



CROSSECTIONAL STUDY OF PREVALENCE OF DEPRESSION IN ALCOHOL DEPENDENCE

Psychiatry

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ABSTRACT

Among the most prevalent psychiatric disorders in the society are depression and alcohol dependence. Chronically depressed alcohol dependent population have poor prognosis and numerous depressive episodes and suicide attempts. There are numerous treatment challenges in this population, in view of poor motivation, poor interpersonal skills.

Alcohol dependence, depression, prognosis

KEYWORDS

INTRODUCTION

Alcohol dependence is often comorbid with mood disorders, anxiety disorders & psychotic disorders. Of these mood disorders especially depression is the commonest of them in Axis I. Disability adjusted life years, morbidity, mortality is significantly associated with both alcohol dependence and depression. These two disorders co-occur more commonly than expected by chance.²

Epidemiological studies like National comorbidity survey found that compared with non depressed respondents, the odds of alcohol dependence were high in men and women with depression.^{2,13,26} Also in subjects with alcohol dependence there was two fold increase in lifetime odds of depression. It is often noted that depressive symptoms are much more common in person who use alcohol. Studies have shown these depressive symptoms remit after 2 weeks of abstaining from alcohol.³

Twin studies have shown CLOCK gene to be associated with alcohol and depression. Neuro anatomical correlates include ventromedial prefrontal cortex.^{4,5}

Among the most common mental health conditions are alcohol dependence and depression.⁶ Studies indicate that 36-50% of individuals with a lifetime history of alcohol dependence have depression. Why this comorbidity? Precipitation model states neuroadaptation in brain reward pathways leads to development of mood disorders. Self medication hypothesis indicate depression results in increase in alcohol use due to possible mitigation of mental health symptoms.^{7,8} Genetic hypothesis indicate vulnerability for developing both alcohol dependence and depressive disorders.^{9,10}

Animal Studies have shown that alcohol can reduce levels of serotonin in brain. In human beings alcohol induces low levels of serotonin in cerebrospinal fluid.¹¹ A detailed history from the patient with particular emphasis on chronology of events to know the type of alcohol dependence, type of depression is important.^{12,13}

Research found significant association between single nucleotide variant rs139438618 in individuals with this comorbidity in a study among African American population. Individuals with dual diagnosis had lower concentration of CSF homovanillic acid than patients with alcohol dependence only. Also the dopaminergic system in individuals with the comorbidity is more impaired than in individuals with alcohol dependence alone.²⁹

Diagnosis of depression in alcohol dependence is very challenging. Understanding its prevalence helps us to be watchful of the comorbidities. Chronology of events, getting collateral information from reliable informants. Necessary investigations to exclude medical conditions like hypothyroidism. Detailed evaluation and

management is required for these individuals as they are at high risk for suicide.¹⁵

Comorbidity of depression in an alcohol dependent individual has been known to be a factor in using alcohol to relieve of their depressive symptoms and it may even lead to relapse.¹⁶ Tailored treatments for clients with dual diagnosis can be beneficial.^{22,31,32} Antidepressants especially selective serotonin reuptake inhibitors along with specific anti relapse drugs like naltrexone or acamprosate.^{22,23}

Study design

This study involved the collection of data prospectively in the department of psychiatry of a tertiary care hospital. This study is a cross sectional study

Study period

The study was conducted from January 2017 to November 2017 for 11 months

Sampling method – continuous sampling

Study subjects

Participants aged 18 yrs diagnosed with alcohol dependence as per ICD 10 criteria and audit score 15-40 following consent from the individual. Ethical committee clearance for the study was given

Study criteria

Inclusion criteria

All outpatients in psychiatric department who come for follow-up and under remission for not less than a period of 1 week and not more than a period of 6 months. Patients of age 18–60 years were included in the study.

Exclusion criteria

Individuals having severe medical and neuropsychiatric complications like delirium tremens, active psychosis, severe memory and physical impairments. MMSE scores less than 24 were excluded from the study. Individuals with family history of depression were excluded.

Study materials

53 patients data collection form: It includes demographic details of the patients such as other people number, age, gender, diagnosis, and treatment chart. Self designed semi structured proforma was used to record demographic profile, age of onset of drinking, past history, medical history, family history.

Instruments

AUDIT (Alcohol Use Disorders Identification Test): developed by WHO to identify persons whose alcohol consumption has become

hazardous or harmful to their health . This is 10 item screening questionnaire with 3 questions on the amount and frequency of drinking, 3 questions on alcohol dependence and 4 on problems caused by alcohol .A score of 8 or more is associated with harmful or hazardous drinking , a score 15 Or more is likely to indicate alcohol dependence . In the test development samples ,a cut-off value of 8 points yielded sensitivities for the AUDIT for various indices of problematic drinking that were generally in the mid 0.90s . Specificities

Results: Total number of subjects under the study was 53, among which 19 had depression based on HAMD scoring. Hence the prevalence is 36%.

SPSS output:

Ham D

	n	%
No depression	34	64.2
Depression Yes	19	35.8
Total	53	100.0

2) demographic profile of alcohol dependence group of the study:

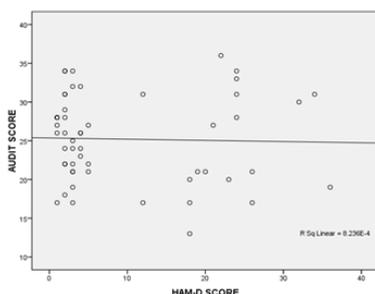
Demographic variables	n	%
Education		
Schooling	23	43.4
Graduate	22	41.5
Postgraduate	8	15.1
SES		
lower class	1	1.9
lower middle class	16	30.2
upper class	6	11.3
upper lower class	7	13.2
upper middle class	23	43.4
Occupation		
skilled	30	56.6
professional	5	9.4
semi skilled	5	9.4
unemployed	7	13.2
unskilled	6	11.3
religion		
christian	6	11.3
hindu	32	60.4
muslim	15	28.3
residence		
rural	32	60.4
urban	21	39.6
age group		
less than or equal to 28	10	18.9
29-38	14	26.4
39-48	14	26.4
more than 48	15	28.3

The table showed sample were mainly from Hindu,skilled, upper middle class who has finished schooling .³Predominantly individuals belong to age group of 48yrs and more.

3)Correlation between Audit score & Ham D of depression alcohol dependence

SPSS output:

SCATTER PLOT



2HAM D

HAM D scores were in the range of 2-32,

Range	Type of depression	Percentage
0-7	No depression	34
8-13	Mild depression	0
14- 23	Moderate depression	26
>23	Severe depression	73
	Total	53

		AUDIT total	HAMD total
AUDIT total	Pearson Correlation	1	.927(**)
	Sig. (2-tailed)	.	.000
	N	100	100
HAMD total	Pearson Correlation	.927(**)	1
	Sig. (2-tailed)	.000	.
	N	100	100

Relation between composite abuse score and physical abuse score:

Pearson correlation

* Correlation is significant at the 0.01 level (2-tailed).

+The table showed that there is linear relation with the AUDIT score and HAMD scores.

Data Analysis :Analysis of data using SPSS 11. Pearson's correlation is used to find a correlation between at least 2 continuousvariable . The value of Pearson's can fall between 0.00(no correlation) and 1.00 (perfect correlation) . Correlation above 0.80 are considered pretty high

CONCLUSION

Prevalence of depression is in 35.8% of individuals with alcohol dependence . Strong correlation between AUDIT score and HAMD score corresponding to moderate and severe depression was observed. It is prudent to screen individuals for depression and treat the same .^{32,33,34} This corresponds to studies that show high prevalence of depression 41.7 % which after a few days of detoxification reduced to 17.64 % . This study suggests in not providing immediate treatment for depressive symptoms and waiting for a certain period .^{1,34,35}

LIMITATIONS

Being cross-sectional study.Depression is often multifactorial and other comorbidities of alcohol dependence were not studied.

CONFLICTS OF INTEREST

There are no conflicts of interest

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