

YOUTH AND ADDICTION IN INDIA

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This article aims to highlight the key issues around substance abuse in India, and its consequences. It will feature the scale of the problem globally, and in India, and touch upon causes of the problem, the impact and gender-specific challenges. It will also briefly illustrate the key models used to address the issue, and share some solutions that have been recommended.

PART I

Global Overview

The scale of substance abuse and its consequences warrant urgent steps to address the issue. It has been established that drug abuse leads to crime and violence, and is linked with terrorism.¹ It also places a huge economic and social burden on families and communities.²

The number of drug users is rising rapidly. The United Nations Office on Drugs & Crime (UNODC) estimates there were approximately 275 million drug users across the world in 2016. Of these, some 31 million people were estimated to have drug use disorders³, which means that their drug use was serious enough to cause dependence and/or required treatment.

Cannabis is currently the most common drug of choice worldwide, both among the general population and the youth. It is used by approximately 3.9 per cent of the global population aged between 15-64 years.⁴ However, in terms of adverse impact on health, the use of opioids tops the list. The misuse of pharmaceutical opioids is also a growing concern.

Numerous studies have found that drug use and its associated consequences are the highest among the young. Critical risk periods for initiation range from early adolescence (12-14 years) to late adolescence (15-17 years).⁵ In these age groups, the easy availability

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of cannabis and low risk perception makes it a common drug of choice. The transition from first use to dependence is a complex process and involves the interplay of many influences, which change over time.

Apart from drugs, the other substance that is causing harm globally is alcohol. According to World Health Organization (WHO) estimates, the harmful use of alcohol results in 3.3 million deaths each year.⁶

Given the scale of substance abuse, it is estimated that mental and substance use disorders will surpass all other causes of physical disability by 2020.⁷

Substance Abuse Situation in India

The challenges of substance abuse are compounded in India by the lack of adequate data, and poor reporting and compliance. In addition there is a mismatch between demand and availability of national programmes for substance abuse treatment, at a time when the problem is growing rapidly.

According to a survey by the United Nations Office on Drugs and Crime (UNODC) and the Ministry of Social Justice and Empowerment, published in 2004, over 732 lakh persons in India were users of either alcohol or drug. Of these, 625 lakh people used alcohol, 87 lakh used cannabis, and 20 lakh used opiates.⁸

Contrast these figures with the latest survey by the National Drug Dependence Treatment Centre (NDDTC) and All India Institute of Medical Sciences (AIIMS) published in February 2019.⁹ It is estimated that about 16 crore people now consume alcohol in the country, of which 5.7 crore are problem users and 2.9 crore are dependent users.

The report finds that alcohol is used across the country, including the prohibition states. Consumption is not limited to men, although the number of female drinkers is significantly lower. Moreover, users include children aged between 10-17 years. The states with the highest prevalence of alcohol use include Chhattisgarh, Tripura, Punjab, Arunachal Pradesh, and Goa.

Cannabis and opioids are the most commonly abused substances after alcohol. Approximately 3.1 crore people (2.8% of the population) have used cannabis. Of these, 72 lakh are problem users and 25 lakh are dependent users. Their use includes the legal form of cannabis, which is *bhang*, and illegal cannabis products such as *ganja* and *charas*. States with the highest prevalence of cannabis include Uttar Pradesh, Punjab, Sikkim, Chhattisgarh, and Delhi.

About 2.3 crore people (2.1% of the country's population) use opioids. Of these 77 lakh are problem users and 28 lakh are dependent users. Their use includes opium, heroin and pharmaceutical opioids. The north-eastern states of Sikkim, Arunachal Pradesh, Nagaland, Manipur, and Mizoram are reported to have the highest prevalence of opioid use in India.

The survey also indicates that approximately 1.18 crore people (1.08% of the population), in the age group of 10-75 years abuse sedatives. States with the highest prevalence of current sedative use are Sikkim, Nagaland, Manipur, and Mizoram.

The numbers of inhalant stand at around 77 lakh people, of which 22 lakhs are problem users and 8.5 lakh dependent users. This is the only category of substances where the category of substances for which the number of child and

adolescent users (1.17%) is higher than adults (0.58%).

In addition to the above-mentioned substances, a small percentage of the population uses other categories of drugs such as cocaine, stimulants and hallucinogens.

One interesting find of the study was that the prevalence of cannabis use in India is lower than the global average while the prevalence of opioid use is three times that of the global average. The 2004 study had found that opium was the major opioid used by Indian males. The latest study finds that heroin has overtaken opium as the main drug of choice.

Substance Abuse and Children

The issue of substance abuse in India is especially pressing given the high number of children who are initiated. "In general, adolescence and late childhood is a time of experimentation, exploration, and a search for self and risk taking."¹⁰ (Agarwal *et al.*, 2013). The early use of substance during the formative years impairs skill development, affects academic and social life, and increases the risk of psychiatric disorders (Dhawan *et al.*, 2017).¹¹ Studies have shown that the initiation of drugs in early age results in continuation of drug use into adulthood.¹²

Earlier studies on children primarily focused on street children as it was considered a problem that was mainly associated with them. It is estimated that about 40-70 per cent of India's 18 million homeless children were exposed to some form of substance abuse.¹³

However, recent reports indicate that there has been a gradual increase across all socio-economic groups, which cut across urban and rural settings.¹⁴ Among children the most commonly abused

substances are tobacco, alcohol, cannabis and inhalants, followed by pharmaceutical opioids, heroin and sedatives.

PART II

Models of Addiction

The approach to addiction is based on the way a society or agency conceptualises the problem. The model or framework they follow underpins the basis of their drug policies, and substance abuse treatment. It has great implications for the addicts, researchers, therapists, and policy makers, etc. In this section we will look at some of the more common models of addiction.

The traditional method of looking at substance abuse was through a moral framework.¹⁵ This model is based on societal beliefs or judgments of what is right or wrong, acceptable or unacceptable. It views substance abuse as a violation of societal rules by the abuser. The abuser is held liable for his or her moral weakness, and for the harm caused to self and others. Since addicts are held responsible for acquiring their problem, they are also expected to solve the problem through willpower.

Proponents of the moral model believe in moral persuasion. They advocate tighter legal control over supply, imprisonment, corporal punishment and other legal or social consequences. It may also include spiritual directives. This model can be found in many correctional facilities, and halfway houses run by religious groups.

In contrast, the disease model assumes a biological basis for addiction. New research on the brain has changed the way we understand the compulsive nature of drug use. This revolutionised the way medical professionals respond to the problem.

Drug addiction is considered “a brain disease that can be treated” (Volkov 2007).¹⁶ “Addiction is defined as a chronic, relapsing brain disease that is characterized by compulsive drug seeking and use, despite harmful consequences” (NIDA 2014). It has a set of consistent and predictable signs and symptoms, and is considered no different from other medical or psychiatric illnesses.

Proponents of the disease model believe that the abusers are not responsible for their condition, as the drug essentially hijacks the brain, leaving people with no choice. Drug use becomes a compulsion over which they have little control. Thus, they stress on a humane approach, with emphasis on early intervention, assessment, identification, and medical treatment. They also encourage life long abstinence¹⁷ and participation in self-help or recovery groups. This

model forms the basis of groups like Alcoholics Anonymous (AA).

The biomedical model acknowledges that a person's environment, behavior and psychology has a role in addiction, but those dimensions are considered less important in terms of causation and treatment.

The disease model helped in de-stigmatising addictions to some extent. It showed that there might be a genetic component to addiction, for which a person clearly could not be held responsible. Furthermore, it showed that substance use caused fundamental changes in the brain, which made people lose voluntary control.

However, this model was found to have many limitations. Critics argued that the biomedical model was reductionist, and viewed the mind and body as separate entities that do not have a significant impact on each other¹⁸ (Skewes *et.al* 2013).

By focusing excessively on brain chemicals, the model ignored many other key factors like motivation and environment.

The biomedical model stresses that unless it is treated, the chronically relapsing brain disorder will progress. However, numerous studies have shown the occurrence of natural recovery, which may be due to various reasons: A profoundly spiritual experience, a serious illness or injury, losing a loved one, strong family or social support, and many others factors have precipitated change. The role of personal motivation to change in recovery is not insignificant.

Similarly, the environment too plays a part. For instance, studies have shown that the easy access to substances increase initiation of use, and substance use disorders. Moreover, in order for a genetic predisposition to get activated, and result in addictive behaviour, a person must first have access to an addictive substance.

As research advanced, the biopsychosocial model emerged as counter to the purely medical model. In view of the available evidence, many in the scientific community have now come to recognise that addiction is a complex problem, where genetic, psychological, biological, environmental and social components interact. All these factors contribute to substance use. Thus, prevention and treatment needs to address multiple factors.¹⁹ "Research and clinical interventions are best served by a biopsychosocial approach that incorporates the best strands of contemporary psychology, biology and sociology" (Griffiths 2005)²⁰.

PART III

Causes

Addiction cannot be attributed to any single factor. As with other

medical disorders, the likelihood of a person getting addicted, differs from person to person, and is based on many risk factors.

There is a genetic component in addiction. Family, adoption, and twin studies have shown that “addictions are moderately to highly heritable.”²¹ While initiation depends on availability and individual choice, genetics do increase a person’s vulnerability. Studies also indicate that teenagers, and people with mental disorders are more vulnerable to drug abuse.²²

Environmental factors also play a part. People are vulnerable when there is lack of parental supervision, prolonged absence, harsh discipline, lack of emotional communication, or when there is a personal history of physical or sexual abuse. Risky environmental influences include places where breaking the law, misuse of drugs and alcohol, or violence are commonplace, or there is poverty, stress, or lack of resources.

During the formative years, studies have shown that the influence of peer groups may be sometimes stronger than that of parents.²³ Hence, having a peer group that uses drugs may influence teenagers to experiment. Schools also play a part, as children who struggle with poor social skills, or perform badly in school are vulnerable.

Risk factors vary across lifespans, and the stage of addiction. For example, peer pressure is likely to be more important for adolescents, while genetics and personality factors play a larger role in the transition or problematic use stage.²⁴

People use drugs for various reasons. Many start due to curiosity or peer pressure. Others use drugs to feel good or euphoric, or to self-medicate and feel better when they are anxious, stressed or depressed. Some even use stimulants and other drugs to focus and perform better in sports and other activities.²⁵

The use of drugs has a profound effect on brain. Our brains reward us when we do something pleasurable. They are wired to ensure that we will repeat life-sustaining activities by associating those activities with pleasure or reward. Pleasure pathways in the brain’s limbic system are naturally activated by healthy activities. When the reward circuit is activated, the brain notes that something important is happening, and we learn to do that activity again and again, without thinking about it.

Drugs of abuse stimulate the reward circuit in the same way, and people learn to continue taking drugs to recreate the feel good emotions. This then becomes a vicious cycle.

Drugs like marijuana and heroin imitate the brain’s natural neurotransmitters, but they don’t activate the neurons like the natural chemicals do, leading to abnormal messaging.

Others drugs like cocaine and methamphetamine over stimulate the “reward circuit” of the brain, and release around two to 10 times the amount of dopamine that natural rewards do. These abnormally large amounts of natural neurotransmitters make it difficult for the brain to recycle them, and cause communication disruption. In some cases, the abnormal release occurs almost immediately (when drugs are smoked or injected), and their effects can last much longer than those produced by natural rewards.

The choice to use drugs starts off as being voluntary. However, over time the substance hijacks the brain and impairs areas that are critical for judgment, decision-making, memory and self-control. This changes happens gradually and lead to compulsive nature of drug abuse.

The impact on the brain is particularly severe for adolescents, as their brain is not fully developed. The thinking and decision-making centres of the brain are still in the process of developing.

Consequences 26

People with substance use disorders usually have one or more medical issues, which include cardiovascular disease, stroke, cancer, HIV/AIDS, hepatitis B and C, and lung disease, among the common ones. In addition, some drugs of abuse, such as inhalants, cause long term nerve damage and impact the brain or peripheral nervous system.

Drugs have been linked to decreased fertility and pelvic inflammatory disease (PID) in females. Drugs like marijuana and cocaine can directly affect ovulation (and affect the semen quality of males).

The consumption of drugs during pregnancy impacts the foetus directly. There is a greater chance of birth defects affecting the heart, urinary tract, and cleft palate. Drug use is linked to premature and underweight babies and stillborn births. They can also cause miscarriage, and pre-term labour among other issues.

The social impact of substance abuse among adolescents includes school failure due to gradual loss of interest in studies, loss of interest in normal healthy activities, and disturbed sleeping and eating patterns. Substance abusers develop problems with family and other relationships, and start avoiding family and friends, becoming secretive, short -tempered, and aggressive. They begin to lie and steal.

As the dependence on the substance increases, lack of inhibition and impaired judgment often leads to unsafe sexual behaviour and

unsafe drug use such as sharing needles and syringes, mixing drugs, or over-dosage. There may even be attempts to harm self or others. Studies have shown that boys with substance use disorders are more likely to have conduct, behavioural, and learning problems, which may be very disruptive to their school, family, or community.

Girls with substance use disorders may be more likely to have mood disorders such as depression, or experience physical or sexual abuse. They are more prone to molestation and/or indulge in commercial sexual activity to earn for the drug, and indulge in unsafe sex with reduced thinking capacity. Consequently, they are also at greater risk of getting infected with sexually transmitted diseases

PART IV

Principles of Treatment

As mentioned earlier, substance abuse is a global problem and there are learnings about effective treatment, which are universal. The highlights below are modified from the National Institute on Drug Abuse, USA (NIDA, 14 July 2020):²⁷

- No single treatment is appropriate for all individual.
- Treatment needs to be accessible. Early intervention increases chances of positive outcomes.
- Effective treatment needs to address not just the substance use/behaviour, but also multiple associated issues such as psychological, social, legal, and vocational issues.
- Any treatment plan needs to be monitored continually and modified as necessary.
- Remaining in treatment for an adequate period of time is critical for treatment effectiveness.
- Counselling (individual and/or group) and other behavioural therapies are critical components of effective treatment for addiction.
- Medications are sometimes an important element of treatment for many patients (Naltrexone, Anatbuse, Campral).
- Medical detoxification is only the first stage of addiction treatment. It is insufficient by itself to change long-term drug use.
- Treatment does not need to be voluntary to be effective.
- Recovery from drug addiction can be a long-term process and frequently requires multiple episodes of treatment.

- As with other chronic illnesses, relapses to drug use can occur during or after successful treatment episodes.

These views have been echoed in India, in the recommendations of Dhawan *et al.* (2017)²⁸. Here are some of their key suggestions:

- There is a need for a national programme that addresses both prevention and treatment of substance abuse in children in India. This is especially vital for high-risk groups, which include children of sex workers, alcoholics, drug addicts, HIV patients, street children, prisoners, and school dropouts.
- Prevention programmes need to target multiple settings including schools and communities.
- Prevention programmes must focus on development of life-skills, in addition to reducing supply of substances.
- School children must have access to trained mental health professionals in the school setting. In addition, teachers should ideally be trained to recognise substance use and conduct problems, so that they can step in to assist when required.
- There must be focus on efforts to reduce school dropout rates, which would require making school environments more child and education friendly. Concurrently, provisions for vocational training must be made at safe vocational training centres for out-of-school children.
- Treatment programmes must include families. To target risk factors in families, parenting education should be available in schools, vocational training centers and communities.
- Panchayat levels, Gram Sabha/Mohalla Sabha must be sensitised about the dangers of substance use by children, and its implications.
- Interventions should also focus on early, intermittent users, so that they do not progress further to daily use.
- Young substance abusers require better access to specialised treatment services. Moreover, general practitioners and pediatricians need to be appropriately sensitised to deal with this problem.

Conclusion

The problem of substance abuse among the youth in India is a real and growing problem. Even though the existing data are inadequate to illustrate the scope of the problem, there is enough evidence to indicate that drug use is not confined to only metropolitan areas. It is

prevalent across the country, even in smaller towns and rural areas.²⁹ There are limited services specialising in drug treatment, and even the existing ones are crippled by lack of infrastructure, trained staff, and are not optimally functional.

This is unfortunate as substance abuse impacts individuals and communities adversely. Early intervention, and access to appropriate treatment is critical for positive outcomes. The current therapeutic consensus seems to be veering towards the biopsychosocial approach instead of using a purely medical or moral approach. This can be seen from the policy recommendations made by medical practitioners working in the field, and it is a positive development.

Implementing the Dhawan recommendations would require a complete overhaul of the current system, and would need money and trained manpower. If the battle to save our youth from addictions is to be won, the problem needs to be addressed urgently. The policy-makers have to step up and ensure that the required changes are implemented systematically on the ground.

Notes

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