiction detected in the Services, should be immediately hospitalised for treatment and reported to the administrative authorities.

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