

Drug Abuse, NDPS Act 1985 & Drug Demand Reduction: An Update

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Abstract

NDPS Act i.e. Narcotic Drugs and Psychotropic Substances Act came into existence on 14 November 1985 and it is applicable all over India. The act was made with the purpose to control the cultivation, manufacture, transport, distribution, export, import and use of Narcotic Drugs and Psychotropic Substances. In common sense, Narcotic drugs induces sleep while Psychotropic substances have the ability to alter the mind of an individual, hence these are called drugs of abuse and because of these effects a person becomes habitual of these drugs called drug addiction. Although, as these kinds of drugs have their importance in treatment of various diseases that is why these drugs are available in pharmacies and can be obtained only on the prescription of registered medical practitioner. If someone found in violation of this law, provision of punishment is there which includes rigorous imprisonment or fine or both. The present study is based on understanding drug abuse, NDPS act and drug demand reduction and how a pharmacist can play his role in overcoming the serious problem of drug abuse in our country because drug abuse is not only a individual's problem but it is a psycho-socio-economic problem.

Key word: Drug abuse; NDPS Act; NDPS Act 1985; Drug demand reduction, Narcotic drugs; Psychotropic substances

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I. Introduction

According to World Health Organization, the first synthetic drug Aspirin was introduced in 1897 and from 1897 to till date there have been incredible advances in development of drugs covering all areas of health concerns including disease, mental health and other conditions. Today there are thousands of drugs in the market to prevent, treat, diagnose and lessen the impact of ailments that would have been considered as untreatable just a few generations ago.¹

A drug is a substance that acts on the living body to alters (increases or decreases) the physiological process and are used for prevention, diagnosis, mitigation and treatment of disease, e.g. Aspirin, Morphine, Amoxicillin, Chlorpheniramine, Tetracycline etc. On the other hand, Narcotic drugs are drugs which act on Central Nervous System (CNS) to relieve pain but it produces narcosis and addiction e.g. Morphine, Heroin etc. Dangerous drugs are drugs which form a habit, dependence and addiction on prolonged use e.g. Barbiturates, Morphine, etc.²

Drug abuse

When drug is used for purposes for which it was not intended or using a drug in higher quantities is called drug abuse. Mostly the drugs used for abuse falls under illegal drugs e.g. heroin and cannabis, prescription medicines e.g. pain killers and other medicines e.g. cough relaxants. The drugs like Alcohol, Amphetamine, MDMA, Barbiturates, Benzodiazepines, Cocaine, Methaqualone, Opioids etc are not only associated with drug abuse but also to crime, Physical, Social and Psychological harm. There are no diagnostic test that indicates that someone has abusing drug or drug addicted. Therefore diagnosis of these disorders are carried out by gathering comprehensive information related to medical history, family background and mental status. The health care practitioners evaluate with quiz or self assessment test as a screening tool. The misuse and dependence of these drugs can create mental illness like bipolar disorder, anxiety, schizophrenia, schizoaffective disorder and other psychoactive disorder.³

Table no 1 : Drugs/substances of abuse⁷

S.No.	Drug/substance	Category	Medicinal use
1	Amphetamine	Central nervous system stimulant	Treatment of attention deficit hyperactivity disorder, narcolepsy and obesity
2	Buprenorphine	Opium derivative	Treatment of opioid use disorder, acute to chronic

			pain
3	Charas/Hasish	Obtained from Cannabis plant (<i>Cannabis sativa</i> or <i>Cannabis indica</i>).	No therapeutic use
4	Cocaine	Local numbing agent	Painful procedures in the mouth
5	Codeine	Opium derivative	Treat pain, coughing, and diarrhea
6	Diazepam	Benzodiazepine family	Anxiety, seizures, alcohol withdrawal syndrome, benzodiazepine withdrawal syndrome, muscle spasms, trouble sleeping, and restless legs syndrome
7	Ganja	Psychoactive drug obtained from the <i>Cannabis</i> plant	No therapeutic use
8	Heroin	Opium derivative	Diamorphine is used to relieve pain, such as during childbirth or a heart attack, as well as in opioid replacement therapy
9	MDMA (3,4-Methylenedioxy methamphetamine)	Psychoactive drug	No therapeutic use
10	Methamphetamine	Central nervous system stimulant	Treatment for attention deficit hyperactivity disorder and obesity
11	Methaqualone	Sedative and Hypnotic	Treatment of insomnia, sedative and muscle relaxant.
12	Poppy straw	Derived from opium poppies (<i>Papaver somniferum</i>)	No therapeutic use
13	Morphine	Opium derivative, acts on CNS	Both acute pain and chronic pain and is frequently used for pain from myocardial infarction and during labor
14	Thebaine (Paramorphine or codeine methyl enol ether)	Opium derivative	No therapeutic use
15	Noscapine (Narcotine)	Benzylisoquinoline alkaloid	Antitussive
16	Papaverine	Opium derivative, antispasmodic drug	Treatment of visceral spasm and vasospasm (especially those involving the intestines, heart, or brain), acute mesenteric ischemia
17	Hydrocodone	Opium derivative	Treat severe pain, cough suppressant
18	Oxycodone	Opium derivative, Semi synthetic opioid analgesic	Treatment of moderate to severe pain
19	Pholcodine	Opium derivative, Opioid cough suppressant	Antitussive
20	LSD (Lysergic acid diethylamide)	Hallucinogenic drug	No therapeutic use
21	CBD (Cannabidiol)	Phytocannabinoid present in Cannabis plants	No therapeutic use

NDPS Act 1985

On 14 November 1985, NDPS Act was enacted, banning all narcotic drugs in India. Within the Act there was a only provision for non-medical cultural use that was drinks made from cannabis leaves. NDPS Act mainly prohibits cultivation, manufacture, possession, sale, transport etc of narcotic drugs and substances but allows it for medical and scientific purposes. Main aims for enforcing this law to prevent cannabis, coca, opium or any other narcotic substance abuse in society.⁴

Punishment for offences⁵

As per the Act, penalty is there in two categories if someone found indulging in consumption of drugs/substances 1. Rigorous imprisonment up to 1 year or fine up to Rs. 20,000 or both in case of consumption of Cocaine, Morphine & Heroin. 2. Imprisonment up to 6 months or fine up to Rs. 10,000 or both in case of other drugs.

Drugs of abuse⁶

Drugs of abuse can be classified into:

1. **Natural drugs** – Derived from natural sources e.g.

a. Opium poppy (Botanical name : *Papaver somniferum* Linn., Family : Papaveraceae, Synonyms – Gum opium, Afeem) - Natural narcotic drugs such as morphine, codeine and thebaine are produced from opium and are of huge medical use. That is why there is demand for opium to manufacture natural narcotic drugs and farmers gets license to cultivate opium.

b. Cannabis (Botanical name : *Cannabis sativa* Linn., Family : Cannabinaceae, Synonyms : Hemp, Marihuana) – Ganja (Dried leaves), Hashish or Charas (Resin produced by crushing the plant) and Hashish oil (produced by distillation) are different forms of Cannabis.

c. Coca (Botanical name : *Erythroxylon coca* Lam., Family : Erythroxylaceae) - Coca plant leaves and the coca paste prepared from these leaves are the forms of Cocas which are used as stimulating drugs.

2. **Semi-synthetic drugs** – These are produced when the natural drug is treated chemically either for isolation of its active ingredient or for modification. Morphine, Codeine, Heroin etc. are semi-synthetic drugs produced from opium while Cocaine is a semi-synthetic drug produced from coca plant.

3. **Synthetic drugs** – The drugs are produced completely through chemical processes. Amphetamines, Ecstasy, Diazepam, Methaqualone are some examples of synthetic drugs.

How are drugs abused?

Depending on the nature of drug, drugs are either smoked, snorted, consumed orally or administered by parenteral route i.e. injected using syringe and needle. Some drugs can be administered in body in more than one way e.g. heroin can be smoked or injected. On comparing, Injecting drugs are more harmful than oral use or smoking.

Effects of drugs

Drugs of abuse produce a variety of effects like stimulation, sedation, hallucination and tranquilisation. Stimulants provides pleasure by increasing the activity of CNS and make abuser more lively and active. Sedatives induces sleep, reduce his activity and promotes calm e.g. Opium and opiates. Hallucinogens create hallucinations (changes in perception, thought and feeling) in the abuser e.g. LSD (Lysergic acid diethylamide). Tranquilisers reduces tension or anxiety by calming the nerves of the addict without producing sleep.

National policy on Narcotic drugs and Psychotropic substances⁸

Narcotic Drugs and Psychotropic Substances have several medical and scientific uses. However they can be and are also abused and trafficked. NDPS Act prohibits the consumption except for medicinal purposes of intoxicating drinks and of drugs which are injurious to health. This Act prohibits, except for medical or scientific purposes, the manufacture, production, trade, use, etc. of narcotic drugs and psychotropic substances.

Four ministries are involved –

1. Ministry of Finance, Department of Revenue, Government of India for NDPS Act administration.
2. Ministry of Social Justice & Empowerment (MSJE), Government of India for matters related to Drug Demand Reduction. It supports NGOs.
3. Ministry of Health, Government of India for all health related issues. It runs several drug de-addiction centres in the Government hospitals across the country.

4. Ministry of Home Affairs (MHA), Government of India - The Narcotics Control Bureau under MHA coordinates actions by various functionaries (Central and State) under the NDPS Act.

Several departments and organisations of the Central and State Government are involved in various activities relating to narcotic drugs and psychotropic substances. Some of these are listed here: Narcotics Control Bureau, Central Bureau of Narcotics, Directorate General of Revenue Intelligence, Commissionerates of Customs, Commissionerates of Central Excise, Coast Guard, State Governments with State Police & State Excise Officers acts for enforcement of drug law. Health Departments and Social Welfare Departments of State Governments have their own set of activities relating to Drug Demand Reduction. Other organisations are also closely connected to the problem of trafficking and abuse of drugs like The National AIDS Control Organisation (NACO) which is concerned with AIDS, despite having no direct role under the NDPS Act, has to deal with the problem of spread of HIV among injecting drug users (IDUs) share needles and syringes. One HIV positive addict in the group spreads the infection to the rest through such exchange of needles and syringes.

Cultivation of Opium poppy

In India, Opium poppy is cultivated in Uttar Pradesh, Madhya Pradesh and Rajasthan. The Central Bureau of Narcotics licences farmers to cultivate opium poppy. CBN procure the entire opium and transfer it to the Government Opium and Alkaloids Works. The GOAWs first dry the opium and 1. export it 2. supply some quantities to the State Governments for supplying to addicts 3. sell some quantities to (Ayurvedic) pharmaceutical companies in form of morphine, codeine, thebaine, noscapine, papaverine, hydrocodone, oxycodone, pholcodine etc and 4. transfer the remaining quantities to alkaloid extraction plants.

Poppy seeds – These are seeds of *Papaver somniferum*. Poppy seeds are not narcotic and are used as a condiment in Indian cooking.

Opium gum – It is the latex which oozes out and dries. Opium gum is the source of several alkaloids and drugs of abuse.

Poppy straw – It means all parts of the plant of opium poppy except seeds. However, morphine is mainly present only in the husk of the pod. The husk of the pods is called poppy straw.

Cultivation of Cannabis

State Governments provides licence to the farmers for cultivation of cannabis for medical, scientific purposes and for use in alternate medicine such as Homeopathy and Ayurveda. Bhang is a preparation made from cannabis leaves. Cannabis seed oil is produced from Cannabis seeds, contains the active ingredient Tetrahydrocannabinol (THC), responsible for intoxicating effect.

Cultivation of Coca bush

Central Government provides licence now for cultivation of coca bush for medical, research and scientific purposes only.

Illegal cultivation

Illegal cultivation of opium poppy (*Papaver somniferum*), Cannabis (*Cannabis sativa*) and Coca bush (*Erythroxyton coca*) are offences under the NDPS Act. Anyone found cultivating these without a licence is liable for punishment.

Scheme for Prohibition and Drug Abuse Prevention

At present under this Scheme, the GOI supports by bearing the major portion of the cost of services provided at these Centres.

Table no 2 - Centres under Scheme for Prohibition and Drug Abuse Prevention

1	Non-Governmental Organisations (NGOs) running	361
2	De-addiction cum Rehabilitation Centres & De-addiction Camps	376
3	Counselling and Awareness Centres.	68

National Drug demand reduction plan⁹

In our country, drug and substance abuse is a serious problem because the menace of drug abuse in the younger generation has been rising. Drug addiction harms not only the individual's health but also affects their families and further the whole society. Regular consumption leads to drug dependence. These compounds creates health problems like neuro-psychiatric disorders, cardiovascular diseases and brings a man towards accidents, suicides and violence. Hence, drug abuse must be considered as a psycho-social-medical problem. The Narcotic Drugs and Psychotropic Substances (NDPS) Act has enacted in our country in the year 1985 to make provisions to control and regulate the operations/activities relating to narcotic drugs and psychotropic substances.

MSJE works for Prevention of Alcoholism and Substance (Drug) Abuse since 1985-86 by creating awareness and educate people about the ill-effects of alcoholism and substance abuse. The objectives of MSJE are identification, motivation, counselling, de-addiction, rehabilitation of drug dependent persons, training and capacity building of the service providers.

As per the report of first national survey conducted by MSJE with National Drug Dependence Treatment Centre of the All India Institute of Medical Sciences (AIIMS), New Delhi during 2018, the common psychoactive substance used by Indians 1. Alcohol 2. Cannabis 3. Opioids

Table no 3 : Status of Drug Abuse

S.No.	Category	People Effected
1	Persons consume alcohol	16 Crore
2	Individuals use cannabis products	3.1 Crore
3	Individuals use opioids	2.26 Crore
4	Individuals are affected by harmful or dependent alcohol use	More than 5.7 Crore
5	Suffer from cannabis dependence	25 lakh
6	Estimated individuals need help for their opioid use problems	77 lakh

II. Conclusion

Drug abuse is a big and serious problem in our country. It creates serious health problems both physical and mental. It affects not only the individual but the family and society also. Overall we can say that it is a psycho-social-economic problem. Government is doing best from their end through TV, Radio, news papers but as Pharmacist we have also the responsibility to remove the scarcities of the society. Apart from the knowledge about the disease, drugs, treatment, pharmacists have the knowledge about various acts related to these. Hence Pharmacists can do it in a better way as compared to others because patient counselling is also a part of pharmacist's job. Following are the beneficial ways which a pharmacist can do for the people, society and country. 1. Conducting seminars based on preventive education and awareness programmes at school and college levels with students, their Parents and teachers using audio visual (AV) aids like Overhead projectors

(OHPs), Digital projectors, Power Point presentations, short films, pictures on the walls 2. Organizing essay competitions, group discussion and debate in school/ colleges 3. Street plays in the local language.

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