Is Spiritual Background Related to Indulgence into Alcohol Use: A Cross-Sectional Study in an Urban Slum of Meerut?

**Rashmi Katyal**¹, Rahul Bansal², Kapil Goel² and Sachin Sharma²

¹Rohilkhand Medical College, Bareilly, India
²Subharti Medical College, Meerut, India

**Abstract**

**Background:** The word alcohol is derived from the Arabian term ‘al-kuhul’ which means ‘finely divided spirit’. Alcohol abuse is world-wide social and medical problem. Over the past 30 to 40 years, alcohol consumption has increased in quantity and frequency. The age at which people start drinking has also declined. The population groups at great risk are those undergoing rapid socio-economic and cultural changes; they view alcohol as a symbol of prestige and social status.

**Methods:** A community based cross-sectional study was conducted in the catchment area of U.H.T.C. (Urban health and training centre) using AUDIT questionnaire. The required sample size was obtained through simple random sampling. Data was analyzed by using appropriate statistical tests by SPSS 19.0 version and the results were expressed in proportions. Chi-square test was used and if the cell frequency was less than 5, the result was obtained by Fischer Exact test.

**Results:** The spiritual background has been found to have no significant association with alcohol use. Similarly, the size and type of family has no relationship with alcohol use.

**Conclusions:** It can be very well concluded that spiritual background may not influence the intake of alcohol but still conclusion can only be drawn if more such researches are done in future.

**Keywords:** Spirituality; Family; Alcohol; AUDIT

**Introduction**

Alcohol has been consumed in India for centuries. A number of mythological and religious books have highlighted the role it played in society. The pattern of drinking in India has undergone a change from occasional and ritualistic use to being a social event.

Alcohol use has been an issue of great ambivalence throughout the rich and long history of the Indian subcontinent. The behaviors and attitudes about alcohol use in India are very complex, contradictory and convoluted because of the many different influences in that history. The evolution of alcohol use patterns in India can be divided into four broad historical periods (time of written records), beginning with the Vedic era (ca. 1500-700 BCE). From 700 BCE to 1100 CE, (“Reinterpretation and Synthesis”) is the time of emergence of Buddhism and Jainism, with some new anti-alcohol doctrines, as well as post-Vedic developments in the Hindu traditions and scholarly writing. The writings of the renowned medical practitioners, Charaka and Susruta, added new lines of thought, including arguments for “moderate alcohol use.” The Period of Islamic Influence (1100-1800 CE), including the Mughal era from the 1520s to 1800, exhibited a complex interplay of widespread alcohol use, competing with the clear Quranic opposition to alcohol consumption. The fourth period (1800 to the present) includes the deep influence of British colonial rule and the recent half century of Indian independence, beginning in 1947. The contradictions and ambiguities with widespread alcohol use in some sectors of society, including the high status caste of warriors/rulers (Kshatriyas), versus prohibitions and condemnation of alcohol use, especially for the Brahmin (scholar-priest) caste, have produced alcohol use patterns that include frequent and condemnation of alcohol use, especially for the Brahmin (scholar-priest) caste, have produced alcohol use patterns that include frequent high-risk, heavy and hazardous drinking [1].

Alcohol has been consumed in India at least since the Vedic period of 2000-800 BC [2] and was allowed in Hinduism, particularly among the ruling classes. However, Buddhism, Jainism, and Islam did not allow their followers to drink. Although alcohol became more freely available in the Indian subcontinent under British rule, Indians did not generally incorporate drinking alcohol into their social or religious activities [3]. When India became independent in 1947, Mahatma Gandhi and the Indian National Congress Party campaigned against liquor production and sales on the grounds that it was injurious to health [2].

Industrially produced beverages, particularly large style beer, are gaining popularity in many developing countries, due perhaps to issues of prestige attached to international brands and increasing marketing efforts by multinational companies [4]. It would seem that there may be health benefits from replacing cottage, produced with industrially produced alcohol in terms of the purity of the product. However, these benefits should also be empirically verified, since they can easily be overstated [5]. On the other hand, it could be speculated that traditionally produced alcoholic beverages may carry the benefit of having a lower alcohol content, providing lower alcohol opportunities and preserving values of local culture (which may or may not lower the level of alcohol consumption).

The unrecorded alcohol consumption in India is estimated to be 1.7 liters pure alcohol per capita for population older than 15 for the years after 1995 (estimated by a group of key alcohol experts) [6]. The average age of initiation has been reduced from 28 years during the 80’s to 20’s during the recent years [7]. There has been a widespread agreement that the health and well-being of many young people today are seriously being threatened by the use of alcohol [8]. The consumption pattern...
also varies between different cultures and societies and the last 20 years have seen substantial changes.

The epidemiological, social and demographic transition has significantly altered the health of Indian communities in the last two decades. There has been a gradual but significant decline of communicable, nutritional and infectious diseases. However, this has resulted in the emergence of the triple burden of communicable, non-communicable diseases and injuries, all competing for meagre available resources. The country at this point of time, is facing difficulties in addressing these emerging health problems, despite significant advances in management of patients at the hospital level [9].

In 1979, the 32nd World Health Assembly declared in resolution WHA-32.40 that problems related to alcohol and particularly its extreme consumption rank among the World’s major public health problems and constitute serious hazards for Health, welfare and life. WHO estimates that there are about 2 billion people worldwide who consume alcoholic beverages and 76.3 million with diagnosable alcohol use disorders [10].

### Material and Methods

#### Demographic profile

According to 2011 census, the district Meerut has following demographic profile. The total population is 34,47,405 out of which 18,29,192 are males and 16,18,213 are females; the decadal growth (2001-2011) is 15.92%; the sex ratio is 885; density (persons per sq km) is 1342 and the literacy rate is 74.80% which is 82.91% in males and 65.69% in females [11,12].

#### Study design

Community based cross-sectional study.

#### Study area

Urban Slum, Multan Nagar in the field practice area of the department of Community Medicine, SMC (Subharti Medical College), Meerut.

#### Study population

All males aged ≥ 15 years residing in the study area.

#### Study period

September 2010 to October 2011.

#### Inclusion criteria

Males aged ≥ 15 years who have completed 15 years of age at the time of data collection, residing in the study area have been included in the sampling universe.

#### Exclusion criteria

Males staying in the study area of Meerut for less than 6 months and all the mentally challenged males were excluded from the study.

#### Sample size

Sample size for the proposed study was calculated according to National Family Health Survey-312 where prevalence of alcohol use in U.P. was given as 25.3% in males, therefore the adequate sample size calculated was approximately 324 assuming 10% non-response and considering 5% absolute error.

#### Sampling technique

Simple Random Sampling Technique.

### Methodology

Firstly, approval from the ethical committee was obtained. Written consent was obtained from each participant after explaining about the study. The required sample was taken using Simple random sampling technique. Sampling universe was 2112 registered families in the study area and the sampling unit was a family in this study. All male members aged ≥ 15 years were taken from each household, where on an average there were 2 males aged ≥ 15 years based on the demographic profile of the area, therefore 324/2=162 households were taken in order to cover the required sample size.

Individual unit (family) constituting the sample was randomly selected by Random number table method. All the male members aged ≥ 15 years were taken from each family.

### Research Tool

Data was collected by home visit using WHO questionnaire (AUDIT: Alcohol Use Disorder Identification Test) as study tool by interviewing each study subject [13].

Additional information was obtained on the socio-demographic and other determinants of alcohol use.

Modified Kuppuswamy scale was used to assess the socio-economic status of the families.

Data was analyzed by using appropriate statistical tests by SPSS 19.0 version and the results were expressed in proportions. Chi-square test was used and if the cell frequency was less than 5, the result was obtained by Fischer Exact test.

### Results

The belief in supreme power is almost equally distributed in the two groups of drinkers and teetotallers and the difference was not found to be statistically significant (Table 1).

Most of the drinkers (66.7%) and the teetotallers (73.2%) prayed daily while very less prayed in trouble, the difference was not found to be statistically significant (Table 2).

The drinkers and teetotallers are almost equally distributed in the study population as far as the type of family was concerned. Also, the difference in the two groups is not found to be statistically significant (Table 3). 65.6% of the drinkers and 59.6% of the teetotallers had family size of 5-9 while a family size of 1-4 was almost equal in the two groups. The association of family size with alcohol use was not statistically significant (Table 4).

### Discussion

#### Religion

Sundaram et al. [14] in their study on Alcohol abuse in a rural community in India in the year 1984 in Ajmer showed that Alcohol abuse was found to be significantly associated with religion (higher in Hindus with a relative risk of 8.65 in males and 5.21 in females).

Sateesh and Sengupta [15] in their study of problem drinkers in general hospital in the year 1997 in Manipal stated 85% of the subjects were Hindus and the rest were Christians.

Gupta et al. [16] in their study on alcohol consumption among middle aged and elderly men: A community study from Western India (Mumbai) in the year 2002 reported that the highest prevalence for
ever use was among Christians (61.2%) closely followed by Buddhists (58.6%). The lowest prevalence was among Muslims (9.4%).

**Alcohol consumption:** Prevalence and pattern in Andaman and Nicobar Islands, a collaborative project of RMRC, Port Blair, NIMHANS, Bangalore, and Action Aid, International India in the year 2008 reported Alcohol consumption is highest among Sikhs (very small sample size), followed by Christians, Hindus, and Muslims (p<0.001).

Khosla et al. [17] in their study on prevalence and predictors of alcohol use among college students in Ludhiana, Punjab in 2008 reported that and students belonging to the Sikh religion were two times more likely to be current alcohol users compared to their counterparts.

Ahmed et al. [18] in their study on Analysis of Substance Abuse in Male Adolescents in Aligarh in 2009 reported that religion was not associated with substance use.

Balabanova and McKee [19] in their study on Pattern of alcohol consumption in Bulgaria in 1997 reported that Muslims were less likely to drink than the orthodox Christians. When all variables were included in this model, only age and financial status remained significant.

Gureje et al. [20], in their study on a descriptive epidemiology of substance use and substance use disorders in Nigeria during the early 21st century in 2006 reported that there were differences in patterns of drug use according to religious affiliations. Moslems were less likely to report lifetime alcohol and sedative use than Christians (Protestants or Catholics) and less than those subscribing to other religions; they did not differ for other substances. Moslems were less likely than Christians (Catholics or Protestants) to have used alcohol or sedatives in the past year.

Mitsuanga and Larsen [21] in their study on Prevalence of and risk factors associated with alcohol abuse in Moshi, Northern Tanzania in 2008 reported that the Christians had higher alcohol abuse than Muslims or other religions, as did Chagga men compared with men of other ethnic groups.

### Table 1: Association of alcohol users with belief in supreme power.

| Belief in Supreme Power | Alcohol Use According to Audit Score | Total N=324 |
|-------------------------|--------------------------------------|-------------|
|                         | Teetotallers (Audit score-0) n=228 | Current Drinkers (Audit score >0) n=96 | No. | % | No. | % |
| Yes, definitely         | 217 95.2                             | 92 95.8     | 309 | 95.4 |
| I think so             | 2 0.9                                | 3 3.1       | 5 1.5 |
| Not sure                | 3 1.3                                | 0 0         | 3 0.9 |
| I don’t believe        | 6 2.6                                | 1 1.0       | 7 2.2 |
| Total                  | 228 100                              | 96 100      | 324 100 |

χ²=4.268, df=3, p value=0.229

### Table 2: Association of alcohol users with ways of connecting with the supreme power.

| Ways of connecting with the supreme power | Alcohol Use according to Audit score | Total N=324 |
|------------------------------------------|--------------------------------------|-------------|
|                                          | Teetotallers (Audit score-0) n=228 | Current Drinkers (Audit score >0) n=96 | No. | % | No. | % | No. | % |
| Daily Prayer                             | 167 73.2                             | 64 66.7     | 231 | 71.3 |
| Weekly prayer                            | 13 5.7                               | 7 7.3       | 20 6.2 |
| Occasionally                             | 39 17.1                              | 19 19.8     | 58 17.9 |
| Prayer in trouble                        | 0 0                                  | 2 2.1       | 2 0.6 |
| Other ways                               | 9 3.9                                | 4 4.2       | 13 4.0 |
| Total                                    | 228 100                              | 96 100      | 324 100 |

χ²=5.717, df=4, p value=0.224

### Table 3: Association between alcohol users and type of family of respondent.

| Type of family | Alcohol Use according to Audit score | Total N=324 |
|----------------|--------------------------------------|-------------|
|                | Teetotallers (Audit score-0) n=228 | Current Drinkers (Audit score >0) n=96 | No. | % | No. | % | No. | % |
| Nuclear        | 116 50.9                             | 52 54.2     | 168 | 51.9 |
| Joint          | 112 49.1                             | 44 45.8     | 156 | 48.1 |
| Total          | 228 100                              | 96 100      | 324 100 |

χ²=0.239, df=1, p value=0.588

### Table 4: Association between alcohol users and size of family of respondent.

| Family size | Alcohol Use according to Audit score | Total N=324 |
|-------------|--------------------------------------|-------------|
|              | Teetotallers (Audit score-0) n=228 | Current Drinkers (Audit score >0) n=96 | No. | % | No. | % | No. | % |
| 1-4          | 61 26.8                              | 25 26.0     | 86 26.5 |
| 5-9          | 136 59.6                             | 63 65.6     | 199 61.4 |
| >10          | 31 13.6                              | 8 8.3       | 39 12.0 |
| Total        | 228 100                              | 96 100      | 324 100 |

χ²=1.960, df=2, p value=0.375
Family Type

Sundaram et al. [14] in their study on Alcohol abuse in a rural community in India in the year 1984 in Ajmer showed that Alcohol abuse was found to be significantly associated with family structure (higher in nuclear or joint families with a relative risk of 2.88 in males).

A study on Hazardous alcohol use in rural Southern India in the Kaniyambadi block attached to Christian medical College, Vellore, Tamil Nadu in the year 2009 reported that 65.3% had nuclear families.

Family size

Ahmad et al. [18] in their study on Analysis of Substance Abuse in Male Adolescents in Aligarh in 2009 reported while there was statistically significant association between the substance abuse and size of their families substance use.

References

1. Sharma HK Evolution of alcohol use in India: Pubmed, U.S. National Library of Medicine National Institutes of Health.
2. Isaac M (1998) India. In: Grant M (ed.), Alcohol and Emerging Markets: Patterns, Problems and Responses. Brunner/ Mazel, Philadelphia, pp. 145–175.
3. Bennett LA, Campillo C, Chandrashekar CR, Gureje O (1998) Alcoholic beverage consumption in India, Mexico, and Nigeria: a cross-cultural comparison. Alcohol Health Res World 22: 243-252.
4. Babor T (2003) Alcohol: No ordinary commodity. Research and public policy. New York: Oxford University Press.
5. Room (2002) Alcohol in developing societies: A public health approach. Helsinki, Finnish foundation for alcohol studies in collaboration with WHO.
6. Alcohol per capita consumption, patterns of drinking and abstinence worldwide after 1995. Appendix 2. European Addiction Research, 2001, 7:155–157.
7. Subramanian SV, Nandy S, Irving M, Gordon D, Davey Smith G (2005) Role of socioeconomic markers and state prohibition policy in predicting alcohol consumption among men and women in India: a multilevel statistical analysis. Bull World Health Organ 83: 829-836.
8. Park K (2009) Medicine and social sciences. Park’s textbook of Preventive and Social Medicine, (20thedn), Banarsidas Bhanot Publishers, Jabalpur, 609.
9. Girish N, Kavita R, Gururaj G, Benegal V (2010) Alcohol use and implications for public health: patterns of use in four communities. Indian J Community Med 35: 238-244.
10. Global Status Report on Alcohol (2004) WHO, Department of mental health and substance abuse; Geneva.
11. http://en.wikipedia.org/wiki/Meerut
12. National family Health Survey-3, 2005-2006, vol.1, table-13.10:433.
13. Saunders JB, Aasland OG, Babor TF, de la Fuente JR, Grant M (1993) Development of the Alcohol Use Disorders Identification Test (AUDIT): WHO Collaborative Project on Early Detection of Persons with Harmful Alcohol Consumption—I. Addiction 88: 791-804.
14. Sundaram KR, Mohan D, Advani GB, Sharma HK, Bajaj JS (1984) Alcohol abuse in a rural community in India. Part I: Epidemiological study. Drug Alcohol Depend 14: 27-36.
15. Babu RS, Sengupta SN (1997) A study of problem drinkers in a general hospital. Indian J Psychiatry 39: 13-17.
16. Gupta PC, Saxena S, Pednekar MS, Maulik PK (2003) Alcohol consumption among middle-aged and elderly men: a community study from western India. Alcohol Alcohol 38: 327-331.
17. Khosla V, Thankappan KR, Mini GK, Sarma PS (2008) Prevalence & predictors of alcohol use among college students in Ludhiana, Punjab, India. Indian J Med Res 128: 79-81.
18. Ahmed A, Khalique N, Zulfia Khan Z (2009) Analysis of substance abuse in male adolescents. Iranian Journal of Paediatrics 19: 399-403.
19. Balabanova D, McKee M (1999) Patterns of alcohol consumption in Bulgaria. Alcohol Alcohol 34: 622-628.
20. Gureje O, Degenhardt L, Olley B, Uwakwe R, Udofia O, et al. (2007) A descriptive epidemiology of substance use and substance use disorders in Nigeria during the early 21st century. Drug Alcohol Depend 91: 1-9.
21. Mitsunaga T, Larsen U (2008) Prevalence of and risk factors associated with alcohol abuse in Moshi, Northern Tanzania. J Biosoc Sci 40: 379-99.