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SOCIO DEMOGRAPHIC FACTORS FOR COMORBID DEPRESSION AMONG ALCOHOL DEPENDENCE PATIENT: A CROSS-SECTIONAL DESCRIPTIVE STUDY.

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Abstract
Despite of high prevalence of depression in alcohol dependent individual, the nature of relationship between depression and alcohol dependence has been difficult to define. Present study investigates the relationship between socio demographic and alcohol related variables with the diagnosis of depression
It is a cross-sectional descriptive study with a sample of 50 individuals diagnosed to have alcohol dependence syndrome that consented and fulfilled inclusion and exclusion criteria.
MINI-6 was administered for dividing the sample into depressed (n=11, 22%) and non depressed (n=39, 78%) groups.
There were only few differences among the two groups on socio-demographic and alcohol related variables.
Keywords: Alcohol Dependence, Depression, Co-morbidity, Socio-demographic factors.

Introduction:

Alcohol is one of the most commonly used psychoactive drugs in the world. It is clear that as the consumption of alcohol increases, the incidence of psychosocial and medical problems also increases.India which had low levels of consumption of alcohol until recently is moving towards a higher level of alcohol use. The impact of western civilization and global cultural patterns seem to have accelerated this move in the last decade of the twentieth century[1].

In recent years, there has been a change in the trends of alcohol consumption, such as early age-of-onset of drinking, increasing usage among women, change in drinking patterns and increasing alcohol dependence problems even in the developing countries like India[1].

Although some research has been initiated, more active and vigorous research on the epidemiological trends, consequences of alcohol use, the socio-cultural mechanisms related to alcohol consumption and effective treatment and prevention strategies needs to be carried out so as to generate information which can be useful.

Clinical[2-5] and general population studies[6-12] show that alcohol abuse or dependence and major depression often coexist.

The diagnosis of major depression among actively drinking alcoholics is complicated by the fact that intoxication and withdrawal from alcohol and other substances can induce transient symptoms that mimic an independent depressive disorder[13, 14].

Keeping a note to different aspects of the co-morbid depression in Alcohol dependence, it will be appropriate to attempt to assess the co-morbid depression associated with alcohol and Socio demographic factors associated with it.

Aims and Objectives:

1. To study the socio-demographic variables of the patients admitted for alcohol de-addiction.
2. To study the prevalence of co-morbid depression in patients admitted for alcohol de-addiction.

Material and Methods

The patients diagnosed with alcohol dependence syndrome, who were admitted for de-addiction in a psychiatry hospital (SowmanasyaHospital , 6 V. N. Nagar, Chinthamani, Trichy, Tamil nadu) with sample size of 50. Sampling type of Purposive sampling method was used.

Study Period: April 2012 – September 2012 or 50 sample whichever is earlier.

Inclusion Criteria:

- Patients diagnosed to have Alcohol Dependence Syndrome based on DSM IV criteria admitted for de-addiction treatment at the above mentioned hospital.
- Patients aged 18 and above.
- Patients consenting for the study.

Exclusion Criteria:

- Patients having any other substance dependence except nicotine dependence.
- Mentally retarded patients.

- Patients currently in alcohol withdrawal related delirium
- Patients having medical co-morbidity sufficiently severe enough to hamper current clinical interview

Tools:

- **Semi-structured socio-demographic and data collection Performa:**

This Performa is designed by Sowmanasya hospital and is being used for detailed evaluation of the patients admitted in hospital. It includes socio-demographic details of the patient, age, gender, place of residence, marital status, religion, education, occupation, income sources, total family income, socio-economic status, family type and size.

- **Mini International Neuropsychiatric Interview (MINI- 6):**

The M.I.N.I. was designed as a brief structured interview for the major Axis I psychiatric disorders in DSM-IV and ICD-10. Validation and reliability studies have been done comparing the M.I.N.I. to the SCID-P for DSM-III-R and the CIDI (a structured interview developed by the World Health Organization). The results of these studies show that the M.I.N.I. has similar reliability and validity properties, but can be administered in a much shorter period of time (mean 18.7 ± 11.6 minutes, median 15 minutes) than the above referenced instruments[15].

Procedure:

- This study was conducted after clearance obtained from the Institutional Ethics Committee (IEC) of Sowmanasya Hospital.The study was conducted at Sowmanasya Hospital over a period of 6 months. Patients taken up for the study were in-patients in psychiatry wards of the above mentioned hospital. All the consecutive patients fulfilling the inclusion and exclusion criteria, and consenting for the study were evaluated.The assessments were separate from their regular management. No investigation or treatment was suggested or advised for the study.
- The subjects were interviewed; socio-demographic Performa was filled up. MINI-6 was administered in order to make diagnosis of co-morbid depression, and then the sample was divided into depressed and non depressed groups.
- **Data Analysis:**

Analysis of data was carried out using SPSS (Statistical package for social sciences) version 16.0. Chi square test was used to analyze qualitative socio-demographic variable difference between the two groups (Depressed and non depressed patients).

Results

Table 1.1: Distribution of Mean Age, Gender, and Marital status in patients with Alcohol Dependence Syndrome (n=50)

S.N	Variables	Non Depressed n= 39 (78%)	Depressed n = 11 (22%)	Total n=50 (%)	Statistics X^2 df p-value
1.	**Mean Age** (± SD)	40.46 (±7.91)	42.64 (±7.65)	40.94 (±7.83)	
2.	**Gender: n (%)** Male Female	39 (100) 0 (0)	11 (100) 0 (0)	50 (100) (0)	
3.	**Marital status: n(%)** Unmarried Married Separated/ Divorced Widowed	8 (20.5) 31 (79.5) 0 0	1 (9.1) 7 (63.6) 2(18.2) 1(9.1)	9 (18) 38 (76) 2 (4) 1 (2)	11.54 3 **0.009***

*p<0.05

Table 1.2: Distribution of Residence, Family Type, Family Income in patients with Alcohol Dependence Syndrome (n=50)

S.N	Variables	Non Depressed n = 39 (78%)	Depressed n = 11 (22%)	Total n=50(%)	Statistics X^2 df p-value
1.	**Residence n (%)** Rural Urban Suburban	5 (12.8) 13 (33.3) 21 (53.8)	2 (18.2) 6 (54.5) 3 (27.3)	7 (14) 19 (38) 24(48)	2.454 2 0.293
2.	**Family type n (%)** Nuclear Extended Joint Living alone	30 (76.9) 3 (7.7) 6 (15.4) 0	9 (81.8) 1 (9.1) 1(9.1) 0	39 (78) 4 (8) 7 (14) 0	0.290 2 0.865

3.	**Family Income n (%)** Rs. 1000 and below Rs. 1001 – 5000 Rs. 5001 – 10000 Rs. 10000 or above	 0 7 (17.9) 12 (35.9) 18 (46.2)	 0 0 6 (54.5) 5 (45.5)	 0 7 (14) 20 (40) 23 (46)	2.721 2 0.257

*p<0.05

Table 1.3: Distribution of religion, occupation, education in patients with Alcohol Dependence Syndrome (n=50)

S.N.	Variables	Non Depressed n= 39 (78%)	Depressed n= 11 (22%)	Total n=50 (%)	Statistics X^2 df p-value
1.	**Religion n (%)** Hindu Muslim Christian Others	 34 (87.2) 0 (0) 5 (12.8) 0	 11(100) 0 (0) 0 (0) 0 (0)	 45 (90) 0 (0) 5 (10) 0 (0)	1.567 1 0.211
2.	**Occupational status n(%)** Unemployed Self Employed Unskilled Skilled	 0 7 (17.9) 15 (38.5) 17 (43.6)	 1 (9.1) 4 (36.4) 2 (18.2) 4 (36.4)	 1 (2) 11(22) 17 (34) 21 (42)	6.012 3 0.111
3.	**Educational status n (%)** Illiterate Upto Primary Upto 12th Graduate and above	 3 (7.7) 10 (25.6) 12 (30.8) 14 (35.9)	 0 4 (36.4) 2 (18.2) 5 (45.6)	 3 (6) 14 (28) 14 (28) 19 (38)	1.89 3 0.596

*p<0.05

Table -2: Distribution of co-morbid medical illness and Family history of Alcohol dependence in patients with Alcohol dependence Syndrome (n=50)

S.N.	Variables	Non Depressed n = 39 (78%)	Depressed n = 11 (22%)	Total n=50 (%)	Statistics X^2 df p-value
1.	**Medical co-morbidity n(%)** Absent Present	 30 (76.9) 9 (23.1)	 8 (72.7) 3 (27.3)	 38 (76) 12 (14)	0.083 1 0.774
2.	**Family History of Alcohol Dependence n(%)** Absent Present	 23 (59) 16 (41)	 5 (45.5) 6 (54.5)	 28 (56) 22 (44)	0.636 1 0.425

*p<0.05

Table 3: Distribution of mean of age, duration of alcohol, SAD-Q Score in patients with Alcohol dependence Syndrome (n=50)

S.N.	Variables	Non Depressed n= 39 (78%)	Depressed n= 11 (22%)	Total n=46 (%)	Statistics Independent Sample Test t df p-value
1.	Mean Age (±SD)	40.5 (±7.91)	42.6 (±7.65)	40.9 (± 7.83)	-0.811 48 0.421
2.	Mean Duration of Alcohol use (±SD)	14.41 (±7.39)	18 (±7.48)	15.2 (±7.48)	-1.42 48 0.162
3.	Mean SAD-Q Score (±SD)	36.1 (±7.46)	39.64 (±7.19)	36.88 (±7.47)	-1.398 48 0.168

*p<0.05

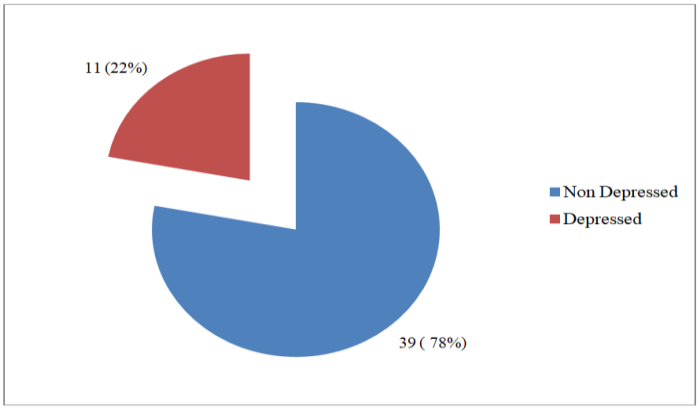

Figure 1: Prevalence of Depression among the patients with Alcohol Dependence syndrome

A total of 50 patients with diagnosis of Alcohol Dependence syndrome, consenting for study and fulfilling inclusion and exclusion criteria were taken. Among the total sample 11 (22%) patients after evaluating on MINI-6 were diagnosed to have co-morbid depression. Then the sample was divided into two groups on the basis of presence or absence of co-morbid Depression. Statistically significant difference was present in marital status of the two groups. Differences were observed for Religion, Total family income, Occupation status, Education, Family history of Alcohol dependence. No differences were observed for Mean age, Residence, Family type, Co-morbid medical illness among the two groups.

Discussion

The principal focus of the current study was to study Sociodemographic factors in co-morbid depression among the alcohol dependence patients who were admitted for alcohol de-addiction treatment in a psychiatry hospital

During the study period a total of 53 patients were admitted in hospital, 2 of them had alcohol withdrawal delirium and 1 refused to give consent for the study. All 3 were male patients who were excluded from the study. Total of 50 individuals participated in the study. After interviewing for socio-demographic data MINI-6 was administered for dividing the sample into depressed (n=11) and non-depressed (n=39) groups.

The mean age of total sample was 40.9(±7.83). Mean age of the patients with co-morbid depression was 42.6(± 7.65), while in patients without co-morbid depression, it was 40.5 (±7.91) showing that majority of patients with alcohol dependence syndrome fall in middle age group, which is in keeping with the findings from the Bangalore Study[1] and the study done by Davidson in 1995[4]. No female was admitted for alcohol de-addiction, all were males, and hence gender differences among the sample population cannot be interpreted in this study. Some of the earlier studies[1, 4] have shown alcohol dependence syndrome more among the males and middle-aged individuals. In relation to marital status, majority were married in the total sample and in the two groups. Among the patients with co-morbid Depression 9.1% was unmarried, 18.2% was divorced or separated and 9.1% was widowed, which was a statistically significant finding in the study (p=0.009). Similar difference in the marital status was observed in the study done by Davidson in 1995 but was not statistically significant. (Table-1.1)

Majority of the patients were from suburban (48%) or urban residence (38%), nuclear type of family, with family income more than Rs.10000 and above. Patients with co-morbid depression were mostly from urban population (54.5%), with family income between Rs.5001-10000 (54.5%), while maximum patients in non-depressed group were from suburban population (53.8%), with family income Rs.10000 and above (46.2%). Both groups mainly belong to nuclear type of family (Table-1.2). These findings in comparison to the Bangalore study sample was different as there sample were mostly from rural or semi rural population.

Majority were Hindus among both the groups. Majority of the patients were skilled workers in total sample (42%) and in non depressed group (43.6%), while in patients with co-morbid depression mostly were self employed in the form of business or shopkeepers (36.4%) and skilled workers (36.4%). This finding was similar to the finding of Bangalore study which showed majority of sample were skilled or unskilled workers. There was no similar comparable group in Davidson study as they divided the group on the basis of employment present or absent[3]. (Table-1.3)

Majority were graduates or above in total study sample (38%) and in non depressed group (35.9%), while in patients with co-morbid depression most of them were graduates and above (45.6%) or primary educated (36.4%). This finding differs from the Bangalore study in which majority of sample has low education. Difference in the finding may be because of studied sample in Bangalore study were mostly from rural population were education facilities are sparse. (Table-1.3)

Medical co-morbidity was present in (14%) of total sample. 44% patient had a family history of alcohol dependence.

This was more in patient with co-morbid depression (54.5%) as compared to non depressed patient (41%). For similar comparison no direct study of the family history of alcohol dependence was found. (Table-2)

Objective 2: Prevalence of co-morbid depression among the patients admitted for alcohol de-addiction treatment:

In current study prevalence of co-morbid depression among the patients admitted for alcohol dependence syndrome is 22 % (Fig-1).

Recent estimates of the co-occurrence of these disorders in the general population are derived from the National Epidemiologic Survey on Alcohol and Related Conditions, a large-scale, nationally representative survey using DSM-IV diagnostic criteria[16]. Data was collected from a sample of 43,093 adults (18 years and older) who were interviewed between 2001 and 2002 to determine lifetime and current (past 12 months) DSM-IV diagnoses. For those with a diagnosis of current alcohol dependence, the prevalence rate for an independent major depressive disorder was 20.5%, which was similar to finding in the current study. Few other studies[3, 17, 18]which has shown variation from current study reported prevalence of depression in patient with alcohol dependence ranging from 32% to 67%.

Conclusions

Alcohol is both depressant and a stimulant, depending on the level of consumption and time after drinking. Persons who are alcohol dependent are often misdiagnosed as depressed because many of the symptoms of alcohol dependence mimic depression. Some of these symptoms include reduced appetite, decreased energy and insomnia.

The Sociodemographicprofile of the patients were comparable with past studies in done in the similar field.

In current study 22% of alcohol dependent patients meet the criteria for Major Depressive Disorder.

A person who is depressed may start drinking, and a person who is drinking may become depressed. Either way, the combination of alcohol and depression can lead to worsening of each other.

Future researches can be done to study various other variables including personality profile, alcohol drinking pattern and also the group who continue to remain depressed after abstinent period need to be assessed in detail.

Identifying the cause of the depression in individuals with alcohol dependence has been thought to be important for determining the course of the disorder and the optimal treatment approach.

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