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Patterns and Comorbidities of Alcohol Consumption Among Adults in Selected De-Addiction Centres

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Abstract

Background: ***Alcohol has now become a common word in the Indian society. With the impact of Globalization, urbanization, industrialization, media influence and changing life styles, alcohol has entered into the lives of Indians in a big and unrestricted manner.*** ***Aim:*** ***This study was undertaken to identify the pattern of alcohol consumption and to assess the comorbidity and the level of dependence among the adult population.*** ***Methodology:*** ***A Quantitative Descriptive research design was used. 30 Alcohol De-addiction patients were selected by using Purposive sampling technique who fulfilled the inclusion criteria and who were available during the period of data collection at selected Alcohol De-addiction centres, Puducherry. Data was collected by using structured interview schedule.*** ***Results:*** ***Majority 14 (46.7%) of the Adults are from Urban background, Majority 17 (56.7%) of the Adults belong to Urban background 21 (70%) of the subjects were consumed alcohol at the age between 18 to 25, 17 (56.7%) of the subjects were consumed alcohol more than 500 ml, 11 (36.7%) of the subjects have complaints of vomiting 14 (46.7%) of the subjects had Diabetes and Hypertension. With regard to AUDIT scores 17 (56.7%) of the subjects were under Alcohol dependence with the mean score of (18.7%).*** ***Conclusion:*** ***De-addiction programmers, stress relief in the form of medication, yoga should be made available to urban areas as a direction and recreational therapy to control the prevalence of Alcohol consumption among adults.***

Keywords: ***Patterns; Comorbidities; Adult population; De Addiction center; Alcohol; Audit.***

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1. Introduction

Communities in India are in transition amidst changing states of growth and development. While societies are undergoing continuous dynamic changes due to macro and micro level influences, people are embracing new lifestyles, cultures and practices. Alcoholic beverages, known since Vedic period, are used for worship purposes, medicinal preparations, and widely consumed as a relaxant [1,2]. Alcohol consumption, at present, is ubiquitous and has been consistently increasing throughout the world. Globally, harmful use of alcohol causes approximately 3.3 million deaths every year (5.9% of all deaths), and 5.1% of the global burden of disease is attributable to alcohol consumption [3,4]. It causes more than 60 different disorders and is the third most important risk factor for the global burden of disease

Alcoholism is one of the major public health problems in both developed and the developing countries [5]. Estimated number of alcohol users in India, in 2005, was 62.5 million, 17% of them being dependent users accounting for 20%–30% of hospital admissions due to alcohol-related problems. The National Household Survey 2004 had reported alcohol use in 21% of adult males and <5% among females. State-wise prevalence rate is highly variable being the lowest (7%) in the western part of Gujarat and the highest (75.0%) in Arunachal Pradesh [6]. In Southern India, the prevalence of current alcohol use has varied between 33% and 50% [7].

Alcoholism or alcohol dependency is a serious problem that needs to be recognized and addressed in India at an individual, medical and social level. The tenth revision of the International Classification of Diseases and Health Problems (ICD-10) defines alcohol dependence syndrome as being a cluster of physiological, behavioural, and cognitive phenomena in which the use of alcohol takes on a much higher priority for a given individual than other behaviours that once had greater value. Revised (DSM-III-R) or the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV) and ICD-10; as well as if the prevalence rates measured refer to lifetime or last year alcohol dependence. Globally, 3.6% (ICD 10) are alcoholic dependent [8].

Alcohol use in heavy amount leads to acute intoxication, social problems such as strained relationship with family members and neighbours, and accidents leading to injuries; however, prolonged use in moderate quantity leads to a number of health problems such as epilepsy, numbness in the limbs, and anxiety and depression, dependence, chronic conditions such as diabetes, hypertension, peptic ulcers, and communicable diseases such as pulmonary tuberculosis [9].

The problem with alcoholism is that it not only affects the individual but also the family members and the community. This makes it necessary to assess for prevention and proper intervention. The 32nd World Health Assembly declared that ‘alcohol related problems rank among the world’s major public health problems and constitute serious hazard for human health, welfare and life’ [10]. Despite the public health crisis and consequences alcohol represents that there is inadequate recognition of alcohol misuse as a public health issue in India [10].

In view of easy availability of alcohol at a subsidized rate in Puducherry, this study was undertaken to identify the pattern of alcohol consumption and to assess the comorbidity and the level of dependence among the adult population residing in selected De-addiction centres in Puducherry.

2. Materials and Methods

A Quantitative descriptive research design was used. 30 Alcohol De-addiction patients were selected by using purposive sampling technique who fulfilled the inclusion criteria and who were available during the period of data collection at selected alcohol De-addiction centres, Puducherry. Data was collected by using structured interview schedule.

The tools used for data collection were divided into two sections. Section A includes demographic variables and section B comprised of AUDIT (Alcohol Use Disorders Identification Test) consists of 10 questions scored individually from 0 to 4. A total score of >8 is an indication of alcohol abuse, a score of >15 indicates serious abuse/addiction whilst a score between 8 and 10 is an indication of being at risk [11].

The data was collected after obtaining permission from the concerned authority. Informed consent was obtained from the each adult population prior to data collection. The data was collected by using structured interview schedule to all adult population who fulfilled the inclusion criteria and available at the time of data collection in the De-addiction centres.

3. Plan for Data Analysis

Plan for data analysis were done using Statistical Package of Social Sciences (SPSS) version 16.0 software for Windows. Descriptive statistics were used to analyse the frequencies, percentage and mean

4. Results

The study included 30 participants. Table 1 shows the demographic characteristics of all participants involved in this study, majority of Adults 14 (46.7%) belonged to the age group of 25 – 35 years, 17 (56.3%) adults were residing in an urban area, 20 (66.7%) adults were living in a nuclear family, 19 (63.7%) adults were educated up to secondary school level, 25 (83.3%) adults were employed and 12 (40%) adults had a family income of between Rs.5000 to Rs.10000.

Table 1: Demographic Characteristics of the Study Subjects.

S. No	Demographic variables	Frequency (N)	Percentage (%)
1.	**Age of Adult males**		
	18-25 years	03	10
	25-35 years	14	46.7
	36-50 years	9	30
	51 to 65 years	04	13.3
2.	**Residence**		
	Urban	17	56.7
	Rural	13	43.3
3.	**Type of family**		
	Nuclear family	20	66.7
	Joint family	10	33.3
4.	**Education**		
	No formal education	02	6.7
	Upto Primary school	03	10

	Upto Secondary school	19	63.3
	Graduation & above	06	20
5.	**Occupation**		
	Employed	25	83.3
	Unemployed	5	16.7
6.	**Family Income**		
	Less than 5000	07	23.3
	5001 – 10000	12	40
	10001 – 15000	11	36.7
N=30			

The Table 2 brings out the distribution of subjects based on their age of consumption of alcohol for the first time, majority 21 (70%) of the subjects were said that they consumed alcohol at the age between 18 to 25, nine (30%) of the subjects are before the age of 18 and none of the subjects are after 25 years of their age.

Table 2: Age of starting Alcohol for the First Time.

Age of starting Alcohol consumption	Frequency(n)	Percentage%
Before 18 years of Age	9	30
18 to 25 years of Age	21	70
25 to 35 years of Age	0	0
After 35 years of Age	0	0
N=30		

Table 3: Amount of Alcohol Consumption in One Sitting.

Amount of Alcohol consumption in one sitting	Frequency(n)	Percentage%
Less than 100 ml	0	0
100 to 200 ml	3	10
250 to 500 ml	10	33.3
Above 500 ml	17	56.7
N=30		

The above Table 3 brings out the distribution of subjects based on their amount of alcohol consumption in one sitting, majority 17 (56.7%) of the subjects said that they consume alcohol more than 500 ml, ten (33.3%) of the subjects said that they consume alcohol between 250 to 500 ml in one sitting.

Table 4: Health Effects of Alcohol.

Health effects of Alcohol	Frequency(n)	Percentage%
Vomiting	11	36.7
Hematemesis	0	0
Abdomen Pain	10	33.3
Jaundice	4	13.3
Melena	0	0
No complaints	5	16.7
N=30		

The above table 4 states the distribution of subjects based on their Health effects of Alcohol, majority 11 (36.7%) of the subjects have complaints of vomiting, ten (33.3%) of the subjects have complaints of abdominal pain, four (13.3%) of the subjects have jaundice and five (16.7%) of the subjects have no health effects due to alcohol consumption.

Table 5: Associated Life Style Diseases.

Life style diseases	Frequency(n)	Percentage%
Diabetes	7	23.3
Hypertension	7	23.3
CVD	0	0
Stroke/neurological diseases	0	0
Others	0	0
No Life style diseases	16	53.4
N=30		

The above table 5 describes the distribution of subjects based on their Life style diseases, majority sixteen (53.4%) of the subjects said that they does not have any lifestyle diseases like diabetes, hypertension and CVD, seven (23.3%) of the subjects have diabetes, and seven (23.3%) of the subjects hypertension.

Table 6: Distribution of the Subjects Based on AUDIT Score

Audit score	Frequency(n)	Percentage%
ZONE I- AUDIT score (0 – 7)	1	3.3

ZONE II- AUDIT score (8 –15)	4	13.3
ZONE III- AUDIT score (16 – 19)	8	26.7
ZONE IV- AUDIT score (≥ 20)	17	56.7
N=30		

The Table 6 states the distribution of subjects based on their AUDIT score. Majority 17 (56.7%) of the subjects are above and equal to AUDIT score of 20, eight (26.3%) of the subjects are between the AUDIT score of 16 to 19, four (13.3%) of the subjects are between the AUDIT score of 8 to 15, and only one (3.3%) is between the AUDIT score of 0 to 7 (Fig. 1).

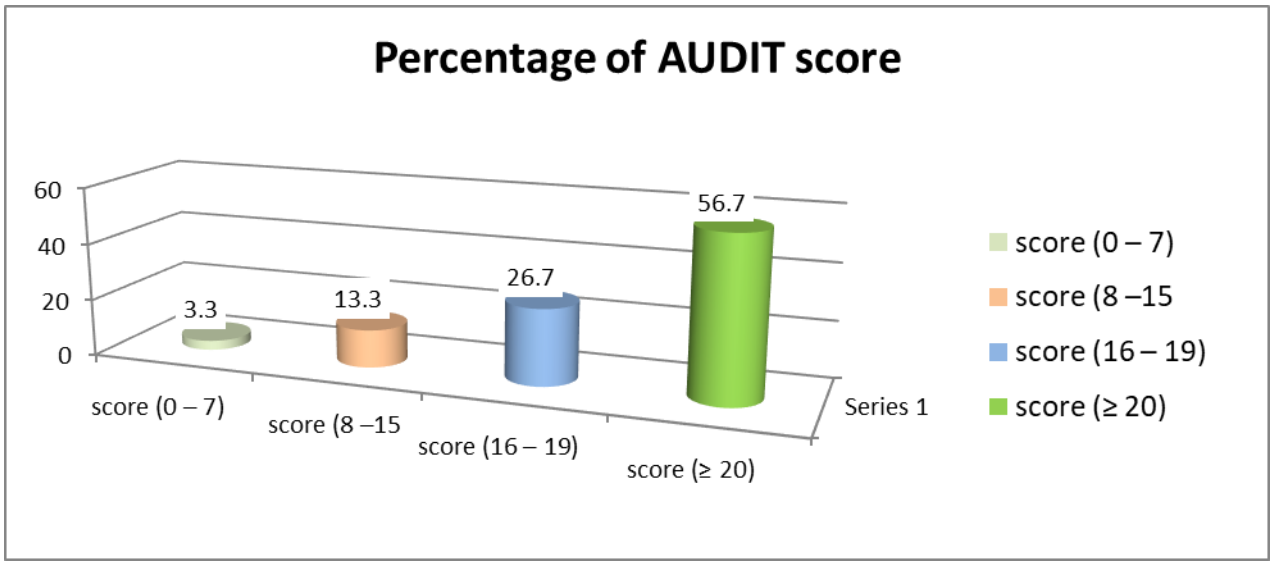

Fig. 1. Distribution of the subjects based on their AUDI.

5. Discussion

In this study detail of pattern of drinking, comorbidities and level of dependence was studied by using WHO developed tool-AUDIT among male patients residing at selected De-addiction centres, Puducherry. The result of the present study revealed that the mean AUDIT score of all the subjects revealed that score of (18.7), which is considered to be high risk of drinking.

The present study was supported by the study conducted by Ghosh S, et al. [12] to identify patterns of alcohol intake among male adults at a slum in Kolkata, India. The results revealed that 65.8% (150/228) were current consumers of alcohol; 14% were alcohol dependents; 8% were hazardous or harmful consumers, and 78% were non-hazardous non harmful consumers [12].

In the study done by Ganesh Kumar et.al [13] to assess the prevalence and pattern of alcohol consumption in a rural area of Tamil Nadu, India. Overall, the prevalence of alcohol use was found to be 9.4%. Prevalence was more among males (16.8%) as compared to that among females (1.3%). Mean age at initiation was 25.3 +9.0 years [13].

The present study was supported by the WHO Fact sheet (2011) stated that the harmful use of alcohol results in 2.5 million deaths each year. 20,000 young people between the age of 15 and 29 die from alcohol-related causes, resulting in 9% of all deaths in that age group [14].

In the study done by Raekha Prasad [15] contributed an article on alcohol use on the rise in India. Sales of alcohol have seen a growth rate of 8% in the past 3 years. Indians are still among the world's lowest consumers of alcohol—government statistics show only 21% of adult men and around 2% of women drink. But up to a fifth of this group—about 14 million people—are dependent drinkers requiring "help" [15].

In the study done by Arvind Pandey et al., [16] to assess a correlation study on alcohol use and its association with STI among adult men in India The result revealed that over 26% adult men found to have been using alcohol in the study population who consumed alcohol and had higher prevalence of STI (3.6%; 95% CI; 2.9 – 5.1) than those who did not consume alcohol (2.1%; 95% CI; 1.5 – 2.6 [16].

6. Conclusion

From the study conducted, it was observed that there was higher in the age of starting alcohol consumption between 18 to 25 years, among the adults in Puducherry. There is need to implement more strict laws. The policy makers must revise the strategies to reduce the patterns and prevalence. Audit was found to be very useful tool for screening of Alcoholics. De-addiction programmes, stress relief in the form of medication, yoga etc. should be made available to urban areas as a direction and recreational therapy.

7. Recommendations

- The present study can be conducted as as longitudinal and follow-up research of community based nursing intervention strategies quality of life among alcoholics in the rural communities.
- Establishment of rehabilitation centres within the community area for the better access for the alcoholics is recommended
- The level of alcohol dependence and quality of life can be assessed at periodic time intervals in the follow-up study

8. Conflict of Interest

The authors declare that they have no conflict of interest related to the publication of this article.

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