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Diabetes and Addictive Disorders

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Abstract

Prevalence of addictive disorders among persons with diabetes mellitus (DM) (type 1 and type 2) ranges from 9.6 to 29%. Excessive and problematic use of psychoactive substances in persons with diabetes results in poor glycemic control with frequent hyperglycemic crisis. Tobacco, alcohol, cannabis, benzodiazepines, inhalants, and stimulants are common psychoactive substances used among persons with diabetes in India. The daily use of alcohol by men and women with DM should not exceed 15 and 30 g of ethanol, respectively. Use of other psychoactive substances is not recommended for persons with DM. Various screening tools exist for assessing substance abuse like WHO-ASSIST, Alcohol Use Disorders Identification Test (AUDIT), Fagerström Test for Nicotine Dependence (FTND), and Opioid Risk Tool. Integrated management of co-occurring addictive disorder and DM is recommended. Psychosocial treatments for substances include brief interventions (BIs), motivational interviewing, contingency management, relapse prevention, and cognitive behavior therapy.

Keywords
► psychoactive substance abuse
► screening tools
► behavior therapy

Introduction

Diabetes mellitus (DM) has been recognized as a major health problem in India.[1] It is gaining the status of an epidemic with an estimated 82 million people currently diagnosed as diabetics in South-East Asia.[2] The prevalence of DM is predicted to double globally from 171 million in 2000 to 366 million in 2030, with the maximum increase recorded in India.[3]

Addictive disorders are also an important public health issue. In 2015, an estimated 29.5 million people were suffering from drug use disorders (besides alcohol and tobacco).[4] Prevalence of tobacco and alcohol use disorders is even higher. In India too, drug use disorders are a major public health concern. The National Mental Health Survey (2015) found 18.1% to be afflicted with addictive disorders.[5]

Addictive disorders constitute important and common co-occurring disorders among persons with DM. Estimates of the prevalence of addictive disorders among persons with DM (type 1 and Type 2) have ranged from 9.6 to 29%.[6-8] The impact of psychoactive substances on the course and prognosis of DM is complex and well-documented. Persons with diabetes who have excessive and problematic use of psychoactive substances have a higher prevalence of DM, often have poor glycemic control, and experience more frequent hyperglycemic crises. Certain psychoactive substances also tend to hasten the onset of complications of DM.

Therefore, the need to address specific issues in those with comorbid DM and sudden unexplained deaths (SUDs) is imperative. Tobacco, alcohol, cannabis, stimulants, benzodiazepines, inhalants, and stimulants are the psychoactive substances that are likely to be encountered among persons with DM in India. In addition, the behavioral addictions are being increasingly recognized as a growing public health problem. There is a need to address these additive disorders among persons with DM as well.

Keeping in view the importance and relevance of the theme, this position statement has been developed.

Aim and Scope of the Current Document

The current document is the position statement of RSSDI on “Diabetes and Addictive Disorders.” This document presents the recommendations with regard to the screening,

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diagnosis, and management of cooccurring addictive disorders among persons with DM. The document is targeted at the healthcare professionals engaged in care and management of DM. This document is an adjunct to the clinical practice guidelines on management of addictive disorders, and the readers are encouraged to refer to these guidelines as well.

Recommendations

Use of Psychoactive Substances by Persons with DM

- Use of tobacco is not recommended for those who have either manifested DM or are at-risk of developing DM.
- Alcohol use in binge pattern is not recommended for persons with DM.
- Possible benefit of alcohol consumption in moderate quantities on DM is offset by the increased risk of developing other medical conditions.
- In any case, the daily use of alcohol by men and women with DM should not exceed one and two standard drinks that is, 15 and 30 g of ethanol, respectively.
- Use of other psychoactive substances is not recommended for persons with DM.

Screening and Diagnosis

- All patients diagnosed with DM must be asked about psychoactive substance use.
- History of psychoactive substance use must be obtained systematically and should include details on duration, quantity, frequency, last dose, and the usual dose.
- Various screening tools exist for assessing substance use problems. The WHO-ASSIST is a freely available valid tool developed by the World Health Organization for screening of addictive disorders.[9]
- Other tools for assessing specific substance use disorders include Alcohol Use Disorders Identification Test (AUDIT), Fagerström Test for Nicotine Dependence (FTND), and Opioid Risk Tool.[10-12]
- The International Statistical Classification of Diseases and Related Health Conditions (ICD)-10 or the Diagnostic and Statistical Manual of Mental Disorders-5 can be used for making a diagnosis of addictive disorders.[13,14]

Management–General Issues

- Integrated management of cooccurring addictive disorder and DM is recommended.
- A comprehensive management plan, including pharmacological and nonpharmacological interventions, is recommended.

Management–Pharmacological Interventions

The pharmacological interventions available for management of addictive disorders have been summarized in ►**Table 1.**[15–34]

- The treating clinician should remain vigilant about the possible interaction between these medicines and the medicines used to treat DM.
- Also, the treating clinician should be aware of the pharmacokinetic interactions between psychoactive substances and the medicines metabolized by the cytochrome P (CYP) enzymes.

Management–Non-Pharmacological Interventions

- Psychosocial treatments for substances include brief interventions (BIs), motivational interviewing, contingency management, relapse prevention, cognitive behavior therapy, and treatments combining cognitive behavior therapy and contingency management.
- Psychosocial interventions are effective and comparable to those for other efficacious treatments in psychiatry.[35]
- BI is a useful and cost-effective treatment for reducing substance use. It is likely to be useful for persons with DM.[36]
- Motivational interviewing effectively improves treatment adherence and induces positive behavioral and psychological changes.[37]
- Other effective interventions include contingency management, relapse prevention, and cognitive behavioral therapy.[38,39]
- Cognitive behavior therapy is also considered an effective treatment, although the evidence is of a lower quality.[40]
- Lifestyle recommendations incorporating dietary changes, physical activity must be advised.[41,42]
- Persons with addictive disorders cooccurring with DM must be provided psychoeducation which must include the following:
- Information on addictive disorders.
- Need for treatment.
- Comparability to other chronic medical illness.
- Need for equal emphasis as DM.
- Emphasis on lifestyle modifications.

Cooccurring Mental Disorders

- Persons with DM and addictive disorders must be actively screened for presence of cooccurring mental disorders at every follow-up, and appropriate assessment and management should be initiated at the earliest.

Behavioral Addictions

- Besides the addictive disorders related to the use of psychoactive substances, certain other addictive disorders have been recognized in recent years. These disorders are collectively known as behavioral addictions and include conditions such as Internet addiction, Internet gaming disorders, etc. These behavioral addictions can adversely impact the diabetes care, as persons with these additive disorders have dysfunctional lifestyle and tend to ignore their daily routine including food intake, physical activity, therapeutic adherence, etc. Hence, it is recommended to screen for these behavioral addictions among individuals with DM, especially adolescents and young adults.

Table 1 Pharmacological interventions available for management of addictive disorders

Psychoactive substance	Phase of treatment	Medication
Tobacco		Nicotine replacement therapy (NRT)
		Combination of various NRT formulations
		Bupropion
		Combination of bupropion with NRT
		Varenicline
		Combination of the above agents
Alcohol	Short-term management	Long acting benzodiazepines (except in cases with hepatic impairment where short acting ones are preferred)
		Thiamine
	Long-term management	Acamprosate
		Naltrexone
		Disulfiram
Opioids	Short-term management	Buprenorphine
		Methadone
		Combination of clonidine, anti-emetics and analgesics (NSAIDs)
	Long-term management	Buprenorphine
		Methadone
		Naltrexone
Cannabis	Short-term management	Benzodiazepine for symptomatic management

Referral for Specialized Care

- Persons with DM having cooccurring addictive disorders should be referred on a priority basis to a mental health professional for specialized care in the following scenarios:
  - Found to have high-risk subsect use during screening.
  - Not responding to simple advice or BI.
  - Suspicion of presence of cooccurring mental disorder.
  - Having active suicidal ideation, plan, or attempt in recent past.

Conclusions

To summarize, persons with DM having cooccurring addictive disorder are more likely to run a relatively poorer course. Various psychoactive substances are likely to negatively impact the DM. The high prevalence of SUDs is likely to make them a cooccurrence among individuals with DM. Those engaged in care of persons with DM should be aware of this. Like diabetes, addictive disorders are also chronic conditions and require continued management. Timely identification and management of the cooccurring addictive disorders is likely to improve the course and outcome of DM and consequently improve the quality of life. Also, there is a need to address behavioral addictions among persons with DM.

Conflict of Interest

None declared.

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