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A CROSS-SECTIONAL STUDY ON ALCOHOL USE AND ITS DETERMINANTS AMONG ADULT MALES IN SLUMS OF AGARTALA.

Community Medicine

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ABSTRACT

Background: Alcohol-abuse is a major public-health problem and due to poor socioeconomic status, slum-dwellers are often the worst victims of alcohol abuse.

Objective: 1. To assess the prevalence of Alcohol use among adult males in slums of Agartala. 2. To study the pattern of alcohol use among them. 3. To study the factors associated with alcohol use.

Methodology: This was a Cross-sectional study conducted during February-March 2016 among 220 adult males residing in the slums of Agartala.

Results: The prevalence of alcohol use among the study population was 63% and majority of them were consumers of Country liquor. Religion (p value-0.01), Caste (p value-0.00), Socioeconomic class (p value-0.03) and Marital status (p value-0.02) were significantly associated with alcohol use.

Conclusion: Frequent IEC activities must be conducted in the slums to increase awareness regarding harmful effects of alcohol use to reduce the high prevalence of alcohol use in the area.

KEYWORDS

Alcohol use, urban slums, Agartala.

Alcohol is a psychoactive substance with dependence-producing properties that has been widely used in many cultures for centuries. A broad range of alcohol consumption patterns, from occasional hazardous drinking to daily heavy drinking, creates significant public health problems worldwide. According to WHO, globally, 3.3 million deaths every year result from harmful use of alcohol, this represent 5.9 % of all deaths. It is a causal factor in more than 200 disease and injury conditions. Overall 5.1 % of the global burden of disease and injury is attributable to alcohol, as measured in disability- adjusted life years. [1]

Alcohol-abuse is a major concern in India due to increased production, easy availability and changing values of society. Again, growing urbanization is leading to the growth of slums in the country[2]; and with poor socioeconomic status the slum-dwellers often remain the worst victims of alcohol-use. However, there is paucity of information regarding the pattern of alcohol use and sociodemographic aspects of alcohol-uses among urban slum-dwellers in the North-eastern region of India. Hence the present study has been conducted in the slums of Agartala to assess the prevalence of Alcohol use, pattern of alcohol use, factors associated with alcohol consumption among the adult males residing in the area.

METHODOLOGY:

This Cross-sectional study was conducted during February-March 2016 among the male residents of the slums in Agartala. Considering the prevalence of alcohol use among adult males in urban slum area to be 65.80% (P)[3], with a relative precision (L) of 10% of prevalence, and the level of significance as 5%, the minimum required sample size was calculated to be 200. However, considering 10% nonresponse rate the sample size was rounded to 220 adult males.

A Multistage simple random sampling procedure was adopted and in the 1st stage four slums were selected by simple random sampling, selecting one slum from each of the four zones of Agartala Municipal Corporation. In the second stage 55 male respondents were randomly selected from each slum to give a sample of 220 adult males. A Predesigned and pretested interview schedule was used for data collection. Modified Kuppuswamy Scale (2016) was used to assess the socioeconomic status of the study population. The study included Adult Males ($\geq$18 years) who had given consent to participate in the study and excluded those persons who were physically and mentally unfit to give valid consent at the time of interview. Data analysis was done using Epi info version 7 and chi square test and Fisher's exact test were used for statistical analysis. P value of <0.05 was considered statistically significant. The study was approved by the institutional ethics committee of Agartala Govt. Medical College.

RESULTS:

The study was conducted among 220 male respondents from slums of Agartala with majority of the respondents belonging to 36-45 years age group (28.63%), being Hindu by religion (99%), belonging to Scheduled Caste (54.5%) and upper lower socioeconomic class (75.90%).
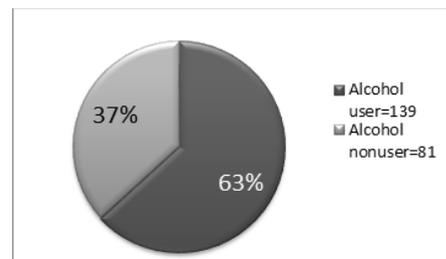

Fig 1: Pie Chart showing the prevalence of alcohol use
The present study revealed that the prevalence of alcohol use among the adult males in the study area was 63%.

Table 2: Drinking Pattern among the study respondents

	Mean	Standard Deviation
Age at initiation of drinking	**22.99 years**	**6.75**
Duration of current pattern	**12.31 years**	**9.25**
	Frequency (N=139)	**Percentage (%)**
Type of alcohol used	**Country liquor** 67	48.20
	Whisky 40	28.77
	Rum 4	2.87
	Beer 1	0.71
	Country liquor and whisky 26	18.70
Frequency of alcohol consumption	**Monthly or less** 29	20.86
	2-4 times a month 59	42.44
	2-3 times a week 23	16.54
	>=4 week 7	5.03
	Daily 21	15.10
Drinks usually taken	**1 or 2** 19	13.66
	3 or 4 80	57.55
	5 or 6 25	17.98
	7, 8 or 9 8	5.75
	10 or more 5	3.59

Most common time of drinking	Morning	3	2.15
	Noon	1	0.71
	Evening	13	9.35
	Night	94	67.62
	Anytime	28	20.14
Most common place of drinking	Home (own/friends)	75	53.95
	Work places	30	21.58
	Public places	5	3.5
	Liquor shops	14	10.37
	Multiple places	14	10.37

Table 2 shows that the mean age of initiation of drinking was 22.99+6.75 years with a mean duration of current pattern of drinking being 12.31+9.25 years. Regarding the type of alcohol consumed, majority of the respondents were consumers of Country liquor (48.20%) followed by Whisky (28.77%). Majority of the respondents consumed alcohol 2 to 4 times a month (42.44%) and 3 to 4 drinks at a time (57.55%). The most common time of drinking was found to be at night (67.72%) and they used to consume alcohol mostly in their own houses or friends' house (53.95%).
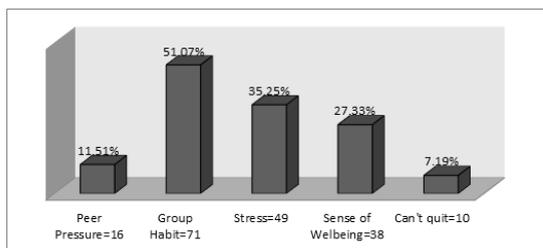

Fig 2:- Bar diagram showing Reasons for alcohol consumption
Fig 10 reveals that 51.07% of the alcohol users in the study area were consuming alcohol due to Group Habit followed by 35.25% users who were consuming it to relieve stress.

Table 2: Factors affecting alcohol use

		Alcohol Use		P value
		Yes (%)	No (%)	
Age group (In years)	≤25	16 (72.7%)	6 (27.3%)	0.25
	26-35	41 (69.5%)	18 (30.5%)	
	36-45	37 (58.7%)	26 (41.3%)	
	46-55	31 (66.0%)	16 (34.0%)	
	>55	14 (48.3%)	15 (51.7%)	
Religion	Hindu	132 (65.7%)	69 (34.3%)	0.01
	Muslim	7 (36.8%)	12 (63.2%)	
Community	General	34 (53.1%)	30 (46.9%)	0.00
	SC	89 (74.2%)	31 (25.8%)	
	OBC	16 (44.4%)	20 (55.6%)	
Socio-economic Class	Upper & upper middle	3 (33.3%)	6(66.7%)	0.03*
	Lower middle	22 (52.4%)	20 (47.6%)	
	Upper lower and lower	114 (67.5%)	55 (32.5%)	
Marital Status	Married	130 (65.7%)	68 (34.3%)	0.02
	Unmarried	(40.9%)	13(59.1%)	

*P value using Fisher's exact test
Table 5 shows that religion had significant association with alcohol consumption (p value–0.01). Similarly, alcohol use in the adult males of the Scheduled Caste (SC) was found to be more prevalent as compared to the Other Castes and Caste was significantly associated with alcohol use (p value–0.00). Again, 67.5% of adult males of lower and upper lower socioeconomic class were found to be alcohol consumers and lower socioeconomic class was significant affecting the alcohol consumption (P value-0.03). Married men were found to have a higher rate of alcohol consumption (65.7%) as compared to unmarried men (40.9%) and it was also statistically significant (p value–0.02).

DISCUSSION:
The present study revealed that the prevalence of alcohol use among the adult males was 63%. This finding is similar to a study conducted in Kolkata[3] among adult males of slums which reported a prevalence of alcohol consumption to be 65.8%. Whereas, a study conducted in

Southern India[4] reported the prevalence of alcohol consumption to be 34.8%. Thus the present study revealed a higher burden of alcohol consumption among the adult males residing in slums in the area. Regarding the type of alcohol use, a study conducted in Tamil Nadu[5] found that the prevalence of Beer consumption was maximum (36%); whereas, in a study conducted in rural Pune[6] majority of the participants were habituated to Country liquor as in the present study. This may be due to the fact of easy availability and comparative cheap price of the product in the study area.

The Mean age of initiation of drinking alcohol was 20.8+5.9 years in Kolkata[3], 25.5 years in Southern India[4] while 22.99+6.75 years in the present study; thus being consistent with other parts of the country. The most common time and place of drinking was seen to be same in the present study as it was in the study conducted in Kolkata[3].

The present study showed that religion, caste, Socioeconomic class and Marital status were found to be significantly associated with alcohol use. The study showed that the alcohol use among the married males were more than the unmarried. This may be due to the higher degree of pressure and stress due to the financial and household burden faced by the married men. However, in Tamil Nadu[7], the alcohol use in both the married and the unmarried men were almost equal. A study conducted by Susan E[8] reported that, among individuals with lower SES, members of further marginalized communities, experience greater alcohol-related consequences as shown in the present study.

Thus, the present study revealed a high burden of alcohol use among the male slum dwellers. Religion, Caste, Socioeconomic class and Marital status were found to be significantly associated with alcohol use. Hence, the intervention programs should include preventive strategies and screening programs targeting different patterns of drinkers and treatment intervention for alcohol-dependents. Frequent IEC activities must be conducted in the slums to increase awareness regarding harmful effects of alcohol use to reduce the high prevalence of alcohol use in the area.

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