

# A study of psychiatric co-morbidity in alcohol and nicotine dependent patients

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## Abstract

**Background:** Alcohol and Nicotine use disorders are most commonly encountered problems in clinical practice in patients with substance use disorders with a high degree of psychiatric co-morbidity. **Aims and Objectives:** To find out the prevalence and severity of Psychiatric co – morbidity in Alcohol and Nicotine Dependent Patients. **Materials and Methods:** All patients with Alcohol and Nicotine dependence between age group of 18 to 60 years who attended the Psychiatry OPD and fulfilled inclusion and exclusion criteria were assessed by using General Health Questionnaire (GHQ-60) for assessing existing psychiatric morbidity in the subject, Hamilton Anxiety Rating Scale (HAM-A) for assessing Anxiety, Hamilton Depression Rating Scale (HDRS) for assessing Depression, Brief Psychiatric Rating Scale (BPRS) for Psychosis/Schizophrenia and for other psychiatric disorders and Arizona Sexual Experience Scale for Sexual Dysfunctions (ASEX). **Results:** Out of 30 patients 21 (71%) were found to have co-morbid psychiatric illness. Majority of the patients had Bipolar Affective Disorder (42.85%) followed by Sexual Dysfunction (28.57%). Majority of the patients had one co-morbid diagnosis (47.61%). **Conclusion:** Psychiatric co-morbidity in alcohol and nicotine dependence is very high.

**Key Words:** Alcohol and Nicotine Dependence, Psychiatric Co-morbidity, Sexual Dysfunction.

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Received Date: 18/10/2017 Revised Date: 14/11/2017 Accepted Date: 10/12/2017

DOI: <https://doi.org/10.26611/1004126>

## Access this article online

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Accessed Date:  
22 December 2017

## INTRODUCTION

Alcohol and Nicotine use disorders are one of the most commonly encountered problems in clinical practice in patients with substance use disorders with a high degree of co-morbidity. Sign and symptoms and history taking and routine blood investigations is common procedure performed in the hospital for clinical diagnosis. Co-morbidity denotes the distinct clinical entity that has existed or may occur during the clinical course of a

patient having index disease<sup>1</sup>. Within Psychiatry co-morbidity is commonly used to refer to the overlap of two or more psychiatric disorders<sup>2</sup>. The co-occurrence of substance abuse and mental illness has been known for very long time. Alcoholics are three times more likely to have another psychiatric disorders<sup>3</sup>. The findings have also been replicated in many other studies<sup>4</sup>. The self medication hypothesis for drug dependence also signifies etiological relationship between the substance abuse and mental disorder<sup>5</sup>. Excessive alcohol use has been identified as a major contributor to the global burden of disease. It causes 5.9% of all deaths globally. In addition, it is responsible for 5.1% of the disability adjusted life years<sup>6</sup>. Excessive use of alcohol is a component cause of more than 200 disease and injury conditions<sup>7</sup>. Alcohol and Nicotine use has been associated with increased morbidity and mortality across all regions of the world including South-East Asia. Epidemiological<sup>8-11</sup> as well as clinic based<sup>12-13</sup> studies from western countries have reported a high prevalence of co-morbidity of alcohol use disorder and psychiatric disorders. The research has

established the clinical relevance of this co-morbidity as if it is often associated with poor treatment outcome, severe illness course, and high service utilization. Understandably, dual disorders in form of alcohol use disorders and psychiatric disorders present diagnostic and management challenge. Hence, it is important to study systematically the dual disorders. In a study by Arya *et al* (2017)<sup>14</sup> on psychiatric co-morbidity and quality of life in patients with alcohol dependence syndrome they found prevalence of psychiatric co-morbidity to be 32% with anxiety and depressive disorder being most common. There have been few Indian studies addressing the psychiatric co-morbidity in alcohol and nicotine dependent patients. This study was undertaken with objective to study the prevalence of psychiatric co-morbidity in Alcohol and Nicotine dependent patients attending Psychiatry OPD/De-Addiction clinic.

## MATERIALS AND METHODS

**Study Setting:** The present study was conducted in National Institute of Medical Sciences Research and Hospital, Jaipur, Rajasthan, India.

**METHODS:** The present study was an observational, analytical and cross-sectional study conducted in the Department of Psychiatry of National Institute of Medical Sciences Research and Hospital, Jaipur. Cases with complaints and signs and symptoms pertaining to alcohol and nicotine dependence attending outpatient/De-Addiction clinic in this hospital. Detailed history, clinical examination and relevant investigation findings were noted. The sample includes 30 patients meeting ICD-10 criteria for dependence. These patients were assessed on Semi Structured proforma and GHQ-60, HAM-A, HAM-D, BPRS and ASEX.

**Table 1: Socio-demographic Profile**

Age Group	N = 30	Percentage (%)
18-30	8	26.67
31-50	13	43.33
51-60	9	30
<b>Marital Status</b>		
Unmarried	5	16.67
Married	25	83.33
<b>Gender</b>		
Male	28	93.33
Female	02	06.67
<b>Background</b>		
Urban	7	23.33
Rural	23	76.67
<b>Religion</b>		
Hindu	22	73.33
Muslim	5	16.67
Sikh	2	06.67
Others	1	03.33

**Table 2: Education, Occupation & Income**

Education	N = 30	Percentage
Illiterate	6	20
Primary	9	30
Secondary	3	10
Sr. Secondary	7	23.33
Graduation & above	5	16.67
<b>Employment Status</b>		
Unemployed	3	10
Employed	5	16.67
Farmer	17	56.67
Housewife	2	06.67
Other	3	10
<b>Income/(Mnth/Person)</b>		
Class 1 (>6277)	7	23.33
Class 2 (3139-6276)	8	26.67
Class 3 (1883-3138)	11	36.67
Class 4 (942-1882)	4	13.33

**Table 3 and 4: Psychiatric Co-morbidity & No. of Comorbid Diagnoses**

Diagnosis	N = 21 (70%)
Bipolar Affective Disorder	09 (42.85%)
Sexual Dysfunctions	06 (28.57%)
Depressive Episode	03 (14.28%)
Anxiety Disorder	02 (9.52%)
Schizophrenia	01 (4.76%)

**Table 4:**

No. of Comorbid diagnoses	N = 21 (%)
1-One	10 (47.61%)
2-Two	08 (38.09)
3-Three	03 (14.30%)

**Table 5 and 6: Distribution of severity according to ham-a & ham-d scale**

HAM-A SCORE	No. of Patients	%
Normal (0-13)	5	23.81
Mild (14-17)	6	28.57
Moderate (18-24)	8	38.09
Severe (25 or more)	2	09.53
<b>Total</b>	<b>21</b>	<b>100</b>

**Table 6:**

HAM-D SCORE	No. of Patients	%
Normal (0-7)	5	23.80
Mild (8-13)	7	33.33
Moderate (14-18)	5	23.81
Severe (19-22)	3	14.28
Very Severe (23 or more)	1	04.76
<b>Total</b>	<b>21</b>	<b>100</b>

**Table 7: Distribution of severity of psychosis/schizophrenia according to BPRS score**

BPRS SCORE	No. of Patients	%
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Normal	20	95.23
Mildly Ill (Score-31)	0	0
Moderately Ill (Score-41)	0	0
Markedly Ill (Score-53)	1	4.77
<b>Total</b>	<b>21</b>	<b>100</b>

**Table 8:** Distribution of sexual dysfunction according to asex score

<b>ASEX SCORE</b>	<b>No. of Patients</b>	<b>%</b>
No Dysfunction	15	71.42
With Dysfunction	06	28.58

**Table 9:** Distribution of substance dependence

<b>Substance</b>	<b>No. of Patients (N=30)</b>
Alcohol	12 (40.00%)
Nicotine	08 (26.67%)
Both	10 (33.33%)

## RESULT

The sample comprised of 30 OPD patients of Alcohol and Nicotine dependence. Most of the patients were belonging to the age group of 31-50 yrs (43.33%). Most of the patients were married (83.33%). Out of 30 patients 28 were male (93.33%). Most of the patients were belonging to rural background (76.67%). Most of the patients were educated till Sr. Secondary (23.33%). Most of the patients were farmer (56.67%) and class 3 of Socio-economic status (36.67%). Most common psychiatric co-morbidity was Bipolar Affective Disorder (42.85%) and Schizophrenia was found in 1 patient (4.76%). Number of co-morbid diagnosis were 1 in 10 patients (47.61%) followed by 2 in 8 patients (38.09%) and 3 in 3 patients (14.30%). Most of the patients were in moderate anxiety category according to HAM-A and mild depression category according to HAM-D scale. Most of the patients were normal according to BPRS scale (95.23%). 6 patients (28.58%) were having sexual dysfunction according to ASEX scale. Most common substance dependence was Alcohol (40.00%) followed by both (26.67%) followed by nicotine (33.33%).

## DISCUSSION

The present study was conducted to evaluate the presence of co-morbidity in patients of alcohol and nicotine dependence. This study was planned because of several reasons. Previous studies had used ICD-9 criteria. Previous studies did not distinguish between patients of psychoactive substance abuse and dependence. Most of the patients were belonging to the age group of 31-50 yrs (43.33%). Most of the patients were married (83.33%). These finding are similar to those of Arya, *et al.*: (2017)<sup>14</sup> 70% of all patients had co-morbid diagnosis. Studies carried out in community however report lower prevalence. A large proportion of the subjects of the present study had multiple co-morbid diagnosis, 47.61% had one, 38.09% had two, and 14.30% had three. Similar

figures were reported in other studies. These findings are similar to those of Kumar *et al.* (2010)<sup>15</sup>. The type of Co-morbid Psychiatric diagnosis in Alcohol and Nicotine Dependence vary from study to study with some indicating anxiety, depressive episode or mood disorder to be the most common. Most common psychiatric co-morbidity in our study was Bipolar Affective Disorder (42.85%), followed by sexual dysfunctions (28.57%) and depressive episode (14.28%). In Kumar *et al* (2010)<sup>15</sup> 41.7% of the patients had at least one co-morbid diagnosis as compared to our study where it was 47.61% and 14.30% were of three co-morbid diagnosis as compared to 25% in their study. Limitations of our study were the small sample size which may limit its generalizability and included only OPD patients and not indoor patients and nor the Personality disorders.

## CONCLUSION

Psychiatric co-morbidity in alcohol and nicotine dependence is very high. Number of co-morbid diagnoses may be as high as three. Psychosocial stressor increases the probability of having co-morbidity.

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Source of Support: None Declared  
Conflict of Interest: None Declared

