

# A study of depression among patients of substance use disorder

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## Abstract

**Background:** Depressive disorder is frequently found as a comorbidity among patients with substance abuse. Most of the time it is reported as underdiagnosed and a majority of patients go untreated. Many studies have indicated that comorbid depressive symptoms play a major role in the prognosis of substance use disorder and the relapse has been found to be greater in patients who have a comorbid depression. The present study seeks to determine the comorbidity of depression in cases with substance abuse and their sociodemographic characteristics.

**Objective:** The current study is aimed to determine the relationship between various drug abusing patterns and comorbidity of depression with substance use disorders.

**Methods:** This was a cross-sectional study. The study was carried out in 42 patients, who were consecutively admitted in psychiatric ward of Kathmandu Medical College Teaching Hospital and Punarjeevan Hospital with the diagnosis of mental and behavioural disorder due to use of psychoactive substances, according to ICD-10. The study was carried out from 1<sup>st</sup> January 2010 to 30<sup>th</sup> December 2010. All patients were rated using Hamilton Depression Rating Scale.

**Results:** Among all subjects, 31 (73.8 %) were found to be suffering from Depression among which 19 (45.2%) had mild to moderate depression and 12 (28.6%) had severe depression. Depression was seen among 80% of unemployed subjects, followed by 75% employed subjects and 68.8% students.

In method of drug intake, 21 (50%) subjects used oral drugs, 12 (28.6%) subjects used intravenous route and 5 (11.9%) subjects used inhalational drugs. All patients using intravenous drugs were found to have depression.

Among drugs abused, 22 (52.4%) patients used multiple substances like alcohol and cannabis, 11 (26.2%) patients used Heroin, 6 (14.3%) patients used drugs like Diazepam, Dextropropoxyphene, Nitrazepam and Promethazine, followed by 3 (7.1%) patients using Buprenorphine. Depression was found in 6 (54.54%) out of 11 subjects who used Heroin followed by 19 (86.63%) out of 22 subjects who were dependent on alcohol, cannabis and other substances.

**Conclusion:** The result showed strong correlation between depressive symptoms and substance abuse, which draws attention to the need of taking into consideration the comorbidity and its management. Clinicians should routinely assess for depression in patients with substance abuse disorders.

**Key words:** Depression, ICD-10, substance use disorders.

## INTRODUCTION

Drug abuse is becoming one of the major problems worldwide, affecting the youngsters, leading to depressive symptoms in between. A person who is suffering from depression may feel hopeless, lonely and distractable and gradually plunges into drug abuse and

vice versa. This two way relation is a serious matter of concern for the patient, their families, health services and society.

Patient with substance use disorder having depression run a higher risk of delayed diagnosis<sup>1</sup>, more severe psychopathological symptoms<sup>2</sup>, less compliance with treatment<sup>3</sup>, poorer effects of treatment<sup>4</sup>, more impairment of social functioning<sup>5</sup>, increased admissions to emergency department<sup>6</sup>, higher prevalence of physical comorbidity<sup>7</sup>, suicidal ideation<sup>8</sup>. They are often unemployed<sup>9</sup>, homeless<sup>10</sup>, they are also involved in

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violent episodes<sup>11</sup>, or criminal activities<sup>12</sup>, and indulged in alcohol dependence<sup>13</sup>.

Epidemiological studies from different countries have shown a high prevalence of comorbid alcohol or other drug disorders. Epidemiologic Catchment Area Programme in the USA shows 53% of drug abusers had a mental disorder.<sup>14</sup> The most common disorders were severe depression<sup>15, 16</sup>. In a Canadian study, prevalence of major depressive disorder is three time higher in people with substance dependence than in the general population<sup>17</sup>.

A special precaution is required in substance use disorder, where comorbidity of mental disorder is likely to evolve. Most people with substance use disorder have mental disorders, and often do not receive any appropriate treatment. Most of the treatment centres treat for substance use disorders, however, they miss the comorbid mental disorder, which subsequently relapse after some time, affecting the patient, family members and society.

The objective of this study is to identify depression among patients with substance abuse disorders.

## METHODS

The current study is aimed to determine the relationship between various drug abuse patterns and comorbidity of depression. The study was carried out in the patients, who were consecutively admitted in the psychiatric ward of Kathmandu Medical College Teaching Hospital and Punarjeevan Hospital with the diagnosis of mental and behavioural disorder due to use of psychoactive substances, according to ICD-10<sup>18</sup>. The study was carried out from 1<sup>st</sup> January 2010 to 30<sup>th</sup> December 2010. Informed consent of all the cases was taken. All patients were rated using Hamilton Depression Rating Scale (HDRS)<sup>19</sup>. The duration of substance intake as well as other variables was collected using a self designed semi-structured proforma. All collected data was entered in the Statistical Package for Social Sciences 10.0 for windows.

## RESULT

Total number of patients was 42. The variables compared were age, mode of drug abuse, type of drug used and occupation of the subjects and are shown in table 1.

A total of 31 (73.8%) cases were found to be suffering from Depression, in which 19 (45.2%) had mild to moderate depression and 12 (28.6%) had severe depression.

**Table 1: Prevalence and severity of depression and sociodemographic characteristics**

Age	HDRS			Total
	< 7 (Normal)	7-20 (Mild to Moderate Depression)	> 20 (Severe Depression)	
	Number of subjects (percentage)	Number of subjects (percentage)	Number of subjects (percentage)	
11-20 yrs	4 (9.5 %)	3 (7.1 %)	1 (2.4 %)	8 (19.0 %)
21-30 yrs	6 (14.3 %)	13 (31.0 %)	7 (16.7 %)	26 (61.9 %)
31-40 yrs	1 (2.4 %)	2 (4.8%)	4 (9.5%)	7 (16.7 %)
> 41 yrs	0 (0 %)	1 (2.4 %)	0 (0 %)	1 (2.4 %)
<b>Method of Drug Intake:</b>				
IV user	0 (0 %)	7 (16.7 %)	5 (11.9 %)	12 (28.6 %)
Inhalation	3 (7.1 %)	1 (2.4 %)	1 (2.4 %)	5 (11.9 %)
Oral Drug Abuse	7 (16.7 %)	10 (23.8 %)	4 (9.5%)	21 (50.0 %)
Other (Alcohol/ Cannabis dependence)	1 (2.4 %)	1 (2.4 %)	2 (4.8 %)	4 (9.5%)
<b>Drug Used:</b>				
Heroin	5 (11.9 %)	3 (7.1 %)	3 (7.1 %)	11 (26.2 %)
Buprenorphine	1 (2.4 %)	0 (0 %)	2 (4.8 %)	3 (7.1 %)
Diazepam, Proxyvon, Nitrazepam, Promethazine	2 (4.8 %)	2 (4.8 %)	2 (4.8 %)	6 (14.3 %)
Others	3 (7.1 %)	14 (33.3 %)	5 (11.9 %)	22 (52.4 %)
<b>Occupation:</b>				
Employed	2 (4.8 %)	1 (2.4 %)	3 (7.1 %)	6 (14.3%)
Unemployed	4 (9.5%)	11 (26.2 %)	5 (11.9 %)	20 (47.6 %)
Student	5 (11.9 %)	7 (16.7 %)	4 (9.5%)	16 (38.1 %)
<b>Total</b>	<b>11 (26.2 %)</b>	<b>19 (45.2 %)</b>	<b>12 (28.6 %)</b>	<b>42 (100.0 %)</b>

Eight patients (19%) were in the age group 11-20 years, 26 (61.9%) were in the age group 21-30 years, seven (16.7%) were in age group 31-40 years and one patient (2.4%) was above 41 years of age. Out of the eight patients of 11-20 years of age, four (50%) had depression. Twenty patients (76.9%) out of 26 patients from the age group 21-30 years had depression. Depression was seen in six (85.7%) patients of age 31-40 years.

Twenty (47.6%) subjects were unemployed, followed by 16 (38.1%) were students, 6 (14.3%) employed. Among the 20 unemployed patients, 16 (80%) had depression. Four out of six (66.6%) employed subjects and 11 (68.8%) out of 16 students had depression.

In method of drug intake, 21 (50%) subjects used multiple drugs, 12 (28.6%) subjects used intravenous route and 5 (11.9%) subjects used inhalational drugs. All patients using intravenous drugs were found to have depression. Among patients taking drugs orally, depression was found in 6 (54.54%) out of 11 subjects who used Heroin followed by 19 (86.63%) out of 22 subjects who were dependent on alcohol, cannabis and other substances.

## DISCUSSION

The present study showed that 73.8% patients with substance use disorder were suffering from depression. The results are consistent with findings of other researches. In a study done in Latin America, 58.4% of illicit drug users had depression<sup>20</sup>. Another study<sup>21</sup> showed that depression was present in 81.4%. A study conducted with HIV-infected individuals who used illicit drugs, showed that 69.0% of the patients obtained scores suggestive of depression<sup>22</sup>. The comorbidity of depression with substance use disorder as found in our study also indicates that depression is a major comorbidity among patients with substance use disorder. As the person indulges in substance

use, personality factors like strange behaviour, social disinhibition and other type of psychotic symptoms come to the front whereas depression goes in the background and is underdiagnosed and undertreated.

In our study, substance abuse was found to be highest in age group of 21-30 yrs (61.9%), which shows that younger people are more vulnerable to develop substance abuse due to higher level of frustration, stressful life, keen competition among youngsters, which is consistent with the findings of a study conducted earlier in patients with alcohol abuse<sup>13</sup>.

The current study has revealed that majority of patients use oral form of various drugs as they find it easier in comparison to other methods such as intravenous use.

Heroin was consumed by 26.2%. Heroin users usually show depressive symptoms as well as engagement in risk taking behaviours such as crime and theft and have poor physical health<sup>23,24</sup>.

The current study shows preponderance of substance use in unemployed subjects and students, which shows the gravity of unemployment in the country and disciplinary problems in school. This draws greater attention to the need for creating employment opportunities and implementing strict disciplinary rules in schools along with education among youths regarding harmful effect of substance abuse.

## CONCLUSION

The result obtained shows the presence of depressive symptoms among patients with substance use disorder, which draws the attention to the need for adequate management of depressive symptoms in patients with substance use. Clinicians should routinely assess for depression in patients with substance use disorders.

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