



Adverse effects of addictive substances: Focus on sexual life

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Introduction

Addictive substances include nicotine, alcohol, cannabis, opioids, cocaine, hypnotics-sedatives, stimulants, hallucinogens and inhalants. Addictive substances have significant impact on the physical health as well as mental health of the user.

Factors influencing adverse effects

The adverse effects depends upon many factors like –

A. Substance related factors

- Nature of substance
- Duration of substance use
- Amount of substance use

- Mode of ingestion/administration

B. Client related factors

- Individual susceptibility (genetic predisposition)
- Age
- Gender
- Peer Pressure

Adverse consequences

No organ in human body is resistant to the harmful effects of addictive substances. Their manifestations may be seen in immediate as well as long term perspective.

Broadly speaking, the substance related adverse consequences can be summarized as-



A. Central nervous system side effects

- Gait disturbance
- Memory disturbance
- Difficulty in concentration
- Seizures
- Coma
- Neuropathy
- Degeneration of the brain

B. Respiratory system side effects.

- Bronchitis
- Malignancy (cancer)
- Tuberculosis
- Chronic obstructive pulmonary diseases

C. Gastro-intestinal side effects

- Gastritis
- Acid peptic disease (peptic ulcer)
- Gastro intestinal malignancy
- Cirrhosis of liver
- Mucosal tears
- Mal-absorption syndrome
- Pancreatitis

D. Genito-Urinary system side effects

- Renal failure

- Sexual dysfunction
- Loss of libido
- Impotence
- Gynecomastia
- Sexually transmitted diseases
- Malignancies

E. Psychiatric complications

- Delirium
- Drug dependence
- Mood disorders
- Psychosis
- Anxiety disorders
- Drug withdrawal related problems

F. Others

- Road traffic accidents, leading to head injury and other visceral injuries
- Birth defects (if taken during pregnancy)
- Abscesses (in injectable drug users)
- Myositis
- Myopathies
- Nutritional deficiencies

Other than this, substance users also face legal difficulties, financial problems,



social stigma, and loss of job which ultimately compromises their quality of life.

Myths

Amongst general population there are many wrong notions related to addictive substances. They believe that drugs/substances

- Enhance performance
- Help in relieving stress
- Increase libido
- Improve attention and concentration
- Help in socialization
- Rarely cause addiction and to them, it is an isolated and individualized phenomenon

The above beliefs may be proved right in short term uses of substances, if taken in moderate amounts, however in long run, the effects are always detrimental.

Sexual Adverse Effects of Substance Use

Evidences suggest that substances like alcohol, cannabis, opioids, and stimulants in mild to moderate dosages increase the desire but decrease the

performance. Under the influence of substance the individual may demonstrate inappropriate sexual behavior which is frequently due to loss of social inhibition and euphoric effects. In long run, substances cause significant sexual dysfunction. Alcohol induced sexual dysfunction can be due to chronic malnutrition (deficiency of vitamins and micronutrients), hepatic failure, testicular atrophy, neuro-hormonal imbalance, vasculopathy and/or neuropathy. Cannabis users also experience sexual dysfunction in the form of lack of libido, erectile dysfunction which may be due to lack of motivation or neuro-hormonal imbalance. Opioids delay the process of ejaculation. Abstinence from opioid in dependent users causes premature ejaculation. Injectable opioid users may develop HIV infection due to sharing of infected needles. Sexual dysfunction can also occur due to vasculitis as well as wrong injection techniques (including injection in scrotal and penile veins).

Sexual dysfunction in substance users adversely affect the sexual life which ultimately leads to marital discord, infertility and significant distress.



Hence there is need to increase awareness amongst general population regarding substance related harms and to make remedial services available to a larger population.

Preventive Measures

Substance use disorders are preventable and treatable. For effective prevention there is need for

1. Health education and public awareness about substance use disorders
2. Early diagnosis of substance use disorder and treatment

3. Rehabilitation of the substance users

The treatment facilities available at Government setups are provided by medical colleges, district hospitals with psychiatric care facility, mental health institutions. Similarly non-government organizations (NGOs), private drug de-addiction & rehabilitation centers as well as private hospitals with psychiatric unit also provide care for the persons with substance use disorders.

Competing interests

The authors declare that they have no competing interests.

Authors' contributions

Both authors conceptualized, carried out literature review, analyzed the data and wrote the manuscript. Both authors read and approved the final manuscript.

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Suggested readings

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