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EVALUATIVE TRENDS OF ILLICIT DRUGS USES IN INDIA AND ANALYSIS OF INDIAN AND INTERNATIONAL LAWS OF PROHIBITION OF DRUGS OF ABUSE

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ABSTRACT

A drug is any biological substance, synthetic or non-synthetic, that is taken primarily for non-dietary needs. It is usually synthesized outside an organism, but introduced into an organism to produce its action. Drug addiction is a growing problem in India. This paper highlights the statistics and trends of abuse of most common illicit drugs in children in India and laws both in India and Internationally for prohibition of drugs of abuse.

Key words: Drugs of abuse, Cocaine, Heroin, LSD, Marijuana, Methamphetamine**.**

INTRODUCTION

A drug is any biological substance, synthetic or non-synthetic, that is taken primarily for non-dietary needs. It is usually synthesized outside an organism, but introduced into an organism to produce its action. That is, when taken into the organism's body, it will produce some effects or alter some bodily functions (such as relieving symptoms, curing diseases or used as preventive medicine or any other purposes).

Drug addiction is a growing problem in India[1] Defined as a disease in 1956 by the World Health Organisation and the American Psychiatric Association, drug abuse is the illicit consumption of any naturally occurring or pharmaceutical substance for the purpose of changing the way, in which a person feels, thinks or behaves, without understanding or taking into consideration the damaging physical and mental side-effects that are caused. It is a substance, which is not food[2] and which, when ingested, affects the functioning of the mind or the body or both.

The common drugs of abuse amongst children and adolescents in India are tobacco and alcohol but use of illicit and stronger drugs like cannabis, opium or even intravenous use of drugs such as heroin have also been reported. A new trend has emerged in drug and substance abuse with children now taking a cocktail of drugs through injection and often sharing the same needle, which increases their vulnerability to HIV infection.

Though drug addiction has become a large phenomenon in India in the past two decades affecting all segments of society, the use of whitener, alcohol, tobacco, hard and soft drugs is an especially wide spread phenomenon among street children, working children and trafficked children but there is currently a lack of

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reliable data on drug abuse amongst children **.** It is difficult to assess the problem, estimate social and economic costs and design intervention strategies as these children are especially vulnerable and belongs to a hidden part of the population difficult to access that does not seek treatment and remains under-reported.

However according to a nationwide survey spread over 13 states by the NGO Prayas in association with the Ministry of Women and Child Development and other organization, 32.1% children, below the age of 18, have tasted alcohol, bhang, ganja, heroin or other form of narcotics. It reveals also that 70.3% of those kids have been first exposed to one or the other form of drugs by their friends and relatives, 11.7% by their parents[3]. According to other recent data, among those involved in drug and substance abuse in India, 13.1% are below 20 years. A survey reveals that of the children who came for treatment to various NGOs, 63.6% were introduced to drugs at a young age below 15 years. Overall 0.4% and 4.6% of total treatment seekers in various states were children.

Heroin, opium, alcohol, cannabis and propoxyphene are the five most common drugs being abused by children in India. 20 million children are estimated to be getting addicted to smoking every year and nearly 55,000 children are becoming smokers every day in comparison to 3,000 in the US. Recent available data point out that among the alcohol, cannabis and opium users about 21%, 03% and 0.1%, respectively were below 18 years.

Children start on drugs for a number of reasons, from curiosity, recreation to the need to cope with stress but drug abuse and addiction lead to a complex set of social, medical and economic problems with serious implications. Some substances present in easily available products like cough syrups, pain relief ointments, glue, paint, gasoline and cleaning fluids are directly toxic and often abused by children. Even a single session of repeated inhalant abuse can disrupt heart rhythms and cause death from cardiac arrest or lower oxygen levels, enough to cause suffocation. Regular abuse of inhalants can result in serious damages to vital organs including brain, heart, kidney and liver as well as in mental complications. Physically, the body develops also tolerance for it. This can lead to increases in consumption, which eventually leads to physical dependence.

Drug defined by Indian law, by section (b) of drugs and cosmetics act 1940 as drug includes:

1. All medicines for internal or external use of human beings or animals and all substances intended to be used for or in the diagnosis, treatment, mitigation or prevention of any disease or disorder in human beings or animals, including preparations applied on human body for the purpose of repelling insects like mosquitoes.
2. Such substances (other than food) intended to affect the structure or any function of the human body or intended to be used for the destruction of vermin or insects, which cause disease in human beings or animals, as may be specified from time to time by the Central Government by notification in the Official Gazette.
3. All substances intended for use as components of a drug including empty gelatin capsules.
4. Such devices intended for internal or external use in the diagnosis, treatment, mitigation or prevention of disease or disorder in human beings or animals, as may be specified from time to time by the Central Government by notification in the Official Gazette, after consultation with the Board.

Controlled drugs

Drug abuse is the use of illegal drugs, or the misuse of prescription or over-the-counter drugs. A controlled (scheduled) drug is one whose use and distribution is tightly controlled because of its abuse

potential or risk. Controlled drugs are rated in the order of their abuse risk and placed in ***Schedules*** by the Federal Drug Enforcement Administration (DEA). The drugs with the highest abuse potential are placed in Schedule I and those with the lowest abuse potential are in *Schedule* V. These schedules are commonly shown as C-I, C-II, C-III, C-IV and C-V. Some examples of drugs in these Schedules are as follows:

Schedule I drugs with a high abuse risk. These drugs have no safe, accepted medical use in the United States. Some examples are heroin, marijuana, LSD, PCP and crack cocaine.

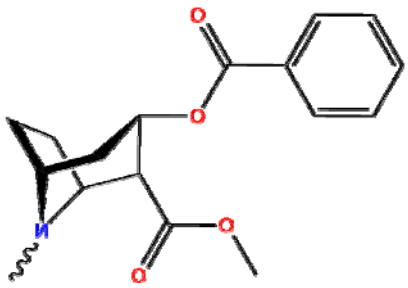
Schedule II drugs with a high abuse risk, but also have safe and accepted medical uses in the United States. These drugs can cause severe psychological or physical dependence. Schedule II drugs include certain narcotic, stimulant and depressant drugs. Some examples are morphine (Percodan), methylphenidate (Ritalin), dextroamphetamine (Dexedrine), oxycodone and cocaine.

Schedule III, IV, or V drugs with an abuse risk less than Schedule II. These drugs also have safe and accepted medical uses in the United States. Schedule III, IV, or V drugs include those containing smaller amounts of certain narcotic and non-narcotic drugs, anti-anxiety drugs, tranquilizers, sedatives, stimulants and non-narcotic analgesics. Some examples are acetaminophen with codeine (Tylenol No.3), paregoric, hydrocodone with acetaminophen (Vicodin), diazepam (Valium), alprazolam (Xanax), propoxyphene (Darvon) and pentazocine (Talwin).

Pharmacies electronically transmit prescription information to the DPS. The information is used by licensing boards to identify doctors, dentists, and/or pharmacists who may be inappropriately prescribing or dispensing these highly abusable drugs. In addition, the DPS can identify potential abusers much more quickly and stop any abuse, misuse or diversion in a more timely manner. The program has been very effective in reducing abuse, misuse and diversion of Schedule II drugs in Texas.

Common drugs of abuse

Cocaine: Cocaine (benzoylmethylecgonine) (INN) is a crystalline tropane alkaloid that is obtained from the leaves of the coca plant[4]. The abuse of cocaine (commonly named as Coke, snow, flake, blow[5]) increased dramatically in the late 1980s and early 1990s, but is now on the decline[6]. Cocaine is a powerfully addictive central nervous system stimulant that is snorted, injected or smoked. Crack is cocaine hydrochloride powder that has been processed to form a rock crystal that is then usually smoked.



Cocaine [IUPAC Name is Methyl (1*R*,2*R*,3*S*,5*S*)-3 -(benzoyloxy)- 8-methyl-8-azabicyclo[3.2.1] octane-2-carboxylate]

Statistics and trends

In 2008, 5.3 million Indians age 12 and older had abused cocaine in any form and 1.1 million had abused crack at least once in the year prior to being surveyed[7]. The NIDA-funded 2008 Monitoring the

Future Study showed that 1.8% of 8th graders, 3.0% of 10th graders, and 4.4% of 12th graders had abused cocaine in any form and 1.1% of 8th graders, 1.3% of 10th graders and 1.6% of 12th graders had abused crack at least once in the year prior to being surveyed[8].

Cocaine may be breathed in through the nose ("snorting"), or dissolved in water and taken through a vein (intravenously). When mixed with heroin for IV use, the combination is called a speedball. Through a simple chemical procedure, cocaine may be changed into a smokeable form known as freebase or crack.

Effects

Cocaine is a powerful nervous system stimulant[9]. Its effects can last from 15–30 minutes to an hour, depending upon the method of ingestion[10]. Cocaine increases alertness, feelings of well-being and euphoria, energy and motor activity, feelings of competence and sexuality. Athletic performance may be enhanced in sports where sustained attention and endurance is required. Anxiety, paranoia and restlessness are also frequent. With excessive dosage, tremors, convulsions and increased body temperature are observed.

- Smoking produces an instant and intense sense of joy (euphoria), which is attractive to abusers.
- Feelings of increased confidence and energy.
- Less inhibition.
- Local numbness.
- Powerful stimulation of the central nervous system.
- Users risk heart attacks.
- Respiratory failure.
- Strokes and seizures.
- Abdominal pain and nausea.

Increased use of and addiction to cocaine probably occur because it produces a very pleasurable high that is very short lived. This encourages the user to use the drug more often or regularly to get the desired effects. Both the need to use larger amounts of the drugs to get the same effect (tolerance) and dependence may occur with regular cocaine use. Regular users may have:

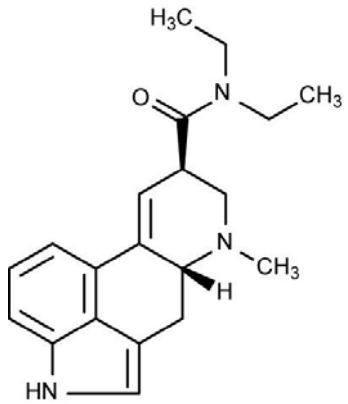
- Depression.
- Loss of interest in school, work, family and friends.
- Memory loss.
- Mood swings.
- Sleep problems.
- Social withdrawal.

Heavy use may cause paranoia, cocaine users may become violent. In rare cases, sudden death can occur on the first use of cocaine or unexpectedly afterwards.

Lysergic acid diethylamide (LSD)

LSD commonly named as acid, blotter, dots[5] is an artificial substance, first developed by a drug company in 1938. Today, most hallucinogens are used experimentally rather than on a regular basis. Most

users report only one or a few uses per year. LSD can distort perceptions of reality and produce hallucinations; the effects can be frightening and cause panic. It is sold as tablets, capsules, liquid, or on absorbent paper. LSD is sensitive to oxygen, ultraviolet light and chlorine, especially in solution, though its potency may last for years, if it is stored away from light and moisture at low temperature. In pure form, it is a colorless, odorless, and mildly bitter solid[11].



LSD (IUPAC name is (6a*R*,9*R*)- *N*,*N*- diethyl- 7-methyl- 4,6,6a,7,8,9- hexahydroindolo- [4,3-*fg*] quinoline- 9-carboxamide)

LSD is a very strong hallucinogen. Only tiny doses are needed to produce effects. LSD can lead to extreme anxiety and lack of reality at the height of the drug experience (bad trips). These experiences can come back as a flashback, even without using the drug again. Such experiences typically occur during times of increased stress and tend to occur less often and intensely after stopping the drugs.

Statistics and trends

In 2008, 802,000 Indians aged 12 and older had abused LSD at least once in the year prior to being surveyed. The NIDA-funded 2008 monitoring the Future Study showed that 1.3% of 8th graders, 1.8% of 10^{th} graders and 2.7% of 12^{th} graders had abused LSD at least once in the year prior to being surveyed.

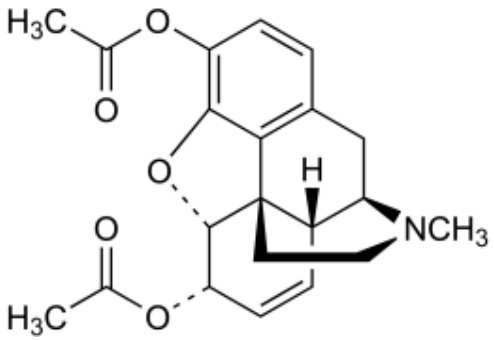
Effects

LSD is a very strong hallucinogen. Only tiny doses are needed to produce effects. LSD produces unpredictable psychological effects with "trips" lasting about 12 hours. With large enough doses, users experience delusions and hallucinations. Physical effects include:

- Increased body temperature.
- Heart rate and blood pressure.
- Sleeplessness.
- Loss of appetite.

Heroin

Heroin common named as Smack, H, ska, junk, is an addictive drug that is processed from morphine and usually appears as a white or brown powder or as a black, sticky substance. The white crystalline form considered "pure heroin" is usually the hydrochloride salt, diacetylmorphine hydrochloride. When heroin is supplied illegally, though, it is often adulterated to a freebase form, dulling the sheen and consistency to a matte white powder[12]. It is injected, snorted or smoked.



Heroin [IUPAC name is (5α, 6α)-7, 8-didehydro-4, 5-epoxy-17-methylmorphinan-3,6-diol diacetate]

Statistics and trends

In 2008, 453,000 Indians age 12 and older had abused heroin at least once in the year prior to being surveyed[7]. The NIDA-funded 2008 monitoring the Future Study showed that 0.9% of 8th graders, 0.8% of 10th graders and 0.7% of 12th graders had abused heroin at least once in the year prior to being surveyed[8].

Effects

Short-term effects of heroin include a surge of euphoria and clouded thinking followed by alternately wakeful and drowsy states. Heroin depresses breathing, thus, overdose can be fatal. Users, who inject the drug, risk infectious diseases such as HIV/AIDS and hepatitis.

The common effects are:

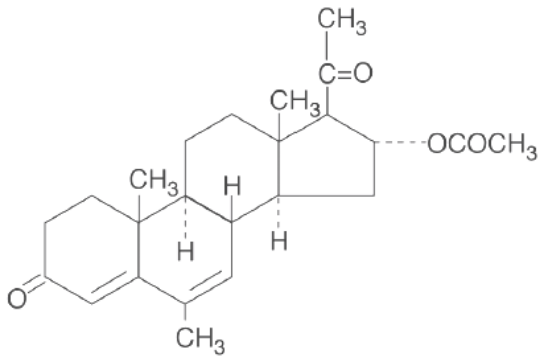
- Change perception of painful stumuli.
- Decrease anxiety.
- Pinpoint pupils during intoxication.
- Promote a relaxed state (sedation).

Because heroin is commonly injected into a vein (used intravenously), there are health concerns about sharing contaminated needles among IV drug users. Complications of sharing contaminated needles include hepatitis, HIV infection and AIDS.

Marijuana

Marijuana commonly named as Pot, ganga, weed, grass, 420, is the most commonly used illegal drug in the U.S and off late in India. It is made up of dried parts of the *Cannabis sativa* hemp plant. The source of marijuana is the hemp plant (*cannabis sativa*). The active ingredients are THC (delta-9-tetrahydrocannabinol) and other cannabinoids, which are found in the leaves and flowering shoots of the plant.

The drug dose in marijuana varies greatly depending on how it is prepared. THC acts upon specific sites in the brain, called cannabinoid receptors, kicking off a series of cellular reactions that ultimately lead to the "high" that users experience when they smoke marijuana. Some brain areas have many cannabinoid receptors, others have few or none. The highest density of cannabinoid receptors are found in parts of the brain that influence pleasure, memory, thinking, concentrating, sensory and time perception and coordinated movement[13].



Marijuana [IUPAC name is (−) - (6a*R*,10a*R*)-6,6,9-trimethyl-3-pentyl-6a,7,8,10a-tetrahydro-6*H*-benzo[*c*]chromen-1-ol]

Statistics and trends

In 2008, 25.8 million Indians age 12 and older had abused marijuana at least once in the year prior to being surveyed[14]. The NIDA-funded "Monitoring the Future Study 2008" showed that 10.9% of 8th graders, 23.9% of 10th graders and 32.4% of 12th graders had abused marijuana at least once in the year prior to being surveyed.

Effects

Short-term effects of marijuana use include euphoria, distorted perceptions, memory impairment, and difficulty thinking and solving. The effects of marijuana can felt within seconds to several minutes after breathing in the smoke or within 30-60 minutes after eating foods containing marijuana, such as "hash brownies."

The main effects of marijuana are on behavior, because the drug affects the central nervous system (CNS). Marijuana became popular because it gives people a feeling of joy (euphoria), relaxation and increased sight, hearing, and taste with low to moderate doses. Most users report an increase in their appetite. Not surprisingly, marijuana intoxication can cause distorted perceptions, impaired coordination, difficulty with thinking and problem solving and problems with learning and memory. Research has shown that, in chronic users, marijuana's adverse impact on learning and memory can last for days or weeks after the acute effects of the drug wear off[15].

Unpleasant effects that may occur include:

- Acute panic reactions or severe paranoia.
- Changed body image.
- Lack of orientation.
- Trouble telling oneself from others.

Some cases of severe delirium, seeing or hearing things that aren't there (hallucinations) and violence have also been reported. In such cases, marijuana may have been laced with another drug, such as PCP. Marijuana has specific effects that may decrease ability to perform tasks that require a lot of coordination. It affects visual tracking and prolongs the sense of time. It also decreases motivation for goal-directed activities. The drug can affect learning because it can reduces the ability to concentrate and pay attention. Studies have shown that learning may become "state-dependent" meaning that information learned while under the influence of marijuana is best remembered in the same state of drug influence.

Other marijuana effects may include:

- Airway (bronchial) irritation leading to narrowing of the airways (bronchoconstriction) or airway spasms (bronchospasm).
- Bloodshot eyes.
- Increased heart rate and blood pressure.
- Pharyngitis, sinusitis, bronchitis and asthma in heavy users.
- Possible serious effects on the immune system.
- Widening of the airways (bronchodilatation).

Regular users, when they stop marijuana use, may have withdrawal effects. These may include:

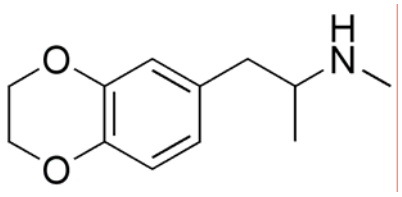
- Agitation
- Anxiety
- Insomnia
- Irritability

Because the substance formed when the body breaks down marijuana may be stored in the body's fat tissue, heavy users may show evidence of marijuana in urine tests for up to 1 month after stopping the drug.

Methamphetamine

Methamphetamine commonly named as Speed, meth, chalk, ice, crystal, glass, is a very addictive stimulant that is closely related to amphetamine. It is long lasting and toxic to dopamine nerve terminals in the central nervous system. It is a white, odorless, bitter-tasting powder taken orally or by snorting or injecting, or a rock "crystal" that is heated and smoked. During the 1950s and 1960s, mehtamphetamine were often prescribed for conditions such as fatigue, obesity and mild depression. Such use has stopped because the drugs are very addictive and are now considered controlled substances.

Over-the-counter (OTC) methamphetamine look-alike drugs are often abused. These drugs typically contain caffeine and other stimulants and are sold as appetite suppressants or stay-awake/stay-alert aids. Ice Ice Baby by Vanilla Ice, a popular number of early 90s, is probably the current favourite of peddlers in India. For them, ‘ice’ is methamphetamine or meth, a highly-abused chemical[16].



Methamphetamine [IUPAC name is *N*-methyl-1-phenylpropan-2-amine]

Statistics and trends

In 2008, 850,000 Indians age 12 and older had abused methamphetamine at least once in the year prior to being surveyed. The NIDA-funded “Monitoring the Future Study 2008” showed that 1.2% of 8th graders, 1.5% of 10th graders and 1.2% of 12th graders had abused methamphetamine at least once in the year prior to being surveyed.

Effects

The most common effects are:

- Methamphetamine increases wakefulness and physical activity.
- Produces rapid heart rate, irregular heart beat and increased blood pressure and body temperature.
- Long-term use can lead to mood disturbances, violent behavior, anxiety, confusion, insomnia and severe dental problems.
- All users, but particularly those who inject the drug, risk infectious diseases such as HIV/AIDS and hepatitis.
- Dilated pupils
- Irritability
- Restlessness
- Skin flushing
- Tremors
- Weight loss

Indian and International Laws of prohibition of drugs of abuse

International Laws: Article 33 of the **UNCRC** (Link with the text) provides children with the right to protection from the use of drugs, and from being involved in their production or distribution. States Parties shall take all appropriate measures, including legislative, administrative, social and educational measures, to protect children from the illicit use of narcotic drugs and psychotropic substances as defined in the relevant international treaties and to prevent the use of children in the illicit production and trafficking of such substances. Some **International Specific Conventions** exist also to prevent and prohibit drug trafficking[17].

Acts and Laws related to Drugs in India

Historical perspective: In the beginning of the 19th century, drug industry was practically non-existent in India and pharmaceuticals were being important from abroad. The First World War changed the situation and not only were finished and cheap drugs imported in increasing volume, the demand for indigenous products also were voiced from all sides. With the clamour for swadeshi goods manufacturing concerns, both Indian and Foreign, sprang up to produce pharmaceuticals at cheaper rates to compete with imported products. Naturally some of these were of inferior quality and harmful for public health. The Government was, therefore, called upon to take notice of the situation and consider the matter of introducing legislation to control the manufacture, distribution and sale of drugs and medicines.

Two of the laws, The Poisons Act and the Dangerous Drugs Act were passed in 1919 and 1930 respectively. The Opium Act was quite old having being adopted as early as 1878. But to have a comprehensive legislation, which the rapid expansion of the pharmaceutical production and drug market required by the end of the second decade for its control, the Indian Government appointed, a Drugs Enquiry Committee in 1931 under the Chairmanship Lt. Col. R. N. Chopra which was asked to make sifting enquiries into the whole matter of drug production, distribution and sale by inviting opinions and meeting concerned people. The Committee was asked to make recommendations about the ways and means of controlling the production and sale of drugs and pharmaceuticals in the interest of public health. The Chopra Committee toured all over the country and after carefully examining the data placed before it, submitted a

voluminous report to government suggesting creation of drug control machinery at the center with branches in all provinces.

For an efficient and speedy working of the controlling department the committee also recommended the establishment of a well-equipped Central Drugs Laboratory with competent staff and experts in various branches for data standardization work. Under the guidance of the Central Laboratory, it was suggested, small laboratories would work, in the provinces. For the training of young men and women, the Committee recommended the permission of Central Pharmacy Council, and the Provincial Pharmacy Councils, with registrars who would maintain the lists containing names and addresses of the licensed pharmacists.

The outbreak of the Second World War in 1939 delayed the introduction of legislation on the lines suggested by the Chopra Committee, which the Indian government contemplated and considered as urgent. However, the Drugs Act was passed in 1940 partly implementing the Chopra recommendations. With the achievement of independence in 1947 the rest of the required laws were put on the Statute Book. In 1985, the Narcotic Drugs and Psychotropic Substances Act was enacted repealing the Dangerous Drugs Act 1930 and the Opium Act of 1878. At present the following Acts and Rules made hereunder that governs the manufacture, sale, import, export, and clinical research of drugs and cosmetics in India.

- The Drugs and Cosmetics Act, 1940
- The Pharmacy Act, 1948
- The Drugs and Magic Remedies (Objectionable Advertisement) Act, 1954
- The Narcotic Drugs and Psychotropic Substances Act, 1985
- The Medicinal and Toilet Preparations (Excise Duties) Act, 1956
- The Drugs (Prices Control) Order 1995 (under the Essential Commodities Act)

Some other laws: There are some other laws, which have a bearing on pharmaceutical manufacture, distribution and sale in India. The important ones being:

- The Industries (Development and Regulation) Act, 1951
- The Trade and Merchandise Marks Act, 1958
- The Indian Patent and Design Act, 1970
- Factories Act 1948

The Narcotic Drugs and Psychotropic Substances Act (NDPS), 1985

This act declares illegal the production, possession, transportation, purchase and sale of any narcotic drug or psychotropic substance and makes the person, addict/trafficker liable for punishment. Use or threat of use of violence or arms by the offender, *use of minors for the commission of offence,* commission of the offence in an educational institution or social service facility are some of the grounds for higher punishment.

The Prevention of Illicit Traffic in Narcotic Drugs and Psychotropic Substances Act, 1988 - Under this law, people who use children for drug trafficking can be booked as abettors or conspirators to the act.

Juvenile Justice (Care and Protection of Children) Act, 2000 - Section 2 (d) includes in the definition of a child in need of care and protection' children vulnerable to or likely to be inducted into drug abuse or drug trafficking.

Initiatives developed or that may be developed by government and non-government organizations to tackle children drug abuse

Health education and awareness of the public in general and of the youngsters at school and in community is essential. Community based programs are beneficial for prevention and treatment of substance abuse among children and adolescents. Seminars, rallies, media campaigns as well as plays and games to reach children and especially the most vulnerable of them, those living on the streets, those deprived of parental care or child labourers have been already organised but must still be developed.

A national master plan for substance abuse was evolved in 1994 which focuses on the establishment of treatment and rehabilitation centres, training in substance abuse for primary care doctors and other personnel, collaborating with non-governmental organisations and carrying out education and awareness building programmes. There are currently in India about 359 counselling centres for drug abuse prevention that also propagate awareness. The government finances also more than 50 NGOs, which are engaged in drug abuse prevention activities. A tripartite agreement between the government, ILO[18] and UNDCP has been signed to help full rehabilitation and recovery of drug addicts.

The government has also initiated curative programs for stopping drug and substance abuse. But all these initiatives should be reinforced and generalized across the country. There is a true lack of drug abuse prevention and treatment services as well as a lack of psychologists and specialised professional to deal with this issue across the country. Very few specialised facilities for children exist and they are mostly attached to Psychiatric and Paediatric departments of various medical colleges and other special institutions. These also differ in their structure, functioning and in the available therapeutic facilities and are mainly situated in urban areas. There are practically no facilities available in the rural areas to help children suffering from drug abuse. More funding should be allocated and more facilities created to more effectively help children to recover from drug abuse.

There is a real need for regional, national government and non-government organisations as well as international agencies to increase their cooperation between them and share experiences.

CONCLUSION

The number of adults involved in the criminal justice system has soared from about 1.8 million in 1980 to 7.3 million in 2007. The connection between drug abuse and crime is well known - one-half to two-thirds of inmates in jails and State and Federal prisons meet standard diagnostic criteria (DSM-IV) for alcohol/drug dependence or abuse. Yet only 07% to 17% of these prisoners receive treatment in jail or prison, so that most of the over 650,000 inmates released back into the community each year have not received needed treatment services.

Left untreated, drug-abusing offenders can relapse to drug use and return to criminal behavior. This jeopardizes public health and public safety, leads to re-arrest and re-incarceration, and further taxes an already over-burdened criminal justice system. A drug known to have serious side effects and which has been banned in parts of Europe is still available in India, despite reports in the press of several deaths in the subcontinent among people who had been taking it.

There has been a media furore in India over reports of adverse reactions to nimesulide, a non-steroidal anti-inflammatory drug, which has been reported as causing liver toxicity. Although it was approved for use in India in 1994 for painful inflammatory musculoskeletal disorders, it is often used for pain relief and fever.

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