

## Prevalence of Alcohol Consumption and Factors Associated with the Alcohol Use among the Youth of Suryabinayak Municipality, Bhaktapur

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Received date: Feb 07, 2017; Accepted date: Feb 17, 2017; Published date: Feb 27, 2017

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### Abstract

Alcohol is the most commonly used and abused drug among youth. Also, early initiation of alcohol use (before 14 years of age) is a predictor of impaired health status. A cross-sectional descriptive study using a modified standard questionnaire was conducted among 250 youth of Suryabinayak Municipality, Bhaktapur. Data was objectively analyzed in SPSS full version 23. Overall, 56% of youth reported current drinking, with male (37.6%) outnumbering female (18.4%). 32.8% of youth were lifetime abstainers while 73.6% of current drinkers were found to drink in the past 30 days. The mean age of initiating drinking alcohol was found to be 17 years. 61.9% were introduced into the alcohol by their friends. Almost half of the respondents (44.7%) drink beer. Female usually drink jaad/chyang, beer and wine whereas male usually drink jaad/chyang, beer, distillery products and mix. Among those who drink in past 30 days, 49.5% reported binge drinking (male 47.6%, female 1.9%). Association of alcohol consumption was found to be highly significant with age group, gender, ethnicity, family history of alcohol use and friend's history ( $p \leq 0.0001$  at CI 95%). Effective intervention strategies addressing the underage drinking need a great focus from community level to center level to prevent underage alcohol consumption.

**Keywords:** Alcohol consumption; Current drinkers; Suryabinayak municipality; Psychoactive

### Introduction

Alcohol is a psychoactive substance with dependence-producing properties that has been widely used in many cultures for centuries [1]. The use of alcoholic beverages has been an integral part of many cultures for thousands of years. Some people in Nepal generally believe that alcohol is a medicine for cold, pain, tension, and tiredness; some believe that the celebration, parties and festivals are success if alcohol is served. Being a multicultural and multi-ethnic country, Nepal is largely seen as an ambivalent society regarding alcohol use. But with the passage of time, traditional sanctions and caste-bound restraints have disappeared. The use of alcohol and drugs affects all strata of society [2]. The harmful use of alcohol causes a large disease, social and economic burden in societies [3]. The harmful use of alcohol ranks among the top five risk factors for disease, disability and death throughout the world [1]. Youth who start drinking before age 15 years are six times more likely to develop alcohol dependence or abuse later in life than those who begin drinking at or after age 21 years [4]. Alcohol use has been in Nepal since time immemorial. Social tolerance to alcohol use is quite high and so far alcohol has not been taken seriously either by the Government or by any social organization. Production, sale, and consumption of alcohol are ever on the increase and it could be taken as the number one problem drug in the country [5]. The health problem for which alcohol is responsible is only part of the total social damage which includes family disorganization, crime and loss of productivity; smoking and excessive alcohol drinking affect millions of people worldwide [6].

### Objective

To study the prevalence of alcohol consumption and determine the factors associated with the initiation of alcohol use among the youth of Suryabinayak Municipality, Bhaktapur.

### Materials and Methods

A cross sectional descriptive study was conducted on a total of 250 youth of particular households, ages between 15-24 years in Suryabinayak Municipality, Bhaktapur. Respondents were permanent resident of the Suryabinayak Municipality. Only the people willing to participate and who were present during the study were included in the study. Those youth who refused to participate and were absent during the study were not included in the study. Only one respondent was taken from each household. Households were selected using systematic random sampling [7-9].

Quantitative data was collected from primary sources. Modified structured questionnaire were used to collect the data using semi structured interview method.

### Ethics

Ethical approval was obtained from National Open College as well as from Nepal Health Research Council. Before conducting the research, permission was taken from chairman of the municipality. Permission was also taken from each respondent before involving them in the study. Thorough introduction about the interviewer and the study was explained to the respondents. Purpose of the study was also explained before interviewing. Informed consent was taken from each respondent. For those below 18 years, consent from their parents was taken. Confidentiality of the respondents was maintained and the information they provided were used only for study purpose.

## Results

Of the 250 samples, 137 (54.8%) were male and 113 (45.2%) were female. The majorities were 19-24 years of age (69.2%). 30.8% were of 15-18 years of age.

Majority of the respondents were unmarried (86.8%), followed by married (12.4%), separated (0.4%) and divorced (0.4%). Out of the total respondents 86.8% were Hindu, 10.4% were Buddhist and 2.8% were Christian. Janajati (Newar, Tamang, Magar, Rai and Limbu) were the major ethnic group with 56.8% of the total sample population followed by Chhetri with 36.1%, Brahmin with 10% and Dalit with 1.6%.

Respondents were also asked about their main occupation. 76.4% of them were student, 10% had job, and 9.2%, 0.8%, 0.2% and 1.2% were engaged in business, agriculture, foreign employment and other activities respectively. Only 2% of them were found to be unemployed [10-14].

From the study, it was found that monthly pocket money of 91.6% of the respondents ranges from Rs. 500 to Rs. 5000. Respondents were also asked about their smoking and drug use habit. 76% and 96% of the respondents were found to be non-smoker and non-drug user respectively.

From the survey, it was found that in 51.6% there was positive family history of alcohol use and in 48.4% there was no family history of alcohol use. 72.8% of the respondent's close friends had drinking habit and 27.2% had no drinking habit (Tables 1-3).

## Pattern and Frequency of Alcohol Consumption

### Lifetime abstainer

Lifetime Abstainers	Male	Female	Total
Yes	28 (11.2%)	54 (21.6%)	82 (32.8%)
No	109 (43.6%)	59 (23.6%)	168 (67.2%)
Total	137 (54.8%)	113 (45.2%)	250 (100.0%)

Table 1: Lifetime abstainers.

Among the survey population, 32.8% (male 11.2% and female 21.6%) were lifetime abstainers, while 67.2% (male 43.6% and female 23.6%) had taken alcoholic drink before, other than the few sips.

### Age of initiating drinking alcohol

Age group (years)	Male	Female	Both sexes
10-18	45.8%	23.8%	69.6%
19-24	19.0%	11.3%	30.4%
15-24	64.9%	35.1%	100.0%

Table 2: Age of initiating drinking alcohol.

In Nepal, the legal drinking age is 18 year. The survey showed that majority i.e., 69.6% (male 45.8% and female 23.8%) of the respondents

initiated drinking alcohol before the legal drinking age. The mean age of initiating drinking alcohol was found to be 17 year.

### Current drinkers

Current drinkers	Male n (%)	Female n (%)	Total n (%)
Yes	94 (37.6%)	46 (18.4%)	140 (56%)
No	43 (17.2%)	67 (26.8%)	110 (44%)
Total	137 (54.8%)	113 (45.2%)	250 (100.0%)

Table 3: Percentage of current drinkers.

Among the survey population, 140 respondents i.e., 56% (male 37.6% and female 18.4%) were found to be current drinkers (i.e., had consumed a drink containing alcohol in the past 12 months), while 44% of the respondents were not current drinkers.

Among those who drank in the past 12 months, 1.4% (male 14%, female 0%) drank daily. The survey showed that female who drank in the past 12 months mostly drank 1-3 times a year (25.7%) and male who drank in the past 12 months mostly drank once a month (23.6%). Results showed that majority of the respondents (38.6%) were found to consume alcohol 1-3 times a year. Among current drinkers, the overall proportion who had consumed alcohol in the past 30 days was almost third-fourth (73.6%), with the highest proportion (55%) in male [14-18].

Result showed that majority i.e., 44.7% (male 35.9%, female 8.7%) consumed beer, followed by jaad/chyang by 23.3% (male 14.6%, female 8.7%), mix by 19.4% (male 19.4%, female 0%), and wine by 7.8% (male 0%, female 7.8%) and distillery products by 4.9% (male 4.9%, female 0%) (Table 4).

In the study, 49.5% reported current drinking with binge drinking (i.e., drinking for women, 4 or more drinks and for men, 5 or more drinks during a single occasion). Among those who reported current drinking with binge drinking, 47.6% were male and only 1.9% were female. According to the age group, current drinking with binge drinking was higher for those between the aged 19-24 years old.

### Factors associated with alcohol consumption

Various factors that may be associated with alcohol consumption were tested using Chi-square test and the risk was estimated by estimating odd ratio. Table above shows that age group, gender, ethnicity, family history of alcohol use and friend's history of alcohol use were highly significantly with the initiation of alcohol consumption ( $p \leq 0.0001$  at CI 95%). Marital status ( $p=0.247$  at CI 95%) & religion ( $p=0.386$  at CI 95%) were not found to be associated with the initiation of alcohol consumption.

Youth of age group 15-18 years were 0.251 less likely to drink than 19-24 years old. Male were 3.56 more likely to drink than female. Brahmin and Chhetri were 0.35 less likely to drink than other ethnic group. Respondents having positive family and friend's history were 3.71 and 11.64 times more likely to drink than those who don't have respectively.

Co-variables	Have you ever taken alcoholic drink before, other than few sips?					
	Yes n (%)	No n (%)	Chi square value	P value	Odds ratio	95% Confidence interval
Age group						
15-18	35 (14%)	42 (16.8%)	23.87	<0.0001	0.251	0.14-0.44
19-24	133 (53.2%)	40 (16%)				
Gender						
Male	109 (43.6%)	28 (11.2%)	21.02	<0.0001	3.56	2.04-6.21
Female	59 (23.6%)	54 (21.6%)				
Marital status						
Married	18 (7.2%)	13 (5.2%)	1.34	0.247	-	-
Unmarried and others	150 (60%)	69 (27.6%)				
Religion						
Hindu	148 (59.2%)	69 (27.6%)	0.75	0.386	-	-
Non-Hindu	20 (8%)	13 (5.2%)				
Ethnicity						
Brahmin and Chhetri	56 (22.4%)	48 (19.2%)	14.41	<0.0001	0.35	0.21-0.61
Other ethnic groups	112 (44.8%)	34 (13.6%)				
Family history of alcohol use						
Yes	104 (41.6%)	25 (10%)	21.78	<0.0001	3.71	2.11-6.51
No	64 (25.6%)	57 (22.8%)				
Friends history of alcohol use						
Yes	149 (59.6%)	33 (13.2%)	65.31	<0.0001	11.64	6.08-22.31
No	19 (7.6%)	49 (19.6%)				

**Table 4:** Factors associated with the alcohol consumption.

Association between monthly pocket money and binge drinking was also tested using Chi-square test. The result showed that monthly pocket money is significantly associated with binge drinking ( $p=0.011$  at CI 95%).

Association between alcohol consumption and smoking and drug use was tested using Fisher's exact test. Result showed that association between alcohol consumption and smoking habit was found to be highly significant ( $p \leq 0.0001$ , OR=13.52 at CI 95%) whereas association between alcohol use and drug use was not found to be significant ( $p=0.173$  at CI 95%). Smokers are 13.52 times more likely to drink alcohol than the non-smokers.

## Discussion

Among the survey population, 32.8% (male 11.2% and female 21.6%) were lifetime abstainers and 67.2% reported having ever used of alcohol. Survey conducted by MoHP entitled "Adolescents and

Youth Survey 2011" revealed that nearly one in every five (18%) of adolescents and youth reported having ever used alcohol.

In the present study, 56% (male 37.6% and female 18.4%) were found to be current drinkers. In contrast to this study, result obtained from the study conducted on NCDs risk factors showed that about 12.6% of age 15–29 year old respondents were current drinkers. This can be because in the present majority of the respondents belongs to those ethnic groups where alcohol is used traditionally.

In the present study, the mean age of initiating drinking alcohol was found to be 17 year. Similar result was shown by the study on "Substance use among medical students in Kathmandu valley" by Khanal P. where mean age of first exposure was 17.94 years.

In the present study, majority of the respondents (38.6%) were found to drink 1-3 times a year. Opposite of this finding, another study on "Prevalence and Predictors of Alcohol Consumption among the Squatter of Kathmandu valley" showed that majority of the

respondents used to drink once or twice a week (35.12%). Same study found that most of the respondents (30.36%) drank mix drinks which were opposite to the finding of present study as well. In this study, most of the respondents (44.7%) drank beer. Study on "Alcohol and young people in Nepal" found out that 11 per cent reported drinking 'regularly' currently, 23 per cent 'frequently', 58 per cent 'occasionally', and 8 per cent 'not at all'.

Among those who drank in the past 30 days, 49.5% reported binge drinking with boys reporting more binge drinking than girls. Similar results were shown in the study "Binge Drinking and Associated Health Risk Behaviors among High School Students". In later study, among the total respondents, 28.8% reported current drinking with binge drinking, with boys practicing more binge drinking than girls.

Here in the study, those who binge drink were mostly of 19-24 years. Similar result was found by the study on "Drinking Practices and Other Health Related Behaviors among Adolescent of Sao Paulo City, Brazil" which showed that Episodic Heavy Drinkers (EHDs) tend to be older.

Significant association was observed between smoking and alcohol use while there was no association between drug use and alcohol use. Similar result was seen in the study entitled "Association between Alcohol Use and Smoking in Adolescent and Young Adult Twins: A Bivariate Genetic Analysis" which reported that adolescents and young adults who smoked were more likely to drink alcohol than non-smokers.

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