Original Article

ISSN: 2663-9491 e-ISSN: 2789-6897

Multi-centre Study on Comorbid Mood Disorders among the Substance Abusers

Azad Hossain[1*], Ashfaque Uzzaman Choudhury[2], Mohammad Monirul Islam[3], Mohammad Abdul Kayum Shaikh[4]

Received: 17 May 2026
Accepted: 26 May 2026
Published Online: 5 June 2026

Published by:
Gopalganj Medical College, Gopalganj, Bangladesh

*Corresponding Author

DOI: 10.5281/zenodo.20561053

ABSTRACT

Background: *Drug misuse is a global problem often linked with mood disorders like depression, bipolar disorder, and dysthymia. Comorbidity makes diagnosis in substance users challenging. This study aims to find out the types of mood disorders in these substance abusers with complicacy arise with these comorbidities.* ***Materials & Methods:*** *This is a descriptive type of cross-sectional study which was conducted from 1 Oct 2025 to 31 Mar 2026 at the Central Drug Addiction Treatment and Rehabilitation Centre, Dhaka and the Department of Psychiatry, Combined Military Hospital, Dhaka. Two hundred patients were purposively sampled. Socio-demographic data were collected using a researcher-designed questionnaire, and mood disorders were assessed using SCID-I. The impact of mood disorders among substance abusers was interviewed by a panel of psychiatrists. After gathering the data, manual data cleaning and editing will be performed to prepare it for entry and analysis through the use of complex SPSS software version 16. This is a cross-sectional study.* ***Result:*** *Of those 200 cases, 59(29.5%) had major depressive disorder, 4 (2%) had dysthymia, 8 (4%) had a manic episode, and 1 (0.5%) had been diagnosed as hypomanic episode. 2 (1%) subjects had been diagnosed as cyclothymic disorder. Most commonly abused substances were opioids (33.34%) and cannabis (30.76%). Substance abusers with comorbid mood disorders have a prolonged and more severe course of illness. The majority (65%) was self-employed, and 35% were unemployed.* ***Conclusions:*** *Drug abuse is rising nationally, with frequent comorbid mood disorders increasing social burden. Accurate diagnosis and understanding of these conditions are essential for effective treatment and burden reduction.*

Keywords*: Mood Disorder, Substance Use.*

(The Insight 2026; 9(2): 406-410)

1. *Commanding Officer, 21 Field Ambulance, Bogura, Bangladesh (ORCID: 0009-0002-4319-3394)*
2. *Ex Professor & Head, Department of Psychiatry, Armed Forces Medical College & Combined Military Hospital, Dhaka, Bangladesh*
3. *Professor & Classified Specialist in Psychiatry, Combined Military Hospital, Dhaka, Bangladesh*
4. *Associate Professor & Classified Specialist in Psychiatry, Combined Military Hospital, Ghatail, Bangladesh*

INTRODUCTION

Substance abuse has a direct impact on the economic and social conditions of any country. It is a major national concern in Bangladesh. There are millions of young substance abusers in Bangladesh, aged between 18 and 30 years. Bangladesh is situated between the 'golden triangle' (Myanmar, Thailand and Laos) and the 'golden crescent (Pakistan, Afghanistan and Iran). Its easy land and sea access made it a vulnerable drug transit point. In one study, among 253 drug abusers, 31% is cannabis addicts, 26% alcohol addicts, 24% in Phensidyl addicts, 10% in heroin and 9% in diazepam addicts [1]. Recently, a study was done in Dhaka, Bangladesh, which shows that buprenorphine is the most commonly abused drug. [2] Experts agrees that there is widespread use and easy availability of illicit drugs are common now a days [3,4,5]. In the analysis of Clinical and epidemiological studies, it is found that the frequency of co-morbid mental disorders, alcohol or other psychoactive substance abusers is high [6,7]. Individuals with a lifetime history of substance abuse (other than alcohol), 53.1%had a lifetime psychiatric disorder, and were at 4.5 times the risk of developing a psychiatric disorder than individuals without a substance abuse history [8]. Australian and US epidemiological studies have shown that there is a non-trivial prevalence in the general population. The last survey on drug abuse and health, 9.2 million adult population of the US (4% of the total adult US population) met criteria for both a psychiatric disorder and drug abuse in the last year [9]. Substance abusers and persons with other psychiatric disorders reported having a high level of co-morbidity. Mood disorders are also a commonly occurring comorbidity in patients with substance abuse. Various studies showed that co-morbid mood disorders affect the course and treatment of drug abuse [10]. Although psychiatric disorders are risk factors for drug abuse, the presence of a substance-related disorder may influence the occurrence of psychiatric disorders. However, having a co-morbidity in substance abusers often becomes complicated with symptom overlap, symptom fluctuations and overlapping of symptoms. Drug abuse and comorbid mood disorders are widespread in the general population and are involved in increasing societal and personal costs [11-13,14-17]. In the general population, distinguishing previous and present disorders has identified that intoxication or withdrawal effects are not solely responsible for the association [18]. However, the nature of present or recent co-occurrence of drug abuse and mood disorder remains poorly understood. In 20 per cent of the US general population, substance abuse was associated with at least one current mood disorder. This study also shows that a few individuals in the general population had current mood disorders that were only induced by drugs. Among individuals with current drug abuse who were seeking treatment, about 60% had at least one current mood disorder [19]. In a study of

ISSN: 2663-9491 e-ISSN: 2789-6897

Indian people, in 81% of drug abusers, there is at least one comorbid psychiatric disorder. The most common psychiatric disorders were depressive disorders, bipolar disorder and dysthymia. Among them, one-third were diagnosed with major depressive disorder. One third of these depressive disorders had a psychotic feature. In 16% of these cases, bipolar mood disorder had been diagnosed [20]. Alcohol abuse and other drug abuse are involved with mood destabilisation in patients with mood disorders [21,22]. In the planning phase of the treatment of drug abuse, an appropriate diagnosis of mood disorders is required. Failure to diagnose this comorbidity can result in inadequate and faulty psychological, pharmacological, and social interventions that could result in treatment failure. In our country, no such studies are being carried out, and the treatment of addicts is very difficult. Psychiatrists believe that the recurrence of substance abuse is more prevalent than in other countries. So, it is necessary to find out such comorbidities in patients with substance abuse and their effects on patients with substance abuse.

METHODS & MATERIALS

This is a descriptive type of cross-sectional study which was conducted from 1 Oct 2025 to 31 Mar 2026 at the Central Drug Addict Treatment and Rehabilitation Centre, Dhaka and the Department of Psychiatry, Combined Military Hospital, Dhaka. 200 diagnosed patients of drug abuse were taken by the purposive sampling method. The researcher had filled out the semi-structured questionnaire, containing socio-demographic & other relevant variables which had been prepared by the interviewer himself after taking informed written consent. He had also filled out the sheet for clinical evaluation of mood disorders. Comorbid mood disorders were diagnosed by using the structured Clinical Interview and Diagnosis I (SCID-I) non-patient version (in Bengali). A validated Bangla version is available for SCID I. For better patient understanding, it is used as a diagnostic tool. An interview with a group of psychiatrists had been conducted regarding the effects of mood disorders on patients with substance abuse. Data were recorded in the specific data sheet. Data were analyzed with the help of the computer program SPSS (Statistical Package for Social Sciences) win version 16. The SCID-I mood disorder module classifies mood disorders into two primary categories: Depressive Disorders and Bipolar Mood Disorders.

RESULTS

Table I shows that 200 male Substance abusers seeking advice or getting treatment in the mentioned places were enrolled as the study population. In our study, we have found Major depressive disorder 29.5%, Manic Disorder 4%, Hypomanic Disorder 0.5%, Dysthymic disorder 2.0% & Cyclothymic disorder 1.0%. Substance abusers with comorbid mood disorders have a prolonged and more severe course of illness. Individuals with a comorbid mood disorder had a severe course of the disease, and there were multiple relapses. The treatment cost is very high for substance abusers with comorbid mood disorders.

Table I: Distribution of the respondents by age groups, employment and psychiatric illness (n=200).

		Frequency (n)	Percentage (%)
Age group (years)	<=20	24	12
	21-30	104	52
	31-40	56	28
	>40	16	8
Employment	Employed	130	65
	Unemployed	70	35
Psychiatric Illness	Previous history of psychiatric illness	10	5
	Family history of psychiatric illness	8	4

Table II presents the distribution of respondents according to marital status. About 56.0% respondents were found to be unmarried, and 44.0% married

Table II: Distribution of the respondents by Marital Status (n=200)

Marital Status	Frequency (n)*	Percentage (%)
Married	88	44.0
Unmarried	112	56.0

This pie chart shows 53.0% respondents had a monthly income below 10,000 Tk. On the other hand, 35% population had a monthly income of 10,000 - 40,000 Tk and that of 12% in the> 40, 000 Tk monthly income group (*Figure I*).

ISSN: 2663-9491 e-ISSN: 2789-6897

Figure I: A Pie chart showing the distribution of the respondents by Monthly Income (*n*=200)

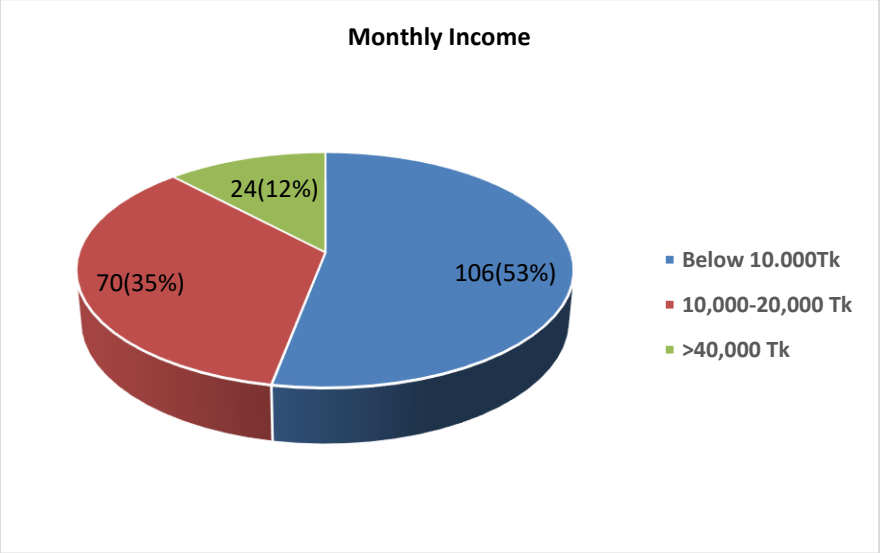

Table III shows that Mood disorders were identified in 37.0% of substance abusers. Major depressive disorder was the most frequent at 29.5% (n=59), followed by manic disorder 4.0% (n=8), dysthymic disorder 2.0% (n=4), cyclothymic disorder 1.0% (n=2), and hypomanic disorder 0.5% (n=1).

Table III: Frequency distribution of substance-abusing patients according to current mood disorders.

Mood Disorder	Frequency (n)	Percentage (%)
Major depressive disorder	59	29.5
Manic Disorder	8	4
Hypomanic Disorder	1	.5
Dysthymic disorder	4	2.0
Cyclothymic disorder	2	1.0
Total Mood Disorder	74	37.0

Table IV shows that mood disorders were most common among opioid users (46 out of 67), followed by amphetamine users (16 out of 41), cannabis users (11 out of 61), and others (1 out of 31). Overall, 74 of 200 substance abusers had mood disorders compared to 136 without mood disorders.

Table IV: Distribution of mood disorders according to type of substance abuse (*n*=200).

Substance Abuse	Substance Abuser		
	Mood Disorders	No Mood Disorders	Total
Opioids	46	21	67
Cannabis	11	50	61
Amphetamines	16	25	41
Others	1	30	31
Total	74	136	200

Table V demonstrates that mood disorders were most frequently associated with opioid use, with 46 of 67 users affected, including 40 depressive and 6 bipolar disorders. Cannabis users showed 11 cases, mainly depressive (9) and 2 bipolar. Amphetamines were linked to 16 cases (13 depressives, 3 bipolar), while others showed only 1 depressive case. Overall, 74 of 200 had mood disorders, predominantly depressive (63) over bipolar (11), indicating depressive dominance across all substance types.

Table V: Distribution of mood disorders according to type of substance use (*n*=200).

Substances	Number	With Mood Disorder	Depressive Disorder	Bipolar Disorder
Opioids	67	46	40	06
Cannabis	61	11	09	02
Amphetamines	41	16	13	03
Others	31	01	01	00
Total	200	74	63	11

ISSN: 2663-9491 e-ISSN: 2789-6897

DISCUSSION

A total of 200 male substance abusers were enrolled and analysed in this cross-sectional study. Drug abusers trying to get advice or treatment in the previously mentioned two places were enrolled on our study population. Mood disorders are the most common psychiatric comorbidities in patients with drug abuse. Mood disorder and substance abuse comorbidity interferes with the course of the disease, outcome of treatment, and prognosis for each of the disorders [23]. According to the analysis of age distribution, the mean value of respondents' age was found to be 29.32 (SD±7.94) years, with the age range of 18 to 50 years. The most frequent age group was 21-30 years, representing 52% that was, followed by 28% in 31-40 years and 12% in <=20 years. Arora et al. (2012) also found a similar percentage in this age group; it is 37.4% of patients from the age group 26-35 years [24]. Ahmadi et al. (2005) also found 41% study population in the age group of 20-29 years, and they also got 31.2% in the 30-39 years age group [25]. This study's results similarity with our study's results. Here, the common age group with substance abuse is young adults. Young people usually seek adventure, so they are commonly involved in substance abuse. They dare to find out about these substances in difficult situations. Young people are the strength of our country. So, proper treatment of them is very important. Regarding employment, 65% substance abusers are employed, and 35% were found unemployed. In our study, we found 5% respondents had a previous history of psychiatric illness, and an equal portion 4% had a family history of psychiatric illness. Previously, it was thought that unemployment was the main causative factor for substance abuse. We found that peer pressure and poverty is the main causative factor. 53.0% respondents had a monthly income below 10,000 Tk. On the other hand, 35% population had a monthly income of 10,000 - 40,000 Tk and that of 12% in the> 40, 000 Tk monthly income group. This study shows that poor socioeconomic conditions may lead to substance abuse. According to the analysis of types of substance abuse, we observed that the most frequently abused substance was Opioids (33.5%), that was followed by Cannabis (30.5%). Abuse of amphetamines was found in 20.5 % cases, and 15.5% population used others substance abuse accounting sedatives and hypnotics, alcohol and inhalants. But in a study conducted in Bangladesh, found opioids 34%, cannabis 31% and alcohol 26% [1]. These differences may be due to the availability of amphetamine and the unavailability of alcohol in the study area. Some types of substances available in some specific areas of the country. It is revealed that a good number of substance abusers had major depressive disorder, and the prevalence of it was found 29.5% with 95% CI (23.6-36.2%). In our study, we accounted for substance-related depression as major depressive disorder. The prevalence of other mood disorders was found manic disorder [4%, 95% CI (4.24 - 11.76%)]; Hypomanic disorder [0.5%, 95% CI (0.38 -2.38%)]; Dysthymic disorder [2%, 95% CI (0.78-5 %)] and cyclothymic disorder [1%, 95% CI (0.27 - 3.57)]. In the whole study population, the prevalence rate of mood disorder was found 37%. A study had been conducted in India, which found 37.2% had major depressive disorder, [23] we found 29.5% had been diagnosed with major depressive disorder, so our study is consistent with this study. They also found 1% had dysthymia, and we found 2% had been diagnosed with dysthymia. They noticed 1% had mania, we noticed 4% mania and 0.5% hypomania. Here, we found that the main comorbid mood disorder is depressive disorder. The suicide rates in patients with substance abuse are very high; this is due to comorbid depressive disorder [2]. If we detect and treat these depressive disorders, we will be able to reduce the suicide rate among substance abusers. In another study, which had been conducted in Iran, it revealed that 62.2% had major depressive disorder [25]. We found 29.5% major depression. They also found 2.8% dysthymia; we found 2% dysthymia. They noticed 0.6% cyclothymic, we noticed 1% cyclothymia. The differences may be explained by the different socio-cultural background of the patients and the different tools used to diagnose mood disorders. In a study conducted in Pakistan, it was observed that 32% opioids users had been diagnosed with a comorbid mood disorder [26]. We found 68.65% opioids users were diagnosed with a comorbid mood disorder.

LIMITATIONS

The limitations in the research are male participants only, purposive sampling from the hospital setting, poor generalizability, cross-sectional study design which does not allow to establish cause and effect relationship, one-time data collection from an interview, recall bias, low sample size, and no control group.

CONCLUSION

Mood disorders are very common in drug abusers as psychiatric co-morbidities. Of them, a good number of patients had been diagnosed as a case of major depressive disorder as a comorbidity to substance abuse disorder. As a result of high rates of mood disorders in drug addicts, it is difficult to make an appropriate treatment plan. If these mood disorders are left untreated that will lead to relapse of substance dependence. A lot of governments and non-government organisations (NGO) have been involved in the treatment of individuals with substance use. Thorough training is necessary in all aspects of these organisations for enhancement of the capacity of its staffs as they can deal with co-morbid psychiatric disorders, especially with the mood disorders in a holistic way and increase treatment success.

RECOMMENDATIONS

It is necessary to implement routine screening of mood disorders in people with substance use problems. It is also important to develop joint services for mental disorders and addiction, as well as more intensive training of personnel. Timely action can lead to improved results in treatment. Large-scale studies of the population are needed for greater generalization of research findings.

FUNDING

No funding sources

CONFLICT OF INTEREST

None declared

REFERENCES

1. Shamim SB. A study on drug abusers in Mohakhali slum. Journal of BIDS 2005; 13:13-18.
2. Mallick PS and Gomes JM. Injecting drug users semi-annual behavioural survey. SHAKTI Project Health and Population Sector. CARE-Bangladesh. 2000
3. Hossain M and Ahmed SK. A natural response to drug misuse problems: a review of drug user treatment services of Bangladesh. Substance Use and Misuse, 1999; 34:1605-1617.
4. Malibubur R. High risk behaviour among drug abusers in Bangladesh. Paper presented at the 5th International Congress on AIDS in the sia Pacific.5October, Kuala Lumpur, Malaysia, 1999
5. Habib SE, Bhuiyan AQ, Hossain KT and Lovejoy FH. Drug use and social circumstances: a study among different target groups in

ISSN: 2663-9491 e-ISSN: 2789-6897

northwest Bangladesh. Japanese Journal of Alcohol and Drug Dependence. 2001; 36(2): 107-123.
6. Baldacchino A, Groussard-Escaffre N, Clancy C, Lack C, Sieroslavrska K, 'Epidemiological issues in comorbidity: lessons learnt from a pan-European ISADORA project, Mental Health and Substance Use: Dual Diagnosis 2009;2 (2): 88-100.
7. Kessler RC,Berglund R, Demler O et al. 'Lifetime prevalence and age-of onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication',Archives of General Psychiatry 2005; 62: 593-602.
8. Regier DA, Farmer ME, Rae DS et al. Comorbidity of Mental Disorders with Alcohol and Drug Abuse: Results from The Epidemiological Catchment Area (ECA) Study. JAMA 1990; 264 (19): 2511-2518.
9. SAMHSA (Substance Abuse and Mental Health Services Administration) (2012), Results from the 2010 National Survey on drug use and health: mental health findings, www.samhsa.gov/data/nsduh/2k10MHFindings/2k10MHResults.htm (accessedon 20 November 2013).
10. Kosten TR, Rounsaville BJ, Kleber HD. A 2.5- year follow-up of depression. Life crises and treatment effects on abstinence among opioid Addicts. Arch Gen Psychiatry 1983; 43:733-738.
11. Grant BF. Comorbidity between DSM-IV drug use disorders and major depression: results of a national survey of adults. J Subst Abuse 1995; 7:481-497.
12. Kessler RC, Nelson CB, Mcgonagle KA, Edlund MJ, Frank RG, Leaf PJ. The epidemiology of co-occurring addictive and mental disorders. Am J Orthopsychiatry.1996; 66:17-31.
13. Regier DA, Farmer ME, Rae DS, Locke BZ, Keith SJ, Judd LL, Goodwin FK. Comorbidity of mental disorders with alcohol and other drug abuse: results from the Epidemiologic Catchment Area (ECA) Study.JAMA.1990;264:2511-2518.
14. Goetzel RZ, Hawkins K, Ozminkowski RJ. The health and productivity cost burden of the "top 10" physical and mental conditions affect ing six large US employers in 1999. J Occup Environ Med. 2003; 45: 5-14.
15. Roy-Byrne PP, Stang P, Wittchen HU, Ustun BT, Walters EE,Kessler RC. Lifetime panic-depression comorbidity in the National Comorbidity Survey: association with symptoms, impairment, course and help seeking. Br J Psychiatry.2000; 176:229-235.
16. Saderson K, Andrews G. Prevalence and severity of mental health disability and relationship to diagnosis. Psychiatr Serv. 2002; 53:80-88.
17. Stewart WF, Ricci J A, Chee E, Hahn SR, Morganstein D. Cost of lost productive work time among US workers with depression. JAMA.2003; 289:3135-3144.
18. Hasin DS, Grant BF. Major depression in 6,050 former drinkers. Arch Gen Psychiatry.2002; 59:794-800.
19. Bridget F, Grant, Frederick S, Stinson, Deborah A, Dawson S et al. Prevalence and Co-Occurrence of Substance Use Disorders and Independent Mood and Anxiety Disorders, Results From the National Epidemiologic Survey on Alcohol and Related Conditions,2006; 29: 116-117.
20. Shantna K, Chaudhury S, Verma AN, Singh AR. Co morbid psychiatric disorders in substance dependence patients: A control study, 2009; 9:84-85.
21. Markou A, Kosten TR, Koob GF. Neurobiological similarities in depression and drug dependence: A self-medication hypothesis. Neuropsychopharmacology. 1998; 19(3):135–174.
22. Keller MB, Lavori PW, Rice J, Coryell W, Hirschfeld RM. The persistent risk of chronicity in recurrent episodes of nonbipolar major depressive disorder: a prospective follow-up. The American journal of psychiatry. 1986 Jan 1;143(1):24-8.
23. Cornelius JR, Salloum IM, Ehler JG, Jarrett PJ, Cornelius MD, Perel JM, Thase ME, Black A. Fluoxetine in depressed alcoholics: a double-blind, placebo-controlled trial. Archives of general psychiatry. 1997 Aug 1;54(8):700-5.
24. Arora H, Kaur R. Prevalence of Mood and Anxiety Disorders in Opioid Addicts, Delhi Psychiatry Journal 2012; 15:316-317.
25. Porter J. Prevalence of Mood and Anxiety Disorders in a Sample of Iranian Outpatient Opioid Addicts.
26. Ahmad B, Mufti KA, Farooq S. The prevalence of psychiatric disorders among the opioids dependents. JPMA, 2001, 51:183.