

## Original Research Article

# A STUDY ON DEMOGRAPHIC CHARACTERISTICS OF PATIENTS WITH ALCOHOL DEPENDANCE

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### ABSTRACT

**Background:** Alcohol dependence compromises on the quality of life of not only the individual who is consuming it but also on their family. This study aims to assess the demographic factors which play a role in patients with alcohol dependence.

**Materials and Methods:** A total of 50 patients presenting to the OPD of Department of Psychiatry, Guntur Medical College, Guntur over a period of 18 months were included. The degree of alcohol dependency was assessed using the severity of alcohol dependency questionnaire (SADQ).

**Results:** Middle age group, unemployment, nuclear families have shown to have significantly higher rate of severe alcohol dependence.

**Conclusion:** The study concludes with the fact that the severity of alcohol dependency is significantly influenced by the patient's social and demographic characteristics.

**Keywords:** Demographic profile, family, alcohol dependence, SADQ.

## INTRODUCTION

The word 'Alcohol' has its origin in Arabic language. In Arabic 'Alkull' means essence.<sup>[1]</sup> WHO (1978) defined alcoholism as "a state, psychic and usually also physical, resulting from taking alcohol, characterized by behavioural and other responses that always include a compulsion to take alcohol on a continuous or periodic basis in order to experience its psychic effects and sometimes to avoid the discomfort of its absence, tolerance may or may not be present".<sup>[2]</sup>

Alcohol causes both acute and chronic changes in almost all neurochemical systems. The problem of excessive alcohol consumption is a major cause of public health concern in most of the countries today. Heavy consumption results in untold misery to the individual who is by and large affected by physical, psychological and social disabilities.

In India about 20% of all disability-adjusted life years are lost chiefly because of factors like 'poor health status of the people' and 'marked nutritional deficiencies' as well as 'high prevalence of alcohol addiction among people'.<sup>[3]</sup>

Alcohol Dependence Syndrome could be considered as a disorder of the family. It has deleterious consequences not only on the patient with Alcohol Dependence Syndrome but also on the members of his family.

The present study aims to evaluate the demographic characteristics of patients with alcohol dependence presenting at tertiary care hospital.

## MATERIAL AND METHODS

This cross-sectional observational study was conducted in the Department of Psychiatry, Guntur Medical College, Guntur over a period of 18 months, i.e., from February 2022 to August 2023. Patients aged above 18 years fitting the criteria for alcohol dependence according to ICD-10 were included in the study. Seriously ill patients who were not in sane state and patients with co-morbid substance use except for tobacco were excluded from the study. A total of 50 patients who gave their informed consent were included into the study.

The study protocol was approved by institutional Ethical committee of Guntur Medical College, prior

to the initiation of the study. An informed verbal and written consent was obtained from all the study subjects. All patients were assured of preserving their personal information and terms of confidentiality.

A detailed history was taken and physical and mental status examination was done.

The interviews were conducted in a language that the patient understood and were comfortable with.

Statistical analysis:

For all statistical analysis, SPSS (statistical package for social sciences) version 21 was used. MS Excel 2010 was used for data entry. All the values are presented as numbers and percentages. Descriptive statistics such as means, standard deviations, p values are calculated. Chi square test was used to examine the categorical data. For all statistical analysis,  $P < 0.05$  was considered statistically significant.

### Description of tools used

#### 1. Alcohol dependence criteria ICD-10 (F-10.2)

- A strong desire or sense of compulsion to take alcohol;
- Difficulties in controlling alcohol taking behavior in terms of its onset, termination, or levels of use;
- A physiological withdrawal state;
- Evidence of tolerance;
- Progressive neglect of alternative pleasures or interests because of alcohol use;
- Persisting with alcohol use despite clear evidence of overtly harmful consequences.

A definite diagnosis of alcohol dependence should usually be made only if three or more of the above have been present together at some time during the previous year.<sup>[4]</sup>

#### 2. Severity of alcohol dependence assessed by using "Severity of alcohol dependence Questionnaire" [SADQ].

## RESULTS

50 alcohol dependent patients attending the outpatient and inpatient departments of Psychiatry at Guntur Medical College were selected for the study. From the above table it is observed that majority of the study population belong to 31- 40 years of age group (22.3%).

It was observed that among study population severe alcohol dependence was more among the persons belonging to 41-50 years (30%). Moderate alcohol dependence was more among >50 years (77.8%) age

group and mild alcoholic dependence was more among 21-30 years(63.6%) age group. These differences were statistically significant. [Table 1]

More than half of study populations were Hindu religion followed by Christian and Muslim religion. Severe alcohol dependence was more common among the persons belonging to Hindu religion (27.8%), moderate alcohol dependence was common among Christian religion (63.6%) and mild alcoholic dependence was more among Muslim religion (66.7%). However, these differences were not statistically significant.

Most of the study population studied up to middle school. Severe alcohol dependence was more common among persons who studied up to high school (30%). All persons who studied up to post graduation had moderate alcohol dependence and mild alcohol dependence was more among persons who studied up to intermediate (50%). These differences were not statistically significant. [Table 2]

Most of the study population was residing in the rural areas compared to the persons living in the urban areas. Severe (23.5%) and moderate (58.8%) alcohol dependence was more common among persons residing in rural areas and mild dependence was more common among persons who were residing in urban areas (31.2%). These differences were not statistically significant. [Table 3]

Severe (28.1) alcohol dependence was more common among the persons who were belonging to nuclear families, moderate dependence (75%) was common among persons who were belonging to joint families and mild dependence was common among persons who were belonging to three generation families (28.6%). These differences were not statistically significant. [Table 4]

Most of study population had duration of illness of 11-15 years followed by those with 3-5 years, 6-10 years, 16-20 years, >20 years and 0-2 years. It was observed that among study population severe alcohol dependence (53.8%) was more common among persons with duration of illness 11-15years, moderate alcohol dependence (87.5%) was common among persons with duration of illness 16-20 years and mild alcohol dependence was common among persons with duration of illness 3-5 years (63.6%). These differences were statistically significant. [Table 5].

3 patients with severe alcohol dependence had developed acute surgical complications like acute pancreatitis.

**Table 1: Association between age and SADQ score**

Age group (years)	Mild (SADQ = 8-15)	Moderate (SADQ = 16-30)	Severe (SADQ = 31-60)	TOTAL	Chi square=18.112, df=8, p=0.0203; statistically significant
≤ 20	1(50%)	1(50%)	0(0%)	2	
21-30	7(63.6%)	3(27.3%)	1(10.1%)	11	
31-40	3(16.6%)	11(61.1%)	4(22.3%)	18	
41-50	0(0%)	7(70%)	3(30%)	10	
>50	0	7(77.8%)	2(22.2%)	9	

Total	11 (22)	29 (58)	10 (20)	50
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**Table 2: Association between religion and SADQ score**

Age in years	Mild (SADQ = 8-15)	Moderate (SADQ = 16-30)	Severe (SADQ = 31-60)	Total	Chi square = 9.093, df=4, p=0.059; statistically not significant
Hindu	5 (13.9)	21 (58.3)	10 (27.8)	36	
Muslim	2 (66.7)	1 (33.3)	0 (0)	3	
Christian	4 (36.4)	7 (63.6)	0 (0)	11	
Total	11 (22)	29 (58)	10 (20)	50	

**Table 3: Association between occupation and SADQ score**

Occupation	Mild (SADQ = 8-15)	Moderate (SADQ = 16-30)	Severe (SADQ = 31-60)	Total	Chi square = 20.2144, df=10, p=0.0272, statistically significant
Professional	2(40%)	2(40%)	1(20%)	5	
Clerical	1(50%)	1(50%)	0(0%)	2	
Skilled	4(66.7%)	2(33.3)	0(0%)	6	
Semi-Skilled	0(0%)	3(100%)	0(0%)	3	
Unskilled	3(50%)	2(33.3%)	1(16.7%)	6	
Unemployed	1(3.6%)	19(67.8%)	8(28.6%)	28	
Total	11 (22)	29 (58)	10 (20)	50	

**Table 4: Association between type of family and SADQ score**

Type of family	Mild (SADQ = 8-15)	Moderate (SADQ = 16-30)	Severe (SADQ = 31-60)	Total	Chi square = 3.884, df=4, p = 0.422; not significant
Nuclear	6 (18.8)	17 (53.1)	9 (28.1)	32	
Joint	1 (25)	3 (75)	0 (0)	4	
Three generation	4 (28.6)	9 (64.3)	1 (7.1)	14	
Total	11 (22)	29 (58)	10 (20)	50	

**Table 5: Association between duration of illness and SADQ score**

Duration of illness in years	Mild (SADQ = 8-15)	Moderate (SADQ = 16-30)	Severe (SADQ = 31-60)	Total	Chi square = 30.322, df=10, p=0.001; statistically significant
0-2	1 (50)	1 (50)	0 (0)	2	
3-5	7 (63.6)	3 (27.3)	1 (9.1)	11	
6-10	3 (27.3)	8 (72.7)	0 (0)	11	
11-15	0 (0)	6 (46.2)	7 (53.8)	13	
16-20	0 (0)	7 (87.5)	1 (12.5)	8	
>20	0 (0)	4 (80)	1 (20)	5	
Total	11 (22)	29 (58)	10 (20)	50	

## DISCUSSION

This cross-sectional observational study was conducted over a period of 18 months, i.e, from February 2022 to August 2023 on 50 patient diagnosed with alcohol dependence. A detailed history was taken, physical and mental status examination was done.

### Association between age and SADQ score among alcoholics

It was observed that among study population severe alcohol dependence was more among persons belonging to 41-50 years (30%) age followed by >50 years, 31-40 years and 21-30. Moderate alcohol dependence was more among >50 years (77.8%) age and mild alcohol dependence was more among 21-30 years (63.6%) age group. These differences were statistically significant. Mean age of study population was 37.34±10.50 years.

In the study conducted by M. Kishore et al it was observed that, mean age of men in study population was 32 years.5 Similar finding was observed in the study conducted by P. K. Kuruvilla et al, which shows that mean age of alcoholic men was 40.6 years.<sup>[6]</sup>

### Association between religion and SADQ score among alcoholics

It was observed that among study population severe alcohol dependence was more among persons belonging to Hindu religion (27.8%), moderate alcohol dependence was common among Christian religion (63.6%) and mild alcohol dependence was more among Muslim religion (66.7%). These differences were not statistically significant.

In the study conducted by Dr. Caroline Dias, majority of patients admitted for alcohol dependence syndrome were Hindus. These finding was similar to current study finding.<sup>[7]</sup>

### Association between education and SADQ score among alcoholics

It was observed that among study population severe alcohol dependence was more common among persons who studied up to high school (30%). All persons who studied up to post graduation had moderate alcohol dependence and mild alcohol dependence was more among persons who studied till intermediate (50%). These differences were not statistically significant.

M. Kishore et al and Koustubh R. Bagul et al observed that majority of alcoholics were educated

less than 10th standard and were illiterates respectively, in their studies (33.3%). These findings were contradicting the current study findings.<sup>5, 8</sup>

#### **Association between occupation and SADQ score among alcoholics**

It was observed that among study population severe alcohol dependence was more common among persons who were unemployed (28.6%). All persons who were semi-skilled had moderate dependence and mild dependence was common among persons doing skilled work (66.7%). These differences were statistically significant.

In the study conducted by M. Kishore et al it was observed that, most of the study population were self-employed (unskilled) or agriculturists (70%).<sup>5</sup>

However, Koustubh R. Bagul et al observed that majority of alcohol dependent males were doing unskilled occupation (55%).<sup>[8]</sup>

#### **Association between residence and SADQ score among alcoholics**

It was observed that among study population severe (23.5%) and moderate (58.8%) alcohol dependence was common among persons who were residing in rural areas and mild dependence was common among persons who were residing in urban areas (31.2%). These differences were not statistically significant.

In the study conducted by M. Kishore et al it was observed that, most of them were from an urban background (70%). These findings were similar to current study finding.<sup>[5]</sup>

In the study conducted by Koustubh R. Bagul et al it was observed that, majority of alcohol dependent males were residing in rural area (68.3%). These findings were contradicting to current study finding.<sup>[8]</sup>

#### **Association between type of family and SADQ score among alcoholics**

It was observed that among study population severe (28.1%) and moderate (58.8%) alcohol dependence was common among persons who belong to nuclear families, moderate dependence (75%) was common among persons who belong to joint families and mild dependence was common among persons who belong to three generation families (28.6%). These differences were not statistically significant.

#### **Association between duration of illness and SADQ score among alcoholics**

It was observed that among study population severe alcohol dependence (53.8%) was more common among persons with duration of illness of 11-

15years, moderate alcohol dependence (87.5%) was common among the persons with duration of illness of 16-20 years and mild alcohol dependence was common among the persons with duration of illness of 3-5 years (63.6%). These differences were statistically significant.

In the study conducted by Dr. Caroline Dias, most patients have more than 6 years duration of alcohol dependence with most drinking for a period 6-15 years. These findings were similar to current study finding.<sup>[7]</sup>

In the study conducted by Koustubh R. Bagul et al it was observed that, mean duration of alcohol dependence was 17.48 years.<sup>[8]</sup>

## **CONCLUSION**

The study concludes with the statement that household environment has its role in development of alcohol dependence

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