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A CROSS SECTIONAL STUDY OF SOCIO DEMOGRAPHIC PROFILE AND PSYCHIATRIC CO MORBIDITY IN PATIENTS OF ALCOHOL DEPENDENCE SYNDROME

Mental Health

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ABSTRACT

Background : Alcohol is a ordinary commodity, used since time immemorial. Psychiatric co morbidities have a high prevalence among patients of alcohol dependence and often pose challenges in their diagnosis and treatment and are found to be a major contributor to relapses. They raise a challenging question of how to provide the best integrated treatment to address both.

Aim : To study the socio demographic profile and psychiatric co morbidity in patients of alcohol dependence syndrome.

Objectives:

1. To study the socio demographic profile of alcohol dependence patients
2. To determine the prevalence and type of psychiatric co-morbidity in alcohol dependent patients.

Methodology : A consecutive sample of 100 Alcohol Dependence Syndrome patients attending outpatient were selected. A questionnaire was administered to collect sample and alcohol dependence characteristics. psychiatric co-morbidity evaluation was done using Mini International Neuropsychiatric Interview (MINI Plus) and the diagnosis was confirmed by using ICD-10.

Results : Majority of the subjects were young adults with a mean age of 42 years, were illiterates, married, employed, belonged to rural background and from lower socio-economic status. psychiatric co-morbidities were present in 33% of population. More of affective spectrum (18%) as compared with lesser numbers of patients in the anxiety (11%) or psychotic spectrum (4%). psychiatric co-morbidity is significantly greater in those who are unemployed.

Conclusions: The psychiatric co-morbidity was present in 33% of the population studied. More of affective spectrum, followed by anxiety spectrum and less number of them in psychotic spectrum. All psychiatric co-morbidities may need to be identified for patients diagnosed as alcohol dependence who present with longer duration of drinking and unemployed for effective and comprehensive management.

KEYWORDS

alcohol dependence, psychiatric co morbidity.

INTRODUCTION:

Alcohol is a ordinary commodity, used since time immemorial. While it carries connotations of pleasure and sociability in the minds of many , harmful consequences of its use are diverse and widespread. According to ICD 10 classification alcohol dependence is a cluster of behavioral ,cognitive , and physiological phenomenon that develops after repeated substance use. And typically include a strong desire to take the drug ,difficulties in controlling its use ,persisting in its use despite harmful consequences, a higher priority given to drug use than to other activities and obligations, increased tolerance and sometimes a physical withdrawal state.

Alcohol dependence has often been described as a chronic relapsing illness where continued care and support from the best strategy of management (1). However, continued care is compromised by the addictive nature of the illness (with alcohol dependence affecting 5.4% of the general population during lifetime(2) and by the increasing co-morbidity noted among both the persons with alcohol dependence and their first and second degree relatives (2). Several epidemiological studies found to have a co-morbid psychiatric disorder (2).

Co morbidity" denotes the presence of a distinct clinical entity that has existed or may occur during the clinical course of a patient having the index disease(3). Psychiatric co morbidities have a high prevalence among patients of alcohol dependence(4) and often pose challenges in their diagnosis and treatment. Co morbid psychiatric illnesses have been found to be a major contributor to relapses (5).

Co morbidities commonly reported in this population include unipolar depression, bipolar disorder, panic disorder, generalized anxiety disorder (GAD), antisocial personality disorder (ASPD), obsessive compulsive disorder (OCD) and schizophrenia (6) associated with poor treatment seeking for alcohol dependence (7). Co morbid disorders also raise a challenging question of how to provide the best integrated treatment to address both the alcohol dependence and the co morbidities.

There is a paucity of studies identifying co-morbid psychiatric conditions in patients with alcohol dependence syndrome (ADS) and hence the need for this study. In India, many studies were done which focused on physical co-morbidity associated with alcohol use but less number of studies were done to examine the occurrence of psychiatric co-morbidity.

There is high rates of consumption of toddy, a local made alcohol in the rural areas of Telangana and has a status of high cultural acceptance, and is consumed on daily basis(8). People start consuming toddy early in their life sometimes as early as in childhood, usually initiated by the family members or relatives. It is hypothesised that probably most of the people in this part of the country who regularly consume toddy lack specific precipitating and maintaining factors for their dependence pattern of alcohol drinking.

Hence the likelihood of psychiatric co-morbidity in alcohol dependent patients of this region might be low in comparison to other regions of India. There is a paucity of research in this region to actually test this hypothesis and hence the need for present study.

AIM :

To study the socio demographic profile and psychiatric co morbidity in patients of alcohol dependence syndrome.

OBJECTIVES:

1. To study the socio demographic profile of alcohol dependence patients
2. To determine the prevalence and type of psychiatric co-morbidity in alcohol dependent patients.

MATERIAL AND METHODS :

STUDY DESIGN :

A cross sectional study conducted at Institute of mental health , Hyderabad. A consecutive sample of 100 Alcohol Dependence Syndrome patients attending outpatient were selected. Inclusion and exclusion criteria were assessed. Informed consent in writing was obtained before patients were included in the study. On first contact with the study subjects, a questionnaire was administered which collected the sample characteristics and alcohol dependence characteristics. Followed by a detailed physical examination to assess the presence of coexisting physical complications. Positive findings and deficits were recorded. psychiatric co-morbidity evaluation was

done using Mini International Neuropsychiatric Interview (MINI Plus) and the diagnosis was confirmed by using ICD-10.

INCLUSION CRITERIA:
1. Patients between 18 and 65 years, either gender.
2. fulfilling the ICD-10 criteria of alcohol dependence syndrome.
3. Subjects who are physical and mentally fit and willing to give informed consent.
4. who are abstinent for at least one month..

EXCLUSION CRITERIA:
1. Who are taking psychoactive substance or any medication, which can produce cognitive and other psychological defect other than nicotine and caffeine.
2. Patients with organic mental disorders.
3. Participants who are still taking alcohol or not abstinent for atleast of one month..

STATISTICALANALYSIS:
Statistical analysis was done using statistical package for the social sciences (spss) for windows version 19. Quantitative data is analyzed using percentages and bar graphs; Qualitative data is analyzed using chi-squared test .p value <0.05 was considered significant.

RESULTS AND DISCUSSION :
Table 1 : sociodemographic details of patients.

SOCIODEMOGRAPHIC DETAILS		N =100
Age	15-30 30-45 >45	22 48 30
Sex	Male Female	65 35
Religion	Hindu Muslim Christian	92 3 5
Marital status	Married Un married widowed	82 11 7
Background	Rural urban	71 29
Socioeconomic status	Upper Upper middle Lower middle Upper lower lower	1 9 20 47 23
Employment	Employed unemployed	54 46
Education	Illiterate Up to 5th std 6th to 10th std >10th std	49 26 18 7

Table 1 shows - Majority of the subjects were young adults with a mean age of 42 years, were illiterates, married, were employed, belonged to rural background and from lower socio-economic status

AGE:
The mean age of the ADS patients was 41.94 years, This is comparable with the Epidemiological Catchment Area (ECA) Study (9) which showed that lifetime prevalence rates for alcoholism tended to peak between ages of 30-44 years and Clarke W reported heavy drinking most frequently among those between 18-30 years of age and lowest percentage of heavy drinking for those above 50 years of age.

SEX:
In the sample 35 patients were female and 65 % were male. The large US based epidemiological studies done by Hasin et al (10), in 2000, from the NESARC study and that of Kessler et al (11), in 1997 from the NCS study show higher rates of alcohol dependence in women, 52% and 51% respectively. The reason for this relatively lower prevalence might be cultural prohibitions and less liberalization of women in India than in western countries. However the prevalence much higher than studies done in other parts of India where it is less than 5% as studied by Issac et al .

RELIGION:
In the current study majority of the study population were Hindus (92%) followed by minorities i.e, Christians (5%) and Muslims (3%). This distribution was expected as Chandrashekar et al noted in his study that alcohol consumption rates were substantially higher among Hindus than among either Muslims or Jains, who rarely consumed alcoholic beverages (12).

MARITAL STATUS:
The distribution of marital status showed that majority of the sample, i.e., 82% were married, while 11% unmarried and 7% widowed. The findings were observed by Chandrashekar et al (12) in 1998, who found that 67% were married and 33% were unmarried. This higher proportion of married alcohol dependents in the current study might be due to changes in the traditional family structure, a weakening of informal cultural and religious controls on alcoholic consumption in recent years in India. Alcohol breaks the ties within families becoming involved in overtly hostile relationship with parents, siblings, peers. They were not able to cope with the unexpected difficulties of married life and those whose marriages were currently on the verge of dissolution (but formal separation has not taken place), had marriages that were marked by severe and usually frequent quarrels.

BACK GROUND:
In the current study 29% of study population are from urban background and 71% are from rural background, which is expected as the hospital is a government setting, where majority of patients coming from rural areas.

SOCIO-ECONOMIC STATUS:
In present study the majority i.e,70% belonged to lower socio economic status as per modified Kuppuswamy classification as shown in table 6. It was expected as the majority of the sample were illiterates (49%), belong to rural background (71%). In the current study no significant differences were found in drinking patterns in various socio-economic strata. In the mid town Manhattan study, Langner & Michael (13) found an inverse relation between alcohol problems and socio economic status, with rates for those in the lowest socio economic group approximately three times greater than those in the highest one. The current study and all the above studies indicate that alcohol dependence cuts across all socio economic strata.

FAMILY TYPE:
In present study the majority i.e,71% live as nuclear family and 29% as extended family. The distribution is similar to a study done by A.K. Vohra et al in 30 patients (14).

EMPLOYMENT STATUS:
In the current study 54% were employed and 46% were unemployed in past 6 months. This high rate of unemployment might be explained by fact that 27% of them are aged above 45 years who are more likely to be unemployed compared to younger age groups. The unemployed may also be drinking due to boredom or stress.

EDUCATION LEVEL:
In the current sample there were 49% illiterates and 52% were literate but only 7% of total study group could clear 10^{th} standard. Similar rates were found in a study conducted in the rural areas of Tamil Nadu by Chandrashekar (14), 26%-50% of the males in that rural area were illiterates. Literate alcohol dependent individuals are more likely to be knowledgeable about alcohol related problems and seek treatment. They are more likely to have easier access to treatment facilities.

Table 2: Distribution among study population based on presence or absence of psychiatric co-morbidity

Psychiatric comorbidity	Total N= 100
present	33
absent	67

In the current study, psychiatric co-morbidities were present in 33% of population as shown in Table 2. Majority of the sample (67%) of the sample had no co-morbid psychiatric disorders. The current study shows lower rates of comorbidities when compared to a follow up study conducted in 1979 by Sharma & Srinivasamurthy (15) on 71 alcohol dependent patients. They found that 40% had depression. In the major co-morbid study in alcoholics, Hesselbrock (16), used DSM lll criteria and National Institute of Mental Health – Diagnostic Interview Schedule (NIMH-DIS) in 321 hospitalized alcoholics and found 77% lifetime diagnosis and 66% met the DIS criteria for current psychiatric disorders. Ross et al (17), reported four fifth (78%) had

lifetime diagnosis and two third (65%) had a current mental disorder, which is higher compared to the findings in the current study.

This implies that an alcohol dependent individual has 67% probability of maintaining mental health, and an individual has 33% probability of developing a mental health problem. The lower prevalence of psychiatric co-morbidity as compared to the study by Hesselbrock et al (16) and Ross et al (17) mentioned above may be due to relatively higher social tolerance of daily toddy drinking in this part of the country.

Table 3 : Distribution among study population based on tyoe of psychiatric comorbidity present

Type of psychiatric co-morbidity	N	Specific disorder	N
Mood disorders	18	Major Depressive Disorder	8
		Dysthymia	5
		Manic episode	3
		Hypomanic episode	2
Anxiety disorders	11	Generalised Anxiety Disorder	6
		Adjustment Disorder	3
		Panic Disorder	2
Psychotic disorders	4	Brief Psychotic Disorder	3
		Schizophrenia	1
Total	33	Total	33

Table 3 shows, 67% of the current sample did not suffer from any psychiatric disorders. Among the psychiatric disorders, more numbers of patients were in the affective spectrum (18%) as compared with lesser numbers of patients in the anxiety (11%) or psychotic spectrum (4%).

Mood disorders:
Among the affective spectrum, the commonest was a major depressive disorder (8%) followed by dysthymic disorder (5%) and bipolar disorders (5%). The prevalence of mood disorders in the current study, similar to overall psychiatric co-morbidities are lower than many other studies. Hesselbrock (16) study showed 38% depression and 2% schizophrenia and 4% mania in the alcohol dependent patients.). Clinical and epidemiological studies have revealed that alcohol and depression are linked, Regier at al(9). The reverse also applies that in withdrawal states also have a prominent affective component, Hershon HI . Longitudinal research shows that the onset of bipolar subtype of alcohol tends to predate that of alcoholism. Individuals with bipolar illness tend to use alcohol to reduce agitation both during depression and manic phases Merikangas & Gelernter .

Anxiety Disorders:
In the present study the anxiety disorders were second most common type of psychiatric co-morbidity. The most common anxiety disorder being generalised anxiety disorder (6%) followed by adjustment disorder (3%) and Panic disorder (2%). Prevalence rates of anxiety disorders in our study were low as compared to the other studies such as by Bowen (18) showing 44% and that of Weiss & Rosenburg (19)showing 22.6%.

Psychotic disorders:
In the present study psychotic disorders were found in 4 patients, 3 patients had Brief psychotic disorder and one patient had Schizophrenia. Few authors have however, been skeptical about such high rates of psychiatric comorbidity associated with alcohol seen in above mentioned studies. A minimum of 3 weeks of abstinence from alcohol appears to be necessary to consistently differentiate the groups with dual diagnoses on the basis of their current depressive symptoms .

In line with considering the distressing psychiatric syndromes among alcoholics as clinically relevant, but temporary conditions, Schuckit et al (1997), used a time-line approach to distinguish psychiatric syndromes that occurred in the context of substance-related disorders, from those that appear to have developed independently of alcohol dependence. They found no evidence to suggest that alcoholism was associated with increased rates of independent major depressive disorder (11.5%), OCD (1.3%) or agoraphobia (1.6%) compared to control (15.9%, 0.9%, 0.9% respectively). However, alcohol dependent subjects had a two fold increased risk for bipolar illness (2.3% vs. 1.0%) and three-fold risk for panic disorder (4.2% vs. 1.0%) and social phobia (3.2% vs. 1.4%).

Table 4 : Comparison of patients with and without psychiatric co-morbidity with socio demographic variables

		Psychiatric Co-morbidity			p-Value
Socio demographic variables		Absent	Present	Total	
		67	33	100	
	15-30	14	8	22	
Age	31-45	32	16	48	0.888
(years)	>45	21	9	30	(N.S)
Sex	Male	43	22	65	0.806
	Female	24	11	35	(N.S)
	Upper	1	0	1	0.829
Socio-	Upper middle	6	3	9	(N.S)
economic	Lower middle	15	5	20	
status	Upper lower	31	16	47	
	Lower	14	9	23	
Employment	Employed	41	13	54	
	Unemployed	26	20	46	**0.040**

Table 4 shows, in the study population, age, sex, socio-economic status does not have any significance on the presence or absence of psychiatric co-morbidity.The table shows that psychiatric co-morbidity is significantly greater in those who are unemployed than those who were employed.

The high rates of unemployment might be explained due to multiple reasons such as greater chances of impaired work performance or absenteeism, excessive time and money spend over alcohol use and frequent hospitalizations seen with alcohol dependence with psychiatric co- morbidity more than those without.

Table 5 : Comparison of types of psychiatric co-morbidity in relation with socio demographic variables

		Type of co-morbidity			Total	p-Value
		Mood disorders	Anxiety disorders	Psychotic disorders		
Total		18	11	4	33	
Age	15-30	4	2	2	8	0.097 (N.S)
	31-45	6	8	2	16	
	>45	8	1	0	9	
Sex	Male	13	6	3	22	0.576 (N.S)
	Female	5	5	1	11	
Socio-economic status	Upper	2	1	0	3	0.594 (N.S)
	Upper Middle	1	3	1	5	
	Lower Middle	10	5	1	16	
	Upper Lower	5	2	2	9	
	Lower	2	1	0	3	

Table 5 shows that, in the study population, age, sex, socio-economic status does not have any significance on the type of psychiatric co-morbidity.

LIMITATIONS :

1. The study was limited to outpatient population in hospital setting, hence results cannot be generalized to community setting.
2. The size of the sample may be less.
3. The scales that have been used (MINI Plus) could not differentiate between independent and alcohol induced psychiatric disorder.
4. The psychiatric disorder could not be placed in a time frame (life time, past, current diagnosis)
5. The most important limitation is that the study was not designed to take into account the Axis II disorders which were done in many previous studies.

CONCLUSION :
The study aimed to look at the prevalence of co-morbid psychiatric disorders in patients with alcohol dependence. The psychiatric co-morbidity was present in 33% of the population studied. It was found in the current study that majority of the subjects were young adults with a mean age of 42 years, were illiterates, married, were employed, belonged to rural background and from lower socio-economic status. In the psychiatric co-morbidity, more numbers of patients were in the affective spectrum, followed by anxiety spectrum and less number of them in psychotic spectrum. All psychiatric co-morbidities may need to be identified for patients diagnosed as alcohol dependence who present with longer duration of drinking and unemployed for effective and comprehensive management.

FUTURE DIRECTIONS:

1. The future studies on co-morbidity in alcohol dependence should focus On Large sample size including both in patients and out patients.
2. Longitudinal assessments of subjects for psychopathology noting how the prevalence of psychiatric disorders change over time and affect treatment response, dropout rate and outcome.
3. Does the coexisting psychopathology influence the treatment seeking behavior of alcoholics and what are the causes for vulnerability of alcohol dependence. These issues can be examined in future.

CONFLICTS OF INTEREST : There are no conflicts of interest.

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