

Social Consequences of Alcohol Use among Urban Poor: A Cross-sectional Study in Kathmandu Valley

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ABSTRACT

Background: Nepal is not an exception to alcohol use; urban poor are more prone than the general population. The question of social consequences of alcohol use among urban poor remains largely unanswered in Nepal. Study explored the alcohol linked social consequences among the urban poor of Kathmandu Valley.

Methods: Taking 422 urban poor from four squatter settlements of Kathmandu Valley, a cross-sectional study was carried out. A series of univariate and bivariate analysis were performed in R version 3.1.2.

Results: Four out of 10 current drinkers (42.86%, 95% CI: 31.4-54.3) encountered various social consequences. The number one consequence hitting 23.19% drinkers was money loss. Male drinkers were 4.43 times (95% CI: 1.8-10.8) more likely to face social consequences than their female counterparts. Being male frequent drinker increased the odds of social consequence 3.80 times (95% CI: 1.3-11.0) than that of female frequent drinker.

Conclusions: A behaviour change communication campaign needs initiation; male populace and frequent drinkers being the target.

Keywords: Alcohol use; Kathmandu Valley; Nepal; Social consequences; Urban poor

INTRODUCTION

Every year the earth loses 3.3 million lives, attributable to alcohol.¹ The harmful effects of alcohol encompass health to social consequences: domestic violence, job loss, child abuse, and many more.^{1, 2} These consequences initiating with the financial loss demand the resources of the health system;³ scenario being catastrophic at low-income areas.⁴

Nepal stands fourth among the list of countries with the highest percentage of slum dwellers.⁵ A figure of 38.50% drinkers was unveiled in Sinamangal slum of Kathmandu Valley,⁶ twice that of a national sample (17.40%).⁷ Extensive body of research among the slum drinkers has revealed numerous social consequences.⁸⁻¹⁰ Nepal, nonetheless, has

insufficient evidences.

Socio-development perspective emphasizes the recognition of social consequences, as burden falls heaviest on the poor.¹¹ From this standpoint, information on alcohol originated social consequences is justifiable to design alcohol prevention programs for this at-risk population. Study, therefore, shed the light on alcohol related social consequences among the urban poor of Kathmandu Valley.

METHODS

A cross-sectional study was conducted in four squatter settlements of Kathmandu Valley (Shankamul, Ramhiti Improved, Manohara Bhaktapur, and Radhakrishna Chowk). Kathmandu

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Valley has 40 squatter settlements, providing home roughly to 12,726 people without legal right to land ownership.¹²

An initial sample of 384 was computed applying formula $n = Z^2pq/d^2$ [$p=50\%$ (conservative sample size), $d=5\%$ (allowable error) at 95% confidence level]. Adding 10% non-response rate, final sample size estimated was 422. We randomly selected four squatter settlements and purposively selected households, provided the unavailability of sampling frame. From each selected households, a single person aged 18 years or over was approached. For houses holding more than one eligible sample, we used folded piece of paper to select one by chance. Mentally challenged and severely ill persons were not a part of the study.

The study adopted and amended GENACIS (Gender, Alcohol and Culture: an International Study) questionnaire¹³ of the World Health Organization (WHO) as per study objectives. Principal investigator trained three female interviewers (health background) on interview techniques, sensitive questions dealing, and ethics principle. The trained interviewers face-to-face interviewed the chosen samples.

Reference period of the last 12 months preceding the survey was taken to identify the current drinkers.¹⁴ We considered different types of drink: Jad/Chhyang (local beer), Beer, Homemade raksi (spirit), Local raksi available at market, Distillery products (rum, vodka), Foreign made liquors (wine, brandy, gin, whiskey etc.), and Combination (more than one type of alcohol).¹⁵

Moving forward, we defined frequent drinkers as those drinking three or more times a week, irrespective of number of glasses. Those drinking five or more drinks in a single occasion were marked as heavy drinkers.¹⁶

Alcohol-related consequences were defined as the self-report of at least one consequence in the last year. We categorized social consequences as: loss of money, harmed family relation, get injured/ injured to somebody, harmed work/study, suffered from disease, harmed housework, harmed marriage, and harmed friendship.¹⁷ Assessment of

social consequences of the current drinkers was done by following the GENACIS questionnaire.¹³

Outcome variable in this study included social consequence of alcohol use. Drinking pattern (frequent drinker and gender of drinker) were the explanatory variables.

SPSS full version 19 was applied for data entry. We did double entry in SPSS and cross-checked the data for maintaining reliability. Data were then exported to R version 3.1.2 for required analysis. Univariate analysis was expressed as frequency and percentage. Bivariate analysis (Chi-square and Fisher's exact test) were done to detect association between social consequences and drinking patterns. Crude odds ratio (OR) and 95% confidence interval (CI) were used to detect an association.

An independent Ethical Review Board (ERB) of Nepal Health Research Council (NHRC) provided ethical approval for the study. Written consent was taken from the respondents.

RESULTS

A total of 422 samples comprised of 46.70% male (age 18 to 64, mean 38.53 ± 13.70) and 53.30% female (age 18 to 64, mean 37.82 ± 13.78). The greater part of the sample came from 25-44 years (male: 43.15%, female: 42.22%), dalit and disadvantaged janajati (male: 71.57%, female: 78.67%), hindu (male: 74.11%, female: 62.22%), secondary education holder (male: 82.23%, female: 84.89%), and unemployed (male: 73.10%, female: 56.44%).

We found 168 (39.81%, 95% CI: 32.4-47.2) current drinkers; of which 112 (66.70%, 95% CI: 58.0-75.4) were frequent drinkers. Male shared higher proportion of current, frequent and heavy drinkers.

Of 168 current drinkers, 72 (42.86%, 95% CI: 31.4-54.3) admitted facing social consequences. Male drinkers differed significantly than the female drinkers ($p=0.001$), when it came to social consequences. More male drinkers (50.00%, 95% CI: 37.8-62.2) met social consequences than the female drinkers (18.42%) did (Table 1).

Table 1. Social consequences of alcohol use by gender.

Social consequences	Male n (%)	Female n (%)	Total n (%)	95% CI (percentage)	p-value
Current drinkers with social consequences (n=168)					
Yes	65 (50.00)	7 (18.42)	72(42.86)	(31.4-54.3)	0.001*
No	65 (50.00)	31(81.58)	96(57.14)	(47.2-67.0)	
Types of social consequences reported by social consequence sufferer (n=72)					
Loss of money	29 (24.58)	3(15.00)	32(23.19)	(8.6-37.8)	0.514
Harmed family relation	26 (22.03)	5(25.00)	31(22.46)	(7.8-37.2)	0.996
Get injury/injured somebody	15 (12.71)	3(15.00)	18(13.04)	(0.0-28.6)	1.000
Harmed marriage	15 (12.71)	3(15.00)	18(13.04)	(0.0-28.6)	1.000
Physical health	13 (11.02)	1(5.00)	14(10.14)	(0.0-26.0)	0.671
Harmed housework	11 (9.32)	2(10.00)	13(9.42)	(0.0-25.3)	1.000
Harmed work/study	9 (7.63)	3(15.00)	12(8.70)	(0.0-24.6)	0.513

*significant at p <0.01

Six out of ten (59.72%, 95% CI: 45.1-74.4) social consequence sufferers experienced more than one consequence. All the female drinkers facing social consequences ran into more than one consequence, while it was slightly more than half (55.38%, 95% CI: 39.1-71.6) among the male drinkers. Nevertheless, gender of drinker appeared insignificant (p=0.059 for one consequence, p=0.059 for more than one consequence).

Most frequent consequences of the current drinkers accounted: loss of money (23.19%, 95% CI: 8.6-37.8) and harmed family relation (22.46%, 95% CI: 7.8-37.2). The pattern went alike among male consequence holders: loss of money (24.58%) and harmed family relation (22.03%). The picture, on the other hand, varied among female consequence sufferers with the leading consequence as harmed family relation (25.00%) (Table1).

Male drinkers were 4.43 times (95% CI: 1.8-10.8) more likely to bear social consequences compared to female drinkers. Likewise, male frequent drinkers carried 3.80 times (95% CI: 1.3-11.0) higher chances of social consequences than their female counterparts (Table 2).

Table 2. Drinking pattern and social consequences.

Drinking patterns	Crude OR (95% CI)	p-value
Frequent drinkers		
Female frequent drinker	1	
Male frequent drinker	3.80(1.3-11.0)	0.013
Gender of drinker		
Female drinker	1	
Male drinker	4.43(1.8-10.8)	0.001

DISCUSSION

We observed four in 10 current drinkers having at least one social consequence. Findings go parallel with other studies which found loss of wealth, intimate partner violence, diseases, and family problems among the alcohol users.⁸⁻¹⁰

More than one consequence was notable in male drinkers (55.38%), and universal in female drinkers (100.00%). Loss of money was the principal consequence for the duo: male and female drinkers. Urban poor of Kathmandu Valley are surviving under an absolute poverty threshold.¹² As this study found higher unemployment (male: 73.10%, female: 56.44%), this together with financial problem may further push the drinker into the vicious cycle of poverty. A study from urban Indian slum painted the picture of drinker reaching deeper into the debt.⁹

Running out of money has been stated to ruin neonatal health, with low birth weight;¹⁸ risk of poor physical, mental health, and violence too exists.¹⁹ Economic hurdle during childhood is also to some extent the pathway to late-life depression.²⁰ Not only juveniles, but also women are afflicted by low income, resulting into inadequate maternal health seeking behavior.²¹

Harmed family relation was the second most consequence, as reported by the respondents. Slum dwellers of Chandigarh, India also came across family problems (77.31%) due to drug dependence.¹⁰ Family troubles such as family conflict exerts pronounced effect on child's mental well-being, especially synergistic when blended with low socioeconomic status.²² Broken family relationship has also been indicated as an important driver of psychological problems among the women.²³ One of the study in slum depicted psychosocial problems destroying the family relationships,²⁴ thus showing reciprocal relationship between family relation and the psychological problems.

Some of the current drinkers reported being injured or having injured somebody. The violence has heavy toll on children. The scenario of the developing world: children getting into the parental violence mostly have compromised nutritional status and high mortality.²⁵ Growing up with bitter experience

such as childhood abuse, domestic violence, being a victim of violence, all contributes to intimate partner violence.²⁶

Harmed marriage was revealed by some drinkers. Children seeing their parents divorced have greater tendency towards mental health problems; the event is distinct, when socio-economic status is low.²⁷

We came across visible gender difference in social consequences. The earlier study depicted similar result.² One possible explanation is that heavy alcohol consumption by male is socially welcomed in Nepal, with lower socio-economy driving to some extent heavy drinking.²⁸ None of the female drinkers in the current study acknowledged heavy drinking.

The present study came up with significant gender difference in frequent drinkers and social consequences. This is in line with earlier study.⁸ More to the point, studies have illustrated an association of frequent drinking with social consequence like intimate partner violence.^{8, 29}

Therefore, addressing the problem of alcohol use is urgently required in slum population of Kathmandu Valley. Male focused harm reduction activities should be emphasized. As this study reported high prevalence of drinking and social consequences of drinking, future studies confining to this vulnerable population can explore the prevalence of sexual violence among them. Studies with both quantitative and qualitative approach are valuable.

This study is the first to explore social consequences of alcohol use among the urban poor. Our study has some strengths and limitations. We designed tool following the GENACIS questionnaire¹³ of the WHO. Household selection was purposive, despite random selection of squatter settlements. A cross-sectional design and assessing likelihood of social consequences of alcohol use; proof of temporality cannot be justified. Alcohol consumption, chiefly in women, is stigmatized in Nepal, so the study might have suffered conscious underreporting of alcohol use by the female respondents.

CONCLUSIONS

Two-fifth of the current drinkers faced at least one social consequence. Male carried more possibility of social consequences than their female counterparts, be it current or frequent drinkers. Socio-culturally sensitive and specific alcohol prevention and control programs, targeting male population need great initiation among the urban poor of Kathmandu Valley.

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