

# Psychiatric Co-Morbidity in Alcohol and Drug-Dependence: A Case Control Study

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## ABSTRACT

**Introduction:** Alcohol use conditions like alcohol abuse and dependence, are liberal mental conditions that have a high prevalence amongst the general populace. The co-occurrence of alcohol or drug dependence along with other psychological conditions worsens psychiatric diseases, elevates their frequency, increases hospitalization, and decreases life expectancy. The present study was conducted with the aim to determine psychiatric co morbidities amongst alcohol and drug dependence subjects.

**Material and methods:** The present Prospective, hospital based survey was conducted for a period of one year with effect from September 2018 to August 2019. There were a total 100 patients were enrolled in the study, out of which 50 patients were of Alcohol dependence as a case and consecutive 50 patients of Drug dependence as a control for the study. The psychiatrist obtained a detailed history from the patient including the problems suffered by them during their daily life and the impact of alcohol and drug on their family. All the data thus obtained was arranged in a tabulated form and analysed using SPSS software. Probability value of less than 0.05 was considered significant.

**Results:** There were 3 subjects and 6 controls with anxiety disorder. There were 17 subjects and 8 controls with major depression. 8 subjects and 16 controls had psychosis. Schizophrenia was observed in 15 subjects and 8 controls. Marital conflicts were seen amongst 7 subjects and 10 controls. Relationship problems were seen by 9 subjects and 8 controls.

**Conclusion:** Majority of alcohol dependent subjects had depression and Schizophrenia whereas drug dependent subjects had Psychosis. Both the categories have increased frequency of family conflicts.

**Keywords:** Alcohol, Marital, Schizophrenia, Schizophrenia

## INTRODUCTION

Alcohol use conditions like alcohol abuse and dependence, are liberal mental conditions that have a high prevalence amongst the general populace. The World Health Organization indicated that approximately 76 million people around the world have such conditions amongst 2 billion that consume alcohol.<sup>1</sup> These are responsible for 5 million deaths every year.<sup>2</sup> The direct and indirect expenses of these reach more than 2% of the gross domestic range amongst the high-income and middle-income nations.<sup>3</sup> In spite this impact, they have a widest management gap amongst other psychological disorders with around 78% of patients afflicted remaining unmanaged.<sup>4</sup> Additionally, subjects suffering from these shows increased frequency of relapse in spite of management: 38% of subjects in management will relapse within 3 years of abstinence.<sup>5</sup> The prognosis for the comorbid

subjectes is more negative as compared with those for the non-comorbid subjects. The co-occurrence of alcohol or drug dependence along with other psychological conditions worsens psychiatric diseases, elevates their frequency, increases hospitalization, and decreases life expectancy.<sup>6-9</sup> A better thinking of these comorbidity is essential for a pressing requirement that should be met to give better care to patients and improved outcomes. The present study was conducted with the aim to determine psychiatric co morbidities amongst alcohol and drug dependence subjects.

## MATERIAL AND METHODS

The present Prospective, hospital based survey was conducted for a period of one year with effect from September 2018 to August 2019. The study was carried out in the department of psychiatry, New STNM Multi speciality Hospital Gangtok. The study was approved by the institutional ethical board, Government of Sikkim. There were a total 100 patients were enrolled in the study, out of which 50 patients were of Alcohol dependence as a case and consecutive 50 patients of Drug dependence as a control for the study. All the subjects were informed about the study and a written consent was obtained from them in their vernacular language. All the subjects were made to fill a pre-designed and a pre tested questionnaire. Diagnosis were made based on ICD10 criteria. All the subjects were made to visit a psychiatrist and the condition of the patients were noted. The psychiatrist obtained a detailed history from the patient including the problems suffered by them during their daily life and the impact of alcohol and drug on their family. Their family members were also asked about the problems and issues encountered by them due to the subject's dependence habit. All the data thus obtained was arranged in a tabulated form and analysed using SPSS software. Probability value of less than 0.05 was considered significant.

## RESULTS

A total of 100 patients were enrolled in the study, out of which 50 were drug dependent and 50 alcohol dependent.

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Current Psychiatric Diagnosis	Subjects n=50	Controls n=50	Significance
Anxiety Disorder	3	6	>0.05
Major Depression	17	8	>0.05
Psychosis	8	16	>0.05
Schizophrenia	15	8	>0.05
Adjustment Disorder	4	5	>0.05
Mania	3	7	>0.05

**Table-1:** Psychiatric conditions of the study subjects

Problem related with alcohol and drug use	Subjects n=50	Controls n=50	Significance
Marital Conflicts	7	10	
Relationship Problems	9	8	
job	10	4	
Adjustment Problems	5	6	
Financial Problems	7	10	
Family Conflicts	12	12	

**Table-2:** Issues related to alcohol or drug abuse

The mean age of the subjects was 37.53+/-2.87 years.

Table 1 illustrates the psychiatric conditions of the subjects. There were 3 subjects and 6 controls with anxiety disorder. There were 17 subjects and 8 controls with major depression. 8 subjects and 16 controls had psychosis. Schizophrenia was observed in 15 subjects and 8 controls. Adjustment disorder was seen in 4 subjects and 5 controls. There were 3 subjects and 7 controls with mania. There was no significant difference between the groups as the p value was more than 0.05.

Table 2 shows the issues related to alcohol and drug abuse. Marital conflicts were seen amongst 7 subjects and 10 controls. Relationship problems were seen by 9 subjects and 8 controls. There were 10 subjects and 4 controls with job related issues. Adjustment issues were seen by 5 subjects and 6 controls. Financial issues were seen in 7 subjects and 10 controls. There were family conflicts amongst 12 controls and subjects respectively. There were no significant difference between the two as the p value was less than 0.05.

## DISCUSSION

Alcohol use conditions are amongst the prime reasons for morbidity and mortality globally,<sup>10-12</sup> around 95 million subjects live with alcohol dependence worldwide.<sup>13</sup> Alcohol use condition refer to lack of control over alcohol consumption, which leads to physiological dependence and tolerance, and harmful psychological, and physical consequences. These conditions are chiefly disabling, related with various physical and psychiatric comorbidities,<sup>14,15</sup> and are accountable for 10% of the global burden of disorder associated with substance use and mental conditions.<sup>16</sup> Psychiatric illness is the presence, concurrently or in order, of more than one condition within a subject within a certain time frame.<sup>17</sup> The prevalence of mood, anxiety and substance issues are higher amongst people with alcohol dependence than amongst the general population,<sup>18-20</sup> also, the scale of the association varies across disorders.<sup>21,22</sup> Alcohol usage

disorder comorbidity can arise from different potential methods, like a direct or indirect causal association of the disorder over other psychiatric illnesses, or vice versa, related genetic and environmental reasons of the disease and other psychiatric conditions, or due to alcohol usage issues and other psychiatric illnesses share psychopathological features and form a portion of a single diagnostic form.

Krueger<sup>24</sup> gave the foundational proof for the factor of common mental illnesses, indicating that psychiatric conditions are dimensional and that comorbidity occurs from common, underlying, core psychopathological conditions.<sup>23</sup> Similar to alcohol usage disorder, substance usage disorders consist of impaired control and negative consequences because of use of intoxicating or addictive things. Factually, 40-6% of men and 47.1% of females with alcohol dependence have a lifetime substance use issue.<sup>25</sup> As per a longitudinal survey published in year 2016 indicated that substance use conditions that occur during early and late adolescence have an elevated risk for alcohol use disorder in early adulthood by a ratio of 3.5 in early adolescence and 4 in late adolescence.<sup>23</sup> The early onset of alcohol and nicotine use is, itself, a risk reason for alcohol dependence and nicotine usage conditions.<sup>26</sup> Additionally, only antisocial personality condition has been regularly classified within the externalizing domain, 67,68 borderline personality conditions also frequently cooccurs with alcohol usage condition.<sup>27</sup> Subjects with antisocial personality issues involve in violent and abusive associations, lack of empathy, involve in risk taking and manipulative behavior; whereas subjects with borderline personality issues involve in risktaking behavior and have intense behavior, distorted selfimage, and suicidal conduct. A 1995 review showed a median incidence of antisocial personality issue of 18% and borderline personality issue of 21%, in subjects with alcohol dependence.<sup>28</sup>

## CONCLUSION

Drug and alcohol dependence produce detrimental effects on the subject itself as well as the entire family. Majority of alcohol dependent subjects had depression and Schizophrenia whereas drug dependent subjects had Psychosis. Both the categories have increased frequency of family conflicts.

## REFERENCES

1. WHO Global Status Report on Alcohol 2004. World Health Organization Department of Mental Health and Substance Abuse Geneva.
2. Whiteford HA, Degenhardt L, Rehm J, Baxter AJ, Ferrari AJ, Erskine HE, et al. Global burden of disease attributable to mental and substance use disorders: findings from the Global Burden of Disease Study 2010. *Lancet*. 2013;382:1575 – 86.
3. Rehm J, Mathers C, Popova S, Thavorncharoensap M, Teerawattananon Y, Patra J. Global burden of disease and injury and economic cost attributable to alcohol use and alcohol-use disorders. *Lancet*. 2009;373:2223 – 33.
4. Kohn R, Saxena S, Levav I, Saraceno B. The treatment gap in mental health care. *Bull World Health Organ*.

- 2004;82:858 – 66.
5. Moos RH, Moos BS. Rates and predictors of relapse after natural and treated remission from alcohol use disorders. *Addiction*. 2006;101:212 – 22.
  6. Margolese HC, Malchy L, Negrete JC, Tempier R, Gill K. Drug and alcohol use among patients with schizophrenia and related psychoses: levels and consequences. *Schizophr Res*. 2004;67:157 – 66.
  7. Thoma P, Daum I. Comorbid substance use disorder in schizophrenia: a selective overview of neurobiological and cognitive under-pinnings. *Psychiatry Clin Neurosci*. 2013;67:367 – 83.
  8. Farren CK, Hill KP, Weiss RD. Bipolar disorder and alcohol use disorder: a review. *Curr Psychiatry Rep*. 2012;14:659 – 66.
  9. Farren CK, Murphy P, McElroy S. A 5-year follow-up of depressed and bipolar patients with alcohol use disorder in an Irish population. *Alcohol Clin Exp Res*. 2014;38:1049 – 58.
  10. Grant BF, Goldstein RB, Saha TD, et al. Epidemiology of DSM5 alcohol use disorder: results from the National Epidemiologic Survey on Alcohol and Related Conditions III. *JAMA Psychiatry* 2015; 72: 757–66.
  11. GBD 2016 Alcohol Collaborators. Alcohol use and burden for 195 countries and territories, 1990–2016: a systematic analysis for the Global Burden of Disease Study 2016. *Lancet* 2018; 392: 1015–35.
  12. GBD 2017 DALYs and HALE Collaborators. Global, regional, and national disability-adjusted life-years (DALYs) for 359 diseases and injuries and healthy life expectancy (HALE) for 195 countries and territories, 1990–2017: a systematic analysis for the Global Burden of Disease Study 2017. *Lancet* 2018; 392: 1859–22.
  13. GBD 2013 Risk Factors Collaborators. Global, regional, and national comparative risk assessment of 79 behavioural, environmental and occupational, and metabolic risks or clusters of risks in 188 countries, 1990–2013: a systematic analysis for the Global Burden of Disease Study 2013. *Lancet* 2015; 386: 2287–323.
  14. Cargiulo T. Understanding the health impact of alcohol dependence. *Am J Health Syst Pharm* 2007; 64: S5–11.
  15. Rehm J. The risks associated with alcohol use and alcoholism. *Alcohol Res Health* 2011; 34: 135–43.
  16. Whiteford HA, Degenhardt L, Rehm J, et al. Global burden of disease attributable to mental and substance use disorders: findings from the Global Burden of Disease Study 2010. *Lancet* 2013; 382: 1575–86.
  17. de Graaf R, Bijl RV, Smit F, Vollebergh WA, Spijker J. Risk factors for 12-month comorbidity of mood, anxiety, and substance use disorders: findings from the Netherlands Mental Health Survey and Incidence Study. *Am J Psychiatry* 2002; 159: 620–29.
  18. Grant BF, Stinson FS, Dawson DA, 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. *Arch Gen Psychiatry* 2004; 61: 807–16.
  19. Melchior M, Prokofyeva E, Younes N, Surkan PJ, Martins SS. Treatment for illegal drug use disorders: the role of comorbid mood and anxiety disorders. *BMC Psychiatry* 2014; 14: 89.
  20. Sorensen T, Jespersen HSR, Vinberg M, Becker U, Ekholm O, Fink-Jensen A. Substance use among Danish psychiatric patients: a cross-sectional study. *Nord J Psychiatry* 2018; 72: 130–16.
  21. Preuss UW, Gouzoulis-Mayfrank E, Havemann-Reinecke U, et al. Psychiatric comorbidity in alcohol use disorders: results from the German S3 guidelines. *Eur Arch Psychiatry Clin Neurosci* 2018; 268: 219–29.
  22. Jane-Llopis E, Matytsina I. Mental health and alcohol, drugs and tobacco: a review of the comorbidity between mental disorders and the use of alcohol, tobacco and illicit drugs. *Drug Alcohol Rev* 2006; 25: 515–36.
  23. Farmer RF, Gau JM, Seeley JR, Kosty DB, Sher KJ, Lewinsohn PM. Internalizing and externalizing disorders as predictors of alcohol use disorder onset during three developmental periods. *Drug Alcohol Depend* 2016; 164: 38–46.
  24. Krueger RF. The structure of common mental disorders. *Arch Gen Psychiatry* 1999; 56: 921–16.
  25. Kessler RC, Crum RM, Warner LA, Nelson CB, Schulenberg J, Anthony JC. Lifetime co-occurrence of DSM-III-R alcohol abuse and dependence with other psychiatric disorders in the National Comorbidity Survey. *Arch Gen Psychiatry* 1997; 54: 313–21.
  26. Jackson KM, Sher KJ, Wood PK. Prospective analysis of comorbidity: tobacco and alcohol use disorders. *J Abnorm Psychol* 2000; 109: 679–94.
  27. Guy N, Newton-Howes G, Ford H, Williman J, Foulds J. The prevalence of comorbid alcohol use disorder in the presence of personality disorder: systematic review and explanatory modelling. *Personal Ment Health* 2018; 12: 216–28.
  28. Verheul R, van den Brink W, Hartgers C. Prevalence of personality disorders among alcoholics and drug addicts: an overview. *Eur Addict Res* 1995; 1: 166–77.

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