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Drug addiction trends and management

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Abstract

Drug addiction is now the leading cause of death and a global concern. Addiction and drug abuse are global issues that result in millions of HIV infections and deaths each year. Drug addiction has been on the rise in India in recent years. In India, alcohol is the substance most commonly used, followed by cannabis and opioids. Using drugs, whether legal or illegal, can lead to major health issues for users. According to a national assessment of drug use in India, there is a notable incidence of drug misuse among men in the general population. There are more men than women who use drugs. There is drug misuse among females. Women often suffer more from drug use because they are less likely to have access to treatment for drug dependency. Drug misuse in the family can also lead to psychological issues, aggression, financial hardship, and a troubled home atmosphere. Over half of those with substance use disorders first encountered drugs before the age of 15. Teenage drug addiction is another significant cause for concern. There is currently a significant gap in service provision. In order to properly manage the issue, the current article explains the treatment and prevention of drug misuse and addiction, in addition to highlighting the causes of drug abuse.

Keywords: Drug addiction, drug abuse, narcotics, cannabis, detoxification techniques, cognitivebehavioral therapies

Introduction

Drug addiction and abuse have become pressing issues in almost all societies, spreading to every corner of the world. Drug addiction is a chronic, relapsing brain disease that is characterized by compulsive drug seeking and use, despite harmful consequences (National Institute on Drug Abuse, 2014)^[16]. The term 'drug addiction' consists of two words: drug and addiction. Scientific literature has abandoned the term "addiction" due to its negative connotation, favouring the term "substance use disorder." Instead of using the word "drug addiction," the World Health Organization and the American Psychiatric Association use "substance dependence." The Cambridge dictionary defines a drug as 'any natural or artificially made chemical that is used as medicine', whereas the American Society of Addiction Medicine defines addiction as a 'treatable, chronic medical disease involving complex interactions among brain circuits, genetics, the environment, and an individual's life experiences.

Drug addiction is associated with impairment in various aspects of physical, psychological, and socio-occupational functioning. Millions of deaths and new HIV cases are directly attributable to the worldwide epidemic of drug use and addiction. Addiction to drugs is an increasingly pressing issue globally, including in India. Addicts take drugs or participate in obsessive behaviors that they frequently maintain in spite of negative outcomes. In India, it leads to critical public health issues, affecting various segments of society and posing significant challenges to individuals, families, and communities. Addressing drug addiction in India requires a comprehensive and coordinated approach involving strong legal frameworks, effective law enforcement, comprehensive healthcare services, and widespread public awareness campaigns.

Historical perspective of drug usage

Drug addiction is a problem that is alarmingly expanding around the world, yet there has never been a greater risk of drug abuse in human history than there is now. Drug use is undoubtedly not a recent development. Historically, ancient therapists frequently prescribed natural substances like poppy seeds and other natural opiates, now known as drugs, to individuals to International Journal of Home Science

reduce stress. Over the ages, many societies have always used drugs in one way or another as a component of their religious practices. Many countries have historically preferred particular medications due to their specific environment and type of trade. In many prehistoric tribal cultures, people used to come together and share alcohol consumption on special occasions. They act this way in order to foster a sense of "we feeling" and communal awareness among themselves. Additionally, the Indian Vedas speak of the "Somras," a drug that the Aryans carried with them approximately 4,000 years

that the Aryans carried with them approximately 4,000 years ago. Despite this, the first record of cannabis, also known as bang, dates back to 800 B.C., and by 1000 AD, it was even considered Lord Shiva's preferred beverage. In fact, the Vishwanath temple in Varanasi regards the Datura fruit as a necessary sacrifice to Lord Shiva. Many sadhus are believed to use these substances to induce hallucinations and a sense of being able to communicate with their god through meditation. India's experience with drugs reflects broader societal changes and on-going efforts to address public health and social issues related to addiction.

Types of drugs

Drugs can broadly be classified into Depressants, Narcotics, Stimulants and Hallucinogens, Cannabis and Inhalants.

a) Narcotics

Medical professionals prescribe drugs known as narcotics or opioids to relieve pain, but they have a high potential for addiction. Opioids are popular as street drugs primarily because they provide users with a surge of great pleasure. They also lessen awareness of one's own issues, which appeals to those looking to decompress mentally. Their capacity to directly engage the brain's pleasure circuits-the same brain networks that produce sensations of sexual pleasure or satisfaction from a well-prepared meal-is what gives them their gratifying effects.

b) Stimulants

Stimulants are a kind of medicine that speeds up the transmission of signals from the nervous system to the rest of the body. One may experience heightened arousal, vigilance, self-assurance, and vitality as a result. Small to low doses can cause euphoria, heightened feelings of wellbeing, increased heart rate and blood pressure, increased alertness, talkativeness, and reduced appetite. Anxiety, panic attacks, seizures, migraines, nausea, vomiting, irritability, and paranoia can result from using stimulants in large quantities. Long-term use of strong stimulants can also cause several adverse effects. Stimulants include caffeine, nicotine, amphetamines, and cocaine. Everyone's response to stimulants varies, depending on factors such as size, weight, health, habitual use, concurrent use of other drugs, dosage, and the potency of the drug (which varies among illicitly produced drugs). Some stimulants alter brain function and make it impossible to feel pleasure naturally if used for an extended period of time.

c) Hallucinogens

A class of drugs known as psychedelics or hallucinogens cause sensory distortions or hallucinations, including significant changes in hearing and color perception. In addition to producing these effects, hallucinogens can also cause other side effects like relaxation, euphoria, or panic. The most commonly used hallucinogens are PCP (Phencyclidine), marijuana, psilocybin, and LSD (Lysergic acid diethylamide).

d) Cannabis/Marijuana

In the Indian context, people commonly use the main three forms of cannabis: bhang, ganja, and charas. Cannabis is a drug that leads to a dreamy state. Some severe effects of cannabis may include pneumonia, psychosis, chest colds, depression, chronic bronchitis, respiratory diseases including tuberculosis, decreased memory and learning abilities, loss of control, and severe hallucinations. The Cannabis sativa plant yields marijuana. Its ability to generate slight hallucinations or perceptual distortions leads to its general classification as a hallucinogen. It is the most commonly used illegal drug around the world.

e) Depressants (Downers)

Depressants, also known as sedatives and tranquilizers, are substances that slow down brain activity. Among these are alcoholic beverages, sleep aids (hypnotics), anxiety medications (anxiolytics), sedatives (sedatives), and barbiturates (anticonvulsants). Alcohol is the most commonly used depressant. Officially, Indians are still among the world's lowest consumers of alcohol-only 21% of men and around 2% of women drink. However, up to a fifth of this group-about 14 million people-are dependent drinkers who require "help." (More *et al.* 2015) ^[14].

f) Inhale substances

The word "inhalant" describes a variety of drugs that are usually only inhaled. These materials include gases, aerosol sprays, solvents (liquids that turn into gases at room temperature), and nitrites (prescription medications for chest pain). You can encounter inhalants in the home or office, such as spray paints, markers, glues, and cleaning solutions. We refer to these drugs as inhalants when we use them to achieve a high. Young children and teens are the only drug class that uses more inhalants than older teens.

Indian scenario of drug addiction

Intoxicating drugs are not new in India. The Vedas also referenced the use of drugs such as Somaras on specific occasions, and the use of Bhang, a natural substance-based plant, in socio-cultural rituals and for medicinal purposes. Priests and other religious figures have actually used certain types of cannabis, such as bhang, charas, and ganja, as meditation aids. Drugs are currently becoming a popular trend and a means of gaining social acceptance. This study analyzed the past 15 years of articles and a research paper to assess the current status of drug addiction in India.

Basu *et al.* studied the changing pattern of substance abuse in North India (from 1978 to 2008) and observed that the majority of the subjects were males, and the maximum prevalence of drug abuse was in the age group of 26–35 years, with no decade-wise difference.

Nadeem (2009) ^[15] discovered that cannabis, heroin, opium, and hashish are the most commonly used drugs in India after alcohol and tobacco. However, some evidence indicates that methamphetamine is also becoming more prevalent. Drug users are mainly young and predominately male.

According to Tsering and Dasgupta (2010) ^[25], 'easy availability' and 'relief from tension' were the most frequent reasons for the continuation of substance use. People start abusing substances because they feel pressured to do so by their peers.

Bhat et al. (2013) and (2016) ^[5, 7] found that the major drugs

of abuse in the state of Jammu and Kashmir are tobacco, alcohol, cannabis (charas), benzodiazepines (sleeping pills like alprax and valium), brown sugar, inhalants (like Fevicol SR, glue, paint thinner, petrol, shoe polish, etc.), and opiates (like codeine, heroin, and morphine).

Baba *et al.* (2013) ^[3] investigated in their study that the substances most commonly used were tobacco products (22.5 percent), solvents (10.0 percent), alcohol (6.2 percent), sedatives (5.9 percent), cannabis (4.4 percent), etc. Baba *et al.* (2013) ^[3] also found a strong association between substance abuse and age, sex, and family type.

Kumar *et al.* $(2013)^{[13]}$ stated that in the De-addiction Centers of New Delhi, 21% of the addicts were illiterate or educated to the primary level, as compared to 17.3% in the present study.

Gopiram and Kishore (2014)^[9] reported that most of the users had initiated substance abuse between 15 and 18 years of age, with peer influence, curiosity, and a sense of growth being the major reasons for the same. "Feel good" and socialization were the main reasons for maintenance. The non-users never indulged in substance abuse because of personal values, awareness of the impact on health, and family values.

Reddy *et al.* (2014) ^[20] revealed that the incidence of substance abuse was at a disturbingly high rate among the youth living on the streets in Andhra Pradesh. The children took on small-time jobs or begged to arrange for the money. At the initial stage, they consumed substances like alcohol, tobacco, cannabis, and inhalants to relieve pain and gain confidence.

Sharma *et al.* (2014) ^[24] pointed out that out of 5000 pupils, 1409 who abused drugs, consumed them 85 percent due to psychological factors, 10 percent due to social factors, and 5 percent due to miscellaneous factors. The study further revealed that the maximum number of students who took to drugs were those who were seeking pleasure, new excitement, and thrills.

Prabhu *et al.* (2014) ^[18] revealed in their study that the most common reason (41.5%) for getting into drugs was peer influence or peer pressure.

Verma (2014) ^[26] observed that in Punjab, "drug abuse" is a raging epidemic, especially among the young. According to a survey, 66% of the state's school-going students consume "gutka," or tobacco; every third male and every tenth female student have taken drugs on one pretext or another; and seven out of ten college-going students are into drug abuse.

The Goswami (2015) ^[10] study, "Substance abuse among Youths in Guwahati City, ASSAM (India)," found that 49% of the respondents consumed alcohol, 22% used heroin, 2% used marijuana, 3% used ganja, 2% used inhalers, 19% used polydrugs, and 3% used cocaine. The pattern for the major instigators of substance abuse revealed that 29% used it for fun, 25% by peer influence, 23% reported that their curiosity for the drug acted as a propagandist, and 9% used it to get relief from stress.

The Bhat and Imtiaz (2017)^[7] study revealed that the majority of respondents (91.0%) are aware of drug addiction and expressed their concern about the increasing involvement of youth in drug addiction. According to respondents, the primary causes of drug addiction were joblessness, disturbance, bad company, chance use, and fun.

According to Sharma *et al.* (2017) ^[23], the prevalence of substance abuse among the study group was 65.5%, with alcohol (41.8%) being the most common substance abused, followed by tobacco (21.3%). The study subjects showed a high prevalence of heroin abusers (20.8%).

The prevalence of non-alcohol and non-tobacco substance abuse was 34.8%. A significant association of drug abuse was observed with male gender, illiteracy, and age above 30 years. Kalpana and Kavya's (2017) study pointed out that tobacco use was high among males and females from urban locales in comparison to alcohol and other drugs. The study also concluded that substance abuse destroys individuals, families, and communities, and stated that drug addiction leads to physical, psychological, legal, and social damage to the addict and those affected by the addict's behavior.

Kaur *et al.* (2018) ^[12] stated in their study that the majority (86.5 percent) of respondents were using drugs in agricultural fields, riverbanks, old buildings, lonely places, etc. Financial problems led to the admission of the maximum number of respondents (42.5 percent) to the de-addiction wards.

According to the Ministry of Social Justice and Empowerment's recently released report on the "National Survey on Extent and Pattern of Substance Use in India" (2019), the magnitude of substance use is

- 16 crore people (14.6%) between the age of 10 and 75 years are current users of alcohol, and out of them, 5.2% are alcohol dependents.
- About 3.1 crore individuals (2.8%) are cannabis users, and 72 lakh (0.66%) people suffer from cannabis problems.
- Overall opioid users 2.06% and nearly 0.55% (60 lakh) require treatment services/health
- 1.18 crore (1.08%) are current users of sedatives (non-medical use).
- 1.7% of children and adolescents are inhalant users as compared to adults of 0.58%. Nearly 18 lakh children need help for inhalant use.
- It is estimated that about 8.5 lakh people are injecting drugs (PWID people who inject drugs).

Ambwani and Kaur (2021) ^[1] showed in their study that the prevalence of alcohol abuse varied between 4.2 and 37.7%, heroin abuse between 0 and 1.3%, and other opiates between 0 and 10.2% in the country. Manipur and Kohima frequently reported heroin abuse at a rate of around 1%, Jodhpur reported raw opium abuse, and Uttar Pradesh and Manipur reported cannabis abuse.

Goyal *et al.* (2022) ^[11] found that the commonest age of onset for substance use was between 11 and 20 years (56%). Nicotine abuse was the most common substance in our study. Peer pressure (52.8%) was the most common reason for drug dependence, followed by relief from negative symptoms of abstinence (29.6%).

Management of drug addiction

Managing drug addiction involves treatment and prevention. Effective treatment includes medication, behavioral therapy, and social support, each targeting a certain disorder feature and matching an individual's needs. To break drug addiction and reintegrate into society, drug abusers need effective therapy to reduce life hazards. Drug rehabs provide a variety of services to addicts. Different centers offer detoxification, exercise, motivational counseling, ultrasound scanning, cognitive exercises, group treatment, recreational therapy, vocational therapy, awareness programs, and more. Some inpatient and out-patient services differ.

Detoxification

Detoxification, as its name suggests, is the process of

detoxifying or removing drug toxins from a drug addict's body. It is an essential part of de-addiction because it helps prepare the body mechanism(s) for the eventual, and inevitable, withdrawal symptoms experienced as and when the addict quits taking drugs. The intensity of detoxification experienced by a drug addict varies depending on the type of drug consumed and the duration of addiction. The type of treatment received, whether as a residential patient or outpatient, is determined by the drug addict's condition and their medical history.

Sidana *et al.* $(2019)^{[22]}$, in their study, found that the age of the drug addict, the intensity of withdrawal, and the length of stay at the de-addiction center were important factors in predicting the success of the detoxification treatment.

Psychological Treatment

Motivational Enhancement Therapy (MET) is based on the trans-theoretical model of behavior change (Prochaska & Diclemente 1982) ^[19], which postulates that change in behavior takes place in different stages. MET uses motivational interviewing as a tool to enhance treatment readiness and guide patients through the phases of change (pre-contemplation, contemplation, determination, and action)

to influence behavioral changes related to substance use. MET is defined by an empathic approach in which the therapist assists the patient in becoming more motivated by probing the patient about the benefits and drawbacks of particular behaviors, examining the patient's objectives and the ambivalence that goes along with achieving those objectives, and listening to the patient's response.

The acronym FRAMES (Miller & Sanchez, 1995) ^[21] summarizes the essential components of MET, thought to be the intervention's active ingredients:

Feedback on personal risks or impairments

- The emphasis is on personal responsibility for change.
- Clear Advice to Change
- A menu of alternative change options
- Therapist EMPATHY
- Client self-efficacy or optimism can be facilitated.

Behavioural Therapies

Based on the principles of learning, behavioral therapies modify the target behavior of habitual excessive substance use through systematic environmental manipulations that vary widely depending on the specific substance use behavior.

Aversion therapy	Combining substance usage with an unpleasant experience-like a small electric shock, vomiting brought on by medication, or
	exaggerated effects of the substance-is known as aversion therapy.
Contingency	"Contingency contracting" is a type of contingency management that uses predefined positive or negative outcomes to either
contracting	reward abstinence or punishes drug-related behavior, thereby discouraging it.
Cue exposure	Combining cue exposure, relaxation methods, and drug-refusal training can help with classically conditioned desire extinction.
Cognitive-Behavioural Therapy	
Social skills training	Social skills training targets an individual's capacity for effective and meaningful communication, including non-verbal
	communication, listening, being able to think from others' perspectives, adapting to different circumstances, maintaining
	relationships, and being assertive.
Relapse prevention	It includes discussing the patient's ambivalence about the substance use disorder, identifying emotional and environmental
	triggers of craving and substance use, developing and reviewing specific coping strategies to deal with internal or external
	stressors, exploring the decision chain leading to re-initiation of substance use, and developing effective techniques for early
	intervention.
Group Therapy	It can be consoling to have other group members there who also admit to having the same issue. Furthermore, group members
	who have made progress in their recovery can serve as role models and provide inspiration and support.
Family Therapies	It factors such as the patient's perspective on substance use, compliance with treatment, social and occupational adaptation,
	abstinence and maintaining marital and family relationships are encouraged.
Prevention with Adolescents	
Social Resistance Skills	Teens enrolled in resistance skills training programs learn how to recognize situations where they might face peer pressure to
	use drugs, smoke, or drink. Participants learn that by understanding what to say (i.e., the precise content of a refusal message)
	and how to deliver this message as efficiently as feasible, they can effectively respond to direct pressure to take drugs.
Normative Education	Normative education methods incorporate educational materials and exercises aimed at rectifying false beliefs about the
	widespread occurrence of substance abuse. By educating youth about real rates of use, which are nearly always lower than
	perceived rates of use, we can lower their perceptions of the social acceptability of drug usage.
Competence- Enhancement	General problem-solving and decision-making abilities, cognitive skills for resisting interpersonal or media influences,
	capacity to increase self-control and self-esteem, adaptive coping mechanisms, social skills, and assertiveness are all part of
	competency enhancement approaches' curriculum.

Conclusion

Drug addiction is a chronic, relapsing brain disease characterized by compulsive drug seeking and use, despite its harmful consequences. It is a growing problem worldwide, accounting for millions of deaths and HIV cases. We can broadly classify drugs into depressants, narcotics, stimulants, hallucinogens, cannabis, and inhalants.

The prevalence of drug addiction in urban areas is high, with alcohol being the most commonly abused substance. India primarily attributes substance abuse to cannabis, heroin, opium, and hashish, with an increasing prevalence of methamphetamine. Male gender, illiteracy, and age above 30 years significantly correlate with the majority of drug users, who are young and predominantly male. Males have a higher tendency towards intense consumption of drugs, with the majority of respondents aged 19-21.

Psychosocial factors, such as peer influence, curiosity, and a sense of growth, are the main reasons for maintenance. Family members, peer groups, or acquaintances are the ones who teach drug addiction. It is a learned behavior that spreads through persuasion, unconsciousness, and reflective thinking. Behavioral therapies-aversion therapy, contingency contracting, cue exposure, and cognitive-behavioral (CBT) techniques-help patients develop self-control to avoid relapse. Group therapy is an integral part of treatment, with various types including CBT, IPT, and psychodrama therapies. Prevention initiatives for adolescents focus on increasing awareness of social influences and teaching skills for resisting peer and media pressures. Competence-enhancement programs teach skills such as problem-solving, decisionmaking, cognitive skills, self-control, self-esteem, adaptive coping strategies, social skills, and assertive skills.

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