Recognition of a Person with Alcohol Dependence: A Community-based Survey

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ABSTRACT

Aims: The aim of the study was to identify the alcohol dependents in selected communities.

Methods: Community-based descriptive survey was conducted. A total of 330 men who are residing in selected communities of Dakshina Kannada, were selected using the purposive sampling technique. The Alcohol Use Disorders Identification Test (AUDIT) tool was used to gather the data. Descriptive and inferential statistics were used to analyze the data.

Results: Majority (279) of men were categorized as alcohol dependents and about 51 were nonalcohol dependents out of 330 men based on AUDIT score. There was a significant association between AUDIT scores and demographic variables like family support.

Conclusion: Nowadays alcohol use is becoming the major public health concern as it affects not only the victim but also the entire family, which destroys the family life. So steps should be initiated to stop alcohol use.

Keywords: Alcohol dependence, Alcohol use, Prevalence.

INTRODUCTION

Alcohol is a social beverage and a relaxation facilitator. But when the same alcohol is misused, turns into an evil, which is sufficiently inflammable to burn the individual, family, society, and country as a whole.

Alcohol addiction is one of the major problems of developing countries like India. Alcohol is the most widely consumed psychoactive substance in India. India’s alcohol beverage industry is one of the biggest alcohol industries across the globe. India is demographically one of the youngest users with around 50% of its population below the age of 25 years and around 65% below the age of 35 years consuming alcohol beverages. The majority of alcohol volume is consumed by people between the ages of 18 and 40 years. Alcohol consumption in India amounted to 5.4 billion liters in 2016 and was expected to reach about 6.5 billion liters by 2020. The steady increase in consuming alcoholic beverages can be attributed to multiple factors including the rising levels of disposable income and a growing urban population among others.

Global consumption of alcohol beverages was estimated to be approximately 235.4 billion liters in 2017 and expected to reach 244.62 billion liters by 2021. Alcohol dependence is the most severe form of alcohol abuse and it involves inability to manage drinking habits. Individuals are struggling with alcohol addiction experience that they cannot function normally without alcohol every day.

A cross-sectional study was conducted to explore the prevalence of alcohol consumption and the associated risk factors among university students. A total of 3,456 students belonging to 24 years age-group (males: 1,301 and females: 2,155) were recruited for the study. Results proved that the prevalence of alcohol consumption in the previous 30 days was 20.3% (males: 36.0% and females: 10.8%). The alcohol consumption was significantly higher among males. So the researcher proposed that the effective campus-based counseling, peer education, and national surveillance systems that can monitor risky drinking behaviors among university students should be implemented.

With all the abovementioned literature review, researcher felt the need to identify the person with alcohol dependence in the community area. Early identification of addiction behavior will help the individual to overcome various future consequences.

AIMS AND OBJECTIVES

- To identify the person with alcohol dependence in selected community.
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To find the association of alcohol dependence with selected demographic variables.

Materials and Methods
A community-based descriptive survey was conducted to identify the person with alcohol dependence in the Surathkal and Bantwal areas of Dakshina Kannada District. Prior to the data collection, permission was obtained from the District Health Officer and institutional ethics committee.

Participants
Subjects comprised of all adult men residing in the Surathkal and Bantwal area. A house-to-house survey was conducted to select 330 men using purposive sampling technique.

Instruments Used
- General pro forma to collect the sociodemographic variables
- Alcohol Use Disorders Identification Test (AUDIT) tool is a standardized, valid, and reliable free-to-use instrument consisting of 10 items with five options scored (0–4) to identify the alcohol dependents. Maximum score can be 40 and scores in the range of >8 represented individuals considered as alcohol dependents.

Analysis of Data
The data gathered were tabulated, and statistical analysis was done by using SPSS version 23. The descriptive and inferential statistics were used to analyze the data and depicted in tables and figure (Fig. 1).

Results
Section I: Identification of Alcoholics by Using AUDIT Screening Tool
This section deals with the identification of alcohol dependents from selected communities by using the AUDIT screening tool that categorizes the subjects as alcohol dependents and nonalcohol dependents based on the scores.

The data presented in Table 1 show that out of 330 men, majority (279) of the subjects were alcohol dependents. Only 51 subjects were nonalcohol dependents based on the AUDIT scores.

| AUDIT score | Alcohol dependents | Nonalcohol dependents |
|-------------|--------------------|-----------------------|
| >8          | 279                | 0                     |
| <8          | 51                 | 330                   |

Table 1: Identification of alcohol dependents according to obtained AUDIT score (n = 330)

Table 2: Frequency and percentage distribution of alcohol dependents according to their demographic characteristics (n = 279)

| Sl. No. | Variable                | Frequency (f) | Percentage (%) |
|---------|-------------------------|---------------|----------------|
| 1       | Age in (years)          |               |                |
| 1       | <20                     | 0             | 0              |
| 2       | 20–25                   | 2             | 0.7            |
| 3       | 26–30                   | 25            | 8.9            |
| 4       | 31–35                   | 80            | 28.6           |
| 5       | 36 and above            | 172           | 61.6           |
| 2       | Religion                |               |                |
| 1       | Hindu                   | 238           | 85.3           |
| 2       | Muslim                  | 15            | 5.3            |
| 3       | Christian               | 26            | 9.3            |
| 3       | Educational status      |               |                |
| 1       | No formal education     | 45            | 16.1           |
| 2       | Primary school          | 137           | 49.1           |
| 3       | Secondary school        | 57            | 20.4           |
| 4       | High school             | 36            | 12.9           |
| 5       | PUC                     | 1             | 0.3            |
| 6       | Graduation              | 2             | 0.7            |
| 7       | Postgraduate and above  | 1             | 0.3            |
| 4       | Type of family          |               |                |
| 1       | APL                     | 65            | 23.26          |
| 2       | BPL                     | 214           | 76.7           |
| 5       | Occupation              |               |                |
| 1       | Homemaker               | 0             | 0              |
| 2       | Daily wagers            | 176           | 63.08          |
| 3       | Business                | 73            | 26.1           |
| 4       | Technical               | 28            | 10.0           |
| 5       | Professional            | 01            | 0.3            |
| 6       | Monthly income of the family (in rupees) | | |
| 1       | Less than 5,000         | 2             | 0.7            |
| 2       | 5,000–10,000            | 89            | 31.8           |
| 3       | 10,001–15,000           | 114           | 40.8           |
| 4       | >15,000                 | 74            | 26.5           |
| 7       | Type of family          |               |                |
| 1       | Nuclear                 | 114           | 40.8           |
| 2       | Joint                   | 99            | 35.48          |
| 3       | Extended                | 66            | 23.6           |
| 8       | Place of residence      |               |                |
| 1       | Rural                   | 119           | 42.6           |
| 2       | Semiurban               | 121           | 43.3           |
| 3       | Urban                   | 39            | 13.9           |
| 9       | Circle of friendship    |               |                |
| 1       | Nonalcoholic friends    | 4             | 1.4            |
| 2       | Friends drinking alcohol| 40            | 14.3           |

Fig. 1: Doughnut diagram showing the distribution of subjects according to AUDIT score

(Contd...)
Section II: Description of Sample Characteristics

This deals with the description of baseline characteristics of 279 alcohol dependents.

Data presented in Table 2 revealed that the majority (172) (61.6%) of subjects belonged to the age-group of 36 years and above and least in the age-group of 20–25 years (2) (0.7%). Most of them are Hindus (238) (85.3%). Highest percentage of the subjects (137) (49.1%) had primary education and only 1 (0.3%) had postgraduate and above level of education. Most (214) (76.75%) of the subjects belonged to BPL category. About 176 (63.08%) of them were daily wagers. Majority (114) (40.8%) of them had a monthly income of Rs.10,001–15,000 and only 2 (0.7%) had less than Rs. 5,000 as their monthly income of the family; and maximum percentage (114) (40.8%) belonged to the nuclear family. Majority (121) (43.3%) of them were from semiurban and 119 (42.6%) are residing in rural areas. Most of them (230) (82.4%) had both alcoholic and nonalcoholic friends. About 110 (39.4%) of the subjects had moderately adequate and 108 (38.7%) had a little family support. Majority (105) (37.6%) of them had 6–10 years of duration of alcoholism. About 187 (67.02%) of the subjects had more than 10 years of marital life. Highest percentage (121) (43.3%) of them had

### Table 3: Frequency and percentage distribution of alcohol dependents according to their AUDIT item-wise responses (n = 279)

| Item No | Items                                                                 | Frequency (F) | Percentage (%) |
|--------|-----------------------------------------------------------------------|---------------|----------------|
| AUDIT 1| How often do you have a drink containing alcohol?                     |               |                |
|        | a Never (score—0)                                                    | 27            | 9.7%           |
|        | b Monthly or less (score—1)                                          | 120           | 43.0%          |
|        | c 2–4 times a month (score—2)                                        | 122           | 43.7%          |
|        | d 2–3 times a week (score—3)                                         | 10            | 3.6%           |
|        | e Or more times a week (score—4)                                     | 0             | 0              |
| AUDIT 2| How many alcoholic drinks do you have on a typical day when you are drinking? |               |                |
|        | a 1 or 2 (score—0)                                                   | 3             | 1.1%           |
|        | b 3 or 4 (score—1)                                                   | 32            | 11.5%          |
|        | c 5 or 6 (score—2)                                                   | 162           | 58.1%          |
|        | d 7 to 9 (score—3)                                                   | 81            | 29.0%          |
|        | e 10 or more (score—4)                                               | 1             | 0.4%           |
| AUDIT 3| How often do you have six or more drinks on one occasion?             |               |                |
|        | a Never (score—0)                                                   | 1             | 0.4%           |
|        | b Less than monthly (score—1)                                        | 44            | 15.8%          |
|        | c Monthly (score—2)                                                  | 149           | 53.4%          |
|        | d Weekly (score—3)                                                   | 84            | 30.1%          |
|        | e Daily or almost daily (score—4)                                     | 1             | 0.4%           |
| AUDIT 4| How often during the past year have you found that you drank more or for a longer time than you intended? |               |                |
|        | a Never (score—0)                                                   | 4             | 1.4%           |
|        | b Less than half-yearly (score—1)                                     | 66            | 23.7%          |
|        | c Monthly (score—2)                                                  | 121           | 43.4%          |
|        | d Weekly (score—3)                                                   | 88            | 31.5%          |
|        | e Daily or almost daily (score—4)                                     | 0             | 0              |
| AUDIT 5| How often during the past year have you failed to do what was normally expected of you because of your drinking? |               |                |
|        | a Never (score—0)                                                   | 4             | 1.4%           |
|        | b Less than monthly (score—1)                                        | 85            | 30.5%          |
|        | c Monthly (score—2)                                                  | 149           | 53.4%          |
|        | d Weekly (score—3)                                                   | 40            | 14.3%          |
|        | e Daily or almost daily (score—4)                                     | 1             | 0.4%           |
| AUDIT 6| How often during the past year have you had a drink in the morning to get yourself going after a heavy drinking session? |               |                |
|        | a Never (score—0)                                                   | 27            | 9.7%           |
|        | b Less than monthly (score—1)                                        | 42            | 15.1%          |

(Contd...)
two children and 63 (22.5%) had three and more children. Most of the subjects (178) (63.8%) had mutual consent for taking decision in the family. Most of the subjects (222) (79.56%) had consumed arrack as a type of alcohol consumed. Majority (156) (44.7%) of them had drunk 90 mL and above and 123 (55.3%) of them had 60–80 mL in a day.

Section III: Description of AUDIT Responses of Subjects
This section deals with the description of AUDIT tool item-wise responses of 279 alcohol dependents.

Table 3: (Contd...)

| Item No | Items                                              | Frequency (F) | Percentage (%) |
|---------|----------------------------------------------------|---------------|----------------|
| c       | Monthly (score—2)                                 | 132           | 47.3%          |
| d       | Weekly (score—3)                                  | 77            | 27.6%          |
| e       | Daily or almost daily                             | 1             | 0.4%           |
| AUDIT 7 | How often during the past year have you felt guilty or remorseful after drinking? |               |                |
| a       | Never (score—0)                                   | 7             | 2.5%           |
| b       | Less than monthly                                 | 65            | 23.3%          |
| c       | Monthly (score—2)                                 | 137           | 49.1%          |
| d       | Weekly (score—3)                                  | 68            | 24.4%          |
| e       | Daily or almost daily                             | 2             | 0.7%           |

Table 4: Range, mean, median, SD, and mean percentage of subjects according to AUDIT score (n = 279)

| Group              | Range | Mean | SD  | Median | Mean (%) |
|--------------------|-------|------|-----|--------|---------|
| Alcohol dependents  | 11–29 | 21.06| 2.842| 21.00  | 52.64   |

Table 5: Association of AUDIT scores with sociodemographic variables

| Sl. No. | Variable                             | Mean | SD | Df | Effect size | p value |
|---------|--------------------------------------|------|----|----|-------------|---------|
| 1       | Age in (years)                       |      |    |    |             |         |
| 20–25   | 20.90                                | 3.19 | 1  | 0.728 | 0.000     |
| 26–30   | 20.90                                | 3.19 |    |      |            |         |
| 31–35   | 20.90                                | 3.19 |    |      |            |         |
| 36 and above | 21.16                        | 2.61 |    |      |            |         |
| 2       | Religion                             |      |    |    |             |         |
| Hindu   | 21.10                                | 2.74 |    |      |            |         |
| Muslim  | 20.80                                | 3.41 | 1  | 0.001 | 0.656     |
| Christian | 20.80                           | 3.41 |    |      |            |         |
| 3       | Educational status                   |      |    |    |             |         |
| No formal education | 20.71          | 2.94 |    |      |            |         |
| Primary school     | 21.29                        | 2.83 |    |      |            |         |
| Secondary school   | 20.89                        | 2.82 | 2  | 0.005 | 0.504     |
| High school        | 20.89                        | 2.82 |    |      |            |         |
| PUC               | 20.89                        | 2.82 |    |      |            |         |
| Graduation         | 20.89                        | 2.82 |    |      |            |         |
| 4       | Type of family as per income         |      |    |    |             |         |
| APL     | 21.28                                | 2.801| 1  | 0.004 | 0.297     |
| BPL     | 20.99                                | 2.86 |    |      |            |         |
| 5       | Occupation                           |      |    |    |             |         |
| Daily wages       | 21.15                        | 2.52 |    |      |            |         |
| Business         | 21.01                        | 3.37 | 2  | 0.009 | 0.302     |
| Technical        | 20.62                        | 3.27 |    |      |            |         |
| 6       | Monthly income of the family (in rupees) |      |    |    |             |         |
| Less than 5,000   | 21.14                        | 2.94 |    |      |            |         |
| 5,000–10,000      | 21.14                        | 2.94 | 2  | 0.001 | 0.879     |
| 10,001–15,000     | 21.03                        | 2.68 |    |      |            |         |
| >15,000           | 21.00                        | 2.99 |    |      |            |         |
| 7       | Type of family                       |      |    |    |             |         |
| Nuclear          | 21.14                        | 2.97 |    |      |            |         |
| Joint            | 20.93                        | 2.60 | 2  | 0.002 | 0.764     |
| Extended         | 21.11                        | 2.99 |    |      |            |         |
| 8       | Place of residence                   |      |    |    |             |         |
| Rural            | 21.36                        | 2.71 |    |      |            |         |
| Semiurban        | 20.84                        | 2.69 | 2  | 0.012 | 0.213     |
| Urban            | 20.79                        | 3.60 |    |      |            |         |
| 9       | Circle of friendship                 |      |    |    |             |         |
| Friends drinking alcohol | 20.82                      | 2.92 |    |      |            |         |
| Alcoholics and nonalcoholics (both) | 21.11        | 2.83 | 1  | 0.001 | 0.681     |
| Family support   | A little                           | 20.88 | 2.94 |      |            |         |
| Moderately adequate | 21.05                  | 2.65 | 2  | 0.038 | 0.007     |
| Good support     | 21.68                        | 3.02 |    |      |            |         |
| Duration of alcoholism (in years) |      |    |    |             |         |
| 1–5               | 20.81                        | 3.25 |    |      |            |         |
| 6–10              | 21.15                        | 2.78 | 2  | 0.001 | 0.895     |
| >10               | 21.16                        | 2.55 |    |      |            |         |
Data presented in Table 3 show the item-wise response of subjects indicating how often they were taking alcohol.

Data presented in Table 4 show the range, mean score, median, standard deviation (SD), and mean percentage (11–29, 21.06, 2.842, 21.00, and 52.64) of alcohol dependents according to AUDIT score, respectively.

**Section IV: Association of AUDIT Scores with Demographic Variables**

This section deals with association of AUDIT scores with demographic variables. The following null hypothesis was stated.

H0: There is no significant association between the AUDIT scores and demographic variables.

Data presented in Table 5 show that there is a significant association between AUDIT scores and demographic variables such as family support (p = 0.007). Hence, the null hypothesis is rejected and research hypothesis and rest of the variables are not having any significant association; so, the null hypothesis is accepted and research hypothesis is rejected.

**Discussion**

The present community-based study was conducted to identify the person with alcohol dependence in two selected communities of Dakshina, Kannada districts. A house-to-house survey was conducted to find out the alcohol-dependent individuals, and a total of 330 men were screened using AUDIT tool out of which 279 of them were found to be alcohol dependents.

In this study, we found majority of the subjects (172) (61.6%) belong to the age-group above 36 years and majority of them were having primary education (137) (49.1%). Similarly in another cross-sectional study, community-based survey was conducted to identify the prevalence of alcohol consumption, pattern of drinking, and its effect on people’s health and social consequences. Using cluster sampling method study, participants selected from 850 households were 2,551, of which 1,352 were male and 1,199 were female. Results revealed that the overall prevalence of alcohol use among ≥18 years of age was 9.7% and exclusively among males was 17.1%. The highest prevalence (17.1%) was among 46–55 years age-groups.2

The present study also proved that majority of the subjects belongs to Hindu religion (238) (85.3%) and among them, 121 (43.3%) were residing at semiurban area. Another descriptive study was conducted to determine the prevalence and determinants of harmful or hazardous alcohol use and possible dependence as per the AUDIT score 8 and above. A total of 1,119 subjects were selected for the study using systematic sampling method. Results proved that the mean age (SD) of all respondents was 39.10 (12.06) years. The prevalence was likely higher in men, X2 = 38.7; p < 0.001; among the Christians, X2 = 49.3, p < 0.001; employed, X2 = 9.8, p = 0.002; among smoker, X2 = 11.6, p = 0.001; and higher in the rural setting, X2 = 13.5, p = 0.001.8

Another cross-sectional study was conducted in rural and urban field practice areas to assess the impact of prolonged alcohol use on different systems of the body leading to various health problems. Results proved that majority of the regular alcohol users were suffering from different liver diseases like fatty infiltration (60) (56.08%), alcoholic hepatitis (25) (23.36%), and alcoholic cirrhosis (10) (9.35%). In cardiovascular system assessment, 23 subjects (21.50%) were suffering from severe hypertension.8

The present study proved that there is a significant association between the AUDIT scores with family support (p = 0.007). Similarly, a community-based cross-sectional study was conducted among the adult population to estimate the pattern of alcohol consumption and to determine its correlation. A total of 99 (n = 99) adult (≥18 years) men and women were selected as study subjects using Lot Quality Assurance Sampling (LQAS) technique. Results showed that the prevalence of low-risk drinking or abstinence (Zone I) was 65.5% (95% CI 55.5–75.5%), the prevalence of alcohol use in excess of low-risk (Zone II) was 17.6% (95% CI 7.6–27.6%), the prevalence of harmful and hazardous drinking (Zone III) was 8.5% (95% CI 0–18.5%), and the prevalence of alcohol dependence (Zone IV) was 8.4% (0–18.4%). Association between risk level of hazardous and harmful use of alcohol with various sociodemographic factors shows that there is a statistically significant association (χ2 = 32.675, p).10

**Conclusion**

Alcoholism is one of the emerging and major public health problems of the developing country like India. Study findings revealed that being a healthcare provider it is our responsibility to take various measures in order to educate the public regarding the consequences of chronic alcoholism through sensitization programs and collaborative health education campaigns.

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