ORIGINAL ARTICLE

THE PREVALENCE OF HAZARDOUS DRINKING & ITS CORRELATES IN A COMMUNITY IN GYALSHING, WEST SIKKIM, INDIA

Thinley Wongyal[1], Satish Rasaily[2], P. Sankara Sarma[3]

[1]Chief Medical Officer, Gyalshing District Hospital, West Sikkim
[2]Singtam district Hospital, East Sikkim
[3]Associate Professor, Achuta Menon Centre for Health Science Studies, SCTIMST, Thiruvananthapuram, Kerala, India

ABSTRACT

Background : This study aimed to describe the prevalence and correlates including pattern and practices of hazardous drinking in a male population in a community in Sikkim, India.

Methodology : 400 subjects were randomly selected from the electoral list of 4127 male of one assembly constitution in West Sikkim. The main interview included 10 items Alcohol Use Disorder Identification Test questionnaire (AUDIT) as an indicator for hazardous drinking besides the interview schedule on socioeconomic, demographic characteristics and on practices of drinking.

Result : The prevalence of hazardous drinking defined with AUDIT score of 8 or more than 8 was 38.65%. Hazardous drinking was significantly associated with age, ethnicity, occupation and type of house.

Conclusion : The prevalence of hazardous drinking is high among the male population, more in the productive age group and more in the tribal population. Awareness generation and intervention programmes should be initiated immediately at the community level to check the morbidity and mortality associated with hazardous drinking.

Keywords : alcohol, hazardous drinking, AUDIT

INTRODUCTION :

Hazardous drinking implies to that level of alcohol consumption which could be a risk for an individual or prove harmful to their health in the future. This concept of hazardous drinking is important because it describes a population with early alcohol related problems[1].

Studies in India have shown a high prevalence for alcohol related disability in recent two decades and alcohol related disease and disability exceeds that of tobacco because acute consequences of alcohol use lead to death and disability in the younger years of life[2]. Alcohol's contribution to disability outstrips both malnutrition and occupational hazards and it also imposes considerable costs to societies in terms of health, medical expenditures, and social services and in reduced productivity affecting mostly the economy of those from the poorer section. Alcohol related death and disability far outstrips any possible protective effect of alcohol consumption. In 1979, the 32nd World Health Assembly declared in resolution, WHAS - 32.40, that "problems related to alcohol and particularly to its excessive consumption rank

Corresponding Author :
Satish Rasaily
Singtam district Hospital, East Sikkim

among the world's major public health problems and constitute serious hazards for human health, welfare and life.[3]

In the year 1990 alcohol contributed to 773,600 deaths, 19.3 million years of life lost and 47.7 million disability adjusted life years.[4]

Alcohol dependence syndrome is estimated to affect 120 million people.[5] Excessive alcohol drinking over a long period of time leads to serious degenerative disease of the liver and oral and esophageal cancers.6 Alcohol is also associated with psychoses and other mental health problems (besides alcohol dependence), road accidents, and a range of social problems including crime, violence (particularly against women and children) and marital breakdown.[7, 8]

Moderate alcohol use up to two drinks per day for men and one drink per day for women and older people is not harmful for most adults. Although some people are able to recover from alcoholism without help, the majority of alcoholics need assistance. With treatment and support, many individuals are able to stop drinking and rebuild their lives.

Alcohol is served in every household in Sikkim barring few Hindu families. In urban and town areas most of the celebration starts with alcohol whether in the rich or poor section of the community and the most commonly used alcoholic drinks in these occasions are Indian / Sikkim manufactured foreign liquor, beer, and wine.

Alcohol consumption is common among the tribal population especially of rural areas, causing more damage to their health & economic status. The high alcohol use seen in the tribal population is because they are socio-culturally a different population compared to others. No study on hazardous drinking has been done till date in Sikkim, and as there are no available data on alcohol related adverse effects on health, this study may at least help to find out what percentage of the population will have alcohol related problems.

MATERIALS AND METHODS :

The design of the study was a community based Cross Sectional Survey undertaken in Gyalshing constituency, West Sikkim between January to March, 2003.

All males 18 years or older, who were mentally sound were considered for the study. The subjects who were found dumb & deaf and had to rely on their relatives for the interviews were excluded. The list of 4127 male population obtained from the electoral roll were assigned serial number starting from number 1 to 4127 and after assigning the number, the samples were selected by simple random sampling technique with the help of computer generated random numbers. Out of 400 selected, 388 subjects were interviewed with pretested semi-structured interview schedule for socio-demographic variables and 10 items Alcohol Use Disorder Identification Test screening questionnaire (AUDIT), developed by the World Health Organization for detection of hazardous drinking by six trained personnel.[9] The possible score ranges from 0 to 40, 0 being the lowest possible score (non alcohol user) and 40 is the maximum score an alcoholic can score. A score of 8 is considered a sensitive cutoff for identifying subjects with possible problems in a general population. The third part of the interview schedule looks into the practices of drinking. Data analysis was done using SPSS software version 11.0.

RESULTS :

Of the 400 subjects selected initially, 386 completed the study giving a response of 97%. The mean age of the total sample was 38.57 years and the family on an average had five members. The mean monthly household income was Rs. 3776.00 and the mean monthly individual income was Rs. 1735.00. The mean age of alcohol users was 39.85 and that of hazardous drinkers was 40.36.

Majority were Hindu (60.8%) followed by Buddhist (25%). Tribal population constitutes 32.7% and

most of the subjects were involved in agricultural work (42%). Only 12.1% had education above Higher Secondary while 28.6% were illiterate. Married constitute 67% and 61.9% were head of the household. Significant proportion (62.4%) belong to nuclear family while 35.3%to joint family. It was found that the prevalence of alcohol users was 49.74% (N=193) in the total sample and that of hazardous drinkers was 38.65% (N=150). The mean audit score of alcohol users was 5.78 and the mean for hazardous drinkers was 13.50.

Table : 1 Prevalence of Alcohol users and Hazardous drinking

Profile of alcohol use (N = 388) and AUDIT score	
Drinking status	**Number (%)**
Alcohol users - any form	193 (49.74) {95% CI = 44, 54}
Non alcohol users	195 (50.25)
Mean Audit score	5.78
Hazardous status (N = 388) with AUDIT score	
Drinking status	**Number (%)**
Hazardous drinking	150 (38.65) {95% CI = 33, 42}
Non-haz. & Non alcohol users	238 (61.34)
Mean Audit score	13.50

There were multiple responses for the patterns of alcohol consumption and as all the responses are recorded, the proportion doesn't add to 100. In the Hazardous category, 78% responses were for those who were drinking atleast two to three times in a week, 99% were drinking atleast 4 or more than 4 drinks on a typical drinking day and 65% were drinking four or more drinks at least once in a week. Among non-hazardous the maximum responses of 58% were in favour of those who were drinking at least four drinks on a typical drinking day. 8% needed an early drink suggesting that they are showing sign of alcohol dependence.

Table : 2 Patterns of alcohol consumption as per AUDIT

Sl. No.	Selected items from AUDIT	% of haz. drinkers (N = 150)	% of non-haz. drinkers (N = 41)
1.	Drinks at least 2 – 3 times a week	78% (117)	10% (4)
2.	Drinks at least or more than 4 drinks on typical drinking day	99% (149)	58% (24)
3.	Drinks 4 or more drinks on one occasion at least once a week	65% (98)	4% (2)
4.	Not able to stop drinking once started at least once a week	7 (4.6%)	0
5	Failed to do what was normally expected because of drinking at least once a week.	2 (1.3%)	0
6	Needed an early morning drink at least once a week	8% (12)	0

Sl. No.	Selected items from AUDIT	% of haz. drinkers (N = 150)	% of non-haz. drinkers (N = 41)
7.	Had a feeling of remorse or guilt after drinking at least once a week.	7 (4.6%)	0
8.	Unable to remember what happened on a drinking occasion during the past year	24% (36)	2% (1)
9.	Been injured/injured someone else during the past year	14% (21)	0
10.	Family or friend or relative concerned suggested to cut down drinking in past year	61% (92)	20% (8)

Most common alcohol beverage was Chhang (Local alcoholic drink prepared from millet) consumed by 61% followed by Indian Made Foreign Liquor / Sikkim Made Foreign Liquor and beer (34%). Peer Pressure (61%) and family tension (33%) were the most cited reason for initiating alcohol. Two third of subjects have thought of quitting alcohol in the past while one third haven't given any thought over quitting alcohol.

Hazardous drinking was highest in the age group of 25 to 54 years after which there is an indication of decline in the proportion. Hazardous drinking was common among scheduled tribes (52%), schedule caste (37%) followed by Hindu (33%) and others (31%) respectively.

The proportion of hazardous drinkers is high in Others, Semi skilled workers (mason, plumber, painter, carpenter, iron smith etc.) and office goers with 54%, 53% and 51% respectively. Household heads constitute 43% of the hazardous drinkers. Among the married subjects, 44% are hazardous drinkers and 29% of hazardous drinkers are single. 67% of the subjects having extended family are hazardous drinkers while nuclear and joint family constitutes 39% and 36% respectively.

Multiple Logistic Regressions :

The variables, which were found significant in the chi-square analysis, were analyzed in the multiple logistic regressions with 95% confidence interval. The reference group in the age was 18 to 24 years and it was found that the odds of hazardous drinking were higher if the subject belongs to other age groups. It has been found in this study that the odds decreases as the age increases though there is no significant association in those with the age of 55 years and above. Those belonging to scheduled tribe and other backward classes have the odds of 6 times compared to those belonging to others category. The odds for the schedule caste are 2.850.

For measuring socioeconomic status, the variables considered for this study were monthly household income and per capita income. The type of house was taken as a proxy measure to assess the socioeconomic status and it has been found that those subjects having semi-pucca and pucca houses are three times at risk compared to those subjects having kuttcha house.

In the occupation, the odds were highest in those belonging to "Others" (drivers, students, retired government servants, community representatives, and private service holders). The odds are 6 – 7 times compared to unemployed if the subjects are agriculturist, semi-skilled workers or office goers (gazetted and non-gazetted officers).

DISCUSSION :

The prevalence of 49.74% of alcohol users is much higher than the prevalence projected in NFHS – 2.10 The simple reason can be that the NFHS data is old and also the finding of this study is from one assembly constitution which doesn't necessary

reflect the picture of the State overall. Even though there is no baseline data available, the prevalence of hazardous drinking of 38.65% is comparatively high and there is need to conduct this study in a larger context to cover the whole state.

How much of the hazardous drinking has resulted in the morbidity and mortality associated with drinking is one important aspect to be looked into because there are no available data in the health institutions that gives the exact figures. The high prevalence can also be attributable to "Wet Environments" in Sikkim which includes social, residential and market surroundings in which drinking is prevalent and alcohol is cheap and easily accessed. In such an environment people are more likely to engage in drinking than their peers without similar exposures. This is more applicable to those in and around urban and town areas. In contrary, the reason for consumption of alcohol in the rural area is different. As most of the populations in the rural community are involved with farming, they consume alcoholic drink to relax and to get a good sleep after the days tiring work. Overall one of the contributing factors is also the cold climate and people indulge in drinking to keep themselves warm.

The high proportion of hazardous drinkers in the productive age group of 25 to 54 years can be related to their income because the proportion for hazardous drinking is high among those who have some kind of earning associated with their profession. But this study didn't find any significant association between individual income per month and hazardous drinking.

Though the household monthly income or per capita monthly income didn't show any significant association, the type of house, a proxy measurement of socioeconomic status has been found to have significant association. This fact needs to be explored further and in detail.

Hazardous drinking was also significantly associated with the married and household heads. The head of household has some decision making power and as married people are looked upon as a responsible person consumption of alcoholic drinks was seen more in these population and there are other socio-cultural factors which definitely contributes to some extent.

LIMITATIONS :

The study design used cannot ascertain the causal and temporal relationship except the association between the correlates and the dependent variable. Beside that there is maximum chance of under reporting due to the stigma associated with drinking and recall bias related with the number of drinks consumed in the last one year.

CONCLUSION :

The study found Hazardous Drinking prevalence of 38.65% which reflects high volume drinking pattern among hill population making them vulnerable to health related and other psychosocial problems. Since alcohol industries contribute significant revenue in the states, prohibition is not possible. Besides that changing people's culture and tradition where use of alcohol is necessary makes prohibition impossible. As such, the state should provide a long term solution by creating policies which will lead to reduction of alcohol use by the population at large with combined strategies of community initiatives, strong political will, strict enforcement of laws, education of younger population and greater awareness amongst health workers.

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