Review Article

Drug Addiction in Bangladesh and its Effect

Shazzad MN[1], Abdal SJ[2], Majumder MSM[3], Sohel JUA[4], Ali SMM[5], Ahmed S[6]

Abstract

Drug addiction and drug abuse, chronic or habitual use of any chemical substance to alter states of body or mind for other than medically warranted purposes. Addiction is more often now defined by the continuing, compulsive nature of the drug use despite physical and/or psychological harm to the user and society and includes both licit and illicit drugs, and the term "substance abuse" is now frequently used because of the broad range of substances (including alcohol and inhalants) that can fit the addictive profile. Psychological dependence is the subjective feeling that the user needs the drug to maintain a feeling of well-being; physical dependence is characterized by tolerance (the need for increasingly larger doses in order to achieve the initial effect) and withdrawal symptoms when the user is abstinent. There are a lot of effects of drug addiction to the economy, society, and family. Drug addiction affects individual's physical and mental health. Drug addicts are burden for a family and society. It is a great challenge for all nations of the world to prevent drug addiction. This article reviews the effects of drug addiction in details.

Introduction

World Health Organization (WHO) defines Drug; it is a chemical substance of synthetic, semi synthetic or natural origin intended for diagnostic, therapeutic or palliative use or for modifying physiological functions of man and animal.

1. Corresponding Author:
   Dr. Md. Nahiduzzamane Shazzad, MBBS, FCPS (Medicine)
   Medical officer, Department of Rheumatology
   Bangabandhu Sheikh Mujib Medical University, Dhaka
2. Dr. Syed Jamil Abdal, FCPS(Medicine)
   Medical officer, Department of Rheumatology
   Bangabandhu Sheikh Mujib Medical University, Dhaka
3. Dr. Muhammad Shoaib Momen Majumder, FCPS (Medicine)
   Medical officer, Department of Rheumatology
   Bangabandhu Sheikh Mujib Medical University, Dhaka
4. Dr. Jahangir ul Alam Sohel, FCPS(Medicine)
   MD (Rheumatology) course student
   Department of Rheumatology
   Bangabandhu Sheikh Mujib Medical University, Dhaka
5. Dr. Syed Mohammad Monowar Ali, FCPS (Medicine)
   MD (Rheumatology) course student
   Department of Rheumatology
   Bangabandhu Sheikh Mujib Medical University, Dhaka
6. Dr. Shamim Ahmed, FCPS (Medicine), APLAR fellow (Singapore)
   Associate Professor, Department of Rheumatology
   Bangabandhu Sheikh Mujib Medical University, Dhaka

Drug addiction is now prevalent everywhere in Bangladesh; in the house, streets, in the workplace, parks, slums, markets and even in educational institutions both in rural and urban areas. Virtually all segments of society are severely affected by this problem. Near about 25 lakh people are drug addicted. In Bangladesh about 80 percent of the drug addicts are adolescents and young men of 15 to 30 years of age.

The spread of multiple drug use has aggravated the overall problem, personal and social days function, impairment of health, crime and other violent behavior.

Young people abuse drugs due to complex social and peer groups influence, frustration, depression, curiosity, sub-cultural and psychological environment that induce the youths to take drugs. Major risk factors responsible for drug abuse are family disorganization, parental neglect, parent-child conflict, loss of spouse strife, indiscipline, isolation, lack of emotional support, rejection of love, over protection, unemployment, repeated failure and personality mal adjustment and easy availability of drugs.

Effects of drug abuse know no bound. There are physical, psychological, familial, social, economic and National effects. Drug addiction leads to disintegration of family lies. The drug addicts in a threat to the family Because of the hostile behavior of the drug abuser the family in at risk. Normal activities of the family disrupts due to antisocial activities of the abuser. The drug addict youth drops out from school/college or university education. The service holder loses his job because of irregularities. Social isolation and alienation are very common. Family of the drug addict became isolated from the community the drug abuser swallows the lion share of family income because of buying drugs.

What are the Drugs?

Drugs are separated into two categories -

Soft drugs:

1. Alcohol
2. Cigarette
3. Marijuana
4. Glue, Hash etc

Hard drugs:

1. Ecstasy
2. Speed
3. Amphetamine
4. Cocaine

Available drugs in Bangladesh:

- Opium;

1. Heroin
2. Pethedine
3. Cocaine

- Cannabis(Marijuana):

1. Ganja
2. Chorosh
3. Bhang
4. hashish

- Stimulant

1. Yaba(methamphetamine 30% and caffeine 70%)
2. Ectasy
3. Viagra(sildenafil)

- Sleeping pill:

1. Tranquilizer
2. Diazapam;

- Cough syrup

1. Phensidyl(codine,pseudoephedrine and chlorpheniramine)
2. Dexpotent

- Glue

Drug addicted in percentage[1]:

1. Male 93.9 %
2. Female (in Dhaka city) 20.6 %
3. Unmarried 64.8 %
4. Either students or unemployed (youth generation) 56.1 %
5. Smokers 95.4 %
6. Influenced by friends 85.7 %
7. Addicted to codeine-containing cough syrup 65.8 %
8. Addicted to more than one drug 64.3 %
9. Took drugs in groups 65.8 %
10. A history of unprotected sex 63.8 %.

Economical & Social impacts[1]:

The average cost ofdrugs per person were from $1.9 to $3.1 per day or from $707 to $1135 per year. The economic impact of drug abuse included cost of drug itself, health care expenditure, lost productivity, and other impacts on society such as crimes and accidents. The patterns and cost of drug abuse were investigated among 996 drug abusers some were admitted to adrug dependence treatment centre in Dhaka, Bangladesh.

Effects of these drugs in physical and mental health:

Phensidyl:

Phensidyl is the combination of codeine, pseudoephedrine and chlorpheniramine.

Codeine: Common effects include drowsiness and constipation. Less common are euphoria, itching, nausea, vomiting, dry mouth, miosis, orthostatic hypotension, urinary retention, depression, and pardoxical coughing. Rare adverse effects include anaphylaxis, seizure, and respiratory depression[2] .

Chronic use of codeine can cause physical dependence. When physical dependence has developed, withdrawal symptoms may occur if a person suddenly stops the medication. Withdrawal symptoms: drug craving, runny nose, yawning, sweating, insomnia, weakness, stomach cramps, nausea, vomiting, diarrhea, muscle spasms, chills, irritability, and pain. To minimize withdrawal symptoms, long-term users should gradually reduce their codeine medication under the supervision of a healthcare professional[3].

Pseudoephedrine: CNS stimulation, insomnia, nervousness, excitability, dizziness and anxiety. Infrequent ADRs include: tachycardia and/or palpitations. Rarely, pseudoephedrine therapy may be associated with mydriasis (dilated pupils), hallucinations, arrhythmias, hypertension, seizures and ischemic colitis[4]; as well as severe skin reactions known as recurrent pseudo-scarlatina, systemic contact dermatitis, and nonpigmenting fixed drug eruption[5]. Pseudoephedrine, particularly when combined with other drugs including narcotics, may also play a role in the precipitation of episodes of paranoid psychosis[6]. It has also been reported that pseudoephedrine, amongst other sympathomimetic agents, may be associated with the occurrence of stroke[7].

Chlorpheniramine: Potent anticholinergic agent, leading to the side-effects of dry mouth and throat, increased heart rate, pupil dilation, urinary retention, constipation, and, at high doses, hallucinations or delirium. Further side-effects include motor impairment (ataxia), flushed skin, blurred vision at nearpoint owing to lack of accommodation (cycloplegia), abnormal sensitivity to bright light (photophobia), difficulty concentrating, short-term memory loss, visual disturbances, irregular breathing, dizziness, irritability, itchy skin, confusion, decreased body temperature (in general, in the hands and/or feet), erectile dysfunction, excitability, and, although it can be used to treat nausea, higher doses may cause vomiting[8]. Some side-effects, such as twitching, may be delayed until the drowsiness begins to cease and the person is in more of an awakening mode.

Yaba:

Yaba is a combination of methamphetamine and caffeine.

Psychological effects of methamphetamine include euphoria, anxiety, increased libido, alertness, concentration, increased energy, increased self-esteem, self-confidence, sociability, irritability, aggressiveness, psychosomatic disorders, psychomotor agitation, dermatillomania(compulsive skin picking), hair pulling, delusions of grandiosity, hallucinations, excessive feelings of power and invincibility, repetitive and obsessive behaviors, paranoia, and - with chronic use and/or high doses - amphetamine psychosis [9,10].

Long term Methamphetamine use has a high association with depression and suicide as well as serious heart disease, amphetamine psychosis, anxiety, and violent behaviors. Methamphetamine also has a very high addiction risk.[11]. Methamphetamine is not directly neurotoxic but long-term use can have neurotoxic side-effects. Its use is associated with an increased risk of Parkinson's disease due to the fact that uncontrolled dopamine release is neurotoxic[12,13]. Long-term dopamine upregulation occurring as a result of Methamphetamine abuse can cause neurotoxicity, which is believed to be responsible for causing persisting cognitive deficits, such as memory loss, impaired attention, and decreased executive function. Similar to the neurotoxic effects on the dopamine system, methamphetamine can also result in neurotoxicity to the serotonin system[14]. Over 20% of people addicted to methamphetamine develop a long-lasting psychosis resembling schizophrenia after stopping methamphetamine. The condition persists for longer than 6 months and is often treatment resistant[15].

Withdrawal symptoms of methamphetamine primarily consist of fatigue, depression, and increased appetite. Symptoms may last for days with occasional use and weeks or months with chronic use, with severity dependent on the length of time and the amount of methamphetamine used. Withdrawal symptoms may also include anxiety, irritability, headaches, agitation, restlessness, excessive sleeping, vivid or lucid dreams, deep REM sleep, and suicidal ideation[16].

Caffeine overdose can result in a state of central nervous system over-stimulation called caffeine intoxication (DSM-IV 305.90)[17], or colloquially the "caffeine jitters". The symptoms of caffeine intoxication are comparable to the symptoms of overdoses of other stimulants: they may include restlessness, fidgeting, anxiety, excitement, insomnia, flushing of the face, increased urination, gastrointestinal disturbance, muscle twitching, a rambling flow of thought and speech, irritability, irregular or rapid heart beat, and psychomotor agitation[18]. In cases of much larger overdoses, mania, depression, lapses in judgment, disorientation, disinhibition, delusions, hallucinations, or psychosis may occur, and rhabdomyolysis (breakdown of skeletal muscle tissue) can be provoked[19,20].Extreme overdose can result in death[21,22].

Withdrawal symptoms - including headache, irritability, inability to concentrate, drowsiness, insomnia, and pain in the stomach, upper body, and joints - may appear within 12 to 24 hours after discontinuation of caffeine intake, peak at roughly 48 hours, and usually last from 2 to 9 days[23].

Heroin:

In our country, heroin is mostly smoked within aluminum foil or cigarette paper, but in other countries this is injected.

Heroin causes constipation[24]. Suppression of various cell-mediated immune pathways leading to opportunistic infections[25,26,27]. Intravenous use with non-sterile needles and syringes or other related equipment may lead to transmission of infections like: HIV and hepatitis ,the risk of contracting bacterial or fungal endocarditis . Physical dependence can result from prolonged use of all opioids, resulting in withdrawal symptoms on cessation of use. It decreases kidney function[28] .Skin-popping more often results in abscesses, and direct injection more often leads to fatal overdose[29]. A small percentage of heroin smokers, and occasionally IV users, may develop symptoms of toxic leukoencephalopathy[30,31,32]. Symptoms include slurred speech and difficulty walking.

Pathedine:

Usual dose can cause nausea, vomiting, sedation, dizziness, diaphoresis, urinary retention and constipation. Over dosage can cause muscle flaccidity, respiratory depression, obtundedness, cold and clammy skin, hypotension and coma. Convulsive seizures sometimes observed in patients receiving parenteral pethidine on a chronic basis have been attributed to accumumulation in plasma of the metabolite norpethidine (normeperidine). Fatalities have occurred following either oral or intravenous pethidine overdosage[33,34].

Alcohol:

Binge drinking:

In the USA, binge drinking is defined as consuming more than five units in men and four units in women. It increases chances for vandalism, fights, violent behaviours, injuries, drunk driving, trouble with police, negative health, social, economic, or legal consequences to occur[35]. Binge drinking is also associated with neurocognitive deficits of frontal lobe processing and impaired working memory as well as delayed auditory and verbal memory deficits[35]. Binge drinking combined with the stress of returning to work is a contributing factor to Monday deaths from heart attacks[36]. The chances of becoming dependent are increased greatly in men who have 15 or more drinks each week or women who have 12 or more drinks each week. This is known as alcohol dependency[37].

Long-term effects of alcohol:

Individuals with an alcohol use disorder will often complain of difficulty with interpersonal relationships, problems at work or school, and legal problems; additionally patients do complain of irritability and insomnia. Alcohol abuse is also an important cause of chronic fatigue[38]. Signs of alcohol abuse are related to alcohol's effects on organ systems. However, while these findings are often present, they are not necessary to make a diagnosis of alcohol abuse. Signs of alcohol abuse shows its drastic effects on the central nervous system acutely include inebriation and poor judgment; chronic anxiety, irritability, and insomnia. Alcohol's effects on the liver include elevated liver function tests (classically AST is at least twice as high as ALT). Prolonged use leads to cirrhosis and failure of the liver. With cirrhosis, patients develop an inability to process hormones and toxins. The skin of a patient with alcoholic cirrhosis can feature cherry angiomas, palmar erythema and - in fulminent liver failure - jaundice and ascities. The derangements of the endocrine system lead to gynecomastia. Inability to process toxins leads to hepatic encephalopathy.

Binge drinking is associated with individuals reporting fair to poor health compared to non-binge drinking individuals and which may progressively worsen over time. Alcohol also causes impairment in a person's critical thinking. Person's ability to reason in stressful situation is compromised, and they seem very inattentive to what is going on around them[35]. Social skills are significantly impaired in people suffering from alcoholism due to the neurotoxic effects of alcohol on the brain, especially the prefrontal cortex area of the brain. The social skills that are impaired by alcohol abuse include impairments in perceiving facial emotions, prosody perception problems and theory of mind deficits; the ability to understand humour is also impaired in alcohol abusers[39]. Patients who abuse alcohol are less likely to survive critical illness. Research conducted at Ohio State University Medical Center found that patients who suffer from alcoholism or alcohol withdrawal are at a much higher risk for having sepsis and were more likely to die during hospitalization[40].

Alcohol abuse causes neuroinflammation and leads to myelin disruptions and white matter loss; the developing adolescent brain is at increased risk of brain damage and other long lasting alterations to the brain[41]. Adolescents with an alcohol use disorder damage the hippocampal, prefrontal cortex, and temporal lobes[42]. Children aged 16 and under who consume alcohol heavily display symptoms of conduct disorder. Its symptoms include troublesome behaviour in school, constantly lying, learning disabilities and social impairments[43].

Cannabis:

Acute adverse effects: [44]

- Anxiety and panic, especially in naive users
- Psychotic symptoms (at high doses)
- Road crashes if a person drives while intoxicated

Chronic adverse effects: [44]

- Cannabis dependence syndrome (in around one in ten users)
- Chronic bronchitis and impaired respiratory function in regular smokers
- Psychotic symptoms and disorders in heavy users, especially those with a history of psychotic symptoms or a family history of these disorders
- Impaired educational attainment in adolescents who are regular users
- Subtle cognitive impairment in those who are daily users for 10 years or more

Possible adverse effects of regular cannabis use with unknown causal relation: [44]

- Respiratory cancers
- Behavioural disorders in children whose mothers used cannabis while pregnant
- Depressive disorders, mania, and suicide
- Use of other illicit drugs by adolescents

Drug addiction beings on rapid erosion of educational and cultural, moral and family values. The addicts lose their professional and educational capabilities, self-dignity, and get involved in serious or petty criminal activities. The sole aim in life of an addict becomes the procurement and use of drugs.

Time is ripe for leaders at the highest level to wake up to the danger posed to healthy existence of society as more and more new addicts join the ranks of the hardcore ones. This slide must be arrested at all costs. The Drugs and Narcotics Department was created nearly two decades ago, especially to counter the production and availability of addictive drugs. But it has done little over the years to attain its given objectives. The corruption, allegedly, runs high in it.

Political commitment is required to combat the illicit drug-traffickers who are sucking the blood of innocent youths and becoming rich very quickly through smuggling of drug.

Preventive education against drug abuse is essential. Enforcement of laws by the law enforcing agency is needed to curb drug trafficking. The whole community should participate in awareness raising program and peer-counseling is important to change the negative behavior of the youth. If we fail to control of this problem it will destroy the whole civilization.

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